Appendix 2-1 Initial Study and Notice of Preparation

Appendices

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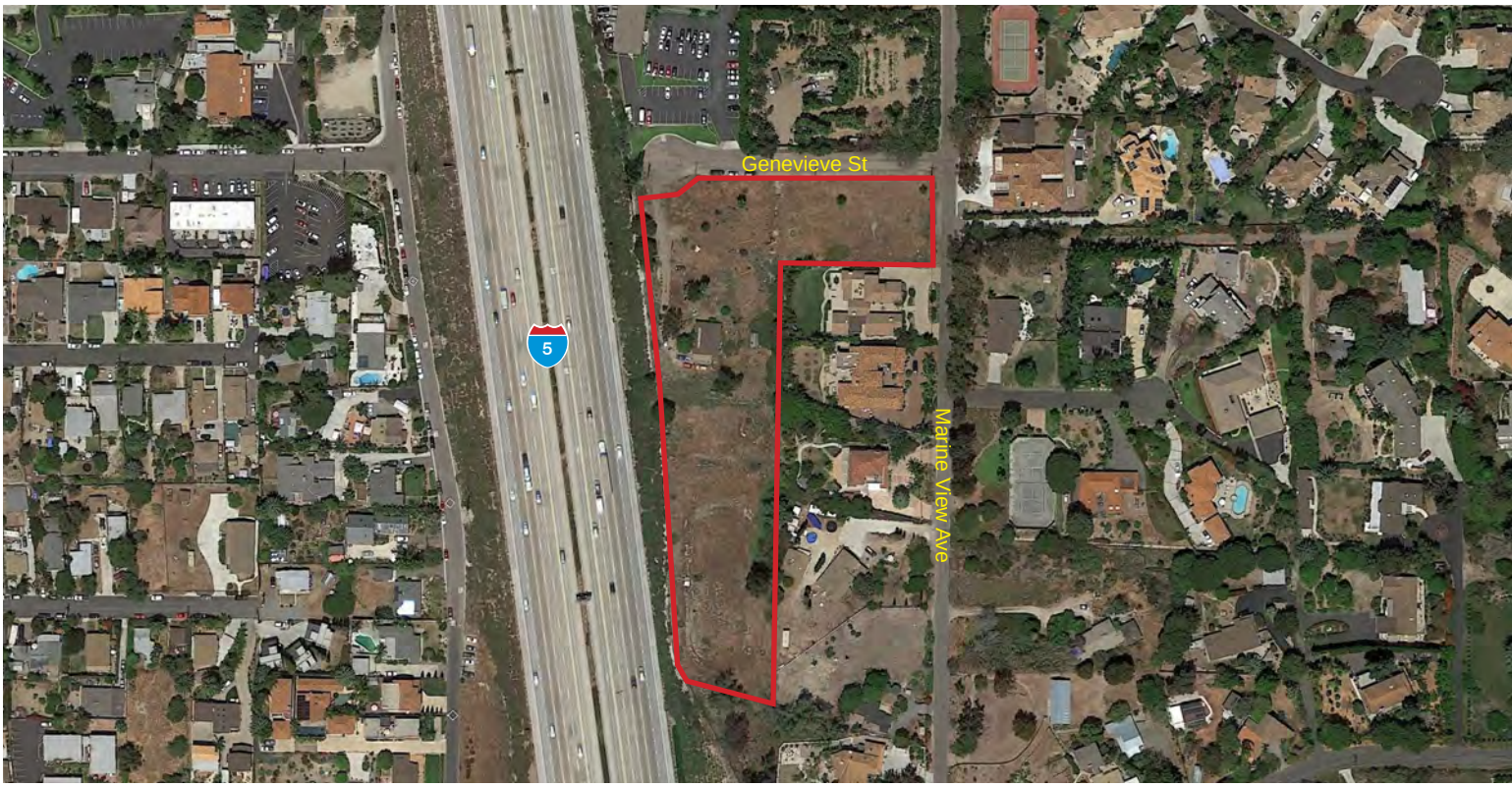
June 2017 | **Notice of Preparation and Initial Study**



RESIDENTIAL CARE FACILITY SPECIFIC PLAN

City of Solana Beach

PLACEWORKS

Notice of Preparation of a Draft Environmental Impact Report for Proposed Residential Care Facility Specific Plan Project

Date: June 23, 2017

To: State Clearinghouse, County Clerk, Responsible Agencies, Organizations, and Interested Parties

From: City of Solana Beach, 635 South Highway 101, Solana Beach, CA, 92075

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) and Scoping Meeting for Proposed Residential Care Facility Specific Plan Project

The City of Solana Beach will initiate the preparation of an Environmental Impact Report (EIR) for the following "Project" as defined by the California Environmental Quality Act (CEQA) and set forth in Public Resources Code Section 21065. The City of Solana Beach is the Lead Agency under CEQA (Public Resources Code, §§ 21000 et seq. and California Code of Regulations, Title 14, Chapter 3 §§ 15000–15387) and will prepare an EIR for the proposed Residential Care Facility Specific Plan project (Proposed Project).

This Notice of Preparation (NOP), which is supported by an Initial Study, provides information describing the Proposed Project and its potential environmental effects in order to solicit public and agency comments as to the scope of environmental issues, reasonable alternatives, and mitigation to be explored in the Draft EIR.

The Draft EIR will describe the project need, goals, and objectives; baseline environmental conditions in the project study area; and the potential direct, indirect, and cumulative environmental effects associated with implementation of the Proposed Project. Mitigation measures and alternatives to the Proposed Project and the potential effects of those alternatives will also be described and analyzed in the Draft EIR.

Project Location

The Proposed Project is located at 959 Genevieve Street, at the intersection of Marine View Avenue, in the City of Solana Beach, California. The site encompasses 2.91 acres (126,875 square feet) and contains a vacant building constructed prior to 1947, a greenhouse, and a shed. About 124,000 square feet (or 98 percent) of the property is vacant and covered with various species of grasses, small shrubs, and ornamental palm trees. Surrounding land uses include residential and commercial developments to the north, east, and south; and Interstate 5 adjoins the western property line. The site is zoned Estate Residential (ER-2), which allows up to two dwelling units per net acre and conditionally allows for other uses such as residential care facilities, churches, and schools. The maximum floor area allowed on the project site is 23,531 square feet.

Project Description

The Proposed Project includes construction of a residential care facility for the elderly with up to 99 beds consistent with a proposed Specific Plan that includes design guidelines, development regulations, and implementing procedures. The residential care facility would be limited to a maximum of two stories (exclusive of any basement level) and 25 feet in height above grade . It would include parking facilities, landscape and hardscape areas, and a passive garden open to the public. Construction is anticipated to

occur in a single 18-month phase and is anticipated to begin in 2018. A detailed description of the proposed improvements is provided in the Initial Study.

The proposed improvements would increase the intensity of the site. Accordingly, the Solana Beach General Plan requires a Specific Plan and General Plan Amendment that must both be approved by a majority of the City's voters. If approved by the electorate, the project would still require the Solana Beach City Council to approve a Development Review Permit (DRP) and Structure Development Permit (SDP) and certify an EIR (with the City as the lead agency under CEQA) at a noticed, public hearing.

Responsible Agency Discretionary Approval

The California Coastal Commission (CCC) is a responsible agency; the Proposed Project will require an approval from the CCC.

Potential Environmental Effects to Be Evaluated in the Draft EIR

Potential environmental effects anticipated to be evaluated in the Draft EIR are: aesthetics, air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, noise, public services, transportation/traffic, tribal cultural resources, utilities/service systems, and mandatory findings of significance. Potential impacts will be analyzed in the Draft EIR, and mitigation measures will be provided as required.

Comments on the Notice of Preparation

Please provide your written comments, including specific statutory responsibilities of your agency, as applicable. Written comments on the NOP and on the contents of the forthcoming EIR should be submitted by July 24, 2017, and addressed to: Mr. Bill Chopyk, AICP, Community Development Director at the City of Solana Beach, 635 South Highway 101 Solana Beach, California 92075; or E-mail: BChopyk@cosb.org.

Document Availability

Copies of the NOP and Initial Study are available for review:

- City Hall, 635 South Highway 101, Solana Beach
- Solana Beach Branch Library, 157 Stevens Avenue, Solana Beach
- City website: http://www.ci.solana-beach.ca.us/

Public Scoping Meeting

A public scoping meeting will be held by the City of Solana Beach on Thursday July 13, 2017, beginning at 6:00 PM and running no later than 8:00 PM at the City Council Chambers—635 South Highway 101, Solana Beach, CA, 92075. Please note that, depending on the number of attendees, the meeting could end earlier than 8:00 PM. Written comments regarding the scope and content of the proposed EIR will be accepted at the meeting. Written comments can also be mailed to the abovementioned address, addressed to Bill Chopyk, during the NOP public comment period.

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June 2017 | Initial Study

Residential Care Facility Specific Plan

City of Solana Beach

Prepared for:

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PLACEWORKS

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Note: All technical studies for this document are available at the Solana Beach City Hall, 635 Highway 101, and on the City of Solana Beach website at www.ci.solana-beach.ca.us.

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1. Introduction

The City has determined that the proposed project may result in potentially significant effects on the environment and will prepare an environmental impact report (EIR) in accordance with the California Environmental Quality Act (CEQA; Public Resources Code [PRC] §§ 21000 et seq.). The scope of the EIR, including the environmental topics analyzed, is determined by the findings of this initial study and the EIR scoping process. It is the intent of the EIR, through the public process, to disclose to decision makers and the public the potential significant environmental effects of proposed activities and identify ways to avoid or reduce the environmental effects by requiring the implementation of feasible alternatives or mitigation measures.

1.1 PROJECT LOCATION

The project site is at 959 Genevieve Street in the City of Solana Beach, San Diego County (Assessor's Parcel Number [APN] 298-390-51-00). As shown in Figure 1, *Regional Location*, Solana Beach is surrounded by the cities of Encinitas to the north, Del Mar and San Diego to the south, the unincorporated community of Rancho Santa Fe to the east, and the Pacific Ocean to the west. The property is roughly L-shaped, with its length bounded by Interstate 5 (I-5) on the west. Genevieve Street is the northern site boundary, and Marine View Avenue forms part of the eastern boundary. Figure 2, *Local Vicinity*, shows the project site from a local perspective, and Figure 3, *Aerial Photograph*, shows an aerial view of the project site and surrounding area.

1.2 ENVIRONMENTAL SETTING

1.2.1 Existing Land Use

The project site encompasses 2.91 acres (126,875 square feet). It contains abandoned structures, including a residence, greenhouse, and shed. Approximately 124,000 square feet or 98 percent of the site is vacant with grasses, small shrubs, and ornamental palm trees. The project site also contains dumped debris and story poles. Figure 4, *Site Photographs*, illustrates the existing condition of the project site.

The property gently slopes down from the south and east to the northwest. Site elevations range from approximately 140 feet above mean sea level (amsl) in the southern and northeastern areas to approximately 110 feet amsl in the northwest corner. Although the site is slightly below the developed grades of Marine View Avenue and Genevieve Street, the commercial and residential developments north and east of the site are at much higher elevations, averaging 125 amsl. The I-5 freeway is also developed at about 125 amsl; therefore, the site is elevated over I-5 in the southwest end and gradually declines below I-5 at the northwest end.

Due to the elevated topography of the surrounding areas, stormwater drains toward the site and discharges into the drainage swale along the western boundary, adjacent to the I-5 embankment. A second drainage

swale—perpendicular to I-5—crosses the site approximately 300 feet south of Genevieve Street. A north-south private sewer easement crosses the site from the rear property lines of the residences west of Marine View Avenue to an existing sewer line in Genevieve Street. The only vehicular access into the site is via a driveway at the end of the Genevieve Street cul-de-sac.

1.2.2 Surrounding Land Use

I-5 adjoins the site to the west. Commercial uses (i.e., The Timbers [a three-story office building] and a plant nursery) are north of the site. Six single-family properties, ranging from one to two stories in height, adjoin the site to the east and south. Figure 5, *Surrounding Land Uses*, shows photos of the surrounding uses.

1.3 EXISTING ZONING AND GENERAL PLAN

The project site has a General Plan land use designation of Estate Residential and corresponding zoning of Estate Residential 2 (ER-2). The ER-2 zone allows up to two dwelling units per net acre and conditionally allows for other uses such as residential care facilities, churches, and schools. The maximum floor area allowed on the project site is 23,531 square feet. The project site is also within a Dark Sky Overlay Zone, which restricts the use of outside lighting (Solana Beach 2014b).

1.4 PROJECT DESCRIPTION

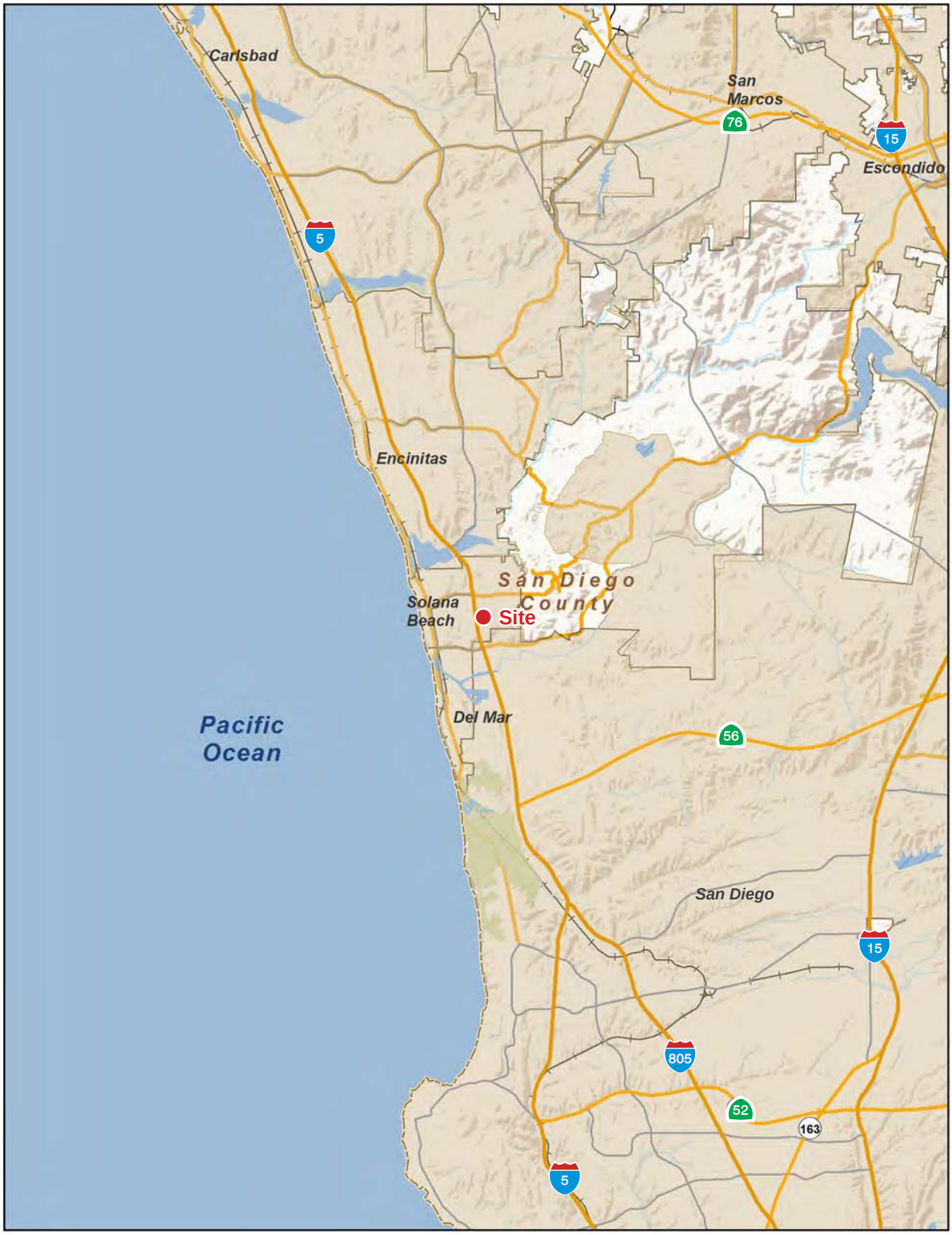
"Project," as defined by CEQA Guidelines § 15378(a) and § 15378(c), means:

> ... the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700… (3) an activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies…

The proposed project includes a specific plan for the project site that, according to the Solana Beach General Plan § 4.3(E)(2), will require electorate approval. The proposed project also includes site-specific improvements that will require a Development Review Permit and a Structural Development Permit from the City and a Coastal Development Permit from the California Coastal Commission.

Although CEQA Guidelines § 15378(b)(3) states that a project does not include the submittals of proposals subject to a vote of the people, for a conservative analysis, the initial study examines the maximum development in the proposed specific plan.

Figure 1 - Regional Location



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Scale (Miles)

Source: ESRI, 2015

1. Introduction

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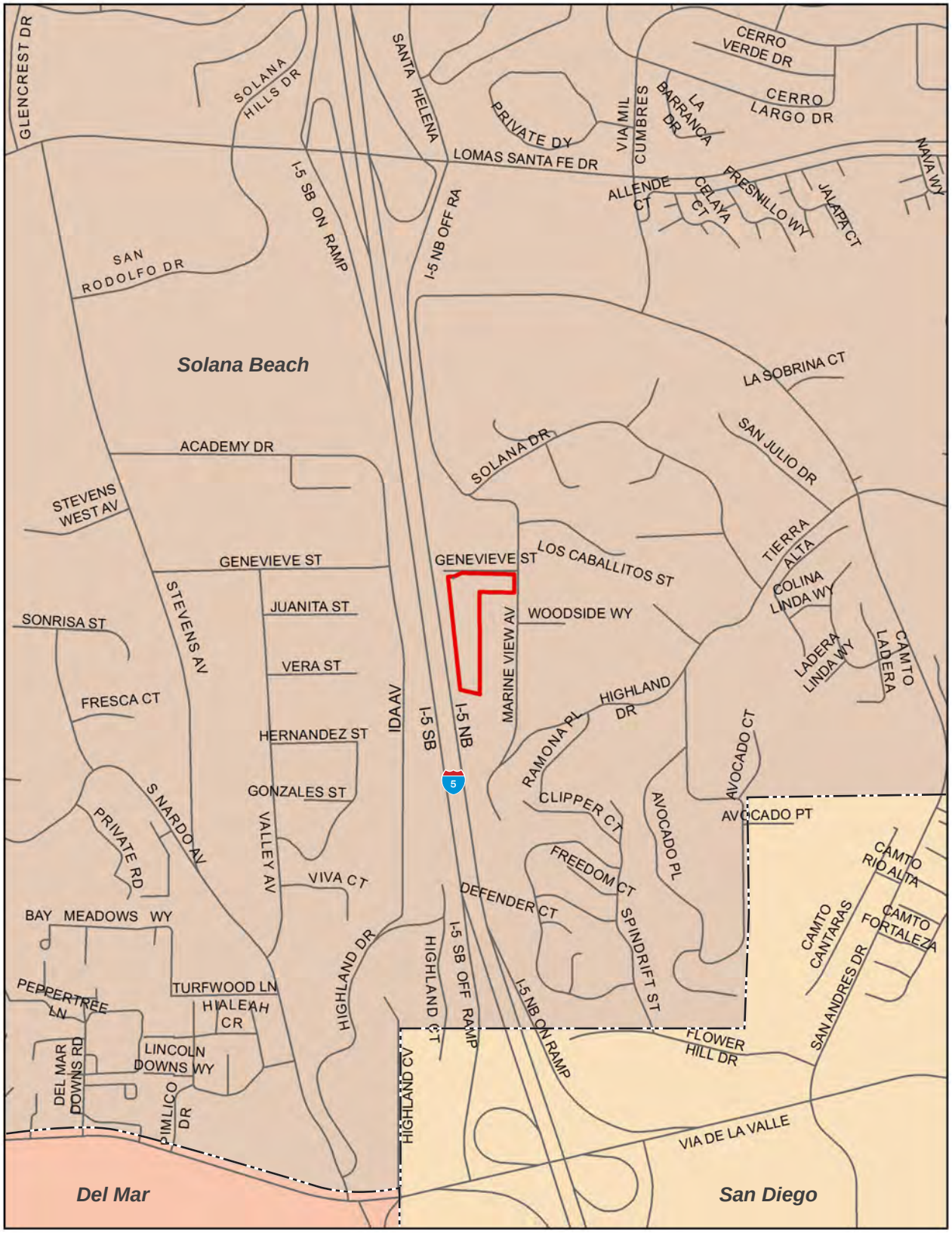
Figure 2 - Local Vicinity



Source: ESRI, 2017

1. Introduction

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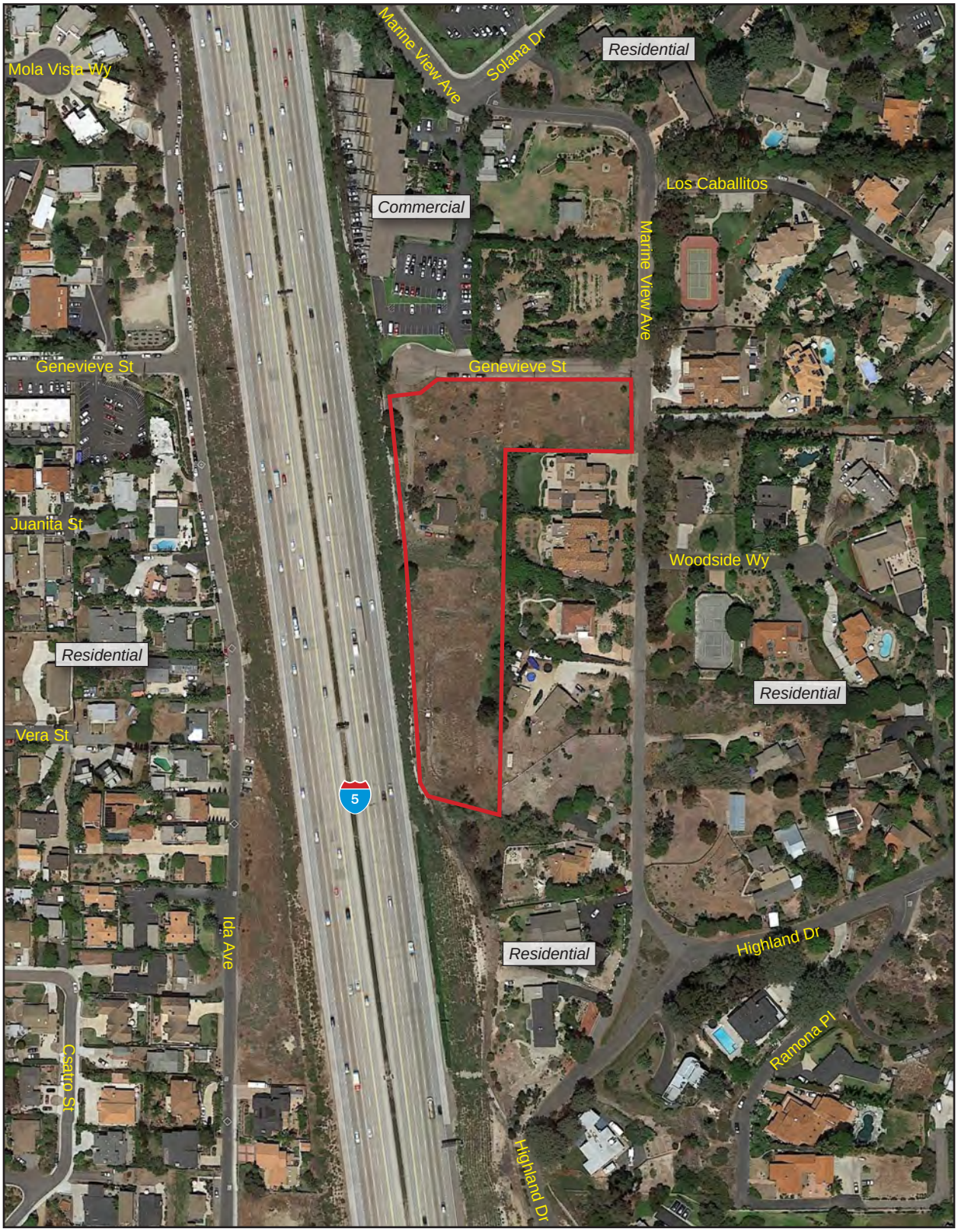
Figure 3 - Aerial Photograph



Project Boundary

0 250
Scale (Feet)

Source: Google Earth Pro, 2015

1. Introduction

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Figure 4 - Site Photographs

View of the project site from the Genevieve Street cul-de-sac. Note the difference in grade between the project site and I-5 freeway on the right.

View of the northeast portion of the project site from the intersection of Genevieve Street and Marine View Avenue.

View facing north of the building proposed to be demolished. “The Timbers” office building is in the background.

1. Introduction

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Figure 5 - Surrounding Land Uses

View from Genevieve Street near the northeast corner of project site looking east. Note the height of the residences relative to the down-gradient on the site.

View looking west from Marine View Avenue at the southeast corner of the “foot” of the ‘L” shaped project site. Note offsite residence on the left and the roofline of “The Timbers” at the far right.

1. Introduction

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1.4.1 Specific Plan

The proposed specific plan would permit development of a 99-bed residential care facility for the elderly with a maximum floor area ratio (FAR) of 0.55. The facility would be required to be licensed by the state of California. The proposed specific plan would establish new zoning and regulations, such as permitted uses, including open space and other uses allowed under the ER-2 zone; density, height, and parking limits; and development setbacks on the project site. The specific plan also describes required infrastructure, guidelines, and standards for implementing site improvements.

1.4.2 Development Plan

The proposed site-specific development activities that would require permits include demolition of all existing onsite structures and construction and operation of a state-licensed, 96-bed residential care facility. A single building of heights would be constructed along the western perimeter of the site. Other improvements include surface and varying below-ground parking facilities, and landscaped and hardscaped areas. The tiered building would be accessed from both the western and eastern sides of the property. Access from the west would be into the first floor of the building, and access from the east, near the north end of the building, would be into the second floor. A landscaped area at the corner of Marine View Avenue and Genevieve Street would be available for community use. All improvements would comply with the 2016 California Building Code and Americans with Disabilities Act. Table 1, *Site Summary,* breaks down the area of development. Figure 6, *Site Plan,* illustrates the proposed site layout.

Table 1 Site Summary

Use	Area (SF)	Percentage of Site (%)
Building Footprint	36,789	29
Vehicle Use Area	21,408	17
Landscape	52,343	41
Hardscape	16,335	13
Total	126,875	100

Residential Care Building

As required by the proposed specific plan's limitations on buildable area and setbacks for the site, the proposed building would be oriented north-south, paralleling I-5. The building would be terraced and segmented to maintain a 25-foot height limit as measured from the lower of either the existing or finished grade. The building would have two stories (excluding the basement garage level). The northern and southern halves of the building would be separated by a two-story lobby "breezeway." Table 2, *Building Area,* shows the area of each floor. Figure 7, *Massing Model,* shows an aerial massing of the proposed building, and Figure 8, *Eastern Elevation*, illustrates the tiered levels of the building.

1. Introduction

Table 2 Building Area

Floor (Story)	Area (SF)	Rooms
Garage/Basement Level	17,478	0
First Floor	34,672	41
Second Floor	35,106	44
Total	87,256	85

Note: Rooms can include one to two beds depending on their use.

Interior

The northern half of the building would be developed with three floor levels, including the basement level (i.e., parking garage; electrical, mechanical, and storage areas; and enclosed trash storage facility). Vehicle access to the garage would be via a driveway along the western perimeter of the property. The first floor would include a dining area, kitchen, café, and fitness room. The second floor would include a library, spa/salon, living room, administrative, support areas, and mechanical and storage rooms. Both floors would have assisted-living resident rooms, care room, and a lobby area.

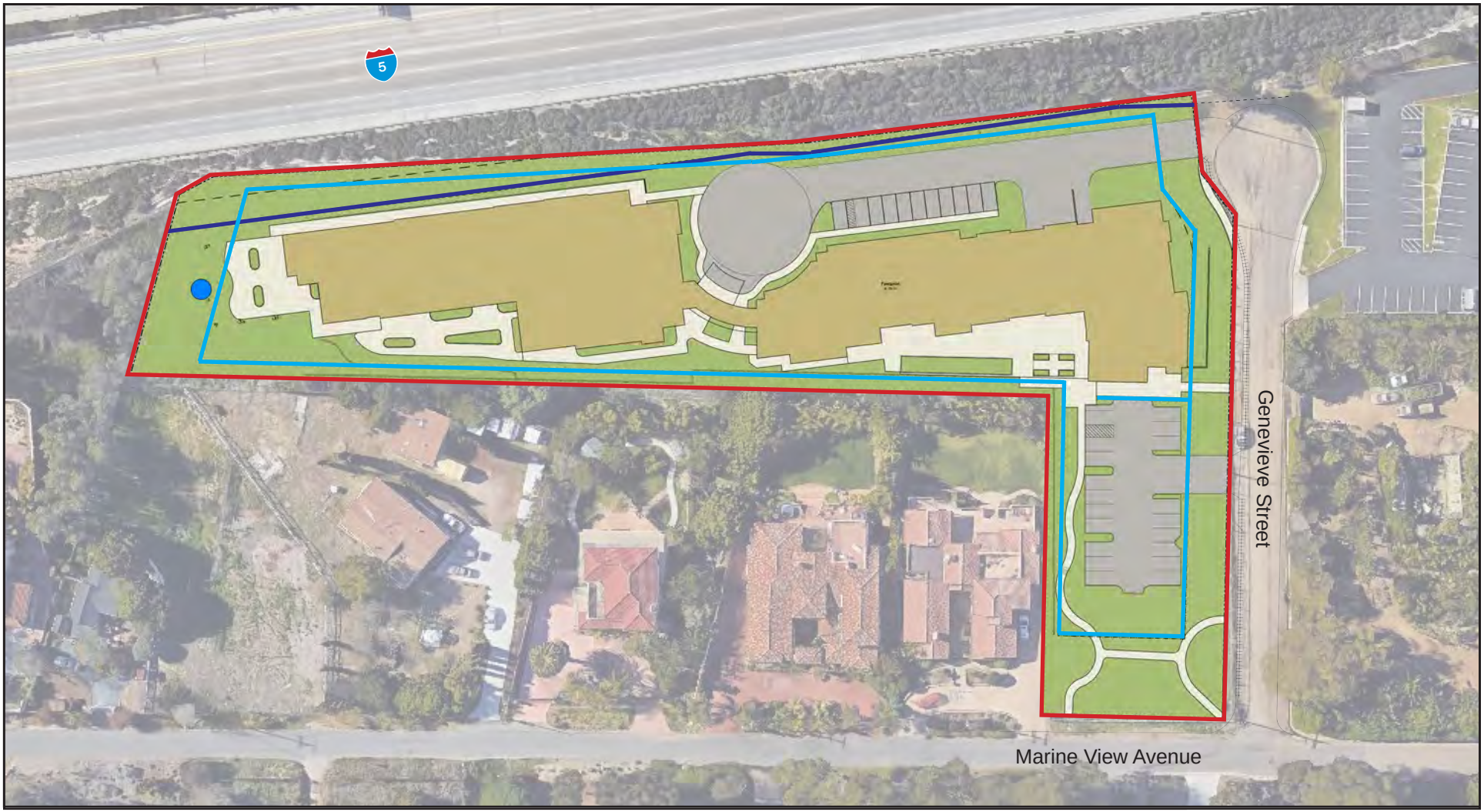
The southern half of the building begins at southern end of the breezeway and has two floor levels; there is no basement level in the southern half of the building. The first floor would house resident rooms for assisted living, a theatre, and an art room. The second floor would have resident rooms for memory care (e.g., for residents with Alzheimer's). Due to the site's higher elevation in the southern quarter, the second floor would be at ground level and provide access to an outdoor courtyard at the end of the building.

The interior configuration of resident rooms and common living areas would comply with the interior space requirements of the specific plan use standards, which exceed the minimum standards for residential care in the Solana Beach zoning code. Additionally, due to the site's topography, the height of the building at the southern end would be lower than the maximum allowed by the specific plan and the underlying zoning.

Exterior

Consistent with the proposed specific plan criteria, the exterior features of the residential care facility would incorporate elements of California Craftsman, California Bungalow, and local beach cottage and Torrey Pines Lodge materials and design. The building exterior would have stucco and stone siding. Exterior lighting would be installed throughout the property, including around the building, walkways, and parking areas for security purposes; all lighting would be required to comply with the City's dark sky overlay zone requirements, as described in Municipal Code § 17.60.060(C).

Figure 6 - Site Plan



Project Site
Paved Area
Building Footprint
Vehicular Use Area
Irrigated Landscape
Water Features
Building Setback (10' side, 25' front, 40' rear)
Caltrans Setback
Lot Line

0 80
Scale (Feet)

Source: Pacific Sound Investors, 2017

1. Introduction

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Figure 7 - Massing Model

Source: Pacific Sound Investors, 2017

1. Introduction

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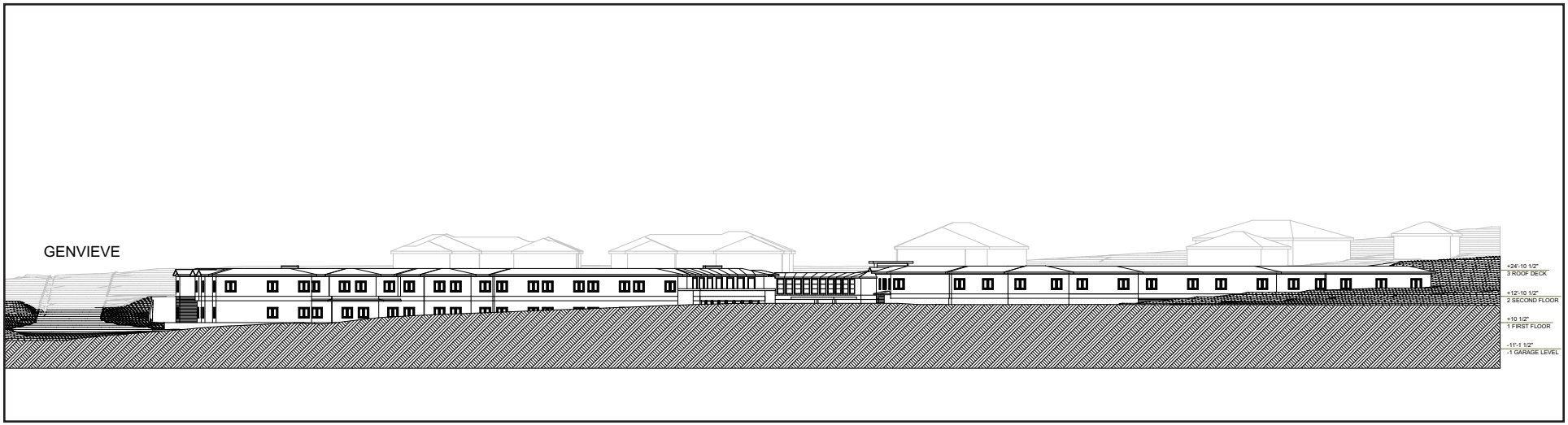
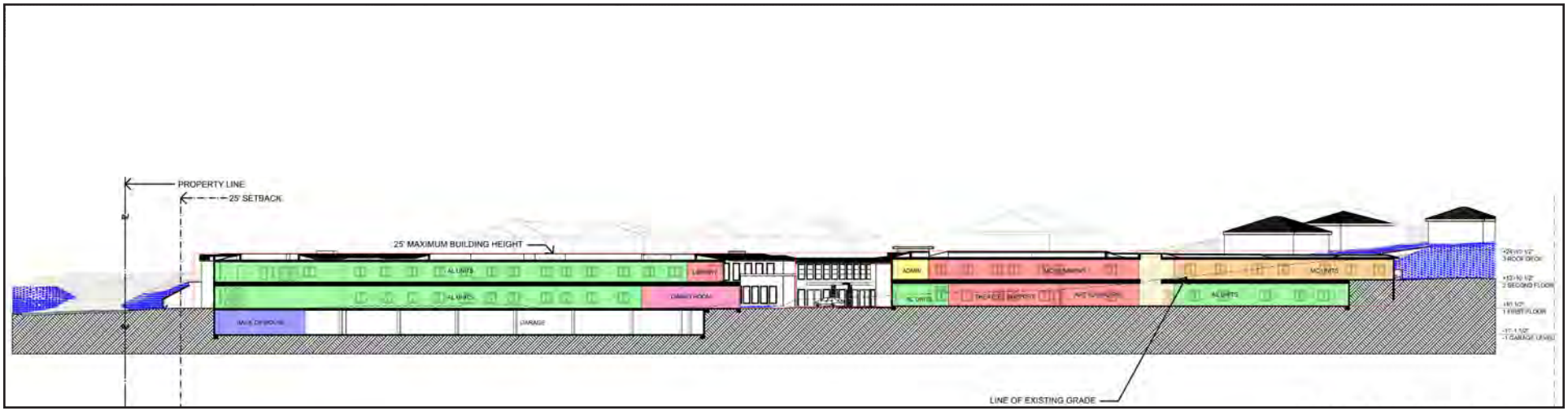
Figure 8 - Eastern Elevation



View of building looking east from Interstate 5.



Cross-section of building looking east.

Source: Pacific Sound Investors, 2017

1. Introduction

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Residential Room Configuration

The proposed specific plan authorizes up to 99 beds, but the residential care facility as proposed would have 85 rooms with one- and two-bed options, for a total of 96 beds, as broken down in Table 3, *Room Types*. Each room would include its own bathroom with a toilet, sink, and shower. The rooms in the assisted living section would include a convenience kitchen.

Table 3 Room Types

Type	Rooms	Beds	Area (SF)
Assisted Living – 1 Bed	25	25	13,071
Assisted Living – 2 Bed	7	14	5,725
Assisted Living, Studio - 1 Bed	25	25	9,827
Memory Care – 1 Bed	24	24	9,186
Memory Care – 2 Bed	4	8	2,165
Total	85	96	39,974

Note: Although the proposed residential care facility would include 96 beds, for a conservative analysis and to maintain consistency with the specific plan, the environmental analysis accounts for potential project impacts associated with a maximum development of 99 beds.

Access and Circulation

In accordance with the proposed specific plan criteria, vehicular access to the site would be via two driveways off of Genevieve Street. The eastern driveway would provide access to a surface, visitor parking lot and the public entry into the second-floor lobby, near the administration offices in the north half of the building. The eastern driveway, visitor parking lot, and public building entry would be visible from Marine View Avenue and Genevieve Street.

The western driveway would provide access into the site via the existing curb-cut at the end of the Genevieve Street cul-de-sac. It would provide vehicular access to the secondary building entry point and basement parking garage. The western driveway would also provide fire access to the property's western perimeter. The driveway would terminate at the breezeway, near the center of the building, and would have a turnaround large enough to accommodate emergency vehicles and passenger pick-ups and drop-offs. Building entry would into the first-floor breezeway.

Other building entry points include through the basement garage, via two sets of stairs and an elevator. Emergency doors are also proposed throughout the ground-level areas of the building. The eastern side of the building would have four emergency access points, and the western side of the building would have two. Building access would also be provided from the outdoor garden at the south end of the property.

A concrete walkway would encircle most of the building, as shown on Figure 6. The western and northern building exteriors would be accessible by the public, as would be the eastern portion adjacent to the northeast visitor parking lot. The rest of the eastern boundary would be separated from the adjacent residential properties by a retaining wall. This eastern area and the southern side of the building would only be accessible by residents, caretakers, and authorized visitors.

1. Introduction

Parking Facilities

The proposed specific plan requires 1 off-street parking space per employee and 1 off-street parking space per 7 beds. The proposed development would include a basement parking garage with 32 stalls and two surface parking areas: one visitor parking lot in the northeast portion of the site with 19 stalls, and the other along the western driveway with 11 stalls. The development would have a total of 62 off-street parking stalls, including 3 ADA accessible stalls and 2 van-accessible stalls. The proposed development would also have 1 motorcycle space, 6 bicycle spaces, and 1 loading space.

Landscape

The proposed Specific Plan requires a minimum of 100 square feet of common open space per bed, along with specifications for water efficient landscape design, and criteria for the various functional areas such as streetscape, parking, courtyards, and entries. The proposed development would comply with these criteria; the proposed landscaped courtyards, gardens, and walkways would be made of decomposed granite and concrete. Drought-tolerant, native and ornamental trees and shrubs would be used; plant-watering would not use reclaimed water.

Four open space areas are proposed: a Memory Garden at the southern end of the site; East and North gardens along the eastern perimeter of the site; and an open, informal garden at the corner of Marine View Avenue and Genevieve Street. The garden along Marine View Avenue would be public space available for use by residents in the surrounding community, as well as by residents of the proposed residential care facility. All of the landscape and hardscape on the property would be maintained by the operator of the residential care facility.

Infrastructure Improvements

There are existing services and utilities available in the project area. Therefore, infrastructure improvements needed for the proposed Specific Plan are limited to project-specific improvements, including underground connections to existing public utilities available in the adjacent roadways —including water, sewer, and dry utilities. Offsite infrastructure improvements would not be required as a part of the project.

The proposed site improvements would include perimeter slope grading, retaining walls, brow ditches, and a private onsite storm drain system to divert stormwater away from courtyard areas adjacent to the new building. The stormwater drainage improvements would mitigate stormwater runoff created by the proposed development, as well as offsite stormwater that currently enters the site. The proposed drainage improvements would be:

- A new underdrain would be developed on the south side of Genevieve Street. Runoff from the northern portion of the site would discharge into this new underdrain and be conveyed to an existing concrete drainage channel in the Caltrans right-of-way before entering the public storm drain system.

- Offsite runoff that currently enters the southeast area of the site and new runoff created by the impervious areas of the proposed improvements would be collected by a new storm drain inlet on the

southeast property line and conveyed by a new box culvert. The storm drain would run east to west under the breezeway of the proposed building and driveway cul-de-sac, and similar to the underdrain, runoff would discharge into the public storm drain system in the Caltrans right-of-way.

- An underground-pipe stormwater retention system would be developed underneath the driveway along the western property line. The system would have the capacity to contain the increased runoff volume created by the proposed improvements.

- The site would also include a number of landscaped drainage swales, catch basins, brow ditches, landscaped areas, and retention areas to retain and treat stormwater runoff.

1.4.3 Operation

Operation of the proposed facility would be in accordance with the required State license for assisted-living and memory-care-support facilities. The proposed specific plan would limit this license to an RCFE (Residential Care Facility for the Elderly) license, as defined by the State of California. The specific plan would allow for up to 99 beds, corresponding to 99 residents. The proposed development would include a total of 96 beds, corresponding to 96 residents. For a facility of this nature, the operational estimate is for a maximum of 65 staff (out of which, 45 staff would be on site at any one time) to provide administration, resident care, activities management, food services, linen services, and janitorial and maintenance services. The staff would work in shifts that begin morning, midafternoon, and evening; these shifts typically overlap to ensure adequate staff support 24 hours per day, 7 days per week.

Designated visiting hours for residents would be established throughout the week, and holidays would likely bring greater numbers of visitors. It is anticipated that a small number of the assisted living residents may drive, but none of the memory care residents will drive. The proposed residential care facility would offer a shuttle bus/van program to transport residents to shops, doctor visits, and other offsite activities.

Sales visits and vendor deliveries would mainly occur during typical business hours on weekdays. There could be up to half a dozen deliveries during a week, including deliveries for food, produce, linen, and medical equipment. Other vehicles may access the site for postal/package delivery, trash pick-up, and emergency services.

1.4.4 Construction

The entire project site would be disturbed at some point during construction activities. Construction of the proposed improvements would occur in one phase projected to last between 12 to 14 months. Demolition of the existing structures would require about four days. The project site would be mass graded over a two- to four-week period. The finish grade of the site would require two to four weeks to complete, and trenching for all utilities would also occur in roughly two weeks. Construction of the proposed building, surface parking lots, driveways, and landscaping would require 10 to 12 months to complete. Note that these construction times are only estimates for purposes of analysis and may change to reflect site conditions, operational requirements, weather, and other similar limits on construction.

Project implementation would require moving 28,000 cubic yards of soil of earthwork with an estimated export of about 26,800 cubic yards to an approved fill site. If qualified, the proposed development would participate in the City's Sand Compatibility and Opportunistic Use Program, whereby all beach-quality material targeted for offsite export would be placed on City beaches as part of a comprehensive and long-term shoreline management program.

The City of Solana Beach requires a construction worksite traffic control plan, which would identify haul routes, hours of operation, protective devices, warning signs, and access. Construction equipment may include concrete and industrial saws, dozers, tractors, loaders, backhoes, graders, cement and mortar mixers, pavers, rollers, cranes, forklifts, generator sets, and welders.

1.4.5 Lead Agency

The City of Solana Beach is the "lead agency" under CEQA, meaning that it is the public agency with the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment. If a majority of the voters approve the proposed specific plan, the City has the discretion to issue the required Development Review Permit and Structure Development Permit for the proposed development.

1.4.6 Responsible Agencies

A public agency other than the lead agency that has discretionary approval power over a project is considered a "responsible agency," as defined by CEQA Guidelines § 15381. The California Coastal Commission is a responsible agency for the proposed project. It has the discretion to issue a Coastal Development Permit, which is required to implement the proposed development.

1.4.7 Reviewing Agencies

Reviewing agencies do not have discretionary powers to approve or deny the proposed improvements or actions needed to implement them, but may review the initial study and EIR for adequacy and accuracy. Reviewing agencies for the proposed project may include:

- California Department of Transportation
- San Diego Air Pollution Control District
- San Diego Association of Governments
- San Diego Regional Water Quality Control Board
- San Elijo Joint Powers Authority
- Santa Fe Irrigation District

2. Environmental Checklist

2.1 BACKGROUND

1. **Project Title:** Residential Care Facility Specific Plan

2. **Lead Agency Name and Address:**
   City of Solana Beach
   635 South Highway 101
   Solana Beach, CA 92075

3. **Contact Person and Phone Number:**
   Bill Chopyk, Community Development Director
   858-720-2400

4. **Project Location:**
   959 Genevieve Street
   Assessor Parcel Number 298-390-51-00
   Solana Beach, San Diego County, California 92705

5. **General Plan Designation:** Estate Residential

6. **Zoning:** Estate Residential 2 (ER-2)

7. **Description of Project**:
   See section 1.4, *Project Description*.

8. **Surrounding Land Uses and Setting**:
   The project site is an urban infill site that is surrounded by development on all sides, including residential uses on Marine View Avenue to the south, east, and northeast; commercial uses on Genevieve Street to the north; and I-5 to the west.

9. **Other Public Agencies Whose Approval Is Required**:
   California Coastal Commission

2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

- ☒ Aesthetics
- ☒ Biological Resources
- ☒ Greenhouse Gas Emissions
- ☒ Land Use/Planning
- ☐ Population/Housing
- ☒ Transportation/Traffic
- ☐ Agriculture/Forestry Resources
- ☒ Cultural Resources
- ☒ Hazards/Hazardous Materials
- ☐ Mineral Resources
- ☒ Public Services
- ☒ Utilities/Service Systems
- ☒ Mandatory Findings of Significance
- ☒ Air Quality
- ☒ Geology/Soils
- ☒ Hydrology/Water Quality
- ☒ Noise
- ☐ Recreation
- ☒ Tribal Cultural Resources

2.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	5/16/2017 *Date*
WILLIAM B. CHOPYK *Printed Name*	CITY of SOLANA BEACH *For*

2.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g. the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. § 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) **Earlier Analyses Used.** Identify and state where they are available for review.

   b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) **Mitigation Measures.** For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

2. Environmental Checklist

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and

    b) the mitigation measure identified, if any, to reduce the impact to less than significant.

Note: All technical studies for this document are available at the Solana Beach City Hall, 635 Highway 101, and on the City of Solana Beach website at www.ci.solana-beach.ca.us.

3. Environmental Analysis

3.1 AESTHETICS

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

Comments:

a) Have a substantial adverse effect on a scenic vista?

No Impact. A scenic vista is defined as a panoramic view exhibiting a unique or unusual feature that is an important or dominant portion of the viewshed, such as mountains, hillsides, forests, the ocean, or urban skylines. It also may be defined as a particular view that provides visual and aesthetic relief from less attractive nearby features. The project site is not in the View Corridors or "Scenic-Overlay Zone" of the City of Solana Beach Local Coastal Program Land Use Plan (LCP LUP), as shown in Exhibit 6-2 of the LCP (Solana Beach 2014b). Project implementation would not impact any scenic vistas designated by the City's LCP LUP or General Plan. The project site ranges between 8 and 12 feet below the grade of I-5. There are no mountains, hillsides, forests, oceans, scenic hillsides, or urban skylines near the project site and, as shown on Figure 3, *Aerial Photograph*, all of the surrounding uses are urban. The proposed project would not impact a scenic vista; therefore, this topic will not be discussed in the EIR.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Potentially Significant Impact. I-5 in north San Diego County, including the segment adjoining the project site, is an eligible state scenic highway on the California Scenic Highway Mapping System, but not officially designated (Caltrans 2015). Policy 6.4 of the City's LCP LUP identifies I-5 as a scenic roadway (Solana Beach 2014b). Although eligible for listing as a state scenic highway and identified as a local scenic road, the I-5 segment adjacent to the project site does not offer scenic views or scenic resources, including trees, rock

outcroppings, and historic buildings. However, because the proposed development is adjacent to the City's designated scenic roadway, the EIR will analyze how views along the I-5 segment adjacent to the project site will be altered. Mitigation measures will be provided if required.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Impact. The proposed improvements would change the existing visual character and quality of the project site through grading and construction. Due to the topography of the site, the proposed building design would be stepped and segmented to follow the contours of existing landform. The project would also require a significant amount of grading and soil export to maintain a height and form that would be similar to the surrounding developments. View simulations of the proposed improvements are currently being prepared, and the EIR will further assess potential impacts using the visual representations. Mitigation measures will be provided if required.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Potentially Significant Impact. Artificial light sources can create glare effects and light pollution. Although the project site is in an area developed with residential and commercial uses and I-5, the site itself does not currently have any light sources. The proposed improvements would introduce new light sources (e.g., interior building lighting, street and parking area lights, exterior security lighting) that would increase light and glare at the site and in the project area. The site is also in a City-designated Dark Sky Overlay Zone, and light sources are subject to specific municipal code requirements (Solana Beach Municipal Code, § 17.60.060). The EIR will analyze the potential light and glare impacts of the proposed project. Mitigation measures will be provided if required.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220(g)), timberland (as defined by Public Resources Code § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Comments:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The City of Solana Beach, including the project site, is designated "Built-Up and Urban Land" on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation (CDC 2015). The project site was previously used as a nursery and crop farming. It is currently vacant except for an abandoned residential structure. Project implementation would not convert any special status farmland to nonagricultural use. No conversion of farmland would occur, and this topic will not be discussed in the EIR.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is designated Estate Residential (ER-2) by the City's zoning map. The proposed residential care facility would not conflict with any agricultural use or a Williamson Act contract. No impact would occur, and this topic will not be discussed in the EIR.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220(g)), timberland (as defined by Public Resources Code § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?

No Impact. The project site is zoned Estate Residential (ER-2), and no rezoning of forest land or timberland is proposed or would result from project implementation. No impact would occur, and this topic will not be discussed in the EIR.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is a vacant and previously disturbed urban infill site, and no forest land would be lost or converted due to project implementation. No impact would occur, and this topic will not be discussed in the EIR.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project site does not contain farmland or forest land. Implementation of the proposed improvements would not result in the conversion of farmland to nonagricultural use or forest land to nonforest use (see response to section 3.2[a]). No impact would occur, and this topic will not be discussed in the EIR.

3.3 AIR QUALITY

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?			X	

Comments:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The project site is in the San Diego Air Basin (SDAB) and subject to the regional air quality strategy (RAQS) prepared by the San Diego Air Pollution Control District (SDAPCD). SDAPCD compiles the regional emissions inventory for the RAQS using the San Diego Association of Government's (SANDAG) regional population, housing, and employment projections. These demographic projections are based in part on cities' general plan land use designations. They are also incorporated into the regional transportation plan/sustainable communities strategy, compiled by SANDAG to determine priority transportation projects and vehicle miles traveled in the SANDAG region. Projects that are consistent with the local general plan are considered consistent with the air quality–related regional plan. Typically, only new or amended general plan elements, specific plans, and major projects that have the potential to affect the regional population and employment forecasts have the potential to substantially affect SANDAG's demographic projections and the assumptions in SDAPCD's RAQS.

Construction activities for the proposed improvements would generate exhaust from construction equipment and vehicle trips; fugitive dust from demolition, ground-disturbing activities, and export of soil; and off-gas emissions from architectural coatings and paving. Implementation of the project would also result in an increase in criteria air pollutants during operation. The EIR will evaluate the project for consistency with regional growth forecasts and any impacts the project may have on attainment of regional air quality objectives. Mitigation measures will be provided if required.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Potentially Significant Impact. Construction and operation activities associated with the proposed project would have the potential to generate fugitive dust, area-source emissions, and mobile-source emissions. Air pollutant emissions would occur over the short term during site preparation and construction activities. In addition, emissions would result from the long-term operation of the completed project. An air quality analysis is underway for the proposed project to determine if the project's short- or long-term emissions would exceed SDAPCD's regional significance thresholds for criteria air pollutants. This topic will be further addressed in the EIR, and mitigation measures will be provided if required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Potentially Significant Impact. The project site is in the SDAB, which is designated nonattainment for O_3 and particulate matter (PM_{10} and $PM_{2.5}$) under the California and/or National ambient air quality standards. Implementation of the proposed project may increase levels of criteria pollutants and contribute to their nonattainment status. As noted above, site preparation and construction activities for the proposed project would generate short-term air pollutant emissions. In addition, emissions would result during long-term operation of the completed project. An air quality analysis is underway to determine if the proposed project

3. Environmental Analysis

would result in a cumulatively considerable net increase of any criteria air pollutant. This topic will be addressed further in the EIR, and mitigation measures will be provided if required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. An impact is potentially significant if emission levels exceed the state or federal ambient air quality standards and expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors are populations and/or locations where uses or activities result in increased exposure of persons more sensitive to the unhealthful effects of emissions (such as children and the elderly). Residential uses to the northeast, east, and south of the project site are considered sensitive receptors, as are schools. Montessori Santa Fe School and Sandy Hill Nursery School are 0.2 mile to the north of the project site, and the Santa Fe Christian Schools are approximately 0.15 mile to the northwest. The EIR will evaluate the potential for construction and operation activities of the proposed project to expose sensitive receptors to substantial pollutant concentrations in accordance with SDAPCD's guidance methodology. Mitigation measures will be provided if required.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Due to the nature of the proposed project, it is not anticipated to result in objectionable odors. The threshold for odor is if a project creates an odor nuisance pursuant to SDAPCD Rule 51, Nuisance, which states:

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The uses proposed by the project do not fall within these land uses. Emissions from construction equipment may generate odors, such as diesel exhaust and volatile organic compounds from architectural coatings and paving activities. However, these odors would be low in concentration, temporary, and would not affect a substantial number of people. No significant impacts would occur, and this topic will not be discussed in the EIR.

3.4 BIOLOGICAL RESOURCES

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
c) Have a substantial adverse effect on federally protected wetlands as defined by § 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	X			
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	X			

Comments:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

Potentially Significant Impact. Special status species for Solana Beach include those listed as endangered or threatened under the federal Endangered Species Act or California Endangered Species Act; species otherwise given certain designations by the California Department of Fish and Wildlife; and plant species listed as rare by the California Native Plant Society.

The City's LCP LUP has designated the project site and surrounding area as having potential for sensitive or special-status species. Although a majority of their habitat is along the northwestern boundary of the City associated with the San Elijo Lagoon Ecological Reserve or within isolated patches of native vegetation on

interior canyon slopes, a biological resources assessment is underway for the project site. Potential impacts on sensitive habitat and species will be discussed in the EIR. Mitigation measures will be provided if required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Potentially Significant Impact. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies; are known to provide habitat for sensitive animal or plant species; or are known to be important wildlife corridors. Riparian habitats are those along the banks of rivers and streams. A biological resources assessment of the project site is underway to determine if a sensitive natural community, riparian habitat, stream, wetland, or other water body is onsite. This topic will be further analyzed in the EIR, and mitigation measures will be provided if required.

c) Have a substantial adverse effect on federally protected wetlands as defined by § 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Impact. Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. The biological resources assessment will determine whether there are any wetlands on the project site. This issue will be further considered in the EIR, and mitigation measures will be provided if required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Potentially Significant Impact. The project site is in an urban setting and, as shown in Figure 3, *Aerial Photograph,* is surrounded by urban development, including I-5. Development of the proposed improvements would not interfere with the movement of native resident or migratory wildlife species, wildlife corridors, or wildlife nursery sites. Existing vegetation on the site, however, could potentially support migratory birds, which are protected under the Migratory Bird Treaty Act of 1918. A biological resources assessment is underway, and this topic will be addressed further in the EIR. Mitigation measures will be provided if required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Potentially Significant Impact. Chapter 3, "Marine and Land Resources," of the City's LCP LUP has several policies designed to protect biological resources—such as trees in the Native Tree Protection Policy (3.51, 3.52, 3.53). Project construction would result in the removal of trees that may be protected. This issue will be further addressed in the EIR. Mitigation measures will be provided if required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Potentially Significant Impact. The project area is in the SANDAG-approved North County Multiple Habitat Conservation Plan, but the majority of Solana Beach is identified as "Developed"; therefore, the City is not required to prepare a habitat conservation/subarea plan. A biological resources assessment of the project site is underway to determine the project's consistency with approved habitat conservation plans, and this topic will be further evaluated in the EIR. Mitigation measures will be provided if required.

3.5 CULTURAL RESOURCES

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	X			
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			
d) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Comments:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Potentially Significant Impact. The CEQA Guidelines § 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. A resource is considered "historically significant" if it meets one of the following criteria:

i) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

ii) Is associated with the lives of persons important in our past.

iii) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

iv) Has yielded, or may be likely to yield, information important in prehistory or history.

3. Environmental Analysis

The 2.91-acre project site contains abandoned structures, including a residence built in 1957, greenhouse, and shed. A review is underway to determine the historical significance of the residence. The findings will be provided in the EIR. Mitigation will be provided if required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Potentially Significant Impact. The project site is an infill site in an urbanized area of the City and has previously been disturbed and developed. Project implementation would disturb 28,000 cubic yards (cy) of soil and would export 26,800 cy of soil. Development would involve grading and excavating to greater depths than previously, which could impact unknown archaeological and paleontological resources onsite. This topic will be addressed in the EIR, and mitigation measures will be provided if required.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Impact. See response to section 3.5(b), above. This topic will be addressed in the EIR, and mitigation measures will be provided if required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The project site has been previously disturbed and developed, and there are no unusual circumstances that would increase the likelihood of discovering human remains. The potential for discovering human remains does not correlate to subsurface soil types, unlike the correlation between subsurface geology type and potential for archaeological or paleontological resources. Given the historical use of the site as a nursery, the potential for discovering human remains during site clearing and grading activities is low. However, in the unlikely event human remains are discovered during ground-disturbing activities, California Health and Safety Code § 7050.5 requires that disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and has reason to believe they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. The project would comply with existing law, and potential impacts to human remains would be less than significant; therefore, this topic will not be discussed in the EIR.

3.6 GEOLOGY AND SOILS

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?	X			
b) Result in substantial soil erosion or the loss of topsoil?	X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

Comments:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. Based on a review of the Alquist-Priolo Earthquake Fault Zoning Maps and the City of Solana Beach General Plan, the project site is not on a known fault zone (CDC 2007; Solana Beach 2014a). The potential for impacts from fault rupture are less than significant; therefore, this topic will not be discussed in the EIR.

3. Environmental Analysis

ii) Strong seismic ground shaking?

Less Than Significant Impact. Similar to the rest of southern California, the project site is subject to ground shaking and potential damage in the event of seismic activity. The Rose Canyon fault zone (2.5 miles off shore) and Coronado Bank fault zone (12.5 miles off shore) are designated "active" by the California Geological Survey, and the La Nación Fault (15 miles south of the project site) has been designated "potentially active" (Solana Beach 2014a). Although seismic activity from these faults could potentially impact the project site, it is at no greater risk than the surrounding development and infrastructure. Also, the proposed project would be designed and constructed in adherence to the California Building Code, which would significantly decrease impacts from seismic ground shaking. No significant impacts would occur from seismic ground shaking on the project site; therefore, this topic will not be discussed in the EIR.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. During intense shaking, any structures on these sediments may float, sink, or tilt as if on water. Liquefaction potential varies based on three main factors: 1) cohesionless, granular soils with relatively low densities (usually of Holocene age); 2) shallow groundwater (less than 50 feet); and 3) moderate to high seismic ground shaking. Lateral spreading refers to lateral displacement of large, surficial blocks of soil as a result of pore-pressure buildup or liquefaction in a subsurface layer.

The Solana Beach General Plan and LCP LUP do not identify the project site as being in an area of liquefaction risk (Solana Beach 2014a; Solana Beach 2014b). According to the Solana Beach General Plan, the only area in the city that could liquefy during an earthquake, depending on groundwater conditions, is generally north of Via de la Valle between Del Mar Downs Road and Valley Avenue (Solana Beach 2014a). Subsurface soil investigation at the site determined that the site is underlain by Torrey Sandstone Formation, which is moderately hard to very hard; additionally, groundwater was not encountered at depths ranging from approximately 16.5 feet to 50.5 feet (Matrix 2014). Therefore, the potential for liquefaction or other seismic-related ground failure is considered negligible. No significant impacts would occur, and this topic will not be discussed in the EIR.

iv) Landslides?

Potentially Significant Impact. Susceptibility of slopes to landslides and other slope failures depends on several factors that are usually present in combinations—steep slopes, condition of rock and soil materials, presence of water, formational contacts, geologic shear zones, seismic activity, etc.

The project site is not in an area susceptible to landslides, according to the City of Solana Beach General Plan and the California Department of Conservation landslide hazards maps (Solana Beach 2014a; CDC 1995). However, the site slopes down from the southeast corner to the northwest corner, and there is a slope along the western border of the site that increases the elevation from the southern end to the northern end by roughly 36 feet. The proposed improvements may compromise the stability of the

slopes; therefore, slope stability will be further addressed in the EIR. Mitigation measures will be provided if required.

b) Result in substantial soil erosion or the loss of topsoil?

Potentially Significant Impact. Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed, or dissolved, and removed from one place and transported to another. Precipitation, water, waves, and wind are all agents of erosion. Ordinarily, erosion proceeds so slowly as to be imperceptible, but when the natural equilibrium of the environment changes, the rate of erosion can be greatly accelerated. This can create aesthetic and engineering problems. Accelerated erosion in an urban area can cause damage by undermining structures; blocking storm sewers; and depositing silt, sand, or mud in roads and tunnels. Eroded materials may eventually be deposited in local waters, where the carried silt can remain suspended in the water for some time, constituting a pollutant and altering the normal balance of plant and animal life.

Construction of the proposed improvements would involve excavation and grading activities that would temporarily leave soil exposed and potentially result in soil erosion. Additionally, construction activities on project sites larger than one acre would be subject to the National Pollution Discharge Elimination System (NPDES) requirements. Under the NPDES, a Storm Water Pollution Prevention Plan (SWPPP) would be required along with best management practices (BMPs) designed to prevent erosion and siltation during a project's construction phase. The City of Solana Beach has a stormwater checklist for standard projects that provides standard BMPs for any development project in the city. The minimum required standard construction BMPs are listed below.

Minimum Standard Construction BMPs

Select Erosion Control Method for Disturbed Slopes

- Vegetation stabilization planting (summer)
- Hydraulic stabilization hydroseeding (summer)
- Bonded fiber matrix or stabilized fiber matrix (winter)
- Physical stabilization erosion control blanket (winter)

Select Erosion Control Method for Disturbed Flat Areas

- Standard lot perimeter protection detail
- Erosion control measures from Disturbed Slopes on flat areas
- Standard desilting basin
- Mulch, straw, wood chips, soil application

Energy Dissipater

- Energy dissipater outlet protection

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Sediment Control Method for Disturbed Areas

- Silt fence
- Fiber rolls (straw wattles)
- Gravel bags
- Dewatering filtration
- Storm drain inlet protection
- Engineered desilting basin (sized for 10-year flow)

Method for Preventing Offsite Tracking of Sediment

- Stabilized construction entrance
- Construction road stabilization
- Entrance/exit tire wash
- Entrance/exit inspection and cleaning facility
- Street sweeping and vacuuming

Materials Management

- Material delivery and storage
- Spill prevention and control

Waste Management

- Concrete waste management
- Solid waste management
- Sanitary waste management
- Hazardous waste management

Adherence to the City's BMPs, as required by § 15.40.220 of the Solana Beach Municipal Code, would reduce and prevent soil erosion from project-related grading and construction activities. Upon the completion of construction, the potential for soil erosion or the loss of topsoil would be low because the site would be covered by the proposed improvements, including hardscape and landscape. Impacts from soil erosion would not be significant; therefore, this topic will not be discussed in the EIR.

The grading improvements would result in cutting 28,000 cy of soil from the site, 1,200 cy of which would be used as fill for the proposed improvements, and 26,800 cy would be exported. Grading quantities represent compacted soil volumes and do not account for soils generated from footings or utility trenches or for remedial grading that may be required per the project geotechnical recommendations. The removal of topsoil could result in a potentially significant impact, and the topic will be analyzed further in the EIR. Mitigation measures will be provided if required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Potentially Significant Impact. Subsurface soil investigation determined that the site is underlain by potentially compressible soil that can settle, including undocumented artificial fill, residual soil, Quaternary alluvium, and Tertiary Torrey Sandstone (Matrix 2014). Additionally, as discussed in section 3.6(a)(iv), the proposed improvements may compromise the stability of onsite and adjacent slopes. Therefore, this topic will be analyzed further in the EIR. Mitigation measures will be provided if required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. Expansive soils swell when they become wet and shrink when they dry out, which can crack building foundations and sometimes distress the structure of the buildings themselves. According to the soil investigation of the site, near-surface soils consist of predominantly light brown, dry to damp, medium dense silty sand and have a very low expansion potential (Matrix 2014); therefore, this topic will not be discussed in the EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Development of the proposed project would not require the installation of a septic tank or alternative wastewater disposal system. The proposed project would be connected to existing sewer main lines and service lines, which are currently available in Genevieve Street and Marine View Avenue; therefore, this topic will not be discussed in the EIR.

3.7 GREENHOUSE GAS EMISSIONS

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	X			

Comments:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Global climate change, by its nature, is not confined to a particular project area and is generally accepted as a consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a potentially cumulative environmental impact. The State of California, through its governor and legislature, has established a comprehensive framework for the substantial reduction of GHG emissions over the next 40-plus years. This will occur primarily through the implementation of Assembly Bill 32 (AB 32; 2006), Senate Bill 32 (SB 32; 2016), and SB 375 (2008), which will address GHG emissions regionally and on a statewide basis. The potential for the proposed project to generate a substantial increase in GHG emissions will be further evaluated in the EIR. Mitigation measures will be provided if required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. The California Air Resources Board's Scoping Plan is California's GHG reduction strategy to achieve the emissions reduction target established by AB 32, which is to return to 1990 emission levels by year 2020, and SB 32, which is to reduce emissions 40 percent below 1990 levels by year 2030. The SANDAG's *San Diego Forward: The Regional Plan* (2015) sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce per capita GHG emissions from transportation (excluding goods movement) in accordance with the region's per capita GHG reduction goals under SB 375. The EIR will evaluate the project's consistency with applicable plans, policies, and regulations adopted for the purposed of reducing GHG emissions. Mitigation measures will be provided if required.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	X			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Comments:

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less Than Significant Impact. Project-related construction activities would require the short-term use of small amounts of hazardous materials, such as fuels, lubricants, and greases in construction equipment and coatings in construction. Onsite construction equipment might require routine or emergency maintenance that could result in the release of oil, diesel fuel, transmission fluid, or other materials. However, the materials would not be used in such quantities or stored in such a manner that they would pose a significant safety hazard or environmental threat. Construction activities would be short term in nature.

Significant amounts of hazardous materials would not be transported, used, or disposed of in conjunction with the operation of the proposed project. Maintenance of the residential care facility would likely require the use of cleaners, solvents, paints, and other custodial products that are potentially hazardous. However, these materials would be used in relatively small quantities and would be required to be stored in compliance with established state and federal requirements. With the exercise of normal operational safety practices, significant impacts would not occur, and this topic will not be discussed in the EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Potentially Significant Impact. The site formerly operated as a plant nursery, which may have required the application of pesticides, and it contains structures that may have been supported by underground storage

tanks (USTs). The removal of potentially contaminated soil and USTs could release hazardous materials into the environment. Additionally, the existing structures may contain lead-based paint and asbestos-containing materials, which could also be released into the environment. A Phase I Environmental Site Assessment is underway. The findings and recommendations, if any, in the assessment will be included in the EIR. Mitigation measures will be provided if required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The project site is 0.2 mile south of the Montessori Santa Fe School and Sandy Hill Nursery School and approximately 0.15 mile southeast of Santa Fe Christian Schools. Operation of the proposed residential care facility would not generate hazardous emissions or require the handling of acutely hazardous materials, substances, or waste. Project operation would involve the use of potentially hazardous materials (e.g., solvents, cleaning agents, paints, pesticides) typical of residential care facilities; when used correctly, these would not result in a significant hazard to residents or workers in the vicinity of proposed project.

In addition, many state statutes require emergency notification of a hazardous chemical release. These statutes include:

- Health and Safety Code §§ 25270.7, 25270.8, and 25507
- Vehicle Code § 23112.5
- Public Utilities Code § 7673 (PUC General Orders #22-B, 161)
- Government Code §§ 51018, 8670.25.5(a)
- Water Codes §§ 13271, 13272
- California Labor Code § 6409.1(b)10

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration (Cal/OSHA) pursuant to California Labor Code § 6409.1(b).

The primary purpose of the federal Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report the location and quantities of chemicals stored on-site to state and local agencies. Under § 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report off-site transfers of waste for treatment or disposal at separate facilities, pollution prevention measures, and chemical recycling activities. The US Environmental Protection Agency maintains the Toxic Release Inventory database, which documents the information that regulated facilities are required to report annually.

The residential nature of the project and existing regulations ensure that the proposed residential care facility would not create a significant hazard to the public or schools within one-quarter mile of the site; therefore, this topic will not be discussed in the EIR.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. According to three separate hazardous materials databases compiled pursuant to Government Code § 65962.5—Envirostar, Enviromapper, and Geotracker—the project site is not listed on or within close proximity (one-quarter mile) to a hazardous materials site; therefore, this topic will not be discussed in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles or a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The closest airport is McClellan-Palomar Airport in the City of Carlsbad, which is 9.3 miles north of the project site. The project site is not within an airport land use plan or an airport height restriction zone. The project would not result in a safety hazard for people residing or working in the project area; therefore, this topic will not be discussed in the EIR.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not in the vicinity of any private airstrip. The closest private heliport, the Scripps Memorial Hospital Heliport, is 4.5 miles north of the project site. The closest operational private airstrip is the Torrey Pines Gliderport, which is about 10 miles south of the site. At these distances, neither the heliport nor airstrip would impact the project site. The proposed project would not result in a safety hazard for people working or residing in the project area, and this topic will not be discussed in the EIR.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed project would not conflict with any adopted emergency response or evacuation plans. The proposed project would maintain its own emergency response plan developed in coordination with the Solana Beach Fire Marshal. The roadways that provide access to the site would continue to provide emergency access during project construction and operation. In the event that the temporary closure of a street is necessary during construction, the project applicant would be required to obtain an encroachment permit from the City Engineer and comply with § 11.20 of the Solana Beach Municipal Code. Permit compliance requires that the developer provide the City with a construction schedule and plans for the closure of the street for review and consideration. The Solana Beach Fire Department will also review the project, and the applicant will be required to comply with fire department recommendations as well as established City standards and codes concerning construction activities. Potential impacts on the

3. Environmental Analysis

City's emergency response and evacuation plans would not be significant, and this topic will not be discussed in the EIR.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. As shown in Figure 3, *Aerial Photograph,* the project site is in a developed community, and no significant areas of brush, grass, trees, or other natural fuel sources are close enough to pose a significant wildland fire hazard. Additionally, the project site is not in a fire hazard area delineated by the LCP LUP (Solana Beach 2014b). No impact would occur, and this topic will not be discussed in the EIR.

3.9 HYDROLOGY AND WATER QUALITY

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	X			
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	X			
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	X			
e) e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	X			
f) Otherwise substantially degrade water quality?	X			
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Expose people or structures to inundation by seiche, tsunami, or mudflow?			X	

Comments:

a) Violate any water quality standards or waste discharge requirements?

Potentially Significant Impact. Implementation of the proposed improvements would introduce new impervious surfaces on the project site. The primary water quality concern associated with the long-term operation of the proposed project would be urban runoff from impervious surfaces. Pollutants such as oil, grease, and sediment from operation of the facility could drain into the local storm drain system, resulting in adverse water quality impacts to receiving waters. Additionally, during construction operations, surface runoff could degrade topsoil and other soil disturbed by grading and excavation activities. The storage and use of hazardous materials onsite, including treated wood, paints, solvents, fuels, etc., would be potential sources of pollutants during construction. Uncontrolled urban runoff from the project site could potentially result in conflicts with water quality standards established by the Regional Water Quality Control Board. The EIR will analyze the potential water quality impacts of the proposed project, and mitigation measures will be provided if required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. Groundwater was not encountered during the site's subsurface soil investigation to depths ranging from approximately 16.5 feet to 50.5 feet (Matrix 2014). The design of the proposed building, including the basement garage, would require subterranean excavation of no more than 15 feet below the existing ground level. Since the maximum depth of excavation will not exceed the depths of the soil investigation, it is highly unlikely that the excavations would intercept the groundwater table, and no dewatering would be necessary. The proposed project would be connected to the municipal water system and would not use an on-site well; therefore, it would not deplete groundwater supplies. The project site includes landscape and bioretention areas designed specifically to allow percolation of stormwater. As a result, the project is not expected interfere with groundwater recharge. Impacts to the groundwater table are less than significant, and this topic will not be discussed in the EIR.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Potentially Significant Impact. The project site is on a disturbed but mostly vacant lot with some ornamental and ruderal vegetation and a few vacant structures. The project would introduce new or expanded driveways, walkways, parking lots, and other impervious surfaces that would alter existing drainage patterns onsite. Further evaluation of this topic in the EIR will be based on a hydrology study. Mitigation measures will be provided if required.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Potentially Significant Impact. Due to the increase in impervious surfaces, the proposed project could substantially increase the rate of surface runoff, which could result in flooding. Additionally, low-impact development strategies—such as carefully locating impervious areas to control drainage—and installing vegetation onsite could impact site drainage design. This topic will be addressed in the EIR, and mitigation measures will be provided if required.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Potentially Significant Impact. Project development could increase the rate or amount of runoff that could exceed the capacity of existing stormwater drainage systems. A hydrology study will be prepared to evaluate changes to the rates of surface water runoff from the project site, changes to existing drainage patterns, and the ability of existing drainage facilities in the project area to adequately drain the site following construction. Therefore, further evaluation in the EIR is necessary to determine if the project would create or contribute to excessive stormwater runoff. Mitigation measures will be provided if required.

f) Otherwise substantially degrade water quality?

Potentially Significant Impact. See response to section 3.9(a), above. This topic will be addressed in the EIR, and mitigation measures will be provided if required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The project site is in an urbanized area. The site would introduce a facility to house a population of seniors and disabled. According to the Federal Emergency Management Agency, the project site is in Flood Zone X, which is an area with a 0.2 percent annual chance flood hazard zone (Flood Insurance Rate Map ID#067C1307G). Therefore, it is outside of 100-year flood zones (FEMA 2012). No impact would occur, and this topic will not be discussed in the EIR.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The project site is outside of the 100-year flood zone. No impact would occur, and this topic will not be discussed in the EIR.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The City of Solana Beach is not in an area subject to flooding risks associated with the failure of a levee or dam. The closest dam is Lake Hodges Dam, 13.5 miles northeast of the project site. As shown on the "Dam Failure Map" of the 2010 San Diego County Multi-jurisdiction Hazard Mitigation Plan, water from a dam failure would pass south of the city (San Diego County 2010). The project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Therefore, this topic will not be discussed in the EIR.

j) Expose people or structures to inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact.

- A seiche is a surface wave created when a contained water body is shaken, usually by earthquake activity. There are no contained water bodies upslope from and near the project site that could pose a flood hazard to the site due to a seiche, and this topic will not be discussed in the EIR.

- A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project site is approximately 1.5 miles inland from the Pacific Ocean and at an elevation of more than 100 feet; therefore, it is not at risk from inundation by tsunami, and this topic will not be discussed in the EIR.

- A mudflow is a flow of earth debris and soil containing a large amount of water. Although the site is surrounded by slopes, none are large enough to contribute to a mudflow hazard. Furthermore, project development would include the construction of numerous retaining walls, which would significantly reduce potential impacts from mudflow. Potential impacts from a mudflow are not significant, and this topic will not be discussed in the EIR.

3. Environmental Analysis

3.10 LAND USE AND PLANNING

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	X			

Comments:

a) Physically divide an established community?

No Impact. The project site contains abandoned structures, including a former residence. The site is vacant and surrounded by a mix of land uses, including I-5 on the west, an office building and nursery on the north, and residential development on the east and south. The project is at the end of a cul-de-sac between existing homes and the I-5 freeway embankment. Implementation of the proposed residential care facility would not physically divide the existing surrounding community. No impact would occur, and this topic will not be discussed in the EIR.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Potentially Significant Impact. The project site has a General Plan land use designation of Estate Residential and corresponding zoning of Estate Residential 2 (ER-2). The Estate Residential land use allows for up to two dwelling units per acre and is intended for residential development in areas characterized by single-family homes on semirural estate lots of one-half acre or larger. This ER-2 zone allows for up to two dwelling units per acre or a maximum of one dwelling unit per parcel. The ER-2 zone also permits a maximum FAR based on a tiered formula: 0.60 for the first 5,000 square feet of lot area, 0.30 for each additional square foot of lot area between 5,000 and 20,000 square feet, and 0.15 for each additional square foot of lot area above 20,000 square feet. Accordingly, the current/existing maximum allowed floor area at the project site is 23,531 square feet. (0.19 FAR)

Although the project proposes a single structure, the total floor area is 69,778 square feet (first floor: 34,672 SF + second floor: 35,106 SF), which would exceed the existing maximum allowable floor area by 46,247 square feet (0.55 FAR). The Solana Beach General Plan prohibits the development of a project that would

exceed maximums of general plan residential land use categories or result in the intensification of a residential parcel unless the action—via a general plan amendment, including a specific plan—is approved by a majority of voters in the City.

The proposed project includes a specific plan that would be consistent with the general plan and other ordinances of the City adopted for the purpose of avoiding or mitigating environmental impacts. However, the adoption of the specific plan, and consequently the consistency of the remainder of the project, must be determined through a majority vote of the electorate. Until this occurs, the proposed project is inconsistent with the existing general plan and zoning. To ensure that the analysis considers the whole of the project, the EIR will evaluate the potential environmental impacts of the proposed project assuming approval by the voters. This topic will be further considered in the EIR.

Additionally, there are two easements on the property: a Caltrans easement along the western perimeter and a sewer easement operated by the San Elijo Joint Powers Authority. The proposed structural improvements would not be constructed over the easements; however, plans have been approved by Caltrans to widen the segment of I-5 adjacent to the project site, and consultation with Caltrans will be required to confirm that the approved highway improvements are compatible with the proposed project. This topic will be further considered in the EIR.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Potentially Significant Impact. See section 3.4(f). The project area is within the SANDAG-approved North County Multiple Habitat Conservation Plan, but the majority of the City of Solana Beach is identified as "Developed," and the City is not required to prepare a habitat conservation/subarea plan. A biological resources assessment of the project site is underway to determine the project's consistency with approved habitat conservation plans, and this topic will be further evaluated in the EIR. Mitigation measures will be provided if required.

3.11 MINERAL RESOURCES

Would the project result in:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Comments:

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

Less Than Significant Impact. The City of Solana Beach has mapped its mineral resources pursuant to the California Surface Mining and Reclamation Act of 1975. Four mineral resource zones (MRZ) classify sand, gravel, and crushed rock resources.

- **MRZ-1.** Adequate information indicates that no significant mineral deposits are present or likely to be present.
- **MRZ-2.** Adequate information indicates that significant mineral deposits are present or there is a high likelihood for their presence, and development should be controlled.
- **MRZ-3.** The significance of mineral deposits cannot be determined from the available data.
- **MRZ-4.** There is insufficient data to assign any other MRZ designation. (CDC 2009)

The project site is within MRZ-3 (CDC 1996). No mineral resource recovery sites delineated in a general plan or other land use plan exist within the City limits. No loss of availability of known resources would result from project implementation. Therefore, impacts are less than significant, and this topic will not be discussed in the EIR.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. See response to section 3.11(a), above. The project site is designated MRZ-3, and it is not a locally important mineral resource recovery site delineated in the City of Solana Beach General Plan. Implementation of the proposed project would not result in the loss of a locally important mineral resource, and this topic will not be discussed in the EIR.

3.12 NOISE

Would the project result in:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X			

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Comments:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Development of the proposed residential care facility would have the potential to increase noise levels in the vicinity of the site due to vehicle trips that would be generated by the project as well as onsite operational activities, such as use of outdoor areas and stationary sources. In addition, project-related demolition and construction activities could generate short-term or temporary noise affecting residents in the surrounding residential uses and exceeding thresholds in the general plan and City noise ordinance. A noise technical study is being prepared for the proposed project, and the EIR will address potential noise impacts associated with the proposed project. Mitigation measures will be provided if required.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Groundborne vibration and noise levels would primarily be associated with construction activities of the residential care facility. Although no pile driving or blasting is anticipated, the temporary increased levels of vibration caused by construction could impact vibration-sensitive land uses surrounding the project site. Impacts will be evaluated in the noise technical study being prepared for the proposed project. This topic will be addressed further in the EIR, and mitigation measures will be provided if required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. The project site is immediately adjacent to I-5, which is the main source of noise in the project vicinity. The proposed project would result in new permanent sources of noise, including

increased vehicle noise through trip generation and transportation of materials, equipment noise from facilities operation, and human voices. The EIR will evaluate the potential for noise generated by the project to substantially increase existing ambient noise levels in the project vicinity. Mitigation measures will be provided if required.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. The project site is vacant and does not contribute to ambient noise levels in the project vicinity. However, the site is immediately adjacent to I-5, which generates substantial ambient noise levels. Demolition and construction activities for the proposed project would result in a temporary increase in noise levels at the project site and adjacent land uses. A noise study is currently being prepared, and these impacts will be further addressed in the EIR. Mitigation measures will be provided if required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The closest airport is McClellan-Palomar Airport, which is 9.3 miles north of the project site. The project site is not within any airport land use plan. The McClellan-Palomar Airport does not direct air traffic over the project site; therefore, this topic will not be discussed in the EIR.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. See response to section 3.8(f) and section 3.12(e), above. The project is not in the vicinity of a private airstrip and would not expose people to airstrip-related noise; therefore, this topic will not be discussed in the EIR.

3.13 POPULATION AND HOUSING

Would the project:

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Comments:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The proposed residential care facility would create approximately 65 new jobs. On a short-term basis, project construction would require the employment of a small number of construction jobs; longer term, approximately 65 staff would be hired to provide administration, resident care, activities management, food, linen, and janitorial and maintenance services. Additional economic growth and long-term employment opportunities would be distributed to the vendor service sector. The unemployment rates in Solana Beach and San Diego County in January 2016 were estimated at 4.4 per cent and 4.7 per cent, respectively (EDD 2016). Therefore, it is expected that both short- and long-term employment would be absorbed from the regional labor force and would not attract substantial numbers of workers into the City or San Diego area.

The specific plan would allow for up to 99 beds (corresponding to 99 residents), although the development plan for the residential care facility identifies 96 beds (corresponding to 96 residents). The facility would result in an increase in the City's and region's housing supply for the elderly, who are considered an underserved segment of the population. According to the Solana Beach Housing Element, people over 65 years of age represent 18.7 per cent of Solana Beach's population and 11.4 percent of the county's population. The development of housing facilities for special needs groups, such as the elderly, satisfies an existing market demand. Consequently, the proposed residential care facility project is consistent with the City's general plan. However, for the purpose of this analysis, a conservative assumption has been made that the project would introduce 99 new residents and 65 new workers into the City of Solana Beach and San Diego area. Accordingly, based on the California Department of Finance 2016 population estimates, the proposed residential care facility would increase the City's population of 13,487 and the county's population of 3,286,717 by 1.2 percent and 0.005 percent, respectively (DOF 2017). These increases are negligible. Therefore, impacts to population growth would not be significant, and this topic will not be discussed in the EIR.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site contains vacant structures, including a former residence. The proposed project would introduce new senior housing onto the property, resulting in an increase of the City's housing supply. Since the project would not displace existing housing, no impact would occur, and this issue will not be further considered in the EIR.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. See response to section 3.13(b), above. The project site is vacant, and no people would be displaced by project implementation. Therefore, no replacement housing is needed, and no impact would occur. This issue will not be further considered in the EIR.

3.14 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	X			
b) Police protection?	X			
c) Schools?				X
d) Parks?			X	
e) Other public facilities?			X	

Comments:

a) Fire protection?

Potentially Significant Impact. The proposed residential care project would develop 87,256 square feet of new building area and accommodate up to 99 residents, thereby increasing the demand for public services. Fire protection and emergency medical services would be provided by the Solana Beach Fire Department and American Medical Response. Consultation with the fire department is ongoing to estimate the level and type of demand associated with the proposed project, to determine the type and magnitude of impacts to existing and planned levels of service, and to develop measures to avoid or reduce potentially significant impacts to less than significant, if possible. This issue will be addressed further in the EIR, and mitigation measures will be provided if required.

b) Police protection?

Potentially Significant Impact. Law enforcement and police protection services would be provided by the San Diego County Sheriff's North Coastal Station at 175 N El Camino Real in Encinitas, approximately 5.5 miles north of the project site. Consultation with the North Coastal Station will be conducted as with the fire department (see 3.14(a), above). Therefore, the potential for impacts to police protection services will be analyzed further in the EIR, and mitigation measures will be provided if required.

c) Schools?

No Impact. The proposed project would not house school-aged children or contribute to an increase in students and the need for additional school facilities. No impact to school facilities would occur, and this topic will not be discussed in the EIR.

d) Parks?

Less Than Significant Impact. The proposed project would increase the demand for park space. Objective 1.0 of the City's Conservation and Open Space Element of the General Plan establishes a ratio of 3 acres per 1,000 population for public park and recreation facilities. Using a conservative scenario that assumes the 99 residents of the facility are new to the City, the proposed project would generate a need for 12,937 square feet of public park space at the general plan ratio.

The proposed site plan includes courtyards and garden areas, including a 9,200-square-foot garden along Marine View Avenue that would be available for the community to use. Due to the nature of the facility, some of the residents require private and secure environments. Therefore, the plan includes a secured memory garden of approximately 2,025 square feet and gardens along the eastern perimeter of approximately 1,800 square feet. The total identified exterior open space for the project is 13,025 square feet, which meets the objective of the general plan.

Additionally, as shown on Figure 6, *Site Plan*, the proposed project has pathways, bioretention areas, and landscaped slopes that add to the approximately 52,343 square feet of landscaped area. Since the proposed development would satisfy the City's standard of 3 acres of park space per 1,000 population and given the nature of the facility—i.e., residents would likely stay onsite and use the gardens on the property—project impacts to park facilities would be less than significant. This topic will not be discussed in the EIR.

e) Other public facilities?

Less Than Significant Impact. The proposed residential care facility is not anticipated to generate a demand for additional or new government services and public facilities such as libraries due to the nature and size of the proposed senior living facility. Additionally, the proposed residential care facility would include an 1,780-square-foot library for use by the facility residents. Impacts would therefore be less than significant, and this issue will not be addressed further in the EIR.

3.15 RECREATION

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Comments:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. See response to section 3.14(d), above. Due to the nature of facility operations, most residents would stay at the facility and receive visitors, and with available gardens on the property, residents would be unlikely to use offsite city or regional parks. Therefore, impacts to offsite recreational facilities, including their physical deterioration, would not be substantial, and impacts would be less than significant. This issue will not be addressed further in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less Than Significant Impact. See response to section 3.15(a), above. The proposed project would create courtyards, garden areas, and passive recreational space, including a 9,200-square-foot garden at the northeast corner of the property that would be available for use by the community. The environmental effects related to the project's recreational facilities are addressed in this initial study and, where noted, will be carried into the EIR for further analysis and mitigation, as required. The proposed project does not include the expansion or construction of offsite recreational facilities that would require additional impact analysis. Therefore, this topic will not be further considered in the EIR.

3.16 TRANSPORTATION/TRAFFIC

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	X			
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	X			
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?				X
e) Result in inadequate emergency access?	X			
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	X			
g) Result in inadequate parking capacity?	X			

Comments:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Potentially Significant Impact. The proposed residential care facility would generate vehicle trips from visitors, employees, health care professionals, and delivery services. Short-term project-related construction activities would temporarily increase vehicle trips on nearby roadways for the duration of the construction phase. A traffic impact analysis is being prepared for the proposed project, and the method, findings, and conclusions of the analysis will be carried through to the EIR. Roadway and circulation improvements proposed as part of the project will also be reviewed. Mitigation measures will be provided if required.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact. The traffic impact analysis will address whether the project conflicts with the congestion management program. This issue will be addressed in the EIR, and mitigation measures will be provided if required.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The closest private heliport, Scripps Memorial Hospital Heliport, is 4.5 miles north of the project site. The closest airport is McClellan-Palomar Airport, which is 9.3 miles north of the project site. The proposed building would be limited to 25 feet above the site's finished grade and therefore would not be anticipated to interfere with any air traffic. Additionally, Scripps Memorial Hospital Heliport and McClellan-Palomar Airport generally do not direct air traffic over the project site; therefore, this topic will not be discussed in the EIR.

d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

No Impact. The project would be accessed via Genevieve Street, which intersects with Marine View Avenue. Roadway improvements consistent with Solana Beach standards would be made along the property frontage of Marine View Avenue and Genevieve Street, as shown in Figure 6, *Site Plan*. Two driveways onto the project site are proposed from Genevieve Street to provide access to parking areas and the main entrance. All driveways would be perpendicular to the roadway and would not be obstructed by foliage or topography. Genevieve Street is a cul-de-sac terminating at the I-5 freeway embankment, which forms the western edge of the project site. Both Genevieve Street and Marine View Avenue have low speed limits (25 mile per hour) and are local-serving streets with no blockages to traffic near the project site. Since the site can be accessed from a public roadway, and the project will improve the roadways to City standards along the frontage, this topic will not be discussed in the EIR.

e) Result in inadequate emergency access?

Potentially Significant Impact. Two driveways would provide vehicular access to the property. The main driveway along the western perimeter is the designated fire access lane and includes a roundabout with a 36-foot radius that would adequately accommodate emergency vehicles. The project applicant is consulting with the Solana Beach Fire Department to confirm that the proposed project design provides adequate emergency access. The issue of emergency access will be further addressed in the EIR. Mitigation measures will be provided if required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Potentially Significant Impact. Project implementation would not interfere with adopted alternative transportation programs. The project would include a shuttle bus program to transport residents to shops, doctor visits, and other offsite activities. Additionally, the project site is not in any local or regional bike or pedestrian plans. The closest city bus route is the North County Transit District's BREEZE Bus Route 308 on Via de la Valle. The NCTD also provides the Encinitas-Solana Beach Flex program, which services the project area and transports passengers who reserve seats to nearby NCTD Flex destinations.

The City of Solana Beach, however, has adopted a Neighborhood Traffic Management Program that allows the public to address traffic and excessive vehicle-speed concerns within their neighborhood. Because the project would increase trips to the project site, it is possible that traffic and driver speeds may increase on nearby roadways. The need to implement speed-reducing devices in order to increase the safety of the existing roadway and pedestrian facilities will be further considered in the EIR. Mitigation measures will be provided if required.

g) Result in inadequate parking capacity?

Potentially Significant Impact. Solana Beach Municipal Code § 17.60.100(D)(4) requires a residential care facility to provide 1 parking space per employee plus 1 space per 7 beds (Solana Beach 2016). The proposed specific plan requires the same off-street parking standard. The corresponding development plan proposes 62 off-street parking stalls—19 spaces in the western lot, 11 spaces in the eastern lot, and 32 spaces in a basement garage.

The applicant estimates hiring a maximum of 65 staff; however, due to the nature of the facility, only 45 staff would be onsite at any one time, and the project would need to accommodate the parking demand for 45 staff. The specific plan also identifies operation of up to 99 beds; accordingly, 15 off-street stalls would be required. The proposed project would require a total of 60 off-street parking stalls. Therefore, the proposed development would meet the parking standard specified in the municipal code and proposed specific plan.

The proposed project, however, may have an increased parking demand during holidays (e.g., Mother's Day, Father's Day) or when family events are held at the proposed facility. While these occasions would be infrequent, they may increase the parking demand and require additional parking accommodations or mitigation. Therefore, parking impacts will be further considered in the EIR. Mitigation measures will be provided if required.

3.17 TRIBAL CULTURAL RESOURCES

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed as eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k)?	X			
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	X			

Comments:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Section 21074 defines tribal cultural resource as either of the following:

1. Site features, places, cultural landscapes, sacred places, and objects of cultural value to a California Native American tribe that are either:

   A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

   B. Included in a local register of historical resources as defined in subdivision (k) of § 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of § 5024.1. In applying this criterion, the lead agency shall consider the significance of the resource to a California Native American tribe.

i. Listed as eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k)?

Potentially Significant Impact. The project site is vacant, and the structures onsite have been abandoned. In accordance with SB 18 and AB 52, the City has notified local tribes about the proposed project to determine the potential for tribal resources onsite. To date, the City has received responses from the Viejas Tribal Government and the Iipay Nation of Santa Ysabel. All responses will be disclosed in the EIR, and mitigation measures will be provided if required.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Potentially Significant Impact. Although the project site has been disturbed by previous uses, development of the proposed improvements could involve grading and excavating to greater depths than previously. The City has notified local tribes about the proposed project as a part of the City's responsibilities pursuant to SB 18 and AB 52. All responses will be disclosed in the EIR. Mitigation measures will be provided if required.

3.18 UTILITIES AND SERVICE SYSTEMS

Would the project:

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?	X			
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	X			
e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	X			

3. Environmental Analysis

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Comments:

a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?

Potentially Significant Impact. The City of Solana Beach is in Region 9 under the jurisdiction of the San Diego Regional Water Quality Control Board. The Santa Fe Irrigation District (SFID) is responsible for providing wastewater treatment to Solana Beach. The SFID is a part of the San Elijo Joint Powers Authority, which owns and operates a Title 22 recycled-water facility in Cardiff-by-the-Sea—the San Elijo Water Reclamation Facility (WRF). This facility has the capacity to treat 5.25 million gallons of wastewater per day (mgd), and current flows are 3 mgd, with peak flows of up to 6 mgd (SEJPA 2015). Thus, the San Elijo WRF has a remaining treatment capacity of approximately 2.25 mgd.

The proposed residential care facility would provide restrooms with toilets, sinks, and showers for each of the bedrooms, and washing facilities in the kitchen would include sinks and dishwashers. Other water-using fixtures would include washing machines for linen/laundry service and watering systems for outdoor landscaping. Consultation with the SFID is required to estimate the level and type of demand associated with the proposed project, to determine the type and significance of impacts to existing and planned levels of service, and to develop measures to avoid or reduce potentially significant costs. This topic will be addressed further in the EIR, and mitigation measures will be provided if required.

b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. The surrounding uses are connected to municipal water distribution and wastewater collection systems. Upon implementation of the proposed project, water and wastewater lines would need to be installed onsite to connect to existing lines in the surrounding neighborhoods.

Wastewater

Wastewater treatment is provided by the San Elijo WRF at 2695 Manchester Avenue in Cardiff-by-the-Sea. For a conservative analysis, it is assumed that the proposed residential care facility project would have a maximum of 99 beds. Using a wastewater generation factor of 75 gallons per bed per day, the project would generate an additional 7,425 gallons of wastewater per day, approximately 0.3 percent of the San Elijo WRF's

remaining treatment capacity (Los Angeles 2006).[1] Thus, impacts to wastewater treatment would be less than significant, and this topic will not be discussed in the EIR.

Water Treatment

Water treatment facilities filter and/or disinfect water before it is delivered to customers. The SFID supplies water to the project site and surrounding area. The water is treated at the R.E. Badger Filtration plant, which is jointly owned and operated by the SFID and the San Dieguito Water District. The Badger plant has the capacity to treat up to 40 mgd of water and treats over 7 billion gallons of water annually. According to Los Angeles CEQA Thresholds (2006), a conservative water demand estimate is equal to 1.25 times wastewater generation. Thus, project implementation would result in an increased need of 9,281 gallons of water per day, or less than 0.02 percent of the treatment capacity.[2] Impacts to water treatment would be less than significant, and this topic will not be discussed in the EIR.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Potentially Significant Impact. The project site consists almost entirely of pervious surfaces. The project would construct stormwater facilities to convey off-site storm drainage under and around the proposed project to an existing drop inlet under I-5. The project would also include construction of onsite bioretention facilities and conveyance channels to capture and treat stormwater runoff from new impervious surfaces associated with the new building, parking lots, and pathways. These facilities would connect to existing storm drainage facilities. Proposed offsite infrastructure improvements are not required as a part of the project, but the project includes perimeter slope grading, retaining walls, brow ditches, and a private onsite storm drain system to divert stormwater away from courtyard areas to provide for proper site drainage. Further analysis of the project's potential impacts on storm drainage facilities will be addressed in the EIR, and mitigation measures will be provided if required.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Potentially Significant Impact. Project implementation would increase the amount of water needed to serve the project site relative to existing conditions. Water supply would be provided by the SFID and consist of local water from Lake Hodges and the San Dieguito Reservoir, imported water from northern California and the Colorado River, and recycled water. The 2015 SFID Urban Water Management Plan (UWMP) states that the existing entitlements for the City of Solana Beach would be sufficient through the year 2035, with a projected supply of 11,494 acre feet per year (afy) and a projected demand of 11,494 afy.[3] According to the 2015 UWMP, in average precipitation years the SFID has sufficient water supplies to meet customer needs through 2050—based on conservation measures and availability of local supplies. However, during drought

[1] 75 gallons per bed per day (wastewater generation rate) x 99 beds = 7,425 gpd. 7,425 gpd divided by 2.25 mgd = 0.0033 or 0.3 percent.

[2] 75 gallons per bed per day (wastewater generation rate) x 1.25 (water generation rate) = 93.75 gallons per bed per day. 93.75 gallons per bed per day x 99 beds = 9,281.25 gpd. 9,281.25 divided by 40 mgd = 0.0002 or 0.02 percent.

[3] Water supply and demand accounts for potable, raw water, and recycled water demand for the year 2035 under normal year conditions (SFID 2016).

conditions (similar to those experienced statewide in the past five years), both local and imported water supplies would be reduced. Further analysis on the project's impact to water supplies will be addressed in the EIR, and mitigation measures will be provided if required.

e) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact. See response to section 3.17(b), above. Further analysis of the project's impact to wastewater treatment demand will be addressed in the EIR, and mitigation measures will be provided if required.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. The City of Solana Beach contracts with EDCO Waste and Recycling Services for commercial trash and recycling collection services and Coast Waste Management for residential trash and recycling collection. Commercial waste collected in Solana Beach is transported to the Escondido Waste Transfer Station, which is owned and operated by Escondido Disposal, Inc. Waste is then transported to the Sycamore Landfill, which is owned by Republic Services. The maximum daily capacity of the Sycamore Landfill is 5,000 tons per day (tpd); it receives an average of 4,000 tpd and thus would have a remaining daily capacity intake of 1,000 tpd. The landfill can accommodate 5,000 tpd for the next 50 years.

Based on a conservative waste generation factor for a hospital use of 16 pounds per bed per day (CalRecycle 2013), the proposed 99-bed residential care facility would generate 289 tons of solid waste per year, or 0.79 tpd,[4] which is less than 0.08 percent of the remaining landfill daily intake capacity.[5] Waste generated by the project would be less than significant; therefore, this topic will not be discussed in the EIR.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. The following federal and state laws and regulations govern solid waste disposal. The US Environmental Protection Agency administers the Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal. In California, AB 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) required every California city and county to divert 50 percent of its waste from landfills by the year 2000 by such means as recycling, source reduction, and composting. AB 939 requires each county to prepare a countywide siting element that specifies areas for transformation facilities or disposal sites to provide for 15 years of capacity for solid waste generated in the county that cannot be reduced or recycled. AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991, requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.

[4] 99 beds x 16 lbs per day = 1,584 lbs per day x 365 days per year = 578,160 lbs per year / 2,000 lbs (ton) = 289.08 tons per year or 0.79 tons per day.

[5] 0.79 tons per day / 1,000 tons per day = 0.00079 or 0.08 percent.

Solid waste would be generated during construction and operation of the proposed project. Construction of the residential care facility would comply with all county and state solid waste diversion, reduction, and recycling mandates, including the Countywide Integrated Waste Management Plan. Additionally, the proposed project would not affect Solana Beach's ability to continue to meet the required AB 939 waste diversion requirements. For example, the City of Solana Beach has implemented a Construction and Demolition Recycling Ordinance that requires a waste management plan for all priority projects with a valuation over $100,000 and all projects requiring a demolition permit to ensure that at least 50 percent of the debris will be recycled. Furthermore, the project would be required to comply with the provisions of the 2016 Green Building Standards Code, which outlines requirements for construction waste reduction, material selection, and natural resource conservation.

To the extent feasible, the construction contractor would make every reasonable effort to reuse and/or recycle the construction debris that would otherwise be taken to a landfill, in compliance with the City's Construction and Demolition Recycling Ordinance. Hazardous wastes, including paint used during construction, would only be disposed of at facilities permitted to receive them in accordance with local, state, and federal regulations. The proposed project would comply with all applicable federal, state, and local statues and regulations related to solid waste recycling and disposal; therefore, this topic will not be discussed in the EIR.

3.19 MANDATORY FINDINGS OF SIGNIFICANCE

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X			
b)	The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	X			
c)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	X			
d)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

3. Environmental Analysis

Comments:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. The project site is in an urban setting and surrounded by residential and commercial uses and I-5. A biological assessment of the project site is underway to determine if the project site contains any special-status or sensitive vegetation or animal species that could be disturbed as a result of the proposed project, and these impacts will be assessed further in the EIR. Cultural resource assessments are also underway. The findings of these reports and whether the proposed project will impact California history and prehistory will be discussed in the EIR. Mitigation measures will be provided if required.

b) The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Potentially Significant Impact. The proposed project would be developed to support both short-term and long-term environmental goals by complying with established policies, laws, and regulations. The EIR will further analyze potential residual environmental impacts that may occur after complying with the applicable systems and will identify mitigation measures to ensure that short-term and long-term environmental impacts are feasibly mitigated if required. Therefore, this issue will be further considered in the EIR.

c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Potentially Significant Impact. The EIR will further consider the project's contribution to other known improvements near the site and region, including but not limited to the expansion of the I-5 segment adjacent to the project site. Mitigation measures will be provided if required.

d) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. All of the potentially significant impacts identified in this Initial Study could have direct or indirect substantial adverse impacts on human beings. These impacts will be addressed in the EIR, and mitigation measures will be provided if required.

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4. References

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5. List of Preparers

LEAD AGENCY

Bill Chopyk, Community Development Director

Leslea Meyerhoff, AICP, Project Manager

Corey Andrews, Principal Planner, City of Solana Beach

PLACEWORKS

Barbara Heyman, Associate Principal

Mark Teague, AICP, Associate Principal

Michael Paul, Planner

5. List of Preparers

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Appendix 2-2 Responses to the NOP

Appendices

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RECEIVED
JUN 22 2017
Planning-Comm Dev Dept
City of Solana Beach

June 19, 2017

Attn: City of Solana Beach Community Development Department
635 S Highway 101, Solana Beach, CA 92075

RE: California Environmental Quality Act Public Resources Code section 21080.3, subd. (b) ; California Assembly Bill 52, Request for Formal Notification of Proposed Projects within the geographic area that is traditionally and culturally affiliated with the **Mesa Grande Band of Mission Indians.**

The purpose of this letter is to request formal notification of proposed projects within the geographic area that is traditionally and culturally affiliated with the Mesa Grande Band of Mission Indians, in accordance with Public Resources Code Section 21080.3.1, subd. (b). As of the date of this letter, you have been formally notified that the boundaries of your local government's jurisdiction fall within the area that is traditionally and culturally affiliated with the Mesa Grande Band of Mission Indians. Attached to this letter you will find a traditional use area map that can be used for reference. Additionally, the Mesa Grande Band of Mission Indians has created the following specific requests and formal procedures in accordance with California Assembly Bill 52:

- Formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq. Pursuant to Public Resources Code section 21080.3.1, subd. (b) shall be sent to the Mesa Grande Band of Mission Indians

- Within 14 days of determining that an application for a project is complete or of a decision by your agency to undertake a project, a lead agency must provide formal notification to Mario Morales, Tribal Member, who is the designated contact and tribal representative for the traditionally and culturally affiliated Mesa Grande Band of Mission Indians regarding notifications pertaining to California Assembly Bill 52
  Contact Information:

  Mario Morales
  PMB 366
  35008 Pala Temecula Rd.
  Pala, Ca 92059
  Phone: 760-622-1336
- We request that all notices be sent via certified U.S. Mail with return receipt.
- This notice shall consist of a formal written letter that includes:

- A description of the proposed project
- The project's location
- The lead agency contact information
- A clear and definitive statement that the tribe has 30 day to request consultation

- Once Mr. Morales, designated representative and recipient for the Mesa Grande Band of Mission Indians has received the notification, we will respond within 30 days as to whether we wish to initiate consultation as prescribed by Public Resources Code section 21080.3.1, subd. (d), the Mesa Grande Band of Mission Indians may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.

- The lead agency shall begin the consultation process within 30 days of receiving the Mesa Grande Band of Mission Indians request for consultation and prior to the release of a negative declaration, mitigated negative declaration, or environmental impact statement.

- Once a review of inadvertent discoveries has been completed by the Mr. Morales, designated representative for the Mesa Grande Band of Mission Indians, all information will then be considered for a final decision and directive.

- In the event that human remains are uncovered, all work in the immediate vicinity will halt and standard procedures will be followed as set forth by law.

On behalf of The Mesa Grande Band of Mission Indians, we appreciate your careful considerations and willingness to effectively carry out all requirements associated with AB 52. If you have any further questions or require any clarification, please feel free to contact me at your earliest convenience.

Sincerely,

Mario Morales
PMB 366
35008 Pala Temecula Rd.
Pala, Ca 92059
Phone: 760-622-1336

MESA GRANDE BAND OF MISSION INDIANS
P.O. BOX 270
SANTA YSABEL, CALIFORNIA 92070
(760)782-3818 Tribal Office
(760) 782-0795 Tribal Fax#

May 9, 2017

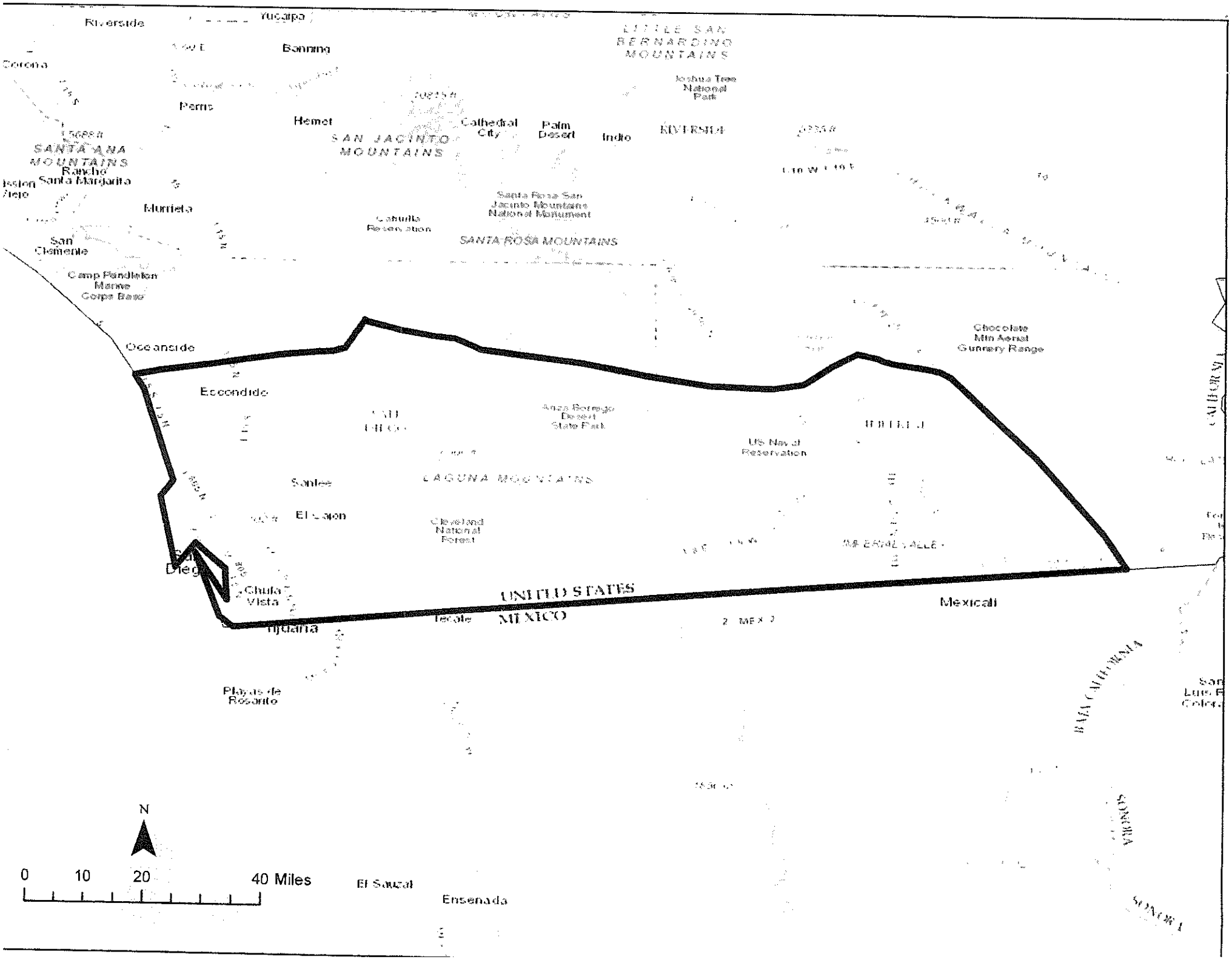
To Whom This May Concern:

Please accept this letter from Mesa Grande Band of Mission Indians authorizing Mario Morales as the Tribe's designated Cultural Resources Representative. If you have any questions or concerns, please contact the Tribal office.

Sincerely,

Virgil F Oyos

Virgil Oyos, Tribal Chairman
Mesa Grande Band of Mission Indians


Riverside
Yucaipa
Banning
Corona
LITTLE SAN BERNARDINO MOUNTAINS
Joshua Tree National Park
Perris
Hemet
Cathedral City
Palm Desert
Indio
SAN JACINTO MOUNTAINS
SANTA ANA MOUNTAINS
Rancho Santa Margarita
Murrieta
Santa Rosa San Jacinto Mountains National Monument
Cahuilla Reservation
SANTA ROSA MOUNTAINS
San Clemente
Camp Pendleton Marine Corps Base
Oceanside
Chocolate Mtn Aerial Gunnery Range
Escondido
Anza Borrego Desert State Park
US Naval Reservation
Santee
LAGUNA MOUNTAINS
El Cajon
Cleveland National Forest
Chula Vista
UNITED STATES
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Mexicali
Tijuana
Playas de Rosarito
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STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

June 23, 2017

To: Reviewing Agencies

Re: Residential Care Facility Specific Plan
SCH# 2017061068

Attached for your review and comment is the Notice of Preparation (NOP) for the Residential Care Facility Specific Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearingbouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Leslea Meyerhoff
City of Solana Beach
635 South Highway 101
Solano Beach, CA 92075

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH#	2017061068
Project Title	Residential Care Facility Specific Plan
Lead Agency	Solana Beach, City of

Type	NOP Notice of Preparation
Description	The proposed project includes a specific plan that would allow construction of a residential care facility for the elderly with 85 units and up to 99 beds. The site would be developed with a single building of varying heights and include parking facilities, landscape and hardscape areas, and a 9,200 sq. ft. garden available for community access. The EIR will evaluate the impacts of the project that can only proceed if it is approved by the City voters pursuant to City code.

Lead Agency Contact

Name	Leslea Meyerhoff		
Agency	City of Solana Beach		
Phone	858-720-2400	*Fax*	
email			
Address	635 South Highway 101		
City	Solano Beach	*State* CA	*Zip* 92075

Project Location

County	San Diego		
City	Solana Beach		
Region			
Cross Streets	959 Genevieve Street at Marine View Ave.		
Lat / Long	32° N / 117° W		
Parcel No.	2983905100		
Township	*Range*	*Section*	*Base*

Proximity to:

Highways	5
Airports	
Railways	Amtrak
Waterways	Pacific Oean, San Dieguito River
Schools	Santa Fe Montessori
Land Use	Land Use: Estate Residential (ER) Zoning: Estate Residnetial-2 (ER-2)

Project Issues	Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Septic System; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects
Reviewing Agencies	Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Department of Housing and Community Development; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 11; Regional Water Quality Control Board, Region 9

Date Received 06/23/2017 *Start of Review* 06/23/2017 *End of Review* 07/24/2017

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 2017061068

Project Title: Residential Care Facility Specific Plan

Lead Agency: City of Solana Beach
Contact Person: Leslea Meyerhoff
Mailing Address: 635 South Highway 101
Phone: 858-720-2400
City: Solana Beach
Zip: 92075
County: San Diego County

Project Location: County: San Diego County
City/Nearest Community: Solana Beach
Cross Streets: 959 Genevieve Street at Marine View Avenue
Zip Code: 92075
Longitude/Latitude (degrees, minutes and seconds): 32 ° 988 ' 497 " N / -117 ° 254 ' 64 " W
Total Acres: 2.9
Assessor's Parcel No.: 2983905100
Section: N/A
Twp.: N/A
Range: N/A
Base: N/A
Within 2 Miles: State Hwy #: 5
Waterways: Pacific Ocean, San Dieguito River
Airports: N/A
Railways: Amtrak
Schools: Santa Fe Montessori, Pa

Document Type:

CEQA: ☑ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec
☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ Other: ____
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other: ____

Governor's Office of Planning & Research
JUN 23 2017
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update
☑ General Plan Amendment
☐ General Plan Element
☐ Community Plan
☑ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☑ Site Plan
☑ Rezone
☐ Prezone
☐ Use Permit
☐ Land Division (Subdivision, etc.)
☐ Annexation
☐ Redevelopment
☑ Coastal Permit
☐ Other: ____

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☑ Other: Residential Care Facility up to 99 beds

Project Issues Discussed in Document:

☑ Aesthetic/Visual
☑ Agricultural Land
☑ Air Quality
☑ Archeological/Historical
☑ Biological Resources
☑ Coastal Zone
☑ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☑ Flood Plain/Flooding
☑ Forest Land/Fire Hazard
☑ Geologic/Seismic
☑ Minerals
☑ Noise
☑ Population/Housing Balance
☑ Public Services/Facilities
☑ Recreation/Parks
☑ Schools/Universities
☑ Septic Systems
☑ Sewer Capacity
☑ Soil Erosion/Compaction/Grading
☑ Solid Waste
☑ Toxic/Hazardous
☑ Traffic/Circulation
☑ Vegetation
☑ Water Quality
☑ Water Supply/Groundwater
☑ Wetland/Riparian
☑ Growth Inducement
☑ Land Use
☑ Cumulative Effects
☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Land Use: Estate Residential (ER) Zoning: Estate Residential-2 (ER-2)

Project Description: *(please use a separate page if necessary)*

The proposed project includes a specific plan that would allow construction of a residential care facility for the elderly with 85 units and up to 99 beds. The site would be developed with a single building of varying heights and include parking facilities, landscape and hardscape areas, and a 9,200 square foot garden available for community access. The EIR will evaluate the impacts of the project that can only proceed if it is approved by City voters pursuant to City code.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

X Air Resources Board
___ Boating & Waterways, Department of
___ California Highway Patrol
X Caltrans District # 11
___ Caltrans Division of Aeronautics
___ Caltrans Planning
___ Central Valley Flood Protection Board
___ Coachella Valley Mtns. Conservancy
X Coastal Commission
___ Colorado River Board
___ Conservation, Department of
___ Corrections, Department of
___ Delta Protection Commission
___ Education, Department of
___ Energy Commission
X Fish & Game Region # 5
___ Food & Agriculture, Department of
___ Forestry and Fire Protection, Department of
___ General Services, Department of
___ Health Services, Department of
X Housing & Community Development
___ Integrated Waste Management Board
X Native American Heritage Commission

___ Office of Emergency Services
___ Office of Historic Preservation
___ Office of Public School Construction
___ Parks & Recreation, Department of
___ Pesticide Regulation, Department of
___ Public Utilities Commission
X Regional WQCB # 9
___ Resources Agency
___ S.F. Bay Conservation & Development Comm.
___ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
___ San Joaquin River Conservancy
___ Santa Monica Mtns. Conservancy
___ State Lands Commission
___ SWRCB: Clean Water Grants
___ SWRCB: Water Quality
___ SWRCB: Water Rights
___ Tahoe Regional Planning Agency
___ Toxic Substances Control, Department of
___ Water Resources, Department of

X Other: San Diego Association of Governments
___ Other:

Local Public Review Period (to be filled in by lead agency)

Starting Date June 23, 2017 Ending Date July 24, 2017

Lead Agency (Complete if applicable):

Consulting Firm: PlaceWorks
Address: 750 B Street, Suite 1620
City/State/Zip: San Diego, CA, 92101
Contact: Barbara Heyman, Associate Principal
Phone: 619-299-2700

Applicant: The Lightfoot Plng Group (c/o Pacific Sound Invest
Address: 5900 Pasteur Ct, Suite 110
City/State/Zip: Carlsbad, CA 92008
Phone: 760.692.1924

Signature of Lead Agency Representative: [signature] **Date:** 6/21/2017

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOP Distribution List

County: San Diego

SCH# 2017061068

esources Agency

- [x] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Denise Peterson
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Lisa Johansen
- [ ] Dept. of Conservation
  Crina Chan
- [ ] Cal Fire
  Dan Foster
- [ ] Central Valley Flood Protection Board
  James Herota
- [ ] Office of Historic Preservation
  Ron Parsons
- [x] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve Goldbeck
- [x] Dept. of Water Resources
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] Depart. of Fish & Wildlife
  Scott Flint
  Environmental Services Division
- [ ] Fish & Wildlife Region 1
  Curt Babcock
- [ ] Fish & Wildlife Region 1E
  Laurie Harnsberger
- [ ] Fish & Wildlife Region 2
  Jeff Drongesen
- [ ] Fish & Wildlife Region 3
  Craig Weightman
- [ ] Fish & Wildlife Region 4
  Julie Vance
- [x] Fish & Wildlife Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] Fish & Wildlife Region 6
  Tiffany Ellis
  Habitat Conservation Program
- [ ] Fish & Wildlife Region 6 I/M
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Wildlife M
  William Paznokas
  Marine Region

Other Departments

- [ ] California Department of Education
  Lesley Taylor
- [ ] OES (Office of Emergency Services)
  Monique Wilber
- [ ] Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] Dept. of General Services
  Cathy Buck
  Environmental Services Section
- [x] Housing & Comm. Dev.
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Erik Vink
- [ ] Delta Stewardship Council
  Kevan Samsam
- [ ] California Energy Commission
  Eric Knight
- [x] Native American Heritage Comm.
  Debbie Treadway
- [x] Public Utilities Commission
  Supervisor
- [ ] Santa Monica Bay Restoration
  Guangyu Wang
- [ ] State Lands Commission
  Jennifer Deleong
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] Caltrans - Division of Aeronautics
  Philip Crimmins
- [ ] Caltrans – Planning
  HQ LD-IGR
  Christian Bushong
- [x] California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Eric Federicks – South
  Susan Zanchi - North
- [ ] Caltrans, District 4
  Patricia Maurice
- [ ] Caltrans, District 5
  Larry Newland
- [ ] Caltrans, District 6
  Michael Navarro
- [ ] Caltrans, District 7
  Dianna Watson
- [ ] Caltrans, District 8
  Mark Roberts
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [x] Caltrans, District 11
  Jacob Armstrong
- [ ] Caltrans, District 12
  Maureen El Harake

Cal EPA

Air Resources Board

- [ ] Airport & Freight
  Jack Wursten
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial/Energy Projects
    Mike Tollstrup
- [ ] California Department of Resources, Recycling & Recovery
  Sue O'Leary
- [ ] State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Cindy Forbes – Asst Deputy
  Division of Drinking Water
- [ ] State Water Resources Control Board
  Div. Drinking Water #_____
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- [ ] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
  - [ ] RWQCB 5F
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] RWQCB 5R
    Central Valley Region (5)
    Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
  - [ ] RWQCB 6V
    Lahontan Region (6)
    Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [x] RWQCB 9
  San Diego Region (9)

- [ ] Other _____
  _____
  _____

- [ ] _____
  Conservancy

Last Updated 4/28/17

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

RECEIVED
JUL - 7 2017
Planning-Comm Dev Dept
City of Solana Beach

June 27, 2017

Leslea Meyerhoff/ Bill Chopyk
City of Solano Beach
635 South Highway 101
Solano Beach, CA 92075

Sent via e-mail: bchopyk@cosb.org

RE: SCH# 2017061068; Residential Care Facility Specific Plan Project, City of Solano Beach; San Diego County, California

Dear Ms. Meyerhoff and Mr. Chopyk:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
    d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
    a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    a. Alternatives to the project.
    b. Recommended mitigation measures.
    c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    a. Type of environmental review necessary.
    b. Significance of the tribal cultural resources.
    c. Significance of the project's impacts on tribal cultural resources.
    d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
    b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

Edmund G. Brown Jr., Governor

June 27, 2017

Leslea Meyerhoff/ Bill Chopyk
City of Solano Beach
635 South Highway 101
Solano Beach, CA 92075

Sent via e-mail: bchopyk@cosb.org

RE: SCH# 2017061068; Residential Care Facility Specific Plan Project, City of Solano Beach; San Diego County, California

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    a. Avoidance and preservation of the resources in place, including, but not limited to:
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        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
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    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

VIEJAS
TRIBAL GOVERNMENT

P.O. Box 908
Alpine, CA 91903
#1 Viejas Grade Road
Alpine, CA 91901

Phone: 6194453810
Fax: 6194455337
viejas.com

July 6, 2017

Michael Paul
PlaceWorks
750 B Street, Suite 1620
San Diego, CA 92101

RE: Residential Care Facility SOLB-02 Project

Dear Mr. Paul,

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed project and at this time we have determined that the project site has cultural significance or ties to Viejas.

Viejas Band request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities to inform us of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.

Please call me at 619-659-2312 or Ernest Pingleton at 619-659-2314 or email, rteran@viejas-nsn.gov or epingleton@viejas-nsn.gov , for scheduling. Thank you.

Sincerely,

Ray Teran, Resource Management
VIEJAS BAND OF KUMEYAAY INDIANS

DEPARTMENT OF TRANSPORTATION
DISTRICT 11
4050 TAYLOR STREET, M.S. 240
SAN DIEGO, CA 92110
PHONE (619) 688-6960
FAX (619) 688-4299
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

July 17, 2017

11-SD-5
PM R36.9
Residential Care Facility Specific Plan
SCH#2017061068

Ms. Leslea Meyerhoff
City of Solana Beach
635 South Highway 101
Solana Beach, CA 92075

Dear Ms. Meyerhoff:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Notice of Preparation for Draft Environmental Impact Report (EIR) for the proposed Residential Care Facility Specific Plan project located near Interstate 5 (I-5). The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Caltrans would like to submit the following comments:

I-5 North Coast Corridor

The approved I-5 North Coast Corridor Environmental Document identifies future impacts to the subject parcel. The existing topography of the site transitions from being above the freeway at the south end to being below the freeway at the north end. When the freeway is widened, retaining walls are proposed to accommodate the widened freeway. Additionally, based on the Caltrans noise study, a potential sound wall was considered along this property.

To construct the freeway widening, retaining walls and sound wall, a right of way take and temporary construction easements are proposed. The right of way take and easements shown are based on the current topography and Caltrans is willing to work with the applicant to develop a preferred right of way scenario. There is not enough information in the provided specific plan to determine whether or not the proposed development conflicts with the freeway widening.

The approved I-5 Environmental Document includes a noise study which identifies a receptor located in the subject property as being severely impacted. Section 3.12, "Noise" of the provided specific plan does not address the existing or future noise levels. It is recommended that noise associated with the proposed freeway widening be considered during construction of this project and appropriate measures be taken.

Traffic Impact Study

A traffic impact study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities – existing and proposed – and to propose appropriate mitigation measures.

- The geographic area examined in the TIS should include, at a minimum, all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.
- A focused analysis may be required for project trips assigned to a State highway facility that is experiencing significant delay, such as where traffic ques exceed ramp storage capacity. A focused analysis may also be necessary if there is an increased risk of a potential traffic accident.
- In addition, the TIS could also consider implementing vehicles miles traveled (VMT) analysis into their modeling projections.
- Any increase in goods movement operations and its impacts to State highway facilities should be addressed in the TIS.
- The data used in the TIS should not be more than 2 years old.
- Please provide Synchro Version 8 files.
- Early coordination is recommended.

Noise

For local development projects that will require an encroachment permit from Caltrans, the traffic noise analysis should meet the Caltrans' standards for a traffic noise analysis. Caltrans' standards can be found in the Traffic Analysis Protocol 2011 and the Technical Noise Supplement 2013 at the following website:
http://env.onramp.dot.ca.gov/noise-and-vibration-overview

The current noise model for use by the Department is TNM 3.0 (Traffic Noise Model). Existing noise levels should be identified and future predicted noise levels should be modeled based on the projected traffic volumes from I-5 and adjacent roads.

If traffic noise impacts are identified then noise abatement is to be considered. Consideration of noise abatement is two-fold. First consideration is whether the noise abatement is feasible which is defined as achieving a minimum 5-dBA reduction at the impacted receiver. Second consideration is whether the abatement is cost reasonable to construct. The base cost for any reasonable/feasible analysis should use $92,000.

The applicant must be made aware of 23 CFR 772 and the requirements with regard to future noise impacts on currently undeveloped lands. This project may not be a Type1 project but could be considered a Type 2 project that would not be eligible for federal participation in accordance with 23 CFR 772.13(b). The Department will not be responsible for existing or future traffic noise impacts associated with I-5.

Hydrology and Drainage Studies

Hydrology and Hydraulics studies, drainage and grading plans must be submitted to Caltrans.

Mitigation

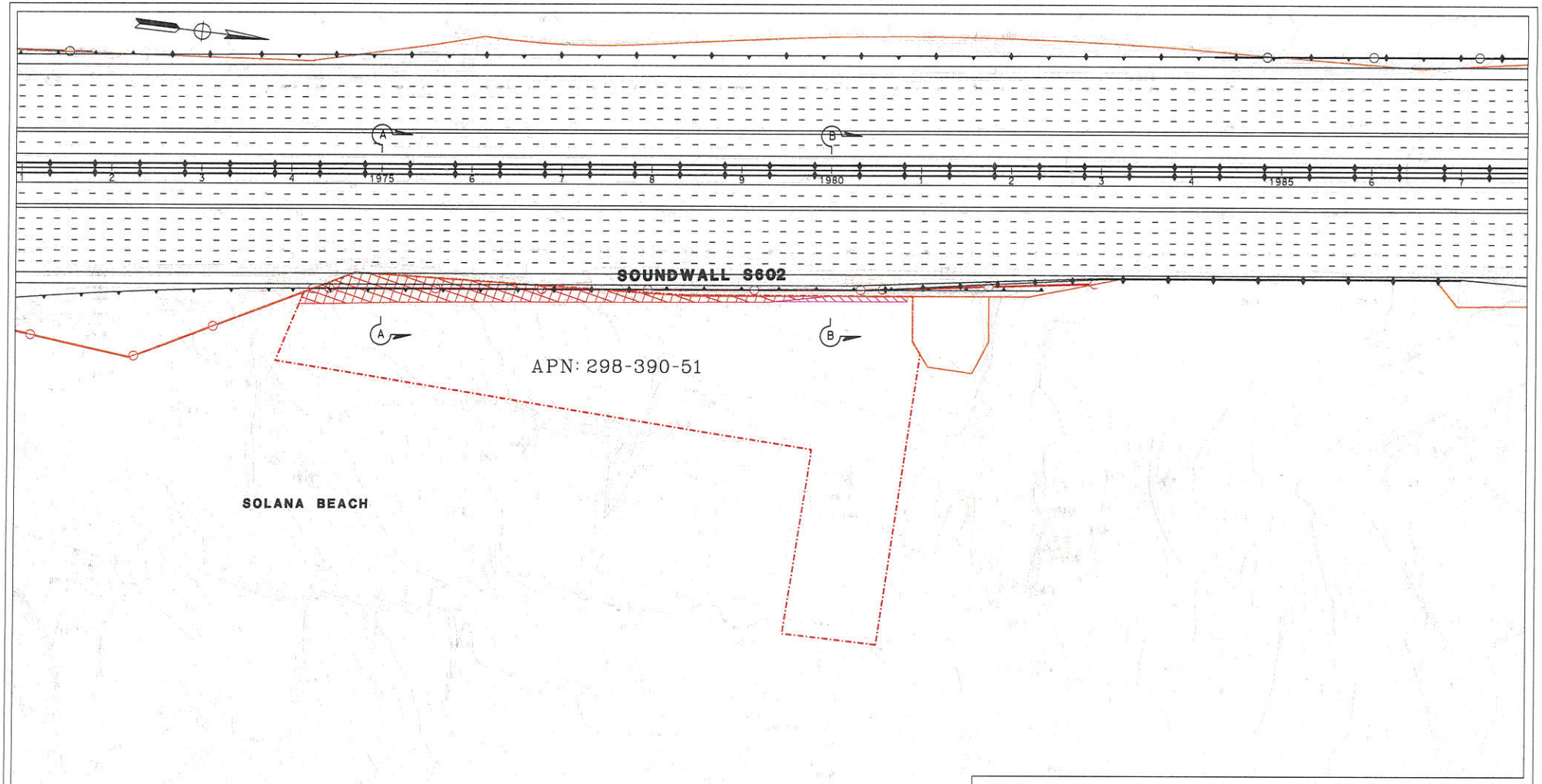
Caltrans endeavors that any direct and cumulative impacts to the State Highway System be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

Any work performed within Caltrans right-of-way (R/W) will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans R/W prior to construction. As part of the encroachment permit process, the applicant must provide an approved final environmental document including the California Environmental Quality Act (CEQA) determination addressing any environmental impacts within the Caltrans's R/W, and any corresponding technical studies.

If you have any questions, please contact Kimberly Dodson, of the Caltrans Development Review Branch, at (619) 688-2510 or by e-mail sent to kimberly.dodson@dot.ca.gov.

Sincerely,

MAURICE EATON, Acting Chief
Local Development/Intergovernmental Review Branch



LEGEND

- APPROXIMATE PARCEL BOUNDARY
- EXISTING CALTRANS R/W
- PROPOSED RETAINING WALL/BARRIER
- PROPOSED CONCRETE BARRIER
- PROPOSED NOISE BARRIER
- PARTIAL TAKE
- TEMPORARY CONSTRUCTION EASEMENT

Caltrans

I-5 NORTH COAST CORRIDOR

APN: 298-390-51

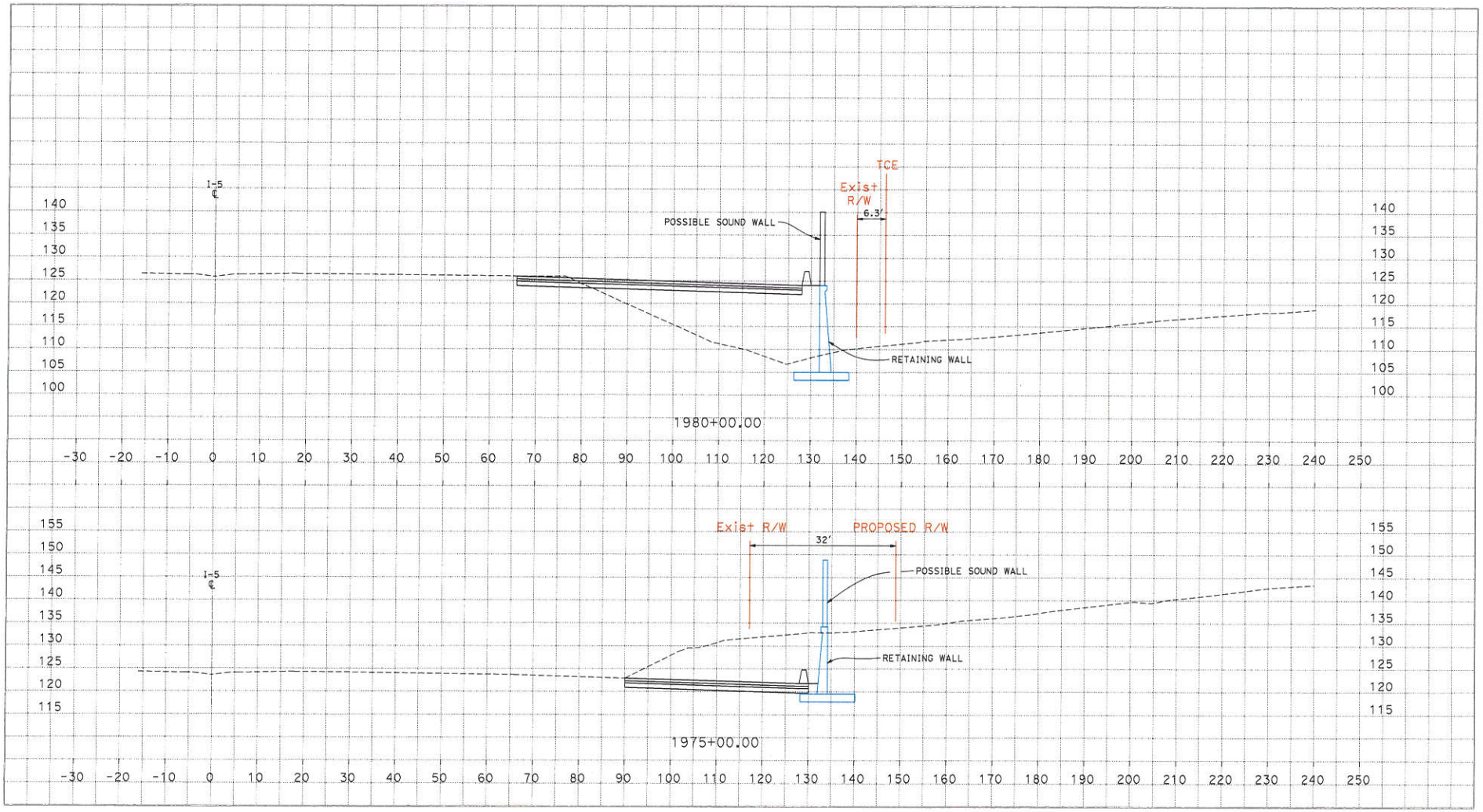
959 GENEVIEVE STREET
SOLANA BEACH, CA

DESIGN STUDY ONLY

VERTICAL DATUM: NAVD 1988
COORDINATE SYSTEM: CCS 83(1991.35) ZONE 6
UNITS= FEET MAP SCALE: 1"=50' CONTOUR INTERVAL= 2'
PLANE 1 GO= 6165251.635,1772251.635,-214748.365

July 10, 2017

DESIGN STUDY ONLY



PARCEL IMPACT EXHIBIT
APN 298-390-51
DATE 7-10-2017

Caltrans

VERTICAL DATUM: NAVD 1988
SCALE: 1" = 10' Horiz.
1" = 10' Vert.

All Dimensions are US Survey Feet

City of Del Mar

RECEIVED
JUL 17 2017
Planning-Comm Dev Dept
City of Solana Beach

July 13, 2017

Mr. Bill Chopyk, AICP
Community Development Director
City of Solana Beach
635 South Highway 101
Solana Beach, CA 92075

SUBJECT: Notice of Preparation of a Draft EIR for Proposed Residential Care Facility Specific Plan Project- City of Del Mar Comment

Mr. Chopyk,

Thank you for sending the City of Del Mar a copy of the Initial Study and Notice of Preparation of a Draft Environmental Impact Report for the proposed Residential Care Facility at 959 Genevieve Street in Solana Beach. We would like to be noticed of any further actions in regards to the project including a copy of the Draft Environmental Impact Report when available.

Specifically, Del Mar would like to know about any traffic impacts, if any, at Via de la Valle notably any traffic onto Jimmy Durante Boulevard. Also, we would like to know of any impacts from run-off into waterways which could affect the San Dieguito Lagoon.

Please let me know if you have any questions, I can be contacted at (858) 755-9313, Ext. 1148 or by email at jgavin@delmar.ca.us.

Thank you,

Jennifer Gavin
Associate Planner

Michael Paul

Subject: FW: street name

From: Jane Morton [mailto:jsmorton@roadrunner.com]
Sent: Saturday, June 24, 2017 5:05 PM
To: Greg Wade; Bill Chopyk; Amy Uruburu
Subject: street name

City Manager Wade and City Planning Director Chopyk, Councilmembers,

I received the notice of the meeting regarding the senior facility on East Genevieve. I would like information and to make a suggestion that relates to that.

How does one go about changing the name of a street? I have seldom seen it done in Solana Beach and the most notable is Lomas Santa Fe, previously called Skyline Drive. God forbid that gets changed again, as it would affect so many businesses and all the printing that would be involved plus changes to web pages etc., so many homes, maps, street signs, freeway signage. Not something to be done lightly.

However East Genevieve, where the senior facility is planned is at a perfect point in time for it to be changed. There are no addresses on that street presently as far as I know (or maybe only one), and the time to make a change would be now. My suggestion is to call it Marine View Court.

If the project requirements (change to zoning) went to an election, it would be totally confusing for those voters that vote but really pay little attention. To them, Genevieve would be in their minds as being in Eden Gardens and that might be the basis on which they cast a vote. If they happen to be aware of a similar project that is in the offing for Eden Gardens, that might be what they think they are voting on.

Either way, clear it up now with a name change so that whoever is reading about the project or voting on the project will have a better idea of the location of the senior facility. Same with visitors to the facility in the future; there will be no confusion as there could be if the address is Genevieve.

The only other street that I can think of that has had a name change is Stevens Ave. West. It used to be called Jack Drive when Kaypro was the main addressee there. When that business closed down, the street became Stevens

Avenue and multiple storage facilities began to dot the street.

I would like this to be considered and if a petition of registered voters is needed to make this happen, I would like to know.

Thank you for your attention to this.

Sincerely,
Jane Morton

Virus-free. www.avast.com

July 18, 2017

RECEIVED
JUL 21 2017
Planning-Comm Dev Dept
City of Solana Beach

To:

The City Council of Solana Beach and Mr. Bill Chopyk

This is concerning the proposed residential care facility on Marine View in the Solona Beach neighborhood of Keaney Marine View Gardens. My name is Linda J. Smith, I own two properties in Solana Beach, one is my beloved long time home (1968) on the corner of Highland Dr. and Marine View.

I was unable to attend the July 13th meeting but since this is such an important matter I would like to submitt my written comments for your consideration.

First, haven't we been through this before? I don't know how many years ago, but a care facility was proposed. There was meeting after meeting until finally the city manager got up and commented that the corner, right across from Mr. Fields' and the Smericans properties, is so severe that no emergency vehicle could get around that corner without going into the other lane!

This is the thing about Keaney Marine View Gardens, it is made up of very windy roads with many blind corners. There was a man killed by a car, years back, on these roads there are near misses all the time.

children on bikes, people walking dogs jumping into the bushes because a car is coming too fast around a blind corner. The speed limit is 25 MPH BUT NOBODY GOES THAT SPEED. There are no sidewalks, it is not that kind of neighborhood, all tidy and groomed with sidewalks and wide straight streets. That's the kind of place a 99 bed care facility should be built; easy access for ALL THE emergency vehicles (you know a fire truck accompanies an ambulance, loved ones (how many a day would that be - A LOT), medical people, medicare deleveries, STAFF (That's A LOT everyday - housekeepers, caretakers, cooks, administration) - LOTS + LOTS of cars everyday at all times of the day. Did you know we have a lot of night walkers in this neighborhood with no street lamps?

Keaney Marine View Gardens is not designed to take all of that traffic. Are you aware that we already have a residential care facility in the neighborhood on Solana Drive? It's in a house - a single house. A small number of people live and work there. It is reasonable for the neighborhood

to support that size care facility. It is <u>not</u> reasonable to expect this neighborhood to be able to support a 99 bed facility – a campus really. As it was last time – reason should prevail and this project should be rejected. It is too dangerous for our neighborhood.

Sincerely,

Linda J. Smith
1032 HIGHLAND DR
SOLANA BEACH
92075
858-755-4560

MAIL ADDRESS: PO BX 607
DEL MAR, CA
92014

Michael Paul

Subject: FW: Senior Living Facility

From: Jane Morton [mailto:jsmorton@roadrunner.com]
Sent: Monday, July 24, 2017 10:01 AM
To: Bill Chopyk
Subject: Senior Living Facility

Good Morning Bill,

I have 2 suggestions of information I think would be of interest at the next meeting regarding this proposal.

1. Could a visual of the area be provided to show which homes were included in notification of the project/meeting and a number of notices sent out?

Considering the size of the properties in that area, I would think it nice of the developer to notice up to 500 ft. Although I know that they have met the requirement which the City has of 300 ft, that really reached very few homes in the surrounding area.

2. The chart which was shown during the meeting which showed a comparison of presently allowed FAR compared to the FAR that would be a part of the Special Overlay was good and contained a lot of important information. I feel that this chart should be a part of any packets made available at each and every meeting in the future.

thank you,

Jane Morton

Virus-free. www.avast.com

Michael Paul

Subject: RE: Comments on the Notice of Preparation for 959 Genevieve St.

From: Jeff Lyle [mailto:qelyle@gmail.com]
Sent: Monday, July 24, 2017 2:37 PM
To: Bill Chopyk
Subject: Comments on the Notice of Preparation for 959 Genevieve St.

Please ensure the EIR addresses the following:

- Transportation / Traffic. Please include an analysis of:
  - Marine View – stretch to/from the Vons shopping center
  - Solana Drive – Highland Drive to/from Marine View
  - Highland Drive – to/from Marine View
  - Las Banderas – to/from San Andres
  - Traffic during school drop off and pick up (meaning study when school is in session, not summer traffic)
- Safety
  - Driving South on Marine View from the Vons shopping center: At the Timbers, Solana Drive heads to the left while Marine View continues down a hill. The view down Marine View from the Timbers building is blind (meaning can't see down Marine View) during daylight hours and obviously worse at night. The road is also narrow. Emergency vehicles and other trucks/cars will be using this route to get to the proposed facility.
    - What is the assumption regarding the speed at which emergency vehicles would travel?
    - Please consider the blind hill/turn in the analysis
    - Children walk/bike/skateboard to school on this road, sometimes wearing headphones. People jog and walk their dogs as well.
    - Given the neighborhood is a dark sky one and there are no sidewalks on Marine View past the Timbers, what safety mitigation could reasonably be done?
    - Please address safety after daylight savings when it becomes dark by 5pm.
  - There are schools in the area (including Sandy Hill and LePort). What mitigation can be done to maintain student safety?
  - Safety concerns for people walking in neighborhood on narrow roads with no sidewalks.
- Benchmarking
  - Are there other similar size/use facilities in San Diego that do not have sidewalks in the neighborhood for public safety? And if so, where are they?

Regards,

Jeff Lyle
(M) 619.890.4794
QELyle@gmail.com

Michael Paul

Subject: FW: Solana Beach Senior Care Project

-----Original Message-----
From: lees805@roadrunner.com [mailto:lees805@roadrunner.com]
Sent: Tuesday, August 15, 2017 2:32 PM
To: Bill Chopyk
Subject: Solana Beach Senior Care Project

Dear Sir,

I would like to add my concerns to those of my neighbors about this proposal. My points below.

I am concerned about encroachment of high density housing into what is a low density residential area. It is inappropriate.

I am concerned about traffic. Developers may claim that the impact of traffic will only be felt along San Andreas Drive/Banderas/Marine View but it will not be restricted to there, no matter what they say.
I am sure the developers of Le Port school or the church said the same, but the truth is that much traffic comes down Highland Drive/Solana Drive for those locations, impacting those residents.
This is a family neighborhood, not a rat run, and there are alternative routes that are as fast or faster for travelers. BUT once established can I, or you, or this developer, force drivers to use the best routes? The answer is no, just as I cannot currently force or even request parents using Solana Drive to get to Le Port school using San Andreas, rather than Solana Drive.
I would propose a mitigation that the junctions of Solana Drive and Marine View and Highland/Marine View are closed, making Solana drive and Highland Dr dead end streets. That way traffic to this site (and the schools which already supply a dangerous supply of distracted parents speeding and texting through the neighborhood) would have to use the access from Lomas Santa Fe.
I don't see how that would differ from San Julio Road, from the perspective of emergency services or access.

I am concerned about who this benefits. The people of Solana Beach and Del Mar? That is the developers argument I see (Pointing to studies that claim Solana Beach's senior population will balloon from 2,200 to 3,500 over the next 20 years, DeWald said there is far more demand for senior housing than there is supply."), but I disagree.
If this property is to be considered, I would propose a condition is that ONLY former residents of Solana Beach and Del Mar can live there. Why not, that tallies with what the developers argument for the desperate need is so why would they have a problem with that? If they do, or that is not possible, the answer is to refuse the development.
Otherwise why are we sacrificing our standard of living, for strangers, for out-of-towners and developers only interested in profits? Why are city employees, such as your self, who represent, and are paid for by, local residents, entertaining a development that offers limited benefit to us at much greater cost?

I request this developer is asked to think again.

Regards
Stephen Lees
1149 Solana Drive
Del Mar
92014

Appendix 4-1 Solana Beach Senior Care Specific Plan

Appendices

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Solana Beach
Senior Care Specific Plan

June 2017

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Executive Summary

This document is the Solana Beach Senior Care Specific Plan (Specific Plan or Plan), which has been prepared to authorize a Residential Care Facility use consistent with the City of Solana Beach General Plan. The Specific Plan property is a 2.91-acre site located east of the Interstate 5 Freeway, south of Genevieve Street and west of Marine View Avenue.

The Specific Plan envisions the development of a high quality Residential Care Facility for the Elderly, which may include both assisted living and memory care services, and that complements the character of its surroundings. This Specific Plan contains the detailed development standards and design guidelines needed to ensure a comprehensively planned project. The Plan designates a maximum of 99 beds, with required facilities and amenities to assure quality care and amenities. It also requires a neighborhood open space area to be provided along the Marine View Avenue frontage, with increased building setbacks from this street. Implementing plans include a Development Review Permit and Structure Development Permit which must be consistent with the Specific Plan to obtain City approval.

This infill site is located within the Estate Residential 2 land use category, and is surrounded by a range of existing land uses, including the Interstate 5 freeway, 3-story office building, nursery yard, and single family residential uses. The residential care use will provide a compatible transition between these varied adjacent uses.

There is increasing need for Residential Care Facilities as the population ages, and this site provides a good opportunity in Solana Beach to locate such a use. Recognizing that there are unique considerations for locating a Residential Care Facility in a single family area, a Specific Plan is being used for this site in order to establish appropriate regulations for this use. This will allow the City to establish specific standards that provide flexibility to meet site constraints and requirements for the use, while setting increased requirements for project features to assure a higher quality and better designed facility that will be an asset to Solana Beach.

The Specific Plan provides a detailed description of proposed land use and infrastructure requirements. Implementation of the design and development standards presented in the Specific Plan will maintain community character by regulating the scale, intensity, architectural, site development and design elements of the facility to assure consistency with the estate development setting of the surrounding community.

Organization of the Specific Plan

This Specific Plan has been prepared in accordance with State specific plan requirements under the authority of Government Code Sections 65450-65457 and consistent with the State guidelines for the preparation of specific plans.

This Specific Plan is organized into two parts.

Part One Includes land use, development and design regulations for the Residential Care Facility use.

Part Two Includes details regarding existing conditions, public facilities, infrastructure, administration and implementation.

PART ONE

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CHAPTER 1 - SPECIFIC PLAN OVERVIEW

1.1 Authority

California Government Code Section 65450 *et seq.* grants local planning agencies the authority to prepare Specific Plans for any area covered by a General Plan, as a tool for the systematic implementation of the General Plan. A Specific Plan can effectively establish a link between implementing policies of the general plan and an individual development proposal in a defined area.

This Specific Plan has been prepared in accordance with State specific plan requirements under the authority of Government Code Sections 65450-65457 and consistent with the State guidelines for the preparation of specific plans. A summary of where the elements required by the Government Code can be found within this Specific Plan is provided as follows:

- The distribution, location and extent of the use of land within the area covered by the plan. (Refer to Part 1, Chapter 2).
- The proposed distribution, location, extent, and intensity of major components of infrastructure (transportation, sewage, water, drainage, solid waste disposal, energy and other essential facilities) proposed to be located within the area covered by the Plan and needed to support the land uses described in the Plan. (Refer to Part 2, Chapter 6).
- The standards and criteria by which development will proceed, and standards for the conservation, development and utilization of natural resources, where applicable. (Refer to Part 1, Chapters 3 and 4).
- Implementation measures including regulations, programs, public works projects, and financing measures. (Refer to Part 2, Chapter 6).
- A statement of the relationship of the specific plan to the general plan. (Refer to Part 2, Chapter 8).

1.2 Purpose of the Specific Plan

The purpose of this Specific Plan is to create a regulatory framework governing the development of a Residential Care Facility on the subject property considering site conditions and neighborhood character. The Specific Plan has been prepared to complement the City of Solana Beach General Plan, and provides a comprehensive document that describes design guidelines and zoning standards for implementation of the development.

The Solana Beach Municipal Code (SBMC Section 17.60.100) indicates that Residential Care Facilities "…provide an important and essential community service and that they should be located and operated in a manner which is sensitive and compatible with the surrounding neighborhood and community." This Specific Plan includes regulations and requirements to assure that any development will be located and operated in a manner which is sensitive to and compatible with the surrounding neighborhood and community.

The proposed use as a Residential Care Facility for the Elderly is more particularly described in Chapter 2 of this Specific Plan. This Specific Plan serves as an overlay on the zoning (presently ER-2) for the property described in this Specific Plan for the purpose of establishing the rules, regulations and policies applicable to the development and operation of Residential Care Facility for the Elderly and Neighborhood Open Space uses on the property. The property's underlying zoning, not this Specific Plan, will apply to any other use of the property.

1.3 Project Objectives

The Specific Plan is designed to implement a series of project-specific objectives that have been established to ensure the project develops as a quality Residential Care Facility to serve the community. They are identified below:

- Provide a Residential Care Facility to help meet the community needs for assisted living and memory care services.
- Promote a development that substantially conforms with the requirements of the Specific Plan.
- Provide landscaping and architectural design elements consistent with this Specific Plan to address the varied uses adjacent to the property, including estate residences, interstate highway and office uses.
- Maintain building height limits consistent with this Specific Plan to ensure consistency with the scale of residential areas to the east of the property.
- Maintain the character of Marine View Avenue by establishing an open, landscaped area with pedestrian connections to the neighborhood adjacent to Marine View Avenue as described in this Specific Plan and limiting vehicular driveway access to the site from only Genevieve Street.
- Incorporate the environmentally sensitive design and sustainable operations described in this Specific Plan, as practicable, in developing buildings and infrastructure.

- Maximize opportunities for using water-wise plant materials in the project landscaping to promote water conservation.
- Develop the project site in a manner that is feasible and able to be implemented based on anticipated economic conditions.

1.4 Site Location

This subject property is a 2.91-acre parcel located on the east side of Interstate 5, in the City of Solana Beach. The property is roughly "L"-shaped, with Interstate 5 along its western boundary, Genevieve Street as the northern site boundary, and Marine View Avenue on the eastern boundary. The property within the Specific Plan has an existing mailing address of 959 Genevieve Street, more particularly depicted on Exhibits 1-1 (Vicinity Map) and 1-2 (Project Location Aerial Map) and described in Appendix A.

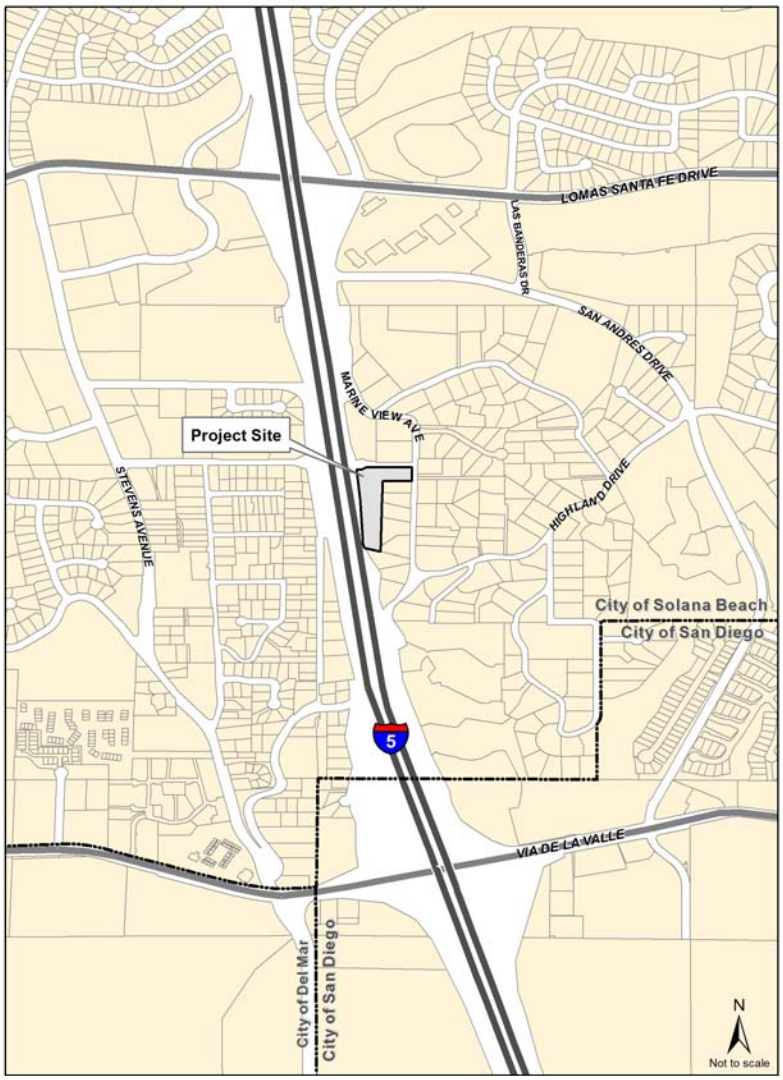

Exhibit 1-1 – Vicinity Map

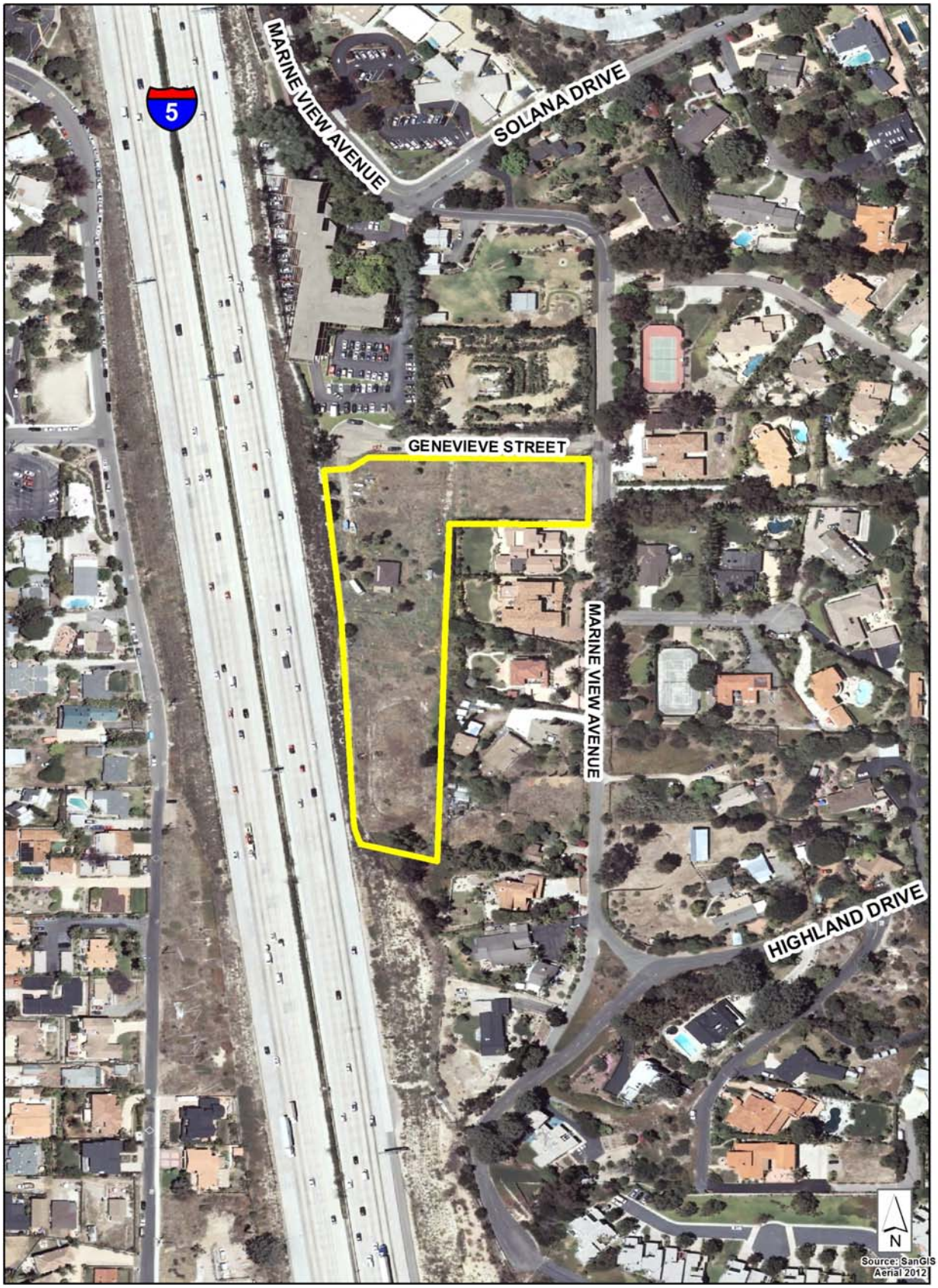

Exhibit 1-2 – Project Location Aerial Map

CHAPTER 2 - LAND USE PLAN

In accordance with Section 65454 of California Planning and Zoning Law, the Solana Beach Senior Care Specific Plan is consistent with the Solana Beach General Plan. This chapter describes the Project design intent and regulatory elements of the Specific Plan for land use.

2.1 Land Use Plan

This Specific Plan establishes provisions for Residential Care Facility and associated open space uses on the property as shown on the Specific Plan Land Use Map (Exhibit 2-1). Compliance with the development standards embodied in the Specific Plan will assure consistency with the purposes of the Specific Plan and meet the stated objectives in the Specific Plan. The land uses allowed within this Specific Plan are limited to only the following:

Residential Care Facility for the Elderly

A Residential Care Facility as defined in this Specific Plan, for 24-hour nonmedical care of persons in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual including assisted living and memory care services, and licensed by the state of California as a Residential Care Facility for the Elderly (RCFE). Ancillary support services space, outdoor activity areas, parking facilities and other related facilities as required per the Development Standards of this Specific Plan.

Neighborhood Open Space

Located in the northeast corner of the site, at the corner of Marine View Avenue and Genevieve Street, this area shall provide a landscaped, passive open space area with amenities such as decomposed granite pedestrian paths and seating areas that serves the Residential Care Facility and is also open for neighborhood use.

Other Uses

Any other uses not specified or included in the uses listed above are specifically prohibited within the boundaries of this Specific Plan unless the City determines such a use is consistent with the purposes and intent of this Specific Plan.

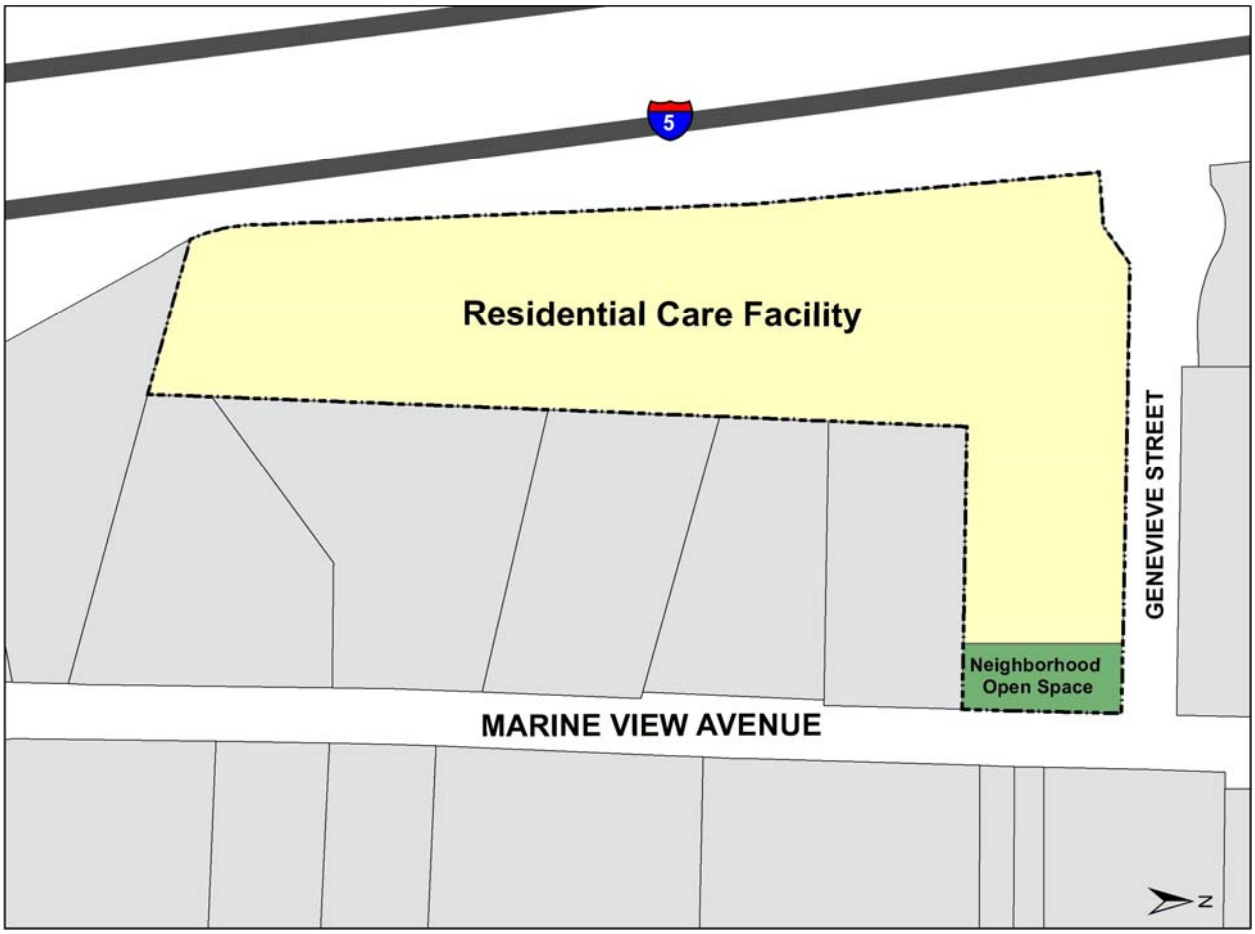

Exhibit 2-1 – Specific Plan Land Use Map

CHAPTER 3 - DEVELOPMENT REGULATIONS

3.1 General Provisions

This Specific Plan is intended to guide site development for the property in a manner that is compatible with the surrounding area, while helping fulfill a currently unmet need for Residential Care Facility housing and services in Solana Beach. This Chapter sets forth the Specific Plan development standards for a Residential Care Facility at this site to accomplish these goals.

3.2 Boundaries

Property within the Specific Plan consists of the 2.91-acre parcel located on the east side of Interstate 5, in the City of Solana Beach, with Genevieve Street as the northern site boundary, and Marine View Avenue as the eastern boundary. A full legal description is provided in Appendix A.

3.3 Applicability

Unless otherwise specified, the provisions of this Specific Plan shall be applicable to all property within the geographic boundaries of the Specific Plan, and are the controlling provisions as it relates to Residential Care Facility and Neighborhood Open Space uses. Some of the development standards contained in this Chapter supplement or replace those found in other Chapters of the Solana Beach Municipal Code (SBMC). Unless specified in this Specific Plan or inconsistent with this Chapter, the other provisions of the SBMC shall also apply to the Specific Plan. Where there is a conflict between the provisions of this Specific Plan and other Chapters of the SBMC, the provisions of this Specific Plan shall prevail.

Questions or disputes relating to a Determination of Allowable Use or an Interpretation of the zoning provisions of this Specific Plan shall be resolved as provided for in this Specific Plan. In addition to otherwise required finding(s), the authority making such determination shall consider those goals, policies and objectives that best implement the General and Specific Plan.

3.4 Permitted Uses

Permitted uses authorized by this Specific Plan are limited to Residential Care Facilities and ancillary uses, and a Neighborhood Open Space as defined in Chapter 4 of this Specific Plan, and shown on the Land Use Plan in Chapter 2 of this Specific Plan.

Single-family residential development and other uses allowed under the ER-2 zoning regulations of the Solana Beach Municipal Code are also permitted, but this Specific Plan

shall not apply to those developments or uses. Any such single-family residential development shall be regulated in accordance with the ER-2 zoning requirements and other provisions of the Solana Beach Municipal Code.

3.5 Site Development Standards

The Specific Plan development standards and use criteria for Residential Care Facility development are provided in the following tables.

A. Development Standards Table

Table 1 – Development Standards

Criteria	Specific Plan Standard
Scale and Intensity	
Floor Area Ratio (FAR)	Maximum FAR: 0.55
Density	N/A
Intensity	Maximum for Residential Care Facility: 99 Beds
Maximum Building Height*	Maximum 2 stories (exclusive of any basement level) and 25 feet above the LOWER of existing or finished grade
Lot Dimensions	
Min. Lot Area	20,000 sq. ft.
Min. Street Frontage	80 ft.
Min. Corner Lot Width	85 ft.
Min. Lot Depth	150 ft.

*Building Height excludes approved architectural features and appurtenances such as, but not limited to, chimneys, vents, elevator shafts, and roof stair railings. See Section 4.3E(7) of this Specific Plan.

Table 1 (continued)

Criteria	Specific Plan Standard	
Setbacks		
Min. Setbacks/ Required Yards**	Parking Setback (feet)	Building Setback (feet)
Front	25 ft.	25 ft.
Street Side	50 ft.	200 ft.
Residential Side	10 ft.	10 ft.
Freeway Side	10 ft.	10 ft.
Rear	40 ft.	40 ft.

**Notes for Setbacks

1) Architectural features, such as eaves, awnings, canopies, bay windows and balconies may project into required yards a maximum distance of two feet; provided such appendages are supported only at, or behind, the building setback line.

2) Fireplace chimneys, fire escapes, exterior stairs and landings, and similar architectural features requiring ground contact may project into required yards a maximum distance of two feet; provided such feature shall be a minimum of three feet from a property line.

Table 1 (continued)

Criteria	Specific Plan Standard
Parking	
Off-Street Parking	1 space per employee based on the greatest number of employees during any shift of work and 1 space per 7 beds
Fences / Walls / Retaining Walls/Noise Barriers	
Yard Area	Maximum Height
Front	42-inches with additional 24 inches allowed if this portion is at least 80% open to light
Street Side	
Residential Side ***	6 feet with additional 24 inches allowed if this portion is at least 50% open to light
Freeway Side	8 feet
Rear	6 feet with additional 24 inches allowed if this portion is at least 50% open to light
Retaining Walls	8 feet Exception: 10 feet at west side of building to allow for access ramp to basement and/or loading area. Allowed within setbacks. If used to provide for lightwells, the portion of wall plus railing visible from the public ROW must be within the height limits for the respective yard area.
Sound Walls	14 feet or as recommended by Noise Report, whichever is lower Permitted within Freeway Side and Rear yard areas that may be affected by noise from Interstate 5.

***Notes for Fencing where parking areas abut residential uses:

Where parking areas are located adjacent to a residential side lot line, a solid 6-foot barrier is required to protect the adjoining residential property from the lights and noise of vehicular traffic based on relative adjacent grades, as defined below:

a) Where finished grade of a parking area is at or above the finished grade of adjacent property, a solid fence or wall 6 feet high is required.
b) Where finished grade of a parking area is more than six feet below the finished grade of adjacent property, no fence or wall is required, except as necessary for the safety of persons.

c) Where finished grade of a parking area is less than six feet below the finished grade of adjacent property, a fence or wall is required that in combination with slope height is at least 6 feet above the finished grade of the parking area.

B. Use Standards Table

Table 2 – Use Standards

Criteria for Residential Care Facilities	Specific Plan Standard
Interior Space Requirements	
Sleeping Area	85 sf per bed (exclusive of closet and storage)
Storage (closet and/or drawers)	40 cubic feet per bed
Bathroom Facilities	One full bathroom per 3 beds (Full bath includes toilet, sink, shower and/or bathtub)
Common Living Area	500 sf per facility plus 50 sf per bed
Kitchen Facilities	Central kitchen for the overall facility is required. Each individual room with bed(s) may include a convenience kitchen.
Open Space	
Common Open Space	Total area equal to 100 sf. per bed

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CHAPTER 4 - DESIGN GUIDELINES AND REGULATIONS

4.1 Purpose and Intent

These Specific Plan Design Guidelines establish a set of standards to create a project with Residential Care Facility and Neighborhood Open Space uses that will be an asset to the surrounding community. The design theme complements the character of the site and its surroundings, and these design criteria will unify the project within the site and the existing neighborhood.

The Specific Plan incorporates design techniques, streetscapes, architectural and landscape elements which, when implemented, will provide a high quality community character. Objectives of the Design Guidelines are:

- To establish the architectural and landscape guidelines for the Specific Plan that will be applied during the SDP and DRP review process;
- To provide the City of Solana Beach with assurance that the Specific Plan area will develop in accordance with the quality and character of the community.

All detailed project designs shall be reviewed through the Structure Development Permit and Development Review Permit process for compliance with the Specific Plan standards, including circulation and access, site orientation, building design, landscaping, and exterior lighting.

4.2 Site Planning

A. Community Amenities

In order to transition from the single family residential uses in the area to the Residential Care Facility use, a Neighborhood Open Space shall be provided at the northeastern portion of the parcel as conceptually depicted on Exhibit 2-1. Pathways and seating should be provided throughout the area, and paths should be decomposed granite rather than concrete sidewalks in order to maintain the semi-rural characteristics of the surroundings. This open space should be connected to the care facility by paths or sidewalks for use by facility residents, but also be available for use by residents in the neighborhood.

B. Circulation

This section provides the standards for site access and improvements to the streets adjacent to the project to provide properly designed circulation that also respects the existing neighborhood character.

Marine View Avenue

The following criteria detailed in Exhibit 4-1 relate to the west side of Marine View Avenue along the property's entire frontage (115.05 feet):

1. Vehicular access to the site shall be prohibited from Marine View Avenue.

2. Prior to issuance of the Certificate of Occupancy for the project, the project shall install:

   a) A rolled curb constructed to the City of Solana Beach standards, with the face of curb located 10 feet west of the existing street centerline, which shall extend along the property's entire frontage on Marine View Avenue.

   b) A concrete pedestrian curb ramp to meet ADA accessibility requirements, transitioning to the rolled curb required by item 2(a) above, at the southwest corner of Marine View Avenue and Genevieve Street.

   c) A decomposed granite (DG) sidewalk with minimum width of 5 feet along the Marine View Avenue frontage. Unless otherwise required by law, a concrete sidewalk shall not be permitted to extend along the property's Marine View Avenue frontage, beyond the required ADA improvements at the corner.

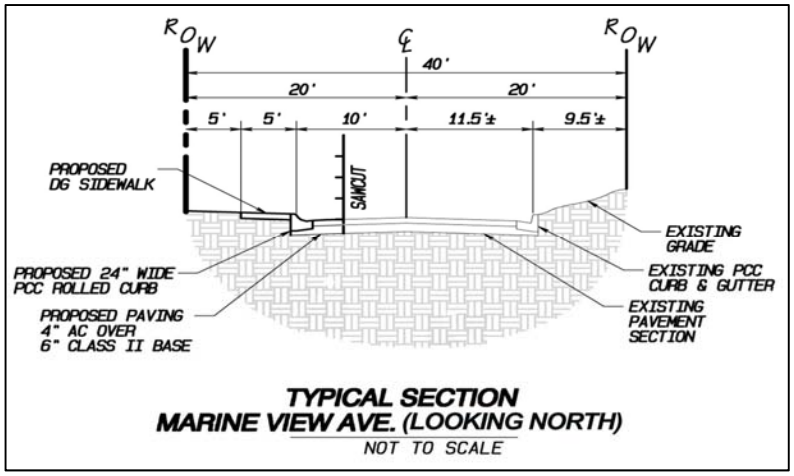

Exhibit 4-1 – Marine View Street Section

Genevieve Street

The following criteria detailed in Exhibit 4-2 relate to the south side of Genevieve Street along the property's entire frontage (401.57 feet):

1. Vehicular access to the site shall be limited to two points on Genevieve Street. Driveway cuts shall meet the requirements of the Solana Beach Off-Street Parking Design Manual and the current San Diego Regional Standard Drawings.

2. Prior to issuance of the Certificate of Occupancy for the project, the project shall install:

   a) A 6-inch curb and gutter constructed to City of Solana Beach standards, with the face of curb located 12 feet south of the existing street centerline, with associated pavement restoration or widening. These improvements shall extend along the property frontage from the ADA improvements at the corner of Marine View Avenue and partially around the cul-de-sac to connect with the existing curb and gutter improvements.

   b) Additional pavement to enlarge the existing cul-de-sac pavement on the southern half along the property boundary as needed to provide a 38-foot radius consistent with current City standards. Right-of-way adjustments (dedication and/or vacation) shall be provided where required to maintain a right-of-way line no less than 8 feet from the new curb line (reference exhibit provided in Appendix B).

   c) A decomposed granite (DG) sidewalk with minimum width of 5 feet along the Genevieve Street property frontage from the corner of Marine View Avenue to the westernmost access driveway. Sidewalk shall not be required from the western access drive around the cul-de-sac at the end of Genevieve Street. Concrete sidewalk may be used across vehicular access driveways, and as part of the ADA improvements at the corner, but unless otherwise required by law, no other concrete sidewalk shall be permitted to extend along the property's Genevieve Street frontage.

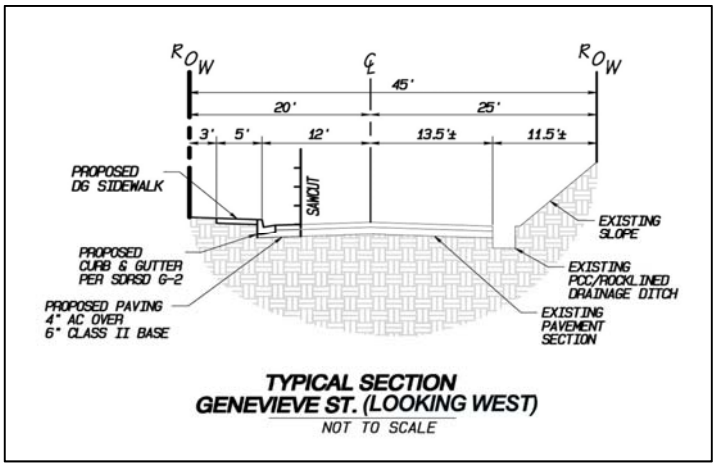

Exhibit 4 2 – Genevieve Street Section

C. Parking and Site Access

Parking areas serving the property shall comply with the City of Solana Beach Off Street Parking Design Manual (OSPDM). The OSPDM includes, but is not limited to, criteria for size and dimensions of parking spaces, ingress and egress from parking lots, landscaping within parking lots, parking criteria for motorcycles and bicycles, accessible (disabled) parking, and loading spaces.

In addition to these standards, a minimum of one parking space shall be reserved for electric, hybrid, hydrogen, fuel cell, or other alternative-fuel-source vehicles.

In accordance with the above street design criteria, vehicular access to the site will be via a maximum of two entry points off of Genevieve Street. The following are standards for Site Access:

1. An upper, eastern most entry is intended to provide access to a surface parking lot.

2. A lower, western most entry is intended to provide access via a driveway to a parking garage, and for loading of supplies, trash pickup, pick-up/drop-off, and additional access for residents, visitors and employees. A turnaround that meets current City standards is required at the southern end of this drive.

D. Exterior Lighting / Dark Sky Compliance

All exterior lighting, including building, parking area, and landscape lighting, shall comply with Solana Beach Zoning Code 17.60.060c regarding Dark Sky Overlay regulations. A lighting plan demonstrating compliance with these standards shall be provided in conjunction with the development review process.

E. Site Grading

The property within the Specific Plan boundaries is not within a sensitive hillside area and is not part of a significant protected viewshed. Grading design shall be in accordance with the Solana Beach Municipal Code, and shall meet requirements including approval of a soils report, erosion control plan and storm water management plan.

4.3 Architectural Guidelines

Compliance with the following architectural guidelines will contribute towards site organization and building forms that strike a balance between the busy I-5 corridor to the west of the property, the commercial scale of the office building to the north and the residential scale and semi-rural character of homes in the neighborhood to the east. The general design principles of this Solana Beach Senior Care Specific

Plan complement the site development regulations in the City of Solana Beach Municipal Code.

A. Architectural Character

The exterior architectural design style should be selected to complement the residential scale of the adjacent homes. The architectural design character combines elements of the California Craftsman style (including Greene and Greene / Pasadena bungalow), the Torrey Pines Lodge style, and the low roofs and eaves associated with local Solana Beach and coastal Del Mar beach cottages.

B. Building Massing and Scale

The architectural character of development on the Specific Plan property will be perceived primarily from public spaces including the freeway, local streets, and open spaces. The building massing, scale and roof forms, as the primary design components, require careful consideration in their architectural design and relationship to the public spaces. Incorporating variation and relief in building facades as outlined in these standards will provide for enhanced architecture. Specific criteria are as follows:

1. Projections and recesses to provide shadow and depth shall be provided for all elevations visible from any roadway. Long, low roof overhangs, recessed windows or window bays, articulation in horizontal or vertical wall planes and physical breaks in building masses are encouraged. Surface detailing, such as score lines, should not serve as a substitute for distinctive massing.

2. Wall pop-outs, bay windows, horizontal banding, or other building projections, as well as material changes can provide interest, help to create variety and contribute to a quality appearance and are encouraged on all exterior elevations. Simple, clean, bold projections are encouraged.

3. Large expanses of flat wall planes and long unbroken facades are prohibited, and offsets in plane shall be provided. To divide the building mass into smaller scale components, portions of buildings greater than 50 feet in length without horizontal or vertical offsets should reduce the perceived height and bulk by a change of roof or wall plane, projecting or recessed elements, or other similar means. No wall plane greater than 50 feet in length shall be allowed without a vertical offset or break in plane. Offsets shall be a minimum of one foot (12 inches) and may be achieved with projections or recesses.

C. Building Entry Design

1. The design and location of building entries should assist with identification and differentiation between the separate use and access areas to the building.

2. Public/ guest entry areas and visitor parking shall be located and designed for ease of visibility by the public and guests, which may include orientation on the site, use of more prominent architectural entry features, walkways and landscape elements.

3. Resident and Staff entries may be located separately from public/guest entry areas.

4. Loading/services entry - General deliveries & service entry access shall be shielded from residential neighbors, which may be achieved by placement of these areas on the freeway side of the building.

5. Building entry components shall incorporate adequate lighting of walkways and vehicle parking areas. A ratio of width to depth at entries shall be provided to enhance visibility, lighting and connections to the surrounding exterior yards. Deeper recesses at wider entries are encouraged. Entries 4'-0" wide or less shall be recessed a maximum of 2'-0", to avoid creating dark nooks. Entries shall be lit by natural and/or artificial lighting to provide well- lit spaces at all times.

D. Exterior Materials and Finishes

1. Different parts of a building's façade should be articulated by the use of color, arrangement of façade elements, or change in materials to break up the massing.

2. Textures, colors, and materials should be unifying elements in the building's design.

3. The exterior finish materials used should be visually representative of the architectural vernacular and styles as stated in Architectural Character. Materials with natural character are preferred. Cementitious boards and stone are allowed if they maintain an appearance that is natural and authentic.

4. Stucco, siding, and stone may be used as exterior finish materials to tie in with existing neighboring residential structures. Metal siding, concrete and exposed steel framing are discouraged.

5. Material changes should occur in a manner that gives the materials a sense of permanence and thickness. Where a vertical break in materials occurs it should be located at the inside corners of changing wall planes or where architectural elements intersect, such as a pilaster or projection. Where material changes occur horizontally, the lower material should be well defined by using contrasting trim, banding or projection from the upper material to enhance the visual distinction between materials.

E. Roofs and Roof-Mounted Equipment

1. Roof materials may vary depending on the design and pitch of each roof element and should be consistent with the desired architectural style.

    a) Pitched roofs - Quality composite shakes, composite asphalt roofing and metal accent roofs are preferred.

    b) Flat roofs enclosed by parapets - California State recommended COOL roof materials of non-reflective color are preferred in flat roof areas.

    c) Green Roof - Where adequate flat roof areas are accessible, green roof planting systems may be provided.

2. Pitched roof elements are encouraged to be used in combination with flat roofs as a component of the architectural design character to create a residential look and to break up building massing by providing varied roof planes and vertical elements for added visual interest. Pitched roof elements used to enhance the building massing and scale are considered architectural features that are permitted encroachments subject to the limitations as noted below in Item #6. Parapets are allowed to be used for up to 50% of the perimeter roof area.

3. Solar Panels are encouraged to be utilized where adequate solar access is available and economically feasible.

4. Roof-mounted equipment and appurtenances including, but not limited to, air conditioning units, cooling towers, ducts, tanks, elevator enclosures and mechanical equipment shall be acoustically shielded and architecturally screened from view by surrounding homes per the SBMC 17.20.040 (M) in a manner that is architecturally compatible with the design of the structure. Where several pieces of equipment require screening, a continuous screen is preferable.

5. Satellite dishes and other antennas shall be regulated per the SBMC 17.60.120.

6. Architectural design features and appurtenances which are permitted encroachments include items such as, but not limited to, chimneys, vents, antennas, equipment screens, skylights and solar panels, elevator overrun, elevator and stair access and pitched roof elements that are not used as living areas. Pitched roof architectural features that meet the height exception criteria specified below will provide added interest, avoid monotonous or monolithic features, visually "break up" the roofline, and add to the architectural design character of the building without adverse impacts due to building height. Such elements may extend above the specified height limit (25 feet) subject to all of the following limitations:

a) Elevator Overrun, Elevator and Stair Access

i. Elevator overrun, elevator and stair access, including any pitched roof elements, may extend above the building specified height limit by up to 6 feet to accommodate egress and elevator equipment requirements.

ii. Elevator overrun, elevator and enclosed stair access housings are encouraged to have sloped roofs with a minimum 3:12 pitch.

b) Pitched Roof Elements - The following limitations apply to the portions of any roof elements that extend above the height limit (exclusive of the elements described in subsection (E)(6)(a) above):

i. Pitched roof elements such as towers, hips, gables, and spires may extend no more than 3 feet 6 inches above the specified height limit.

ii. Any roof element that extends above the specified height limit shall have a minimum 3:12 pitch.

iii. A roof element where any portion extends above the specified height limit, shall have a minimum overall depth of 10 feet, measured based on the style of roof as follows:

1. Gable roofs – depth shall be measured along the ridge of the gable.

2. Hip roofs – depth shall be measured from the outside eave to the back of the hip roof element, parallel to the direction of the ridge.

3. Mansard roofs – depth shall be measured perpendicular to the slope, from the eave to the top of the mansard roof element.

iv. Any adjacent roof elements that extend above the height limit shall have a minimum separation of 30 feet as measured in a straight line from where the roof elements break the 25-foot plane.

c) Total Limitations - The following limitations apply to all roof elements that extend above the height limit (inclusive of the elements described in subsection (E)(6)(a) above):

i. The individual area of any portion of a roof element that extends above the specified height is limited to 2% of the overall roof area.

ii. The combined total area of all features or elements that extend above the specified height limit is a maximum 10% of the overall roof area.

iii. Measurement of the overall roof area shall extend to the outside eaves of the roof.

4.4 Landscape Guidelines

A. Landscape Objectives

The Landscape Design Guidelines establish regulations and general requirements for landscaping of the project. The goal of these guidelines is to integrate the landscape elements of the site within the existing setting, while establishing the project's own individual identity. A transition between the existing adjacent developments shall be developed utilizing trees, shrubs and groundcovers, including visual buffer elements between the project and the residences to the east, as well as between the freeway and the project.

General Guidelines include:

1. The landscape design shall use predominantly drought-tolerant plants, native or non-native, that require minimal irrigation to conserve water.

2. A variety of species shall be used, including evergreen trees where appropriate, with more ornamental varieties in courtyards adjacent to the building.

3. The largest trees shall be located between the freeway and the project buildings to act as a visual buffer, while limiting any potential to affect long-range views from the nearby residences.

4. Smaller tree species shall be located between the proposed structures and the existing residences to create a visual buffer between the two.

5. Plant materials near the proposed sidewalk, DG pathway, parking areas and existing streets shall be selected and located based on preventing unreasonable damage to paving and pathways.

6. Tree species with invasive root systems should be oriented away from utility infrastructure.

7. All planting in public rights-of-way should have an automatic irrigation system that minimizes water use as much as is feasible.

8. Courtyard planting in private areas should create quiet outdoor spaces for care facility residents, with special security consideration given to any outdoor space used by memory care residents.

9. Utilize color and texture from plant foliage, bark and flowers to create a visually interesting environment.

10. Identify the project entries through special groupings of plant materials.

11. Site landscaping shall comply with SBMC 17.56, Water Efficient Landscape Regulations.

B. Landscaping Criteria by Functional Area

Courtyards
Landscaped courtyards and pedestrian walkways link areas within the site. The gardens should include landscaped courtyards where residents can enjoy the serenity of the outdoors within a semi-enclosed area.

Project Entries
Project entries should be highlighted with ornamental planting and welcoming structures, such as covered entry porches.

Exterior Parking Areas
Exterior parking areas shall follow the City of Solana Beach Off-Street Parking Design Manual, Section 3 Landscaping, for all parking area landscaping standards.

C. Streetscape

Marine View Avenue
The streetscape along Marine View shall be designed in conjunction with the neighborhood open space discussed in Section D, below.

Genevieve Street
The landscaping along the Genevieve frontage should be used to provide visual interest and way-finding for the main site entries, and transition between the neighborhood open space (discussed below in Section D) and the building and parking areas of the residential care use. A sidewalk contiguous with the new curb is required along the frontage. Suitable landscaping should be located between the sidewalk and parking and building areas, incorporating landscaped bio-swale basins to facilitate drainage of storm water, with shrub and tree plantings to mark entries.

Interstate 5
The main function of planting between the structure and Interstate 5 is to create a visual barrier between the care facility and the freeway. Trees planted here should be high enough to create functional screening without impeding long-range views from the homes to the east. A bio-swale with ground cover may be located here and planted with appropriate groundcover.

D. Neighborhood Open Space

The neighborhood open space should have DG paths through it, with passive park amenities such as informal seating. Plantings should enhance this area with a variety of trees and shrubs to create a natural setting that provides a transitional space from single-family residences to the Residential Care Facility.

E. Walls and Fences

There are existing property line fences associated with the existing residences to the east and south, and along the Caltrans right-of-way to the west. These fences may be retained or replaced as determined during design review.

Fence Materials

New fences and walls within the Specific Plan boundaries may be of any material commonly used in the construction of fences or walls, including wood, ornamental iron, and concrete block with decorative facing or stucco. Chain link fencing is permitted only along the Caltrans right-of-way.

Hedges and Landscaping

A hedge or other dense landscaping may satisfy a requirement for a view-obscuring fence. Such hedge or other dense landscaping shall be maintained in accordance with the provisions of Chapter 17.56 SBMC (Landscaping Regulations) and shall be replaced with another hedge, other dense landscaping or an appropriate fence or wall if it ceases to serve the purpose of obscuring views. However, no such hedge shall be grown or maintained at a height greater than that permitted by these regulations for a wall or fence.

Parking Areas

All parking areas of five or more parking spaces (and driveways serving such parking areas) located on a parcel abutting residential or residentially zoned property shall be separated from such abutting property by a 6-foot high solid barrier that may incorporate slope or elevation change in addition to a building, fence or wall as specified in Section 4.4 . Any barrier shall be designed in such a way as to minimize impacts on adjoining residential property from the lights and noise of vehicular traffic within the parking areas.

Measurement of Height

The prescribed height of required fences, walls, or landscaping screens shall be measured above the actual adjoining level of the finished grade, except that where parking, loading, storage, or similar areas are located above finished grade, the height of fences, walls or landscaping required to screen such areas or space shall be measured from the higher level. An earthen berm not higher than three feet may count toward the prescribed height of any fence, wall, or landscaping screen.

F. Signage

Signage shall comply with all the provisions of the Solana Beach Comprehensive Sign Ordinance (SBMC Chapter 17.64), except that in addition to the signs otherwise allowed in the Residential (ER) Zone per Section 17.64.080 the following signs are allowed in the Solana Beach Senior Care Specific Plan upon the issuance of a sign permit. All signage terms are as defined in the SBMC 17.64.020.

1. Property Entrance Signs. One freestanding or monument sign at or near each driveway entrance for building identification (maximum of two). The maximum area per sign shall be 32 square feet. A 25% increase in sign area shall be allowed if only one freestanding or monument sign is used where two are permitted. The maximum height of a freestanding sign shall be five feet from the finished grade, and may be located within the setback. The signs shall be designated and placed in a manner which does not create a dangerous condition of public property. Items of information on these freestanding or monument signs shall be limited to the name of the development, logo, numeric address, specific building identification for ease of deliveries and visitor wayfinding, and name of the city.

2. Property Identification Sign. One additional monument sign is permitted at the southwestern intersection corner of Genevieve Street and Marine View Avenue for identification of the property use. The maximum area for this monument sign is 32 square feet, with a maximum height of four feet, and may be located within the setbacks. Items of information on this monument sign shall be limited to the name of the development, logo, address, and name of the city.

3. Building Identification Sign. One freeway-directed wall sign is permitted so long as it is incorporated into the design of the building and erected on, or attached to the plane of wall facing the Interstate 5 freeway. Total sign allowance is one square foot per linear foot of building frontage, not to exceed 32 square feet. No portion of this sign shall extend beyond the adjacent perpendicular wall plane, or above the top of a wall or parapet.

Sign design should be compatible with the design of the project visual elements including but not limited to building style, building material, color, and design details, and be compatible with each other, in accordance with the design review standards for signs in SBMC 17.64.130. Signs shall be designed to minimize visual impacts upon adjacent residential neighborhoods. Potential impacts to designated "dark sky" areas shall be considered in the review of all illuminated signs.

G. Plant Material

A preliminary plant palette has been developed for the various functional areas of the Residential Care Facility use based on aesthetic considerations, height, and maintenance, with an emphasis on drought resistant species. A detailed plant list is

included in Appendix C. These are illustrative of the size, form, and water use characteristics intended for development of the Residential Care Facility. Specific plant materials may be substituted in final design if they provide similar characteristics to those listed.

4.5 Sustainable Design Strategies

Sustainable practices can lessen the environmental impacts of development in many ways including the use of certain design techniques. Development in accordance with these Specific Plan regulations will provide for compact development at this infill location, reduced pervious surfaces, improved water detention and conservation, as well as water-efficient irrigation, all of which contribute to sustainable design.

This Specific Plan encourages the implementation of realistic sustainable design strategies into the project design as the project is built. Because the concept of sustainability is still evolving, it is anticipated that new sustainable strategies may be feasible before the site is developed. The following is a sampling of sustainable design strategies that may be utilized for development under this Specific Plan.

1. All new structures shall adhere to minimum Tier 1 standards of the CAL Green Code, the State of California Building Code Standards (Title 24).

2. New structures are encouraged to achieve Tier 2 CAL Green Code standards to achieve more energy and sustainable efficiencies than a building complying solely with the mandatory measures.

3. Drought-tolerant landscape and low water use irrigation fixtures are required to reduce dependency on potable water.

4. Reduce storm water runoff by implementing provisions for groundwater infiltration.

5. Promote the use of renewable energy by encouraging photovoltaic (solar) panels.

6. Encourage all buildings to take advantage of natural ventilation and natural day lighting.

7. Encourage many building materials to include sustainable elements or features such as local sourcing; have resilient, renewable, recycled content; or be reused materials.

8. Promote the use of alternative forms of mobility not dependent on fossil fuels, including the installation of electric vehicle charging stations in parking structures or other provisions that accommodate alternative fuel parking space(s); the provision of bicycle racks; the accommodation of motorcycle parking; and providing shuttles to mass transit.

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PART TWO

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CHAPTER 5 - EXISTING CONDITIONS

5.1 Existing Land Use & Zoning Prior to Adoption of the Specific Plan

The site was long used for agricultural purposes (since at least the 1950's based on review of aerial photographs). Existing improvements at the site include an old, single story, residential structure in the north central portion of the site along with a driveway, shed and other remnants of prior uses. This structure is vacant, and was most recently used as storage and office area for the former nursery growing yard that previously operated at the site. The nursery yard ceased operations in approximately 2008, and the site has remained vacant since that time.

The property has a General Plan Land Use Designation of Estate Residential, with corresponding zoning of Estate Residential 2 (ER-2). The ER-2 zone is primarily intended for single family residential homes on large, semi-rural estate lots, and also allows other uses subject to CUP, including Residential Care Facilities, churches, schools and agricultural uses. This Specific Plan does not change the property's General Plan designation or ER-2 zoning. Instead, upon approval, the Specific Plan will legislatively establish an overlay for the property that will apply to Residential Care Facility and Neighborhood Open Space uses. The property is located within the Dark Sky Overlay Zone which establishes exterior lighting regulations. These regulations are retained in conjunction with this Specific Plan.

The City of Solana Beach is located entirely within the Coastal Zone as defined by the California Coastal Act of 1976, which is intended to ensure that the coastal areas of California are utilized and/or developed in a manner responsive to State wide public objectives. The Specific Plan will be subject to the Coastal Act and any California Coastal Commission approved Local Coastal Program for the City.

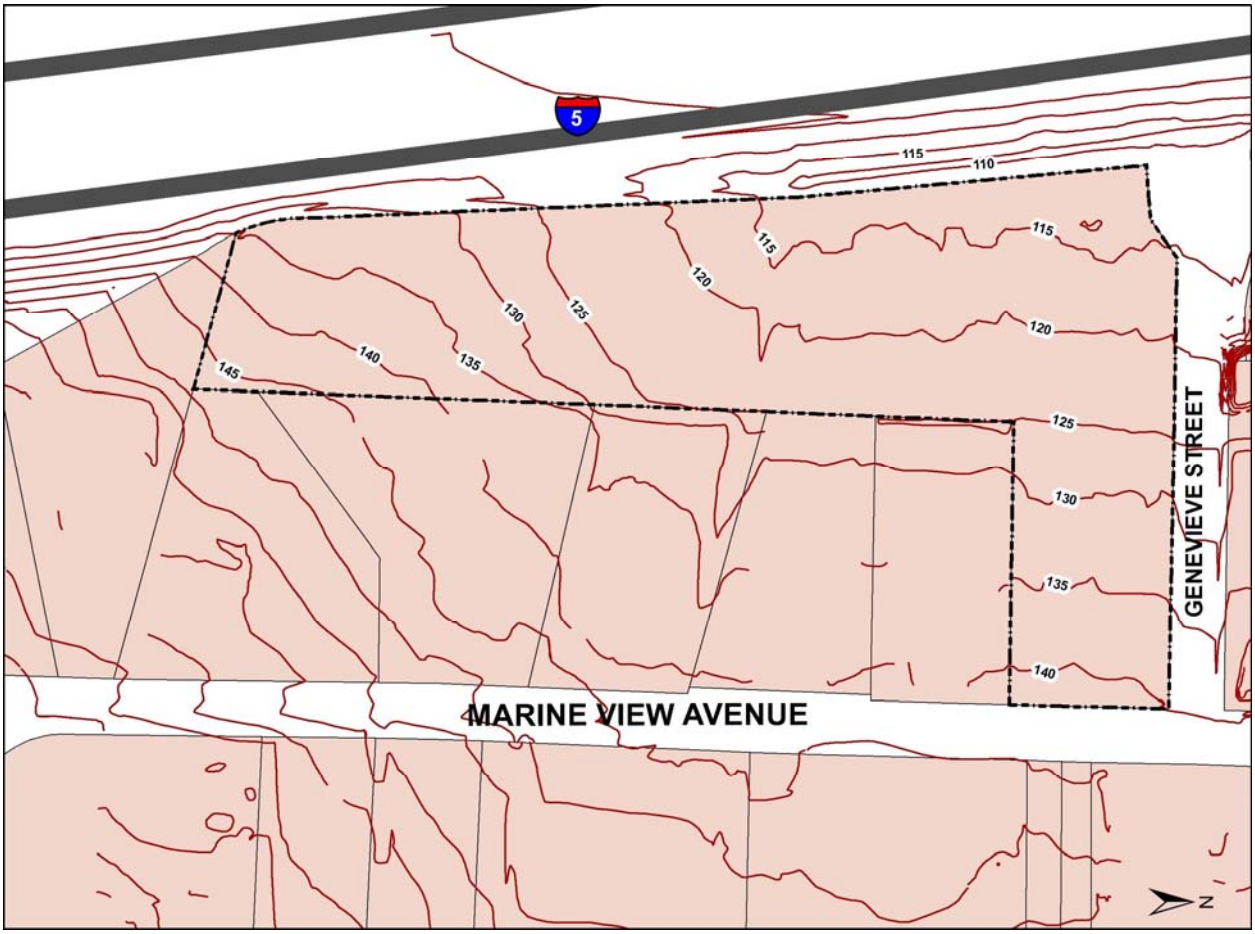
5.2 Surrounding Land Uses

An aerial view of the project setting is shown on Exhibit 1-2. Interstate 5 creates a dominant boundary on the west side of the property. The site has high visibility from northbound Interstate 5, which sits slightly above most of the project site on its west side. Single-family residential uses are located at a higher elevation immediately adjacent to the east and wrap around the southern site boundary. Across Genevieve Street to the north are an existing 3-story office building and a nursery yard. Other properties in the area include a well-established residential community of primarily large lot, custom single family homes. There are also some institutional uses (schools/churches) further north on Marine View Avenue.

5.3 Topography

The topography of the site is gently sloping generally from south and east down to a low point in the northwestern portion of the site, with elevations ranging from approximately 112 to 148 feet above mean sea level within the property. The majority of the site is situated at or below the elevation of the adjacent freeway to the west.

The City of Solana Beach has a Hillside Overlay Zone, Zoning Code 17.48.020, with specific restrictions for slopes at or greater than 25%. No part of this site is within the Hillside Overlay Zone, and therefore these regulations are not applicable.



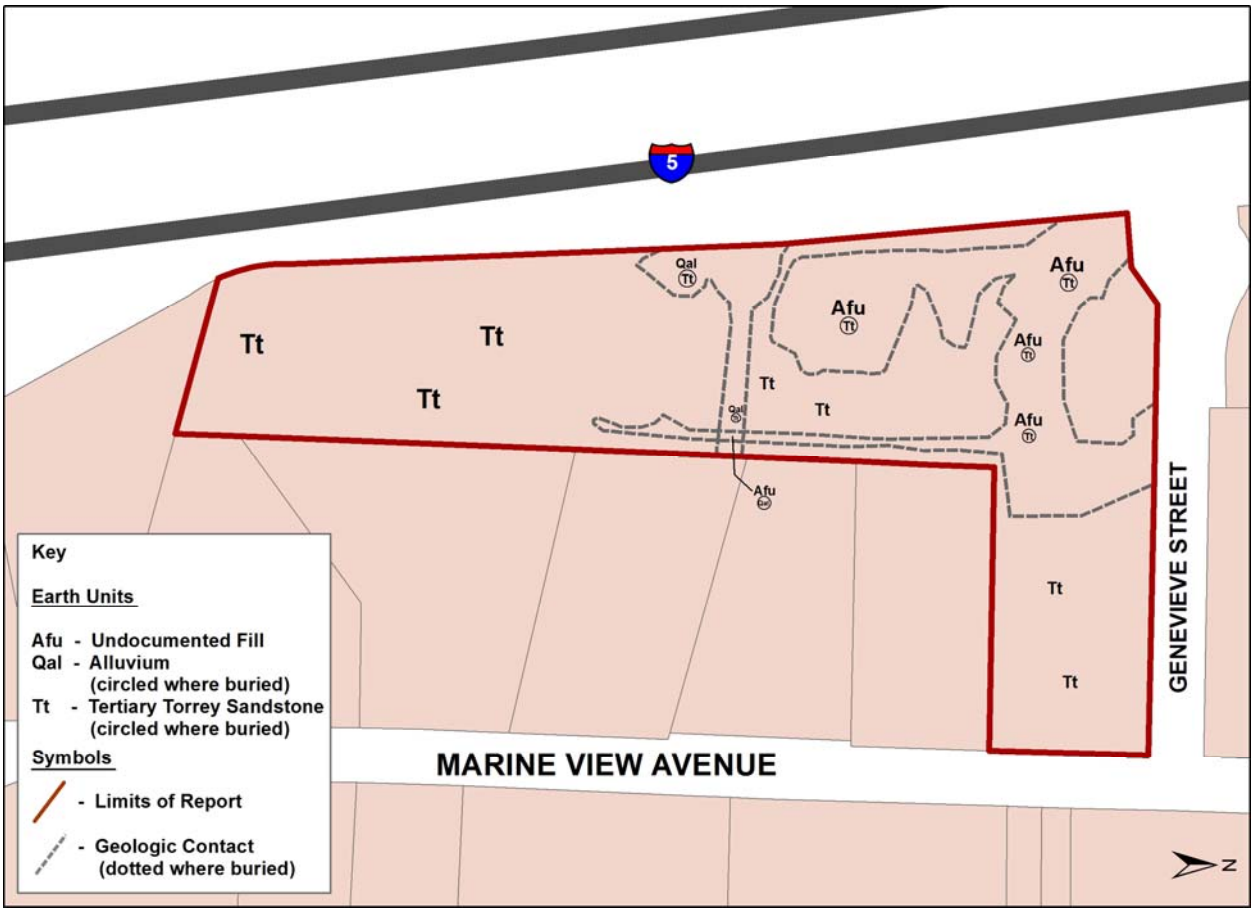
Source: Pasco, Laret, Suiter and Associates, 2014

Exhibit 5-1 – Boundary and Topography

5.4 Soils/Geology

The site consists of Tertiary Torrey sandstone, Quaternary Alluvium, residual soils, and undocumented artificial fill located primarily in the existing residential pad and driveway areas. All but the Tertiary Torrey sandstone have a potential for settling. Over-excavation from 2′ to 6′ is recommended for the areas where structures or improvements are to be located, but the materials do not preclude the type of proposed development.

The site is not within the Alquist-Priolo Earthquake Fault Zone, and no known faults (active, potentially active, or inactive) are onsite. Investigations during a geotechnical survey found no shallow groundwater that would contribute to liquefaction during seismic events, therefore the risk of liquefaction is negligible. No evidence of landslides was found on or adjacent to the site.

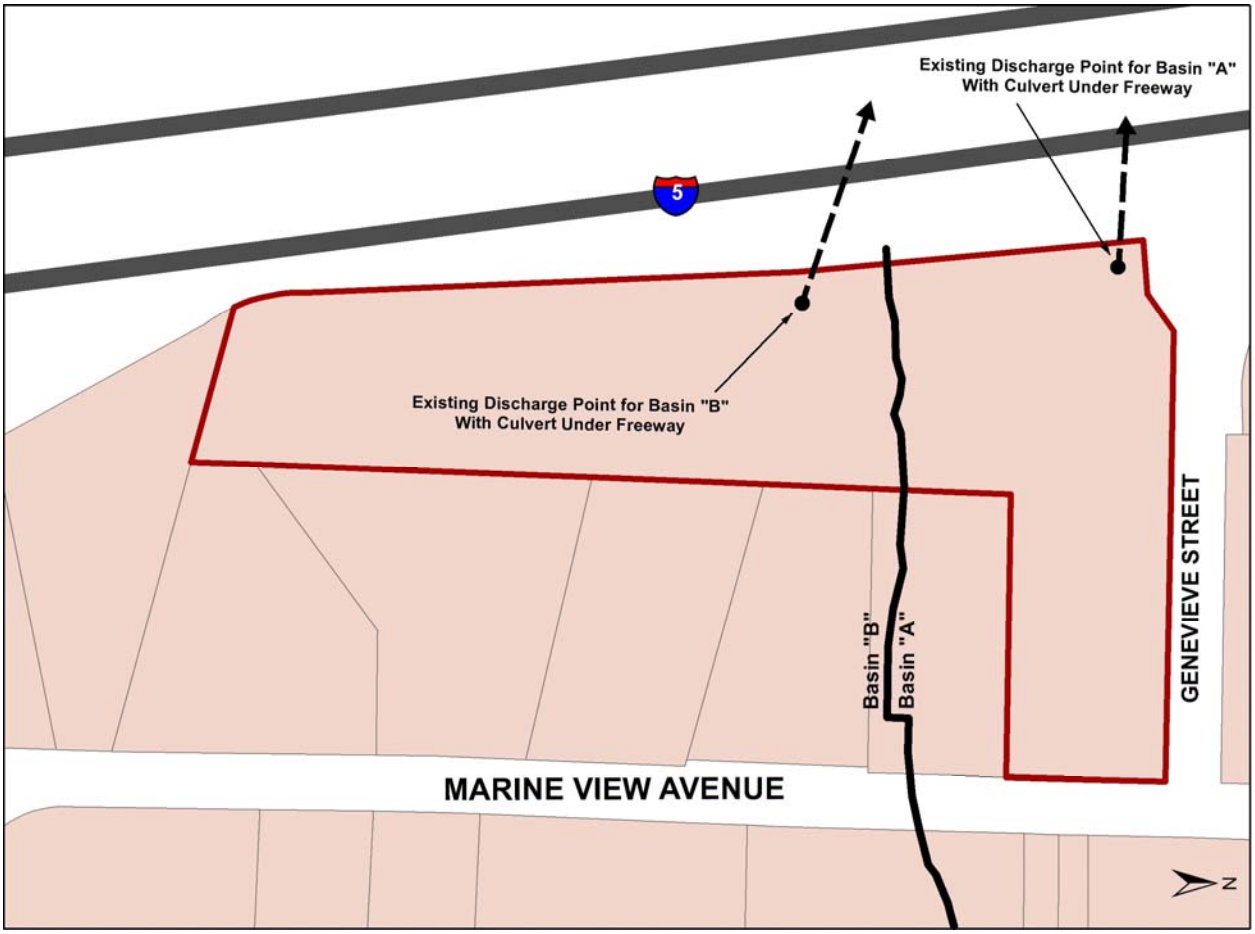


Source: Matrix Geotechnical Consulting, Inc., 2014

Exhibit 5-2 – Geotechnical Map

5.5 Hydrology and Drainage

There is an existing ridgeline that runs across the north end of the site, parallel to Genevieve Street. Drainage north of the ridgeline flows to an existing offsite storm drain inlet within Caltrans Interstate 5 right-of-way. Offsite runoff does not enter into this part of property. Offsite runoff south of the ridgeline enters a small drainage swale extending westerly across the site south of the existing residence before flowing into a concrete drainage swale within the Interstate 5 right-of-way and into a public storm drain system.

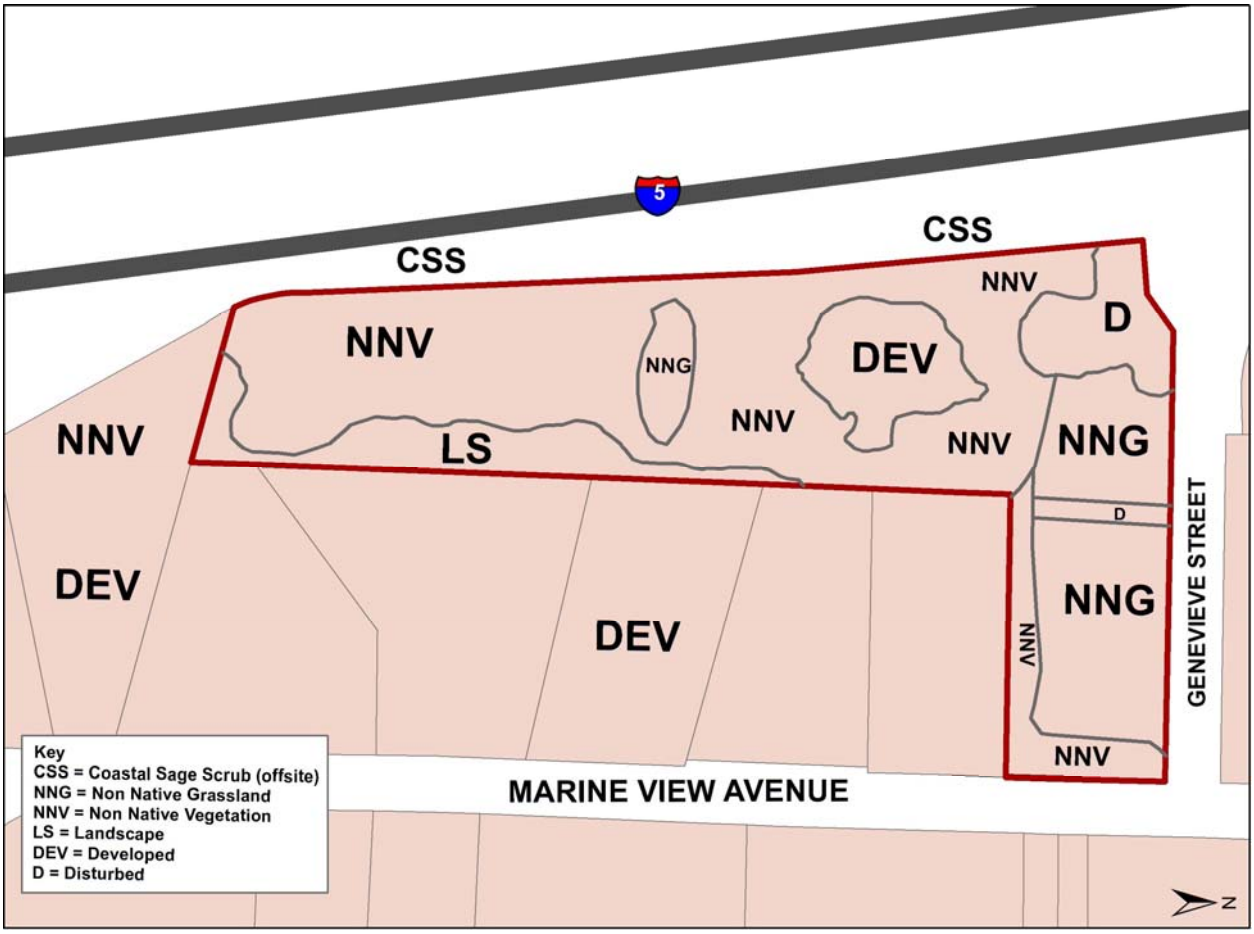


Source: Pasco, Laret, Suiter and Associates, 2014

Exhibit 5-3 – Pre-development Drainage Map

5.6 Biological Resources

No native vegetation or sensitive species were found during biological surveys of the site. Approximately 79% of the site is covered by disturbed or developed land, or non-native vegetation such as weeds. A total of 0.61 acres has been mapped as supporting non-native grassland. Little wildlife is present onsite except birds common to urban settings. No rare, endangered or sensitive species were observed or expected to occur on the property.



Source: Affinis Environmental Services, 2014

Exhibit 5-4 – Biological Vegetation Resources Map

5.7 Cultural Resources

Based on archaeological surveys of the property, there is one recorded archaeological site within the Specific Plan area. This site was originally recorded and tested in 2000, and relocated during more recent surveys in 2011. The Native American Heritage Commission (NAHC) was contacted in April 2011 for a Sacred Lands File Search. The NAHC indicated that no Native American cultural resources have been recorded within one-half mile of the project area. The project area has been subject to a great deal of disturbance from previous residential use and a palm nursery. The previously recorded archaeological resource consists of marine shell with no artifactual material. The site (CA-SDI-15,885) was previously tested and determined not to be a significant cultural resource based on lack of artifacts, unique elements, and integrity. No significant Native American cultural resources have been identified in the vicinity by the NAHC. Based on this, no further work was recommended for the site. However, formal tribal consultation regarding cultural resources will be required in accordance with CEQA requirements prior to development of the property.

5.8 Noise

A noise report was prepared to evaluate the effects of Interstate 5 on property within the Specific Plan. Outdoor areas will likely require sound barriers such as walls, earthen berms or a combination. The building placement can provide shielding for some outdoor areas where line of sight to the freeway would be blocked by the structure. Noise levels from the freeway will require design measures to mitigate both interior levels and outdoor recreation areas at the southern and western sides of the property. Interior noise attenuation measures would be determined at the time of construction drawings, but sound levels are expected to be mitigable with standard construction materials and possible enhancements such as upgraded windows.

CHAPTER 6 - PUBLIC FACILITIES/INFRASTRUCTURE

6.1 Public Facilities/Infrastructure

A. Circulation and Access

Primary access to the site is from Lomas Santa Fe Drive east of Interstate 5, then south on Las Banderas Drive to San Andres Drive and then south on Marine View Avenue to the project site on Genevieve Street. Minimal traffic is expected to come from the south and the east due to less convenient access through winding, narrow residential streets. Refer to Exhibits 1-1 and 1-2 for detailed site location information.

Public transit is available via the Coaster commuter rail line at the Solana Station, approximately 2 miles from the site, and the nearest bus stop (Breeze Route 308) is approximately one mile away at Lomas Santa Fe Drive and Solana Hills Drive.

Marine View Avenue

Marine View Avenue extends south from San Andres Drive. At the intersection with Solana Drive the road forks, with the primary travel lane striping taking a 90 degree turn to become Solana Drive, while Marine View Avenue forks off to the right continuing south. Northbound Marine View Avenue at this intersection is controlled by a stop sign. South of the intersection with Solana Drive, the road is improved with approximately 24 feet of paving within a 40-foot right-of-way. There are various existing frontage conditions along this road, including some areas with concrete curb, some with asphalt curb, and some areas without any curb. This road does not have sidewalks except at isolated intersection locations.

Genevieve Street

Genevieve Street extends west from Marine View Avenue, ending in a cul-de-sac at the Interstate 5 right-of-way. Existing uses on all properties accessed from this road are currently commercial, including an office building and a plant nursery. The road is only partially improved with approximately 26 feet of paving within a 45-foot right-of-way. The project site frontage is unimproved, with an asphalt berm along the southern edge of pavement. The north side of the street has a concreted drainage swale at the edge of pavement, and from the office driveway the frontage improvements are completed with a concrete curb and gutter and limited sidewalk paving.

To assure that access and design of these streets adjacent to the project are consistent with the General Plan and with the character of area streets, specific street criteria are established in this Specific Plan for each roadway. These criteria are included in Chapter 4, Design Guidelines.

Interstate 5

Interstate 5 is the western boundary of the Specific Plan property. Caltrans is currently in the planning stages for potential expansion of the Interstate 5 freeway right-of-way, as part of the I-5 North Coast Corridor Project, including areas adjacent to this Specific Plan property. A potential maximum future right-of-way limit on the property was defined, based on the most recent design plans available from Caltrans along this segment. Please see Exhibit 6-1 for reference location.

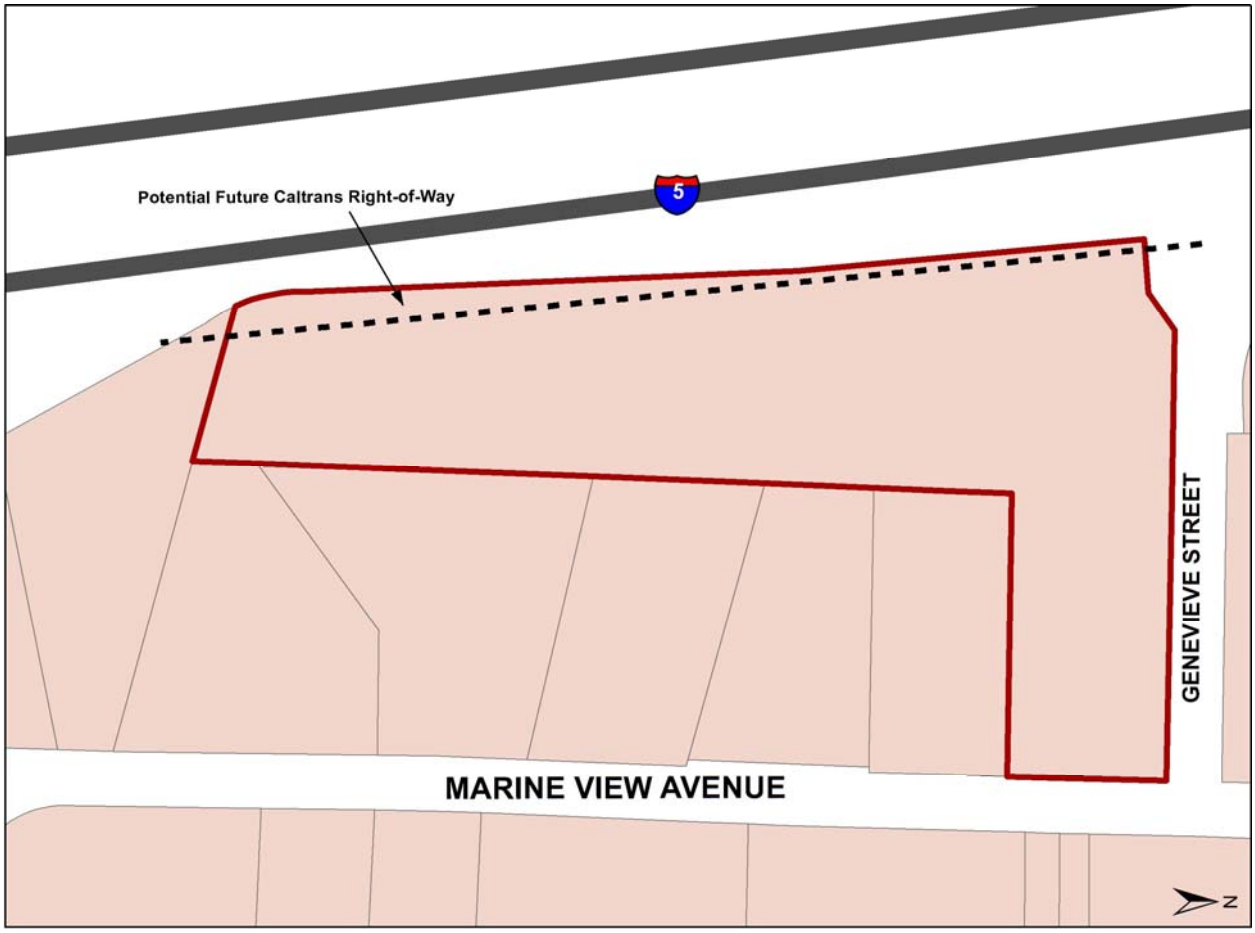


Exhibit 6-1 – Caltrans ROW Exhibit

B. Water Facilities

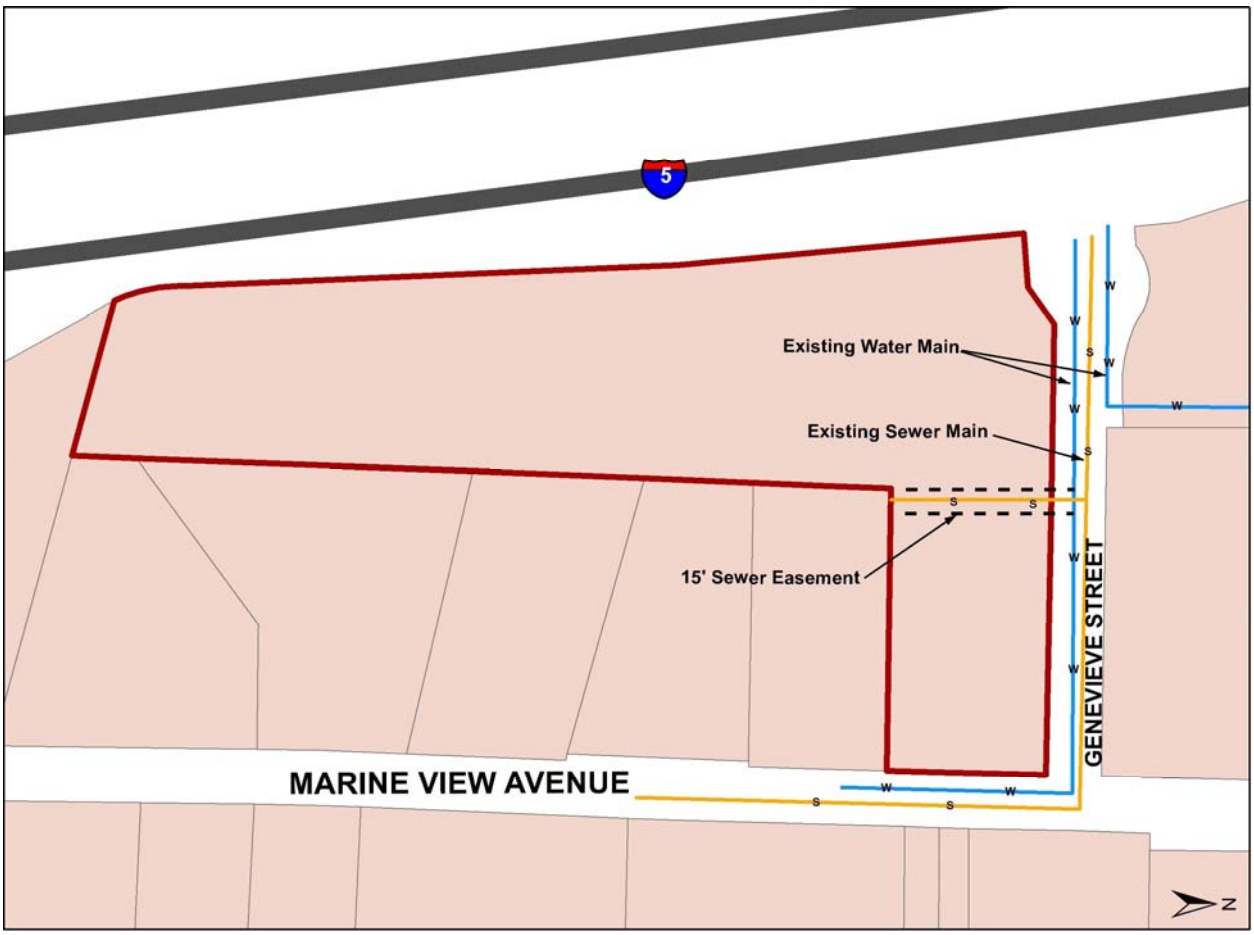
Water is provided to the Specific Plan property by the Santa Fe Irrigation District, which obtains its water from the San Diego County Water Authority – Metropolitan Water District system.

There are existing public water lines in Genevieve Street available with adequate capacity to serve the site as shown on Exhibit 3-3.

C. Sewer Facilities

The Specific Plan property is located within the City of Solana Beach which is the public agency responsible for providing sewage collection and treatment. Sewage treatment occurs at the San Elijo Water Treatment Plan owned and operated by the San Elijo Joint Powers Authority (comprised of the City of Solana Beach and the Cardiff Sanitation District). Existing public sewer lines adjacent to the site are shown on Exhibit 3-3. The existing pubic sewer lines within Genevieve Street have adequate capacity to serve development in accordance with this Specific Plan.

An existing private sewer within an easement across the property partially bisects the site extending from the rear property lines of the existing residences along Marine View Avenue to the sewer line in Genevieve Street.



Source: Pasco, Laret, Suiter and Associates, 2014

Exhibit 6-2 – Water and Sewer Existing Facilities Map

D. Storm Water and Drainage Facilities

As identified by the San Diego Basin Plan, the Specific Plan property is located within the San Dieguito Hydrologic Unit, specifically the Rancho Santa Fe Hydrologic Sub Area. According to the California's Clean Water Act Section 303(d) list published by the San Diego Regional Water Quality Control Board, the Pacific Ocean at the mouth of the San Dieguito River is listed as an impaired water body for indicator bacteria. The proposed project has a relatively low concern for bacterial pollutants and any potential for impact can be adequately handled by the project storm water treatment system.

Drainage from the site ultimately discharges to the Pacific Ocean, but the site does not directly discharge into the ocean itself. The path of discharge from the pre-developed and post-developed is as follows: initially collected in a storm drain inlet adjacent to the site, conveyed in a public storm drain and discharged near the mouth of the San Dieguito River prior to entering the Pacific Ocean.

Storm water currently enters onto the site from properties to the east and south, and from Marine View Avenue, and is then discharged into a swale along the Caltrans right-of-way. (See Section 2.5 for map of existing drainage patterns.) Detailed design plans for managing storm water flows will be included in the engineering design for the project, addressing both quantity of flows and water quality. The design is anticipated to include retention basins, and BMP treatment swales, as part of the overall storm water management for the project.

A storm water management plan is required in accordance with the Solana Beach Municipal Code (SBMC 13.10) and the Regional Water Quality Control Board regulations prior to issuance of a grading permit.

E. Solid Waste Disposal

Within the City of Solana Beach, solid waste collection services are contracted with private disposal companies and will be paid for by the owner or lessee of the facility.

Adequate capacity for both trash and recyclables will be provided for the facility. All trash areas shall be screened from view from public streets and access drives into the site.

F. Energy

There are existing public utilities adjacent to the site, including gas, electricity and other dry utilities. Existing area supply lines are considered adequate to supply future needs with capacity to serve the project.

All new utility services within the Specific Plan boundary, including but not limited to electrical, telephone and cable TV, shall be underground.

G. Public Safety (Fire and Police Services)

Fire and paramedic services are provided by the Solana Beach Fire Department. The nearest fire station serving the project is located on Lomas Santa Fe, west of Interstate 5, about 1.5 miles from the project site.

For law enforcement services, the City of Solana Beach contracts with the San Diego County Sherriff's Dept., which are provided out of the Encinitas Sheriff's Station.

Fire and law enforcement services will continue to be provided by the City of Solana Beach and the County of San Diego Sherriff's Department.

6.2 Improvement Financing

Since this Specific Plan area is located at an infill location, no major offsite improvements are necessary, and limited financing mechanisms are needed. The two mechanisms anticipated for this Specific Plan are as follows:

Developer Funding
For development within this Specific Plan area, funding for on-site facilities shall be provided directly by the project. Developer funding will also pay for improvements as required concurrent with the project development, such as local street improvements, utility connections from the main trunk lines, and drainage facilities.

Impact Fees and Exactions
Impact fees, exactions, and reimbursement agreements are a tool for paying for required public facilities and improvements. The developer of property within this Specific Plan area will be required to pay appropriate fees and exactions to the City of Solana Beach.

6.3 Maintenance Financing

The recurring maintenance costs for infrastructure and improvements will be provided as follows:

Roadways
Maintenance of vehicular travel ways, curbs, gutters and concrete sidewalks within the public rights-of-way will be provided by the City of Solana Beach and funded by the City's tax revenue. Landscape frontage improvements, including any DG paths, will be maintained by the property owner, including those improvements within the public rights-of-way. Private driveways into the site will be maintained by the property owner.

Utility Infrastructure
Maintenance of public utilities and facilities will be the responsibility of the City of Solana Beach (sewer, storm drains) or the Santa Fe Irrigation District (water). Public service utilities contracted to private companies, such as solid waste disposal, will be maintained

by the owner of the property. Private utilities, such as electric, gas, telephone, cable television and internet service will be maintained by the individual private utility company.

Landscaping

Maintenance of all hardscape not within public rights-of-way and of all landscaping on the project site, including the neighborhood open space area, will be the responsibility of the property owner.

CHAPTER 7 - PLAN IMPLEMENTATION

7.1 Relationship of the Specific Plan to the General Plan

Per California Government Code Section 65454, a specific plan must be consistent with the local jurisdiction's General Plan. This Specific Plan is consistent with the City of Solana Beach General Plan. Chapter 7 discusses the consistency of the Specific Plan, including, without limitation, the development standards and design guidelines, with the Solana Beach General Plan.

7.2 Relationship of the Specific Plan to the Solana Beach Municipal Code

This Specific Plan is a legislative document that creates an overlay for the property that, in concert with other remaining portions of the Municipal Code, will be applied to the development and occupancy of the property for Residential Care Facility and Neighborhood Open Space uses. Where there is a conflict between the provisions of this Specific Plan and other sections of the Solana Beach Municipal Code (SBMC), the provisions of this Specific Plan shall prevail.

7.3 Severability

If any term, provision or condition of this Specific Plan is determined invalid, void or unenforceable, the remainder of this Specific Plan shall not be affected thereby to the extent such remaining provisions are not rendered impractical to perform, taking into consideration the purposes of this Specific Plan.

7.4 Specific Plan Administration

A. Development Review / Entitlements

This Specific Plan provides for site development as a Residential Care Facility in accordance with the regulations contained herein. If applicable, approval of this Specific Plan will serve as City approval of an amendment of the LCP. If the LCP amendment is required, this Specific Plan and the LCP amendment are not effective unless and until certified by the California Coastal Commission

All development proposed within the boundaries of the Specific Plan shall be required to conform with the provisions of this Specific Plan. This conformance will be evaluated through the City's standard process for Structure Development Permit and Development Review Permit, and approved by the Solana Beach City Council. A Coastal Development Permit may also be needed if required by law.

B. Specific Plan Interpretations

In instances where any section, subsection, sentence, clause, phrase, portion, or word contained within this Specific Plan is undefined, unclear or vague, then the Planning Director shall resolve the matter in a manner consistent with the goals, policies, standards, purposes and intent established in this Specific Plan.

C. Compliance with the Specific Plan as Adopted

The City of Solana Beach shall monitor compliance with the Specific Plan, as adopted, and mitigation measures at these stages, as appropriate:

- During the review and approval of development entitlements and other permits as appropriate.
- During the review of construction documents, and prior to the issuance of grading or building permits.
- Prior to the issuance of a certificate of occupancy for any building within the Specific Plan area.

D. Specific Plan Modifications

Approval of this Specific Plan establishes specific standards for design, development, occupancy and use of the site. While this document attempts to be comprehensive, it is understood that not all things can be envisioned, and there may be situations where modifications in the Specific Plan may be necessary.

Proposed modifications to the Specific Plan shall initially be reviewed by the City staff in order to determine the extent to which they differ from the established standards and regulations of the Specific Plan.

Proposals that substantially conform to the Specific Plan shall not require a revision to the Specific Plan. Proposals that do not substantially conform to the Specific Plan shall be treated as either Minor Modifications or Substantive Amendments. Administrative Modifications will allow for minor revisions to the Specific Plan through review by City staff and administrative approval by the Planning Director. No public hearing and no public vote of the electorate shall be required. Substantive Amendments will address more significant changes and shall be reviewed by City staff and require City Council public hearing and approval.

<u>Administrative Modifications</u>
Certain minor changes to or deviations from provisions in this Specific Plan may be made administratively with approval by the Planning Director. Such modifications to the adopted Specific Plan must be consistent with the purpose and intent of the originally approved Specific Plan and must comply with the following requirements:

1. The total number of Residential Care Facility beds within the Specific Plan area shall not exceed 99 beds.

2. The public health, safety and welfare shall not be jeopardized by the proposed modifications.

3. No additional potentially significant adverse environmental impacts are expected to occur as a result of the proposed modifications, except as evaluated in a certified environmental document for the project.

4. The following deviations are examples of "minor changes" that qualify as Administrative Modifications:

   a) Modifications to the Specific Plan area boundaries that respond to more accurate or recent data or actual on-site conditions, but which do not result in an increase in significant adverse environmental impacts beyond those already considered.

   b) Variations in public improvements identified in this Specific Plan including, but not limited to, adjustments to horizontal and vertical roadway alignments to respond to actual ground conditions; provided, however, that the changes do not adversely affect public safety.

   c) Modifications to the development standards, use standards, architecture, landscape or grading provisions necessary to respond to actual site conditions, or that are substantially consistent with the purposes and intent of this Specific Plan.

   d) Modifications required to satisfy changes to Federal and/or State law that require a corresponding amendment to local ordinances.

   e) Modifications to the water, sewer and/or drainage plan(s) that improve efficiency or are necessary to respond to actual site conditions.

   f) Other minor modifications of a similar nature to those listed above which are in keeping with the purpose and intent of the approved Specific Plan, and which are in substantial conformance with the General Plan, as amended.

<u>Substantive Amendments</u>

Proposed Specific Plan modifications that do not meet the criteria for Administrative Modifications as previously described, shall be deemed to require a Substantive Amendment. The procedures to amend this specific plan shall be by ordinance or resolution as specified by State of California Govt. Code 65456 through a public hearing before the City Council pursuant to the Solana Beach Zoning Ordinance. The applicant shall be required to submit a completed application with graphics,

statements, or other information as may be required to support the proposed amendment. Said amendment or amendments shall not require a concurrent general plan amendment or a public vote of the electorate pursuant to Proposition T or otherwise unless a new, inconsistent land use change is proposed or there is an intensification of land uses beyond the 99 beds of Residential Care Facility for the Elderly (RCFE) use authorized by the Specific Plan.

This Specific Plan establishes the land use, intensity, development regulations, design standards, and primary infrastructure components to direct future development of the project. In evaluating any proposed Substantive Amendment, City staff and the City Council will have comprehensively reviewed the Specific Plan, including its text and exhibits. A Substantive Amendment application shall:

1. Demonstrate that the proposed amendment substantially complies with the goals and policies of the Solana Beach General Plan.

2. Update applicable technical studies or provide additional studies as determined by the Planning Director to be needed to evaluate or support the proposed Substantive Amendment.

3. Provide a strikeout/underline copy of the Specific Plan text noting proposed revisions, along with any revised exhibits or maps necessary to support the Substantive Amendment.

<u>CCC Review</u>
If CCC adoption or modification of the LCP or CCC review of any coastal development permit for the subject property requires a modification of this Specific Plan, the process for approving such a change to the Specific Plan shall be determined in accordance with this Section 7.4.D. As specified above, a CCC required modification to the Specific Plan shall only trigger a public vote of the electorate if the change requires incorporation of a new, inconsistent land use or an intensification of land uses beyond the 99 beds of RCFE authorized by the Specific Plan.

CHAPTER 8 - CONSISTENCY WITH THE GENERAL PLAN

This Specific Plan is consistent with the City of Solana Beach General Plan. The following excerpts applicable General Plan goals and then summarizes the manner in which the Specific Plan is consistent. The relevant Goals excerpted from the City of Solana Beach General Plan are listed below in ***italics***, and the consistency summary follows in regular type.

8.1 Land Use Element

Goal 3.1: To promote development of a well-balanced and functional mix of residential, commercial, industrial, open space, recreational, and institutional and uses.

Especially in relation to existing and future demand, the City has limited existing Residential Care Facilities and limited sites that can accommodate new Residential Care Facilities. The Specific Plan provides an opportunity for a quality Residential Care Facility use with the potential for both assisted living and memory care services to help meet the increasing demand and need for such services. The Specific Plan promotes re-use of a currently vacant, previously disturbed, underutilized site with substantial constraints associated with its proximity to and frontage along Interstate 5.

The Specific Plan incorporates standards for open space that includes both common open space areas that solely serve the residents of the Residential Care Facility, as well as a Neighborhood Open Space as a transitional, passive use along Marine View Avenue that will also be available for use by the adjacent residential neighborhood.

Goal 3.2: To ensure that development in the City is consistent with the overall community character and contributes positively towards the City's image.

The Specific Plan identifies the existing character of the neighborhood and varied uses around the property, and incorporates development standards and design guidelines that requires amenities for the Residential Care Facility use along with architectural, site and landscaping improvements that maintain the semi-rural neighborhood character of the neighborhood to the east, and serve as an appropriate transitional use to the office development to the north and the freeway to the west.

8.2 Housing Element

The primary goal of the City of Solana Beach is to continue to ensure that decent, safe housing is available at a cost that is affordable to all current and future residents of the City. To achieve this goal the City has defined the following sub-goals:

Goal 1: Encourage the adequate provision of a range of housing opportunities that will meet Solana Beach's share of the existing and future housing needs of the region.

While Residential Care Facility uses are not dwelling units tracked under Housing Element regulations, they incorporate elements of assistance needed by segments of the populations due to aging or health limitations. The Specific Plan provides an opportunity to house those who need assisted living or memory care services. Thus, the Specific Plan is consistent with the City's goal of encouraging the adequate provision of a range of residential opportunities.

Goal 2: Minimize governmental constraints to the development, improvement, and maintenance of housing.

This Specific Plan establishes regulations for development of a Residential Care Facility that accounts for the unique improvements, amenities and services required for a Residential Care Facility. The Specific Plan furthers the City's goal of minimizing governmental constraints to the development, improvement, and maintenance of housing while authorizing a development that is consistent with the overall community character.

Goal 3: Maintain and enhance the quality of residential neighborhoods in Solana Beach.

This Specific Plan incorporates design standards and development regulations for the Residential Care Facility use including generous setback, yard, open space and facility requirements that ensure maintenance of the existing character of the nearby residential neighborhood, and the quality living environment of Solana Beach.

Goal 4: Conserve existing affordable housing opportunities.

The Specific Plan property is currently vacant, and development in accordance with the Specific Plan would not adversely affect any existing affordable housing opportunities.

Goal 5: Promote equal opportunity for all residents to live in the housing of their choice.

There is an increasing demand for Residential Care Facility uses that is presently unmet in the City of Solana Beach, and this Specific Plan will provide equal opportunities for residents who need such care services to remain in their community. Thus, the Specific Plan furthers the goal of promoting equal opportunity for all residents to live in the housing of their choice.

8.3 Circulation Element

Goal 3.1: To provide a street network to move people and goods safely and efficiently.

The Specific Plan provides for frontage improvements along both Genevieve Street and Marine View Avenue consistent with their designation as local streets, with the design of pavement, curb, gutter, and sidewalk as outlined in the Circulation section of this Specific Plan. Existing capacity is available on the overall City street network to accommodate trips associated with development in accordance with the Specific Plan. Thus, development in accordance with the Specific Plan is consistent with the City's goal of providing a street network to move people and goods safely and efficiently.

Goal 3.3: To promote safe alternatives to motorized transportation that meet the needs of all city residents.

The Specific Plan standards require pedestrian improvements and parking for bicycles in accordance with City requirements. Thus, the Specific Plan is consistent with the goal of promoting safe alternatives to motorized transport.

Goal 3.4: To provide an adequate supply of private off-street and public parking to meet the needs of residents and visitors to the city.

The Specific Plan satisfies this goal by requiring private off-street parking to serve the staff, residents and visitors to the Residential Care Facility use, consistent with the minimum parking requirements for Residential Care Facility uses established in the City zoning ordinance. Design standards of the Solana Beach Off Street Parking Design Manual are incorporated by reference into the Specific Plan.

8.4 Noise Element

Goal 3.1: To protect public health and welfare by eliminating existing noise problems and by preventing significant degradation of the future acoustic environment.

The site is not a source of noise problems requiring elimination. The most substantial noise source in the Specific Plan area is from traffic on Interstate 5. The Specific Plan requires noise attenuation for traffic noise from Interstate 5 through the use of building materials for interior areas and sound barriers for active outdoor use areas.

The Specific Plan prevents significant degradation of the future acoustic environment by requiring compliance with the City of Solana Beach's adopted community noise standards for noise levels in residential areas, and includes provisions for site and building design that minimizes noise effects on use areas within the Specific Plan boundaries. Further, the buildings authorized by the

Specific Plan will help buffer existing and future freeway noise for at least some of the existing residential neighbors.

8.5 Safety Element

Goal 3.1: To minimize hazards to public health, safety, and welfare resulting from natural and man-made phenomena.

Development of property within the Specific Plan is required to comply with City code requirements, including the requirement for technical studies such as geotechnical and storm water management, associated with any site grading and street improvements. Thus the Specific Plan is consistent with the goal to minimize hazards to public health, safety and welfare from natural and nan-made phenomena.

Goal 3.2: To provide a safe and secure environment for the city's residents, workers, and visitors.

The Specific Plan is consistent with the City's goal of providing a safe and secure environment for the City's residents, workers, and visitors because the proposed uses are compatible with the surrounding area. Development and design standards require setbacks, lighting of the parking areas and the building with consideration for location within the Dark Sky Overlay zone, and provide access considerations related to site security.

8.6 Conservation and Open Space Element

Goal 3.1: To protect and conserve the city's natural and cultural resources.

The Specific Plan is consistent with the City's goal of conserving natural and cultural resources as the site is a previously disturbed area. Further, future development of property within the Specific Plan is subject to City and State regulations regarding environmental review under CEQA, state and federal water quality standards, and other applicable state law designed to conserve natural and cultural resources.

Goal 3.2: To protect and enhance sensitive open space areas and viewsheds.

The Specific Plan is consistent with the goal of protecting and enhancing sensitive open space areas and viewsheds. The property within the Specific Plan boundaries is not within a sensitive hillside or open space area and is not part of a protected viewshed. Design and development standards also address building heights, setbacks, and alteration of natural landforms and siting building and use areas.

CHAPTER 9 - DEFINITIONS

9.1 Purpose

Words, phrases and terms not specifically defined in this Chapter shall have the same definition as provided in the Chapter 17.08 of the Solana Beach Municipal Code, or, where not defined in the SBMC, as applied in normal usage. For purposes of this Specific Plan, the following terms shall have the meanings set forth in this Chapter.

9.2 Construction of Language

1. As used in this Specific Plan, the terms "shall" means mandatory or required; "should" means recommended or desired; and "may" means optional.

2. In case of any difference of meaning or implication between the text of any provision and any caption or illustration, the text shall control.

3. Where stated, numerical metrics take precedence over graphic metrics.

4. References in the masculine and feminine genders are interchangeable.

5. Unless the context clearly indicates to the contrary, words in the present and the future tense are interchangeable, and words in the singular and plural are interchangeable.

6. Unless the context clearly indicates to the contrary, the following conjunctions shall be interpreted as follows:

   a) "And" indicates that all connected items or provisions shall apply.

   b) "Or" indicates that the connected items or provisions may apply singly or in any combination.

   c) "Either...or" indicates that the connected items or provisions shall apply singly but not in combination.

   d) The word "used" shall include arranged, designed, constructed, altered, converted, rented, leased, occupied, or intended to be utilized.

9.3 Definitions

C

COMMON LIVING AREA: The interior areas of a Residential Care Facility available for use by all residents, exclusive of sleeping, dining and kitchen areas, and typically used for entertainment, relaxation or other activities.

K

KITCHEN, CENTRAL: A commercial-grade kitchen within a Residential Care Facility that is used for preparation of food, cooking, storage and refrigeration to serve the needs for common dining services to residents.

KITCHEN, CONVENIENCE: A portion of an individual room within a Residential Care Facility that has limited kitchen facilities such as a sink, refrigerator, microwave, cabinet and countertop.

L

LOT LINE: A line bounding a lot. (See also YARD). The classifications of lot lines within this Specific Plan are described below and shown in the following diagram:

- FREEWAY SIDE LOT LINE: The lot line abutting Interstate 5.
- FRONT LOT LINE: The line separating the parcel from Genevieve Street.
- REAR LOT LINE: The lot line at the southernmost extent of the parcel that is most distant from and most closely parallel to the front lot line.
- RESIDENTIAL SIDE LOT LINE: The lot lines abutting the side or rear lot lines of adjacent residential property.
- STREET SIDE LOT LINE: The lot line abutting Marine View Avenue.

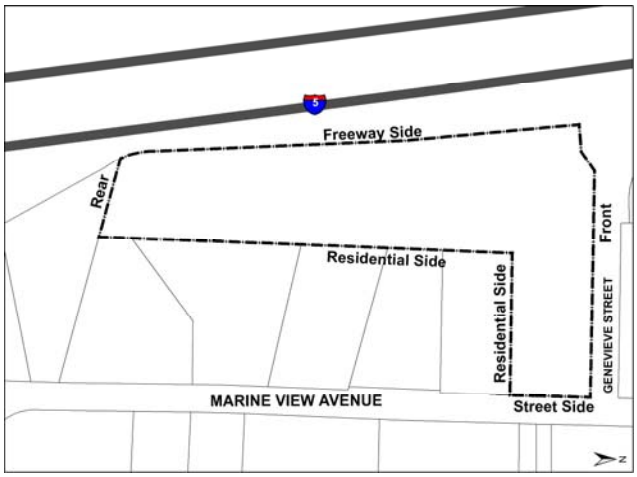


Exhibit 9-1 – Lot Lines

N

NEIGHBORHOOD OPEN SPACE: For purposes of this Specific Plan, Neighborhood Open Space refers to the portion of common open space area within the Specific Plan boundaries that is available for use by occupants of the Residential Care Facility as well as by residents of the broader neighborhood, generally located at the corner of Marine View Avenue and Genevieve Street, that is owned and maintained by the owner of the subject property and improved as an outdoor landscaped area with passive amenities such as walkways and seating areas.

O

OPEN SPACE, COMMON: The exterior/outdoor open space areas of a Residential Care Facility available for use by all occupants of the facility or by occupants of a designated portion of the facility. Common open space is not dedicated to the public and is owned and maintained by the private owner of the subject property. Common open space includes outdoor or unenclosed areas on the ground, or on a deck, or terrace, designed and accessible for outdoor living, recreation, pedestrian access, or landscaping. Amenities may be active or passive such as walking paths, courtyards, sitting areas, gardens, recreational game areas, open landscaped areas, and/or greenbelts. Common open space excludes streets, pavement or driveway areas, parking facilities, utility or service areas or parkway landscaping within public rights-of-way.

R

RESIDENTIAL CARE FACILITY: For purposes of this Specific Plan, a Residential Care Facility is only a Residential Care Facility for the Elderly (RCFE) as defined by the State of California. An RCFE subject to this Specific Plan is allowed to serve the elderly, and may also provide residential care services to those with compatible needs such as persons with debilitating diseases and injuries requiring long term support with daily living requirements (e.g. veterans or others with severe brain injuries) consistent with State law. A Residential Care Facility is a group care facility with food services and kitchen facilities, for 24-hour nonmedical care of persons in need of personal services, supervision, ancillary support services, or assistance essential for sustaining the activities of daily living or for the protection of the individual including assisted living and memory care services. An RCFE must secure all required licenses from the State of California as a Residential Care Facility for the Elderly for the specific number of residents. Transitional care and skilled care services may be provided as authorized by state licensing provisions. No Residential Care Facility uses other than RCFE, including facilities dedicated to alcohol or drug abuse recovery, are allowed.

S

SENIOR CARE FACILITY: See “Residential Care Facility”.

SETBACK: The minimum required distance that a building, structure, parking area or other designated item must be located from a lot line (see also YARD). The setbacks for the subject site are further defined as follows and as illustrated on Exhibit 4-2.

- BUILDING SETBACK: A Yard area that prohibits enclosed structures, but allows parking and other items permitted within the buildable area, including but not limited to lighting subject to Dark Sky compliance, landscaping, hardscape, and fencing.

- PARKING SETBACK: A Yard area that prohibits vehicle parking and enclosed structures, but allows other items permitted within the buildable area, including but not limited to lighting subject to Dark Sky compliance, landscaping, hardscape, and fencing.

SETBACK LINE: A line within a lot parallel to and measured from a corresponding lot line, forming the boundary of a required yard and governing the placement of structures and uses on the lot (see also YARD).

SLEEPING AREA: An area within a Residential Care Facility designated as space for one or more beds. No room commonly used for other purposes shall be used as a sleeping area, such as living rooms, dining rooms, family rooms, dens, recreation rooms, hallways, stairways, unfinished attics, basements, garages, closets, storage areas, or sheds. No sleeping area shall be used as a public or general passageway to another room, bath, or toilet.

Y

YARD: An open area on a parcel of land, other than a court, unobstructed and unoccupied from the ground upward, except for projections or encroachment permitted by this Specific Plan or the SB Municipal Code (see also LOT LINE). The Yard areas for the subject site are as follows, and as illustrated on Exhibit 4-2:

- FREEWAY SIDE YARD: An area extending from the required front yard to the rear lot line and from the freeway side lot line to the freeway side building setback line parallel thereto.

- FRONT YARD: An area extending across the full width of the lot between the front lot line, or the existing or future street right-of-way (whichever is greater) and the front building setback line parallel thereto.

- REAR YARD: An area extending across the full width of the lot between the rear lot line and the rear building setback line parallel thereto.

- RESIDENTIAL SIDE YARD: An area extending from the residential side lot line to the residential side building setback line parallel thereto, exclusive of any area defined as a front yard or rear yard.

- STREET SIDE YARD: An area extending from the side street lot line, or the existing or future side street right-of-way (whichever is greater) to the street side parking setback line parallel thereto.

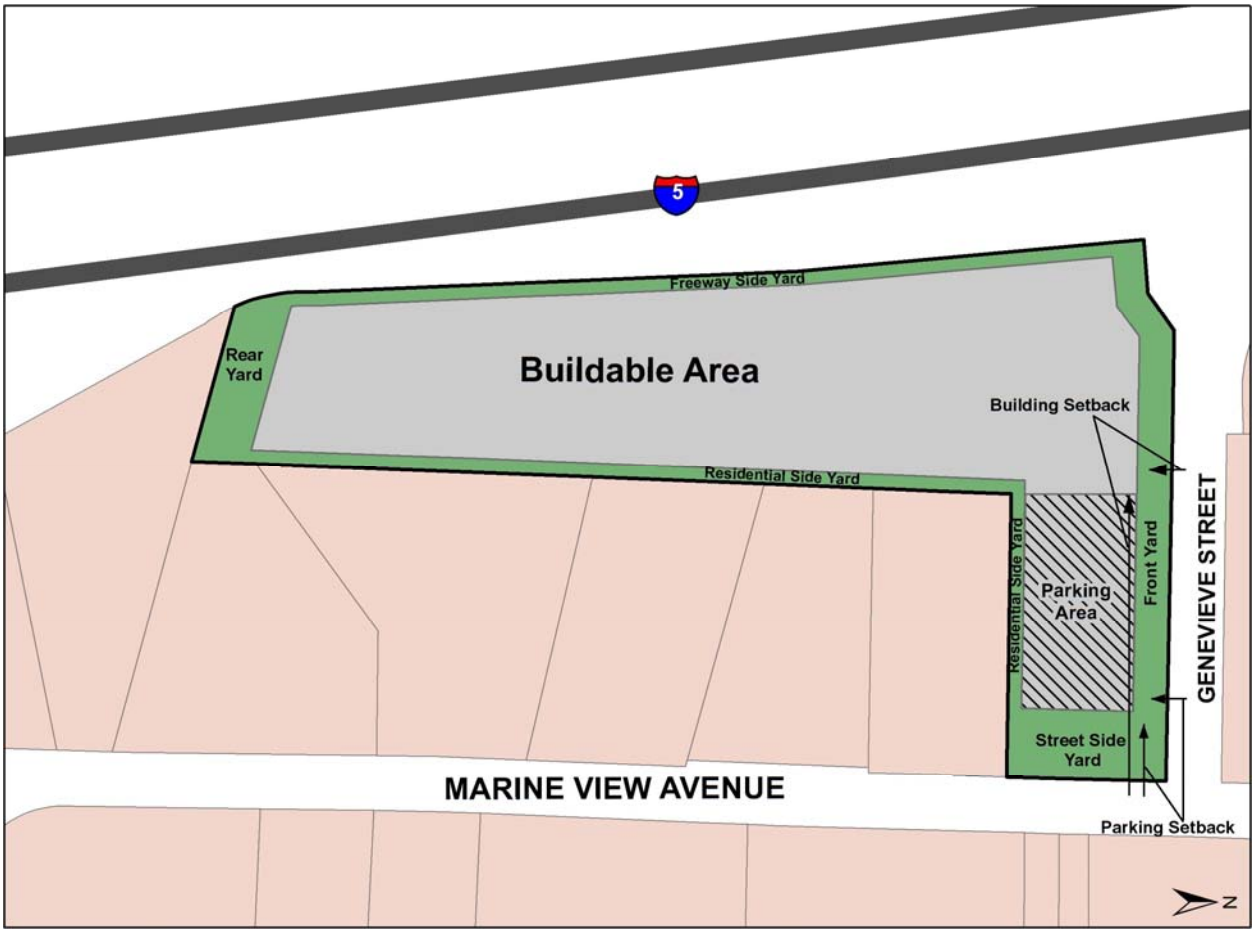


Exhibit 9-2 – Setbacks and Yards

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APPENDICES

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APPENDIX A
LEGAL DESCRIPTION

PARCEL A:
ALL THOSE PORTIONS OF LOTS 1 AND 2 IN BLOCK 3 OF KENNEY'S MARINE VIEW GARDENS, IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, DECEMBER 31, 1923, DESCRIBED AS FOLLOWS:

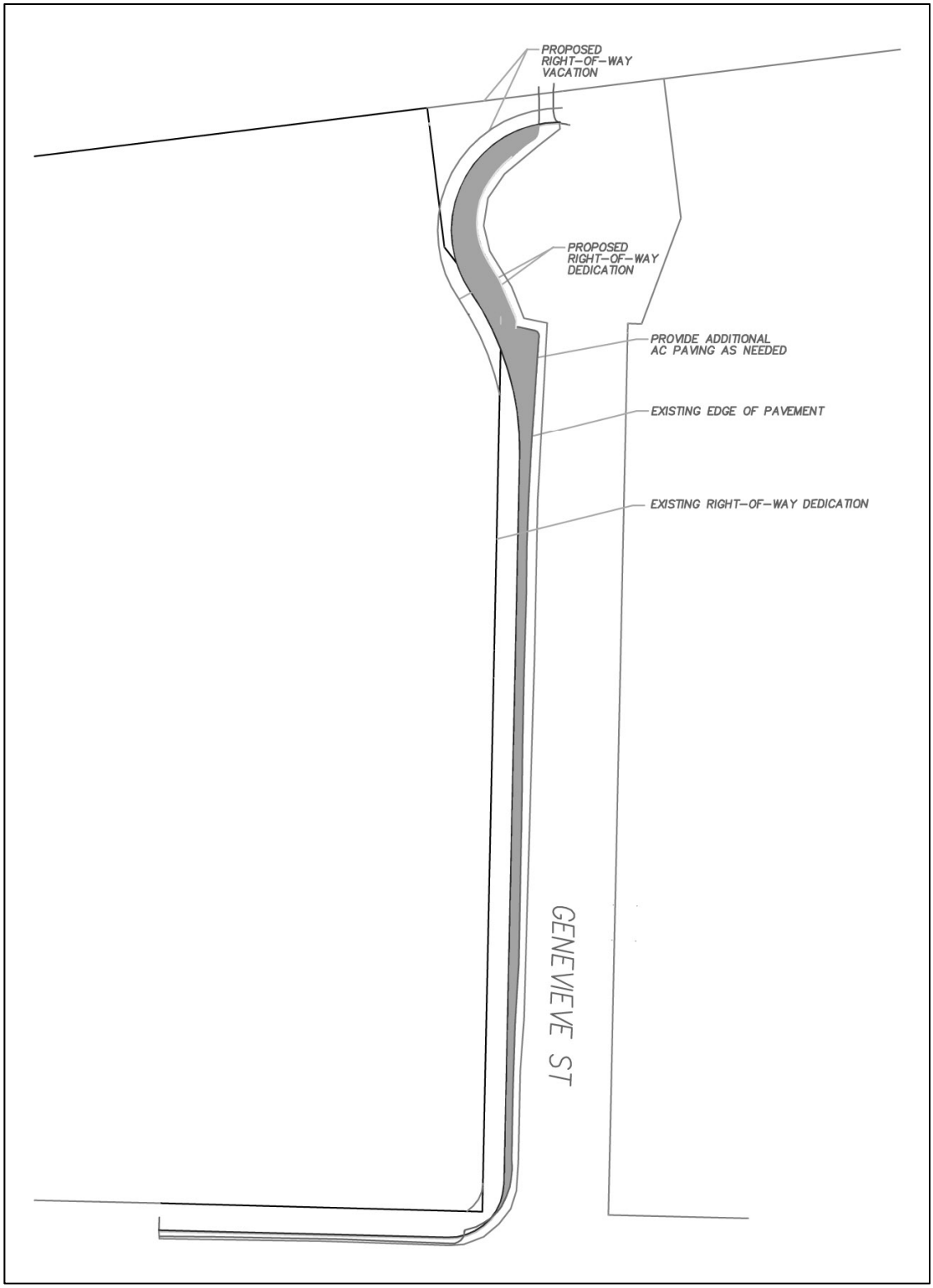
BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 1; THENCE ALONG THE EASTERLY LINE OF SAID LOT 1, SOUTH 0° 54' 58" WEST (RECORD EQUALS SOUTH 0° 37' WEST), 115.05 FEET; THENCE LEAVING SAID EASTERLY LINE AT RIGHT ANGLES NORTH 89° 05' 02" WEST, 200.56 FEET TO THE NORTHERLY PROLONGATION OF THE WESTERLY LINE OF PARCEL MAP NO. 8089, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, NOVEMBER 22, 1978; THENCE ALONG SAID PROLONGATION SOUTH 0° 45' 49" WEST (RECORD EQUALS SOUTH 0° 33' 43" WEST) TO AND ALONG THE WESTERLY LINE OF SAID PARCEL MAP NO. 8089, 580.96 FEET TO THE SOUTHWEST COMER OF PARCEL 3 OF SAID PARCEL MAP NO. 8089, SAID CORNER BEING ON THE SOUTHWESTERLY LINE OF SAID LOT 2 OF SAID MAP NO. 1774; THENCE ALONG SAID SOUTHWESTERLY LINE NORTH 75° 20' 10" WEST (RECORD EQUALS NORTH 75° 27' WEST), 118.91 FEET TO AN INTERSECTION WITH THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE FREEWAY ROUTE 5 AS SHOWN ON STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION MONUMENTATION MAP, IDENTIFIED AS MISCELLANEOUS SURVEY 777, SURVEY OF 1976, SHEET 2 OF 15, SAID EASTERLY RIGHT OF WAY LINE ALSO BEING THE WESTERLY LINE OF A PARCEL OF LAND DESCRIBED IN DIRECTORS DEED TO LLEWELLYN W. HUGHES AND WIFE, RECORDED NOVEMBER 6, 1970 AS FILE NO. 203703, BOOK 1970 OF OFFICIAL RECORDS OF SAN DIEGO COUNTY; THENCE ALONG SAID EASTERLY RIGHT OF WAY LINE AND SAID WESTERLY LINE OF HUGHES LAND, NORTH 28° 21' 02" WEST, 24.42 FEET (RECORD EQUALS NORTH 27° 51' 24" WEST, 24.43 FEET); THENCE NORTH 3° 47' 39" WEST, 375.69 FEET (RECORD EQUALS NORTH 3° 14' 09" WEST, 375.83 FEET) TO A POINT BEING AT COORDINATES Y EQUALS 3,000,493.48 AND X EQUALS 1,692,101.28 AS SHOWN ON SAID MISCELLANEOUS SURVEY 777; THENCE FROM SAID LAST MENTIONED POINT, CONTINUING ALONG SAID EASTERLY RIGHT OF WAY LINE NORTH 7° 34' 58" WEST, 245.02 FEET (RECORD EQUALS NORTH 7° 03' 00" WEST, 245.00 FEET), TO THE SOUTHWESTERLY COMER OF THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL 2 IN THE DEED TO THE STATE OF CALIFORNIA, RECORDED MAY 14, 1962 AS FILE NO. 82067 OF OFFICIAL RECORDS; THENCE ALONG THE BOUNDARY'S OF SAID DEED NORTH 82° 25' 16" EAST, 49.98 FEET (RECORD EQUALS NORTH 82° 57' 00" EAST, 50.00 FEET); THENCE NORTH 51° 42' 08" EAST, 33.20 FEET (RECORD EQUALS NORTH 52° 11' 49" EAST, 33.17 FEET) TO THE NORTHERLY LINE OF SAID LOT 1; THENCE ALONG SAID LOT LINE SOUTH 89° 19' 24" EAST (RECORD EQUALS SOUTH 89° 28' EAST), 318.38 FEET TO THE POINT OF BEGINNING.

PARCEL B:
AN EASEMENT FOR SEWER PIPE LINE AND INCIDENTAL PURPOSES OVER, UNDER, ALONG AND ACROSS A STRIP OF LAND 15 FEET IN WIDTH, BEING THE WESTERLY 15 FEET OF PARCELS B AND C AND EXTENDING IN A STRAIGHT LINE NORTHERLY TO THE NORTH LINE OF PARCEL A, ALL AS DESCRIBED IN CERTIFICATE OF COMPLIANCE, RECORDED APRIL 28, 2003 AS FILE NO. 2003-0487729 OF OFFICIAL RECORDS.

EXCEPTING THEREFROM THAT PORTION LYING WITHIN PARCEL 1 ABOVE.

APN: 298-390-51

APPENDIX B
Genevieve Street ROW Improvements



Source: Pasco, Laret, Suiter and Associates, 2014 No Scale

APPENDIX C
Landscape Plant Palette

Plant Type	Botanical Name	Common Name
Trees – All Site Areas		
	Pinus Torreyana	Torrey Pine
	Platanius Racemosa	California Sycamore
	Quercus Agrifolia	Coast Live Oak
	Quercus Tomentella	Island Oak
	Arbutus 'Marina'	Marina Madrone
	Cercis Occidentalis	Western Redbud
	Phoenix Roebelenii	Pigmy Date Palm
	Eriobotrya Deflexa	Bronze Loquat
	Lyonothamnus Floribundus	Catalina Ironwood
	Magnolia Grandiflora 'Little Gem'	Southern Magnolia
	Magnolia Grandiflora 'Majestic Beauty'	Southern Magnolia
	Fruit / Citrus Trees	various
Bioswales and Retention Basins		
	Carex Divulsa	Berkeley Sedge
	Chondropetalum Tectorum	Small Cape Rush
	Juncus Patens	California Gray Rush
Entry Way and North Garden		
Shrubs	Callistemon Viminalis 'Little John'	Dwarf Bottlebrush
	Festuca Ovina 'Glauca'	Blue Fescue
	Hemerocallis Hybrids	Daylily
	Heuchera Maxima	Island Alum Root
	Nandina D. 'Gulf Stream'	Heavenly Bamboo
	Nephrolepis Cordifolia	Sword Fern
	Phormium 'Maori Maiden'	New Zealand Flax
	Rhus Integrifolia	Lemonade Berry
	Rosa 'Blueberry Hill'	Rose
	Rosa 'Dream Weaver'	Rose
	Rosa 'Eureka'	Rose
	Rosa 'June Laver'	Rose
	Rosa 'Playtime'	Rose
Groundcovers	Trachelospermum Jasminoides	Star Jasmine
	Rosmarinus O. 'Huntington Blue'	Rosemary
Vines	Bougainvillea 'San Diego Red'	Bougainvillea
	Vitis California 'Rogers Red'	California Wild Grape

Landscape Plant Palette (continued)

Plant Type	Botanical Name	Common Name
Open Space and Slope Areas		
Shrubs	Calliandra Califonica	Baja Fairy Duster
	Carex Tumulicola	Berkeley Sedge
	Ceanothus 'Dark Star'	California Lilac
	Ceanothus 'Joyce Coulter'	California Lilac
	Coreopsis Gigantea	Coreopsis
	Galvezia Speciosa	Island Bush Snapdragon
	Muhlenbergia Dubia	Pine Muhly
	Muhlenbergia Rigens	Deergrass
	Penstemon Centranthifolius	Scarlet Bugle
	Penstemon Heterophylla	Margarita Bop
	Ribes Viburnifolium	Catalina Current
	Arctostaphylos Densiflora 'Harmony'	Harmony Manzanita
	Heteromeles Arbutifolia	Toyon
	Rhamnus Californica 'Eve Case'	Coffeeberry
	Rhus Integrifolia	Lemonade Berry
Groundcovers	Arctostaphylos Pacific Mist'	Manzanita
	Bacchais Pilularis 'Pigeon Point'	Dwarf Coyote Bush
Memory Garden and East Garden		
Shrubs	Agapanthus 'Getty White'	Getty White Agapanthus
	Camellia Sasanqua 'Mine-No-Yuki'	Camellia
	Camellia Japonica 'Alba Plena'	Camellia
	Carex Pansa	California Meadow Sedge
	Clivia Miniata Var Citrina 'Snowball'	Clivia
	Gardenia Augusta 'Klein's Hardy'	Gardenia
	Hemerocallis Hybrids	Daylily
	Lavendula Stoechas	Spanish Lavender
	Pittosporum Tenuifolium 'Marjorie Channon'	Variegated Kohuhu
	Rosa 'Iceberg'	Rose
Groundcovers	Lantana Montevidensis 'White Lightning'	Trailing Lantana
	Rosa X 'Noaschnee'	White Carpet Rose

Appendix 5.1-1 Landscape Plan

Appendices

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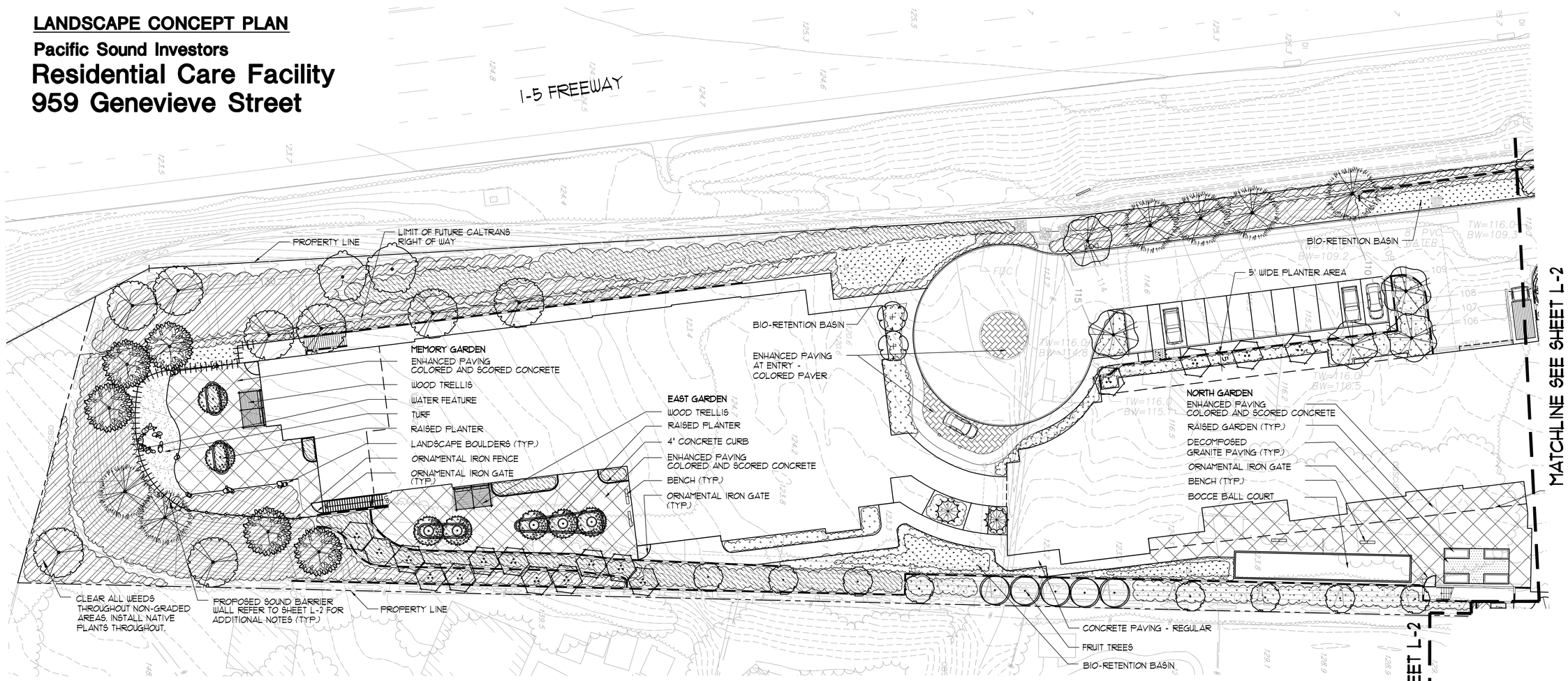
LANDSCAPE CONCEPT PLAN

Pacific Sound Investors

Residential Care Facility
959 Genevieve Street



PLANT MATERIAL LEGEND

TREES

SYM	BOTANICAL NAME / VARIETY	COMMON NAME	SIZE/SPACING/HEIGHT	WUCOLS VALUE
	PINUS TORREYANA	TORREY PINE	24" BOX /AS SHOWN 70' HEIGHT	LW
	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	24" BOX /AS SHOWN 40' HEIGHT	MW
	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX /AS SHOWN 70' HEIGHT	VLW
	QUERCUS TOMENTELLA	ISLAND OAK	24" BOX /AS SHOWN 40' HEIGHT	LW
	ARBUTUS 'MARINA'	MARINA MADRONE	15 GAL /AS SHOWN 30' HEIGHT	LW
	CERCIS OCCIDENTALIS	WESTERN REDBUD	15 GAL /AS SHOWN 18' HEIGHT	LW
	PHOENIX ROEBELENII	PIGMY DATE PALM	5 GAL /AS SHOWN 10' HEIGHT	MW
	ERIOBOTRYA DEFLEXA	BRONZE LOQUAT	15 GAL /AS SHOWN 30' HEIGHT	MW
	LYONOTHAMNUS FLORIBUNDUS	CATALINA IRONWOOD	15 GAL /AS SHOWN 35' HEIGHT	LW
	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	SOUTHERN MAGNOLIA	15 GAL /AS SHOWN 15' HEIGHT	MW
	MAGNOLIA GRANDIFLORA 'MAJESTIC BEAUTY'	SOUTHERN MAGNOLIA	15 GAL /AS SHOWN 30'-45' HEIGHT	MW
	FRUIT/CITRUS TREES	-	15 GAL /AS SHOWN 20' HEIGHT	MW

BIOWSWALES & RETENTION BASINS

CAREX DIVULSA	BERKELEY SEDGE	1 GAL. / 18" O.C.	LW
CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	1 GAL. / 18" O.C.	LW
JUNCUS PATENS	CALIFORNIA GRAY RUSH	1 GAL. / 18" O.C.	LW

TURF

TURF GRASS SOD - TURTLE TURF OR EQ. CONTACT AGRONOTEC SEED CO. 1-800-543-4109 TURF GRASS SPECIES TO HAVE A WUCOLS IV PLANT FACTOR OF .55 OR LESS	LW

ENTRY WAY & NORTH GARDEN

SHRUBS (ALL AREAS TO RECEIVE A 3" LAYER OF ORGANIC MULCH)

SYM	BOTANICAL NAME / VARIETY	COMMON NAME	SIZE / SPACING	WUCOS VALUE
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	DWARF BOTTLEBRUSH	5 GAL. / 3' O.C.	LW
	FESTUCA OVINA 'GLAUCA'	BLUE FESCUE	1 GAL. / 2' O.C.	LW
	HEMEROCALLIS HYBRIDS	DAYLILY	1 GAL. / 3' O.C.	MW
	HEUCHERA MAXIMA	ISLAND ALUM ROOT	1 GAL. / 2' O.C.	LW
	NANDINA D. 'GULF STREAM'	HEAVENLY BAMBOO	1 GAL. / 3' O.C.	LW
	NEPHROLEPIS CORDIFOLIA	SWORD FERN	1 GAL. / 3' O.C.	MW
	PHORMIUM MAORI MAIDEN'	NEW ZEALAND FLAX	5 GAL. / 5' O.C.	MW
	RHUS INTEGRIFOLIA	LEMONADE BERRY	5 GAL. / 6' O.C.	VLW
	ROSA 'BLUEBERRY HILL'	ROSE	5 GAL. / 5' O.C.	MW
	ROSA 'DREAM WEAVER'	ROSE	5 GAL. / 5' O.C.	MW
	ROSA 'EUREKA'	ROSE	5 GAL. / 5' O.C.	MW
	ROSA 'JUNE LAVER'	ROSE	5 GAL. / 5' O.C.	MW
	ROSA 'PLAYTIME'	ROSE	5 GAL. / 5' O.C.	MW

GROUNDCOVERS (ALL AREAS TO RECEIVE A 3" LAYER OF ORGANIC MULCH)

TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	1 GAL. / 30" O.C.	MW
ROSMARINUS O. 'HUNTINGTON BLUE'	ROSEMARY	FLATS / 18" O.C.	LW

VINES

BOUGAINVILLEA 'SAN DIEGO RED'	BOUGAINVILLEA	5 GAL. / 10' O.C.	LW
VITIS CALIFORNICA 'ROGERS RED'	CALIFORNIA WILD GRAPE	5 GAL. / 10' O.C.	LW

OPEN SPACE & SLOPE AREAS

SHRUBS (ALL AREAS TO RECEIVE A 3" LAYER OF ORGANIC MULCH)

SYM	BOTANICAL NAME / VARIETY	COMMON NAME	SIZE / SPACING	WUCOS VALUE
	CALLIANDRA CALIFORNICA	BAJA FAIRY DUSTER	5 GAL. / 6' O.C.	VLW
	CAREX TUMULICOLA	BERKELEY SEDGE	FLATS / 18" O.C.	LW
	CEANOTHUS 'DARK STAR'	CALIFORNIA LILAC	5 GAL. / 6' O.C.	LW
	CEANOTHUS 'JOYCE COULTER'	CALIFORNIA LILAC	5 GAL. / 6' O.C.	LW
	COREOPSIS GIGANTEA	COREOPSIS	1 GAL. / 3' O.C.	VLW
	GALVEZIA SPECIOSA	ISLAND BUSH SNAPDRAGON	1 GAL. / 5' O.C.	VLW
	MUHLENBERGIA DUBIA	PINE MUHLY	1 GAL. / 3' O.C.	LW
	MUHLENBERGIA RIGENS	DEERGRASS	1 GAL. / 3' O.C.	LW
	PENSTEMON CENTRANTHIFOLIUS	SCARLET BUGLE	1 GAL. / 3' O.C.	LW
	PENSTEMON HETEROPHYLLA	MARGARITA BOP	1 GAL. / 3' O.C.	LW
	RIBES VIBURNIFOLIUM	CATALINA CURRANT	1 GAL. / 3' O.C.	VLW
SYM				
	ARCTOSTAPHYLOS DENSIFLORA 'HARMONY'	HARMONY MANZANITA	5 GAL. / 6' O.C.	LW
	HETEROMELES ARBUTIFOLIA	TOYON	5 GAL. / 6' O.C.	LW
	RHAMNUS CALIFORNICA 'EVE CASE'	COFFEEBERRY	5 GAL. / 6' O.C.	VLW
	RHUS INTEGRIFOLIA	LEMONADE BERRY	5 GAL. / 6' O.C.	VLW

GROUNDCOVERS (ALL AREAS TO RECEIVE A 3" LAYER OF ORGANIC MULCH)

ARCTOSTAPHYLOS 'PACIFIC MIST'	MANZANITA	FLATS / 18" O.C.	LW
BACCHARIS PILULARIS 'PIGEON POINT'	DWARF COYOTE BRUSH	FLATS / 18" O.C.	LW

MEMORY GARDEN & EAST GARDEN

SHRUBS (ALL AREAS TO RECEIVE A 3" LAYER OF ORGANIC MULCH)

SYM	BOTANICAL NAME / VARIETY	COMMON NAME	SIZE / SPACING	WUCOS VALUE
	AGAPANTHUS 'GETTY WHITE'	GETTY WHITE AGAPANTHUS	1 GAL. / 3' O.C.	MW
	CAMELLIA SASANQUA 'MINE-NO-YUKI'	CAMELLIA	5 GAL. / 6' O.C.	MW
	CAMELLIA JAPONICA 'ALBA PLENA'	CAMELLIA	5 GAL. / 6' O.C.	MW
	CAREX PANSA	CALIFORNIA MEADOW SEDGE	FLATS / 18" O.C.	MW
	CLIVIA MINIATA VAR. CITRINA 'SNOWBALL'	CLIVIA	1 GAL. / 3' O.C.	LW
	GARDENIA AUGUSTA 'KLEIN'S HARDY'	GARDENIA	5 GAL. / 3' O.C.	MW
	HEMEROCALLIS HYBRIDS	DAYLILY	1 GAL. / 3' O.C.	MW
	LAVANDULA STOECHAS	SPANISH LAVENDER	1 GAL. / 3' O.C.	LW
	PITTOSPORUM TENUIFOLIUM 'MARJORIE CHANNON'	VARIEGATED KOHUHU	5 GAL. / 6' O.C.	MW
	ROSA 'ICEBERG'	ROSE	5 GAL. / 5' O.C.	MW

GROUNDCOVERS (ALL AREAS TO RECEIVE A 3" LAYER OF ORGANIC MULCH)

LANTANA MONTEVIDENSIS 'WHITE LIGHTNING'	TRAILING LANTANA	1 GAL. / 30" O.C.	LW
ROSA X 'NOASCHNEE'	WHITE CARPET ROSE	1 GAL. / 30" O.C.	MW

0 20' 40' 60'

WATER EFFICIENT LANDSCAPE DECLARATION:

I AM FAMILIAR WITH THE REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE CITY'S WATER EFFICIENT LANDSCAPE REGULATIONS. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS AND THE LANDSCAPE DESIGN MANUAL. I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER.

BY:

PHONE NO: (760) 692-1924

REGISTRATION NO: 2916 EXPIRATION DATE: 10/31/2020

THE LIGHTFOOT PLANNING GROUP

PLANNING
SITE DESIGN
LANDSCAPE ARCHITECTURE

5900 PASTEUR COURT SUITE 110
CARLSBAD, CA 92008
(760) 692-1924
LIGHTFOOT@LIGHTFOOTPG.COM

LICENSED LANDSCAPE ARCHITECT
JAMES L. TAYLOR No. 2916
Signature
10/31/20
Renewal Date
Date
STATE OF CALIFORNIA

Pacific Sound Investors
Residential Care Facility
Solana Beach, California

Scale:	1"=20'
Date:	08/31/2015
Drawn By:	AC/EE
Revisions:	
	10/17/2016
	03/31/2017
	03/19/2019

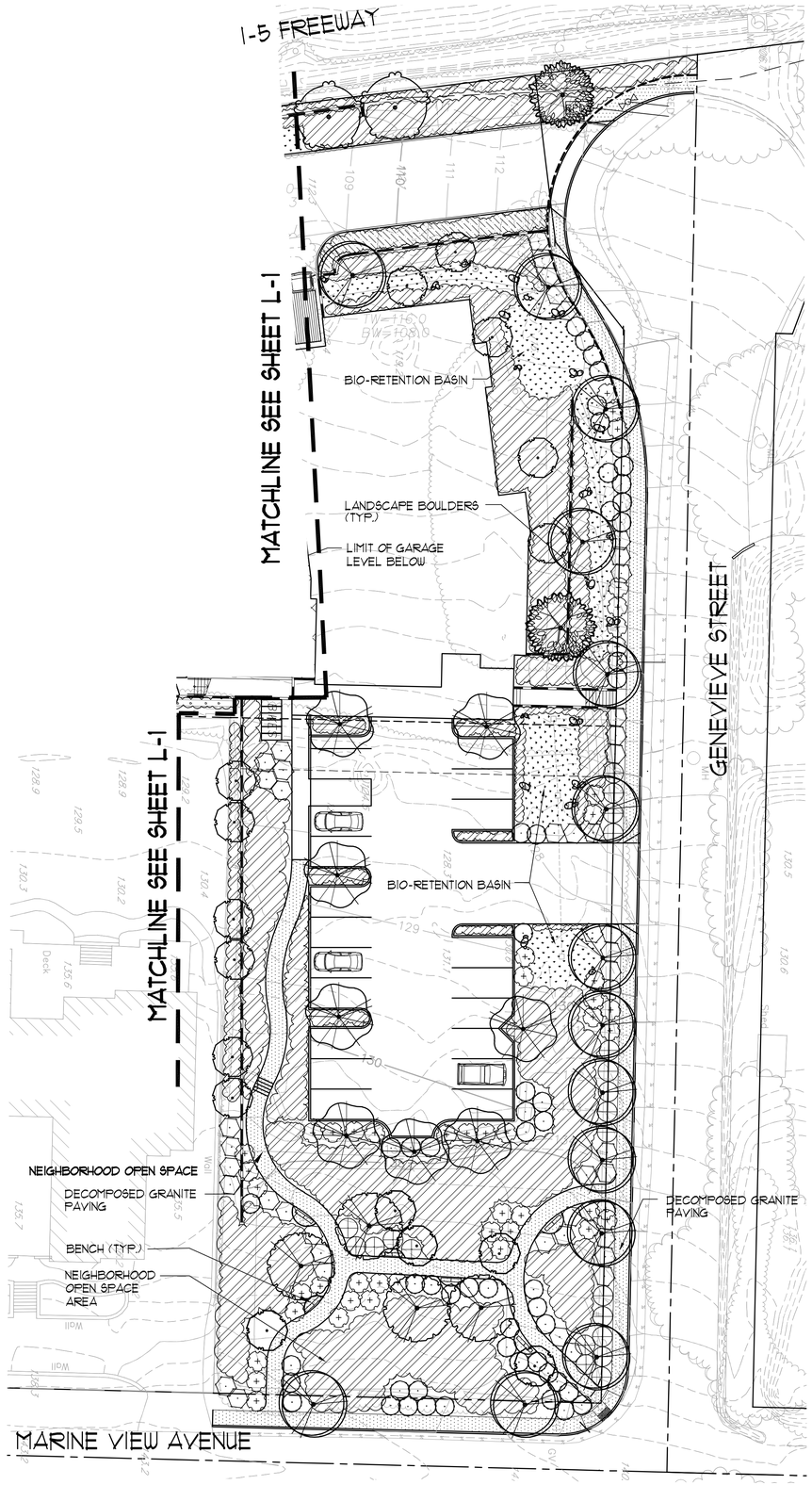
Landscape Concept Plan

Job # 1054.08.5

L-1

3

Pacific Sound Investors, Residential Care Facility 1054.08.5



GENERAL NOTES:
THIS CONCEPTUAL LANDSCAPE PLAN DIAGRAMMATICALLY SHOWS PLACEMENT OF PROPOSED PROJECT LANDSCAPING. FINAL LANDSCAPE PLANS SHALL ACCURATELY IDENTIFY AND SHOW PLACEMENT OF TREES, SHRUBS AND GROUND COVERS.
THE LANDSCAPE ARCHITECT IS AWARE OF THE CITY OF SOLANA BEACH POLICY WHICH PROHIBITS TREES AND STRUCTURES IN UTILITY EASEMENTS AND HAS CONCEPTUALLY DESIGNED THE PROJECT LANDSCAPE AND RESPECTIVE HARDSCAPE IN ACCORDANCE WITH THIS REQUIREMENT. ALL PERTINANT UTILITY EASEMENTS ARE DELINEATED ON THE PRELIMINARY CIVIL ENGINEERING SITE PLAN INFORMATION. THE FINAL LANDSCAPE PLAN SHALL SHOW ALL EASEMENTS THAT MAY AFFECT FINAL PLACEMENT OF PROJECT TREES AND SHRUBS, BASED ON THE EASEMENT AND UTILITY INFORMATION RECEIVED FROM THE PROJECT ENGINEER.
ALL REQUIRED LANDSCAPE AREAS SHALL BE MAINTAINED BY THE OWNER, UNLESS NOTED OTHERWISE. LANDSCAPE AREAS SHALL BE MAINTAINED PER THE CITY OF SOLANA BEACH REQUIREMENTS.

IRRIGATION NOTES: AN AUTOMATIC IRRIGATION SHALL BE INSTALLED AS REQUIRED TO PROVIDE COVERAGE FOR PLANTING AREAS SHOWN ON THE PLAN. LOW PRECIPITATION EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH A MINIMUM WATER LOSS DUE TO WATER RUN-OFF. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, TIMERS AND OTHER NECESSARY EQUIPMENT FOR PROPER COVERAGE. ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL AND ANY DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER GUIDELINES. CLASS 315 PRESSURE OR SCHEDULE 40 MAINLINE SHALL BE BURIED TO A MINIMUM DEPTH OF 18". PVC LATERAL LINES SHALL BE BURIED 12" MINIMUM BELOW FINISH GRADE. ALL MAINLINE SHALL BE INSTALLED PER MANUFACTURER GUIDELINES, SPECIFICATIONS, AND ADHERE TO CODES AND GUIDELINES. ALL LANDSCAPE AND IRRIGATION IMPROVEMENTS SHALL BE INSTALLED PER THE PROVISIONS OF CITY OF SOLANA BEACH LANDSCAPE DESIGN GUIDELINES AND SHALL BE CONSISTENT WITH CURRENT STORMWATER BMP'S.

PLANTING NOTES:
THE SELECTION OF PLANT MATERIAL IS BASED ON CULTURAL, AESTHETIC, ENVIRONMENTAL SENSITIVITY AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND SUPPLEMENTS BASED UPON THE AGRICULTURAL SOILS ANALYSIS REPORT FROM SOIL SAMPLE TAKEN FROM THE SITE. GROUND COVERS OR BARK MULCH SHALL FILL IN BETWEEN THE SHRUBS TO PROTECT THE SOIL FROM EXCESSIVE SOLAR EXPOSURE, EVAPOTRANSPIRATION AND SURFACE WATER RUNOFF. ALL PLANTING AREAS SHALL BE MULCHED TO A DEPTH OF 3" TO HELP CONSERVE WATER, LOWER THE SOIL TEMPERATURE AND REDUCE WEED GROWTH. SHRUBS SHALL BE ALLOWED TO GROW INTO THEIR NATURAL FORMS WITHOUT SHEARING UNLESS TOPIARY FORMS ARE A DESIGN ELEMENT OR REQUESTED BY OWNER. ALL LANDSCAPE IMPROVEMENTS SHALL CONFORM TO THE CURRENT CITY OF SOLANA BEACH GUIDELINES.

INSTALL REINFORCED STRAW MATTING ON ALL SLOPE AREAS (GRADES OF 2:1 OR GREATER) THAT ARE GRADED OR DISTURBED AS PART OF THIS PROJECT TO PROVIDE EFFECTIVE EROSION CONTROL.

PER MARISSA POTTER AT THE SANTA FE WATER DISTRICT, APRIL 20, 2016, RECYCLED WATER IS NOT CURRENTLY AVAILABLE AT THIS SITE, AND NOT PLANNED FOR IN THE SFWD CIP

SOUND BARRIER WALL NOTES:
SOUND BARRIER WALL SHALL COMPLY WITH THE CITY OF SOLANA BEACH'S NOISE STANDARDS AND THE NOISE ASSESSMENT PREPARED BY LDN CONSULTING, INC. DATED JULY 29, 2017. TOP OF THE SOUND BARRIER WALL MUST BE 12 FEET ABOVE FINISHED GRADE OF THE MEMORY GARDEN AND SHALL BE PLACED ALONG WESTERN AND SOUTHERN BOUNDARIES. THE BARRIER MUST BE CONSTRUCTED OF EITHER A NON-GAPPING MATERIAL CONSISTING OF MASONRY, 1/2 INCH THICK GLASS, EARTHEN BERM OR ANY COMBINATION OF THESE MATERIALS. SPECIFIC PLACEMENT AND MATERIAL SELECTION SHALL BE VERIFIED FOR COMPLIANCE WITH THESE CRITERIA PRIOR TO APPROVAL OF LANDSCAPE CONSTRUCTION PLANS.

0 20' 40' 60'

THE LIGHTFOOT PLANNING GROUP
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LICENSED LANDSCAPE ARCHITECT
JAMES L. TAYLOR No. 2981
Signature
10/31/20
Renewal Date
Date
STATE OF CALIFORNIA

Pacific Sound Investors Residential Care Facility
Solana Beach, California

Scale:	1"=20'
Date:	08/31/2015
Drawn By:	AC/EE
Revisions:	
	10/17/2016
	03/31/2017
	03/19/2019

Landscape Concept Plan

Job # 1054.08.5

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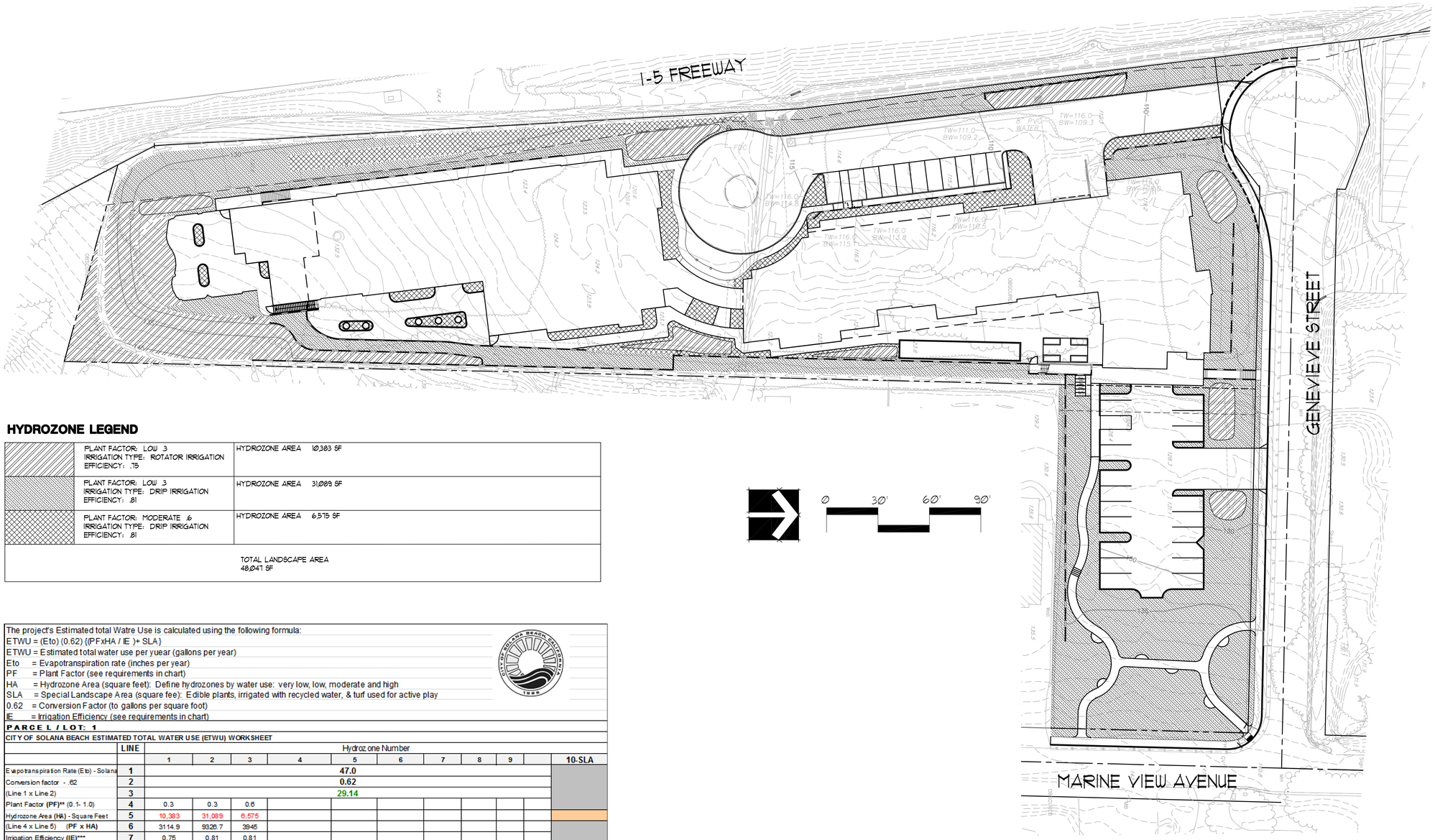
Pacific Sound Investors, Residential Care Facility 1054.08.5



HYDROZONE LEGEND

	PLANT FACTOR: LOW .3 IRRIGATION TYPE: ROTATOR IRRIGATION EFFICIENCY: .75	HYDROZONE AREA 10,383 SF
	PLANT FACTOR: LOW .3 IRRIGATION TYPE: DRIP IRRIGATION EFFICIENCY: .81	HYDROZONE AREA 31,089 SF
	PLANT FACTOR: MODERATE .6 IRRIGATION TYPE: DRIP IRRIGATION EFFICIENCY: .81	HYDROZONE AREA 6,575 SF
TOTAL LANDSCAPE AREA 48,047 SF		

The project's Estimated total Watre Use is calculated using the following formula:
ETWU = (Eto) (0.62) {(PFxHA / IE)+ SLA}
ETWU = Estimated total water use per yuear (gallons per year)
Eto = Evapotranspiration rate (inches per year)
PF = Plant Factor (see requirements in chart)
HA = Hydrozone Area (square feet): Define hydrozones by water use: very low, low, moderate and high
SLA = Special Landscape Area (square fee): Edible plants, irrigated with recycled water, & turf used for active play
0.62 = Conversion Factor (to gallons per square foot)
IE = Irrigation Efficiency (see requirements in chart)

PARCEL / LOT: 1

CITY OF SOLANA BEACH ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET

	LINE	Hydrozone Number 1	2	3	4	5	6	7	8	9		10-SLA
Evapotranspiration Rate (Eto) - Solana	1	47.0										
Conversion factor - .62	2	0.62										
(Line 1 x Line 2)	3	29.14										
Plant Factor (PF)** (0.1- 1.0)	4	0.3	0.3	0.6								
Hydrozone Area (HA) - Square Feet	5	10,383	31,089	6,575								
(Line 4 x Line 5) (PF x HA)	6	3114.9	9326.7	3945								
Irrigation Efficiency (IE)***	7	0.75	0.81	0.81								
(Line 6 / Line 7) (PF X HA) / IE	8	4153.20	11514.44	4870.37								
Total Line 8 + (SLA) LINE 5	9	20,538.01	+	0.00	=	20,538.01						
(Line 3 x Line 9) Estimated Total Water Use- ETWU (gallons per year) Total shall not exceed MAWA below	10	598,477.75										

*Eto = Evapotranspiration rate = 41(West if I-5) / 47 (East of I-5)

Average calculated from values in State Model Water Efficiency Landscape Ordinance Appendix A

** PF - Plant Factor (Water Use) - from WUCOLS

Select based on type of plants in hydrozone:
0.1 = VLW - Very Low Water Use Plants
0.3 = LW - Low Water Use Plants
0.6 = MW - Moderate Water Use Plants
1.0 = HW - High Water Use Plants

***IE - Irrigation Efficiency
Spray= .55
Rotators = .75
Rotor = .70
Bubbler = .75
Drip & Micro-spray= .81

A different IE maybe used if supported by documentation subjected to approval by the CityPlanner

ETAF = Evapotranspiration adjustment factor (use .55 for residential, .45 non-residential)

MAXIMUM APPLIED WATER USE (MAWA) calculation

Total Landscape Area

29.14 [(ETAF x L.A.) + (1 - ETAF x Total SLA)]

29.140 [0.55 48,047.00) + [(1-.55) x 0.00)] = **MAWA 770,049.27**

ETWU = LANDSCAPE AREA (LA) EST. WATER USE = (Eto)(.62) (PFXHA / IE + SLA] = LINE 3 X LINE 9 = **ETWU GAL/YR**

[47.0 x 0.62] = 31.682 x (20,538.01) = 650,685.39

WATER CONSERVATION NOTES:

THE LANDSCAPE DESIGN AND IRRIGATION PLANS SHALL CONFORM TO THE SOLANA BEACH MUNICIPAL CODE 17.56 WATER EFFICIENT LANDSCAPE REGULATIONS AND CITY OF SOLANA BEACH LANDSCAPE MANUAL, DEVELOPMENT STANDARDS AND DESIGN GUIDELINES (ORD. 467, 2015, ORD. 430, 2011.)

THE LANDSCAPE DOCUMENTATION PACKAGE, IRRIGATION AND PLANTING PLANS SHALL BE IN CONFORMANCE TO THE CODE STANDARDS.

A MAWA AND THE ETWU FOR THE PLANS SHALL INCLUDE CALCULATIONS ON THE CITY FORM AND THE ETWU SHALL NOT EXCEED THE MAWA.

CONCEPTUAL ESTIMATED TOTAL WATER USE CALCULATION SUMMARY FROM TABLES AND WORKSHEET IS 650,685.39 GAL/YR

MAXIMUM APPLIED WATER ALLOWANCE CALCULATION SUMMARY FROM TABLES AND WORKSHEET IS 770,049.27 GAL/YR

ETWU SHALL NOT EXCEED THE MAWA AS ESTABLISHED BY CONSTRUCTION DRAWINGS.

THE LIGHTFOOT PLANNING GROUP

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LANDSCAPE ARCHITECTURE

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LICENSED LANDSCAPE ARCHITECT
JAMES L. TAYLOR No. 2361
Signature
10/31/20
Renewal Date
Date
STATE OF CALIFORNIA

Pacific Sound Investors Residential Care Facility

Solana Beach, California

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10/17/2016
03/31/2017
03/19/2019

Water Conservation Plan

Job # 1054.08.5

L-3
3

Pacific Sound Investors, Residential Care Facility 1054.08.5

Appendix 5.2-1 Air Quality Assessment

Appendices

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AIR QUALITY ASSESSMENT

RESIDENTIAL CARE FACILITY
929 Genevieve Street
SOLANA BEACH CA

Project Proponent:

Pacific Sound Invertors, LLC.
1855 Freda Lane
Cardiff, CA 92007

Prepared By:

Ldn Consulting
42428 Chisolm Trail
Murrieta, California 92562
(760) 473-1253

August 7, 2017

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LIST OF ACRONYMS

Air Quality Impact Assessments (AQIA)

Assembly Bill 32 (AB32)

Reactive Organic Gas (ROG)

California Environmental Quality Act (CEQA)

Cubic Yards (CY)

Carbon Dioxide (CO_2)

Methane (CH_4)

Nitrous Oxide (N_2O)

Hydrogen Sulfide (H_2S)

Diesel Particulate Matter (DPM)

Level of Service (LOS)

San Diego Air Basin (SDAB)

Specific Plan Area (SPA)

International Residential Code (IRC)

Hazardous Air Pollutants (HAPs)

Toxic Air Contaminants (TACs)

Low Carbon Fuel Standard (LCFS)

Environmental Protection Agency (EPA)

California Air Resource Board (CARB)

San Diego Air Pollution Control District (SDAPCD)

South Coast Air Quality Management District (SCAQMD)

Vehicle Miles Traveled (VMT)

North County Transit District (NCTD)

National ambient air quality standards (NAAQS)

California Ambient Air Quality Standards (CAAQS)

EPA Office of Air Quality Planning and Standards (OAQPS)

Regional Air Quality Strategy (RAQS)

State Implementation Plan (SIP)

EXECUTIVE SUMMARY

This air quality impact study has been completed to determine the air quality impacts associated with the development of the proposed Residential Care development project. The proposed Project site is located at 929 Genevieve Street within the City of Solana Beach California. The Project proposes building 99 assisted living units and an open space park on a 2.9 acre site. All phases (i.e. demo, grading and construction) of the proposed project are anticipated to be complete sometime in 2018.

During construction of the proposed project, fugitive dust emissions will be expected during grading operations from heavy equipment usage and from construction workers commuting to and from the site. During short-term construction activities, the project will NOT exceed PM10 thresholds established by the San Diego Air Pollution Control District (SDAPCD) and will not require mitigation.

Additionally, emissions from the operation of the proposed project or from the project generated traffic, utilization of combustible fuel sources for hot water and heating, landscaping equipment, consumer products, and painting to name a few. Emissions generated during these operations were analyzed it was found that these operations would not exceed significance thresholds established by the SDAPCD, and therefore are considered less than significant under CEQA.

Furthermore, a screening-level health risk assessment was conducted to determine the potential for the project to result in a significant impact on nearby sensitive receptors during short-term construction activities. For purposes of this analysis, the primary pollutant of concern is diesel particulate matter (DPM) which is emitted by the operation of heavy diesel equipment during construction activities. The result of the health risk assessment indicates that the proposed project would increase diesel particulates to a level which would be in excess of 10 in one million exposed. Given this, all construction equipment would be required to meet Tier 4 standards and must have diesel particulate filters attached to the exhaust system of each piece of diesel equipment. This would be a requirement for the grading and construction contractors.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Air Quality study is to determine if the proposed Residential Care Facility Project located at 929 Genevieve Street has a potential to create significant air quality impacts as defined by the California Environmental Quality Act (CEQA), which may be created from construction, area or operational emissions (short term or long term) from the proposed Project.

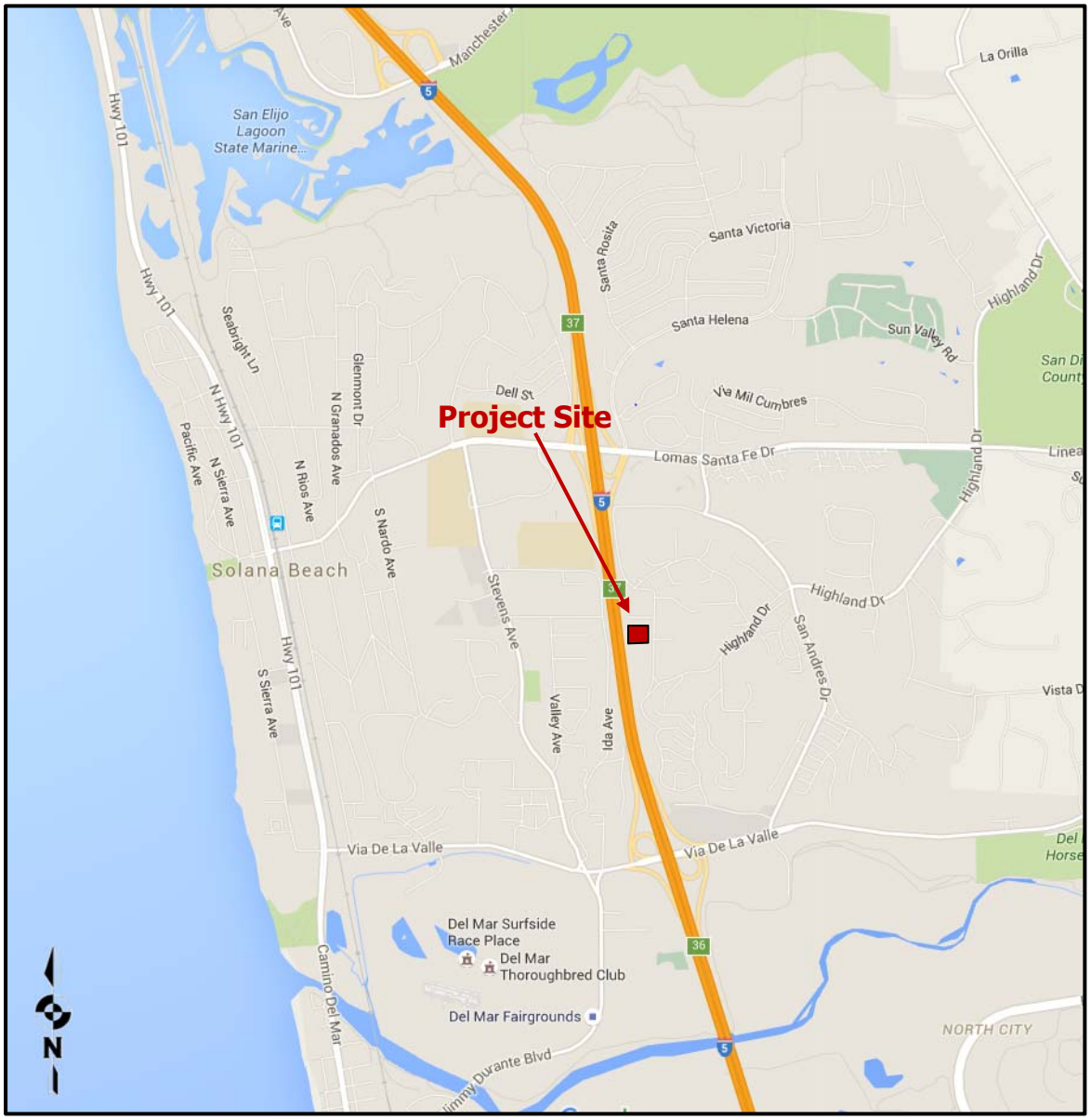
1.2 Project Location

The proposed development is located in the City of Solana Beach at 929 Genevieve Street. Access to the Project is proposed from a single driveway on Genevieve Street. To reach Genevieve Street, project traffic will be required to use Marine View Avenue. Overall travel to and from the project site is anticipated from Lomas Santa Fe Drive via San Andres Drive and Marine View Avenue. Interstate 5 to the west provides regional access to the Project site. A general project vicinity map is shown in Figure 1–A on the following page.

1.3 Project Description

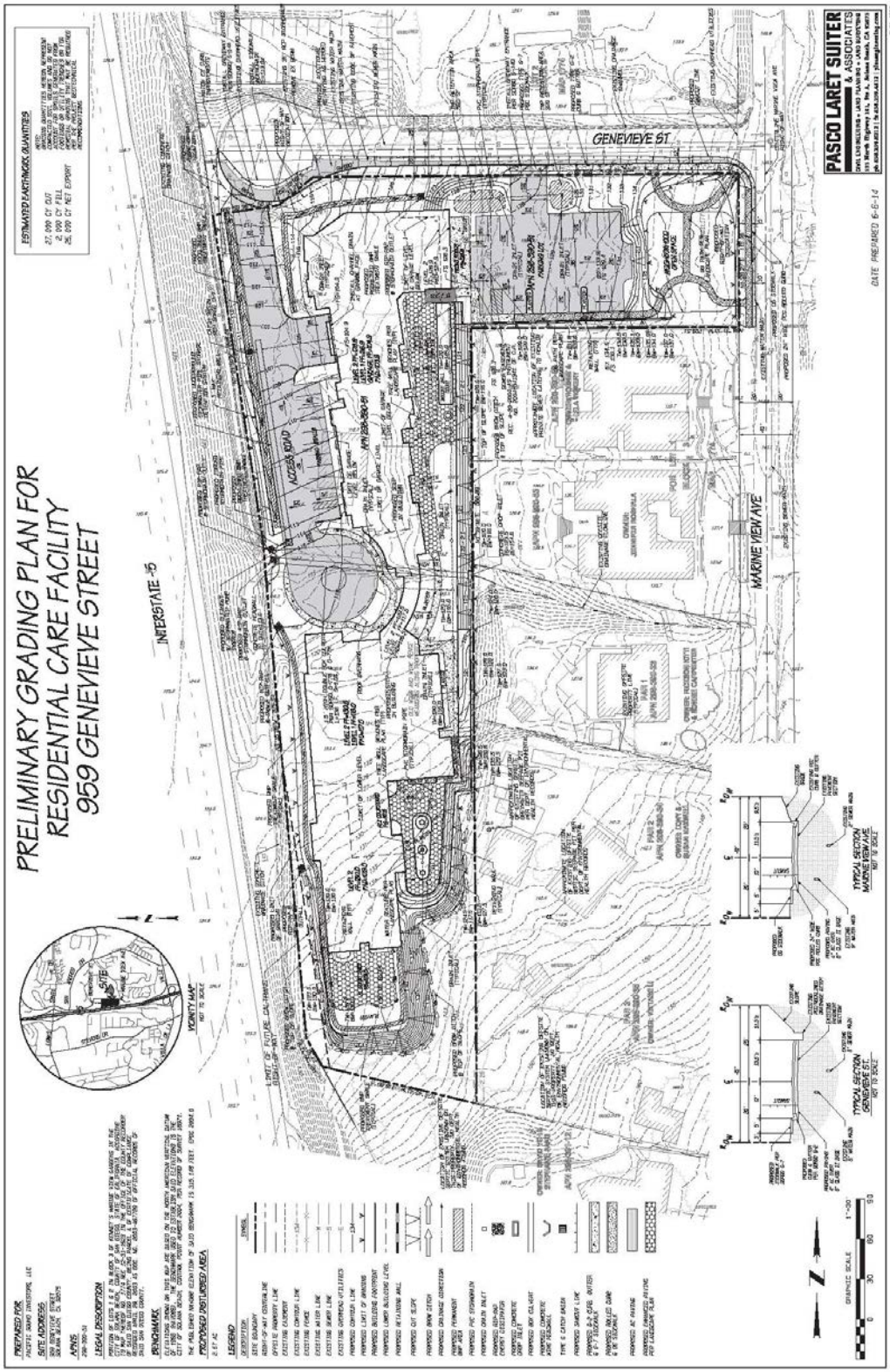
The Project proposes building 99 senior housing units and an open space park on approximately 2.9 acres within the City of Solana Beach. The project would need to demolish an existing structure and all ancillary storage sheds as grub and grade the entire site. It is expected that demolition of the existing structures will occur over four days, mass grading the site in about two weeks, finish grade the site in about two weeks and trenching for all utilities in about 10 days. The project construction for the building including asphalt for parking would be expected to occur over seven months. The entire build out of the Project would be expected sometime 2019. The proposed site development plan is shown on Figure 1–B on Page 3 below.

Figure 1-A: Project Vicinity Map



Source: (Google , 2016)

Figure 1-B: Proposed Project Site Plan



Source: (Pasco Laret Suiter & Associates, 2016)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The Project site lies in the western portion of San Diego County in the City of Solana Beach The existing use of the Project site is residential.

2.2 Climate (Solana Beach)

Meteorological trends within the City of Solana Beach are typically cooler given the close vicinity to the ocean. Median temperatures range from approximately 55ºF in the winter to approximately 72ºF in the summer (City-Data, 2016).

2.3 Regulatory Standards

2.3.1 Federal Standards and Definitions

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. ***Primary Standards*** set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. ***Secondary Standards*** set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for principal pollutants, which are called "criteria" pollutants.

2.3.2 State Standards and Definitions

The State of California Air Resources Board (CARB) sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive then the NAAQS. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The definitions for the criteria pollutants are shown in ***Attachment A*** at the end of this report.

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	**Average Time**	**California Standards[1]**		**Federal Standards[2]**		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m3)		0.070 ppm (137 µg/m3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m3	Gravimetric or Beta Attenuation	150 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m3		-		
Fine Particulate Matter (PM2.5)[9]	24 Hour	No Separate State Standard		35 µg/m3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m3	Gravimetric or Beta Attenuation	12.0 µg/m3	15 µg/m3	
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m3)	-	Non-Dispersive Infrared Photometry
	1 hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m3)		-	-	-
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.030 ppm (57 µg/m3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m3)[8]	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m3)		0.100 ppm[8] (188/ µg/m3)	-	
Sulfur Dioxide (SO_2)[11]	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm[10] (for Certain Areas)	-	Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9]
	24 Hour	0.04 ppm (105 µg/m3)		0.14 ppm[10] (for Certain Areas) (See Footnote 9)	-	
	3 Hour	-		-	0.5 ppm (1300 µg/m3)	
	1 Hour	0.25 ppm (655 µg/m3)		75 ppb (196 µg/m3)	-	
Lead[12,13]	30 Day Average	1.5 µg/m3	Atomic Absorption	-		-
	Calendar Quarter	-		1.5 µg/m3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 µg/m3		
Visibility Reducing Particles	8 Hour	See footnote 13				
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m3)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (California Air Resources Board, 10/1/15)

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM2.5 standard. The state therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed for California Air basis to attain ambient air quality standards.

The San Diego Air Pollution Control District (SDAPCD) is the government agency which regulates sources of air pollution within San Diego County. Currently, San Diego is in "non-attainment" status for O_3 and PM_{10}. Therefore, the County of San Diego developed a Regional Air Quality Strategy (RAQS) to provide control measures to try to achieve attainment status. The RAQS was adopted in 1991 and has been updated as recently as 2009.

2.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA guidelines and are as follows:

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:

A: Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?

B: Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?

C: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard (PM10, PM2.5 or exceed quantitative thresholds for O3 precursors, oxides of nitrogen [NOX] and Volatile Organic Compounds [VOCs])?

D: Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?

E: Create objectionable odors affecting a substantial number of people?

2.5 SDAPCD Rule 20.2 – Air Quality Impact Assessment Screening Thresholds

The SDAPCD has established threshold in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIA). These screening criteria can be used to demonstrate that a Project's total emissions would not result in a significant impact as defined by CEQA. Since SDAPCD does not have AQIA threshold for emissions of Volatile Organic Compounds (VOCs), the use of the threshold for VOCs is from the South Coast Air Quality Management District for the Coachella Valley. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the Project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.2 below.

Non Criteria pollutants such as Hazardous Air Pollutants (HAPs) or Toxic Air Contaminants (TACs) are also regulated by the SDAPCD. Rule 1200 (Toxic Air Contaminants - New Source Review) adopted on June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants. The rule requires that projects that propose to increase cancer risk between 1 and 10 in one million need to implement toxics best available control technology (T-BACT) or impose the most effective emission limitation, emission control device or control technique to reduce the cancer risk. At no time shall the project increase the cancer risk to over 10 in one million.

Table 2.2: Screening Threshold for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)	Total Emissions (Tons per Year)
Construction Emissions		
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55	15
Nitrogen Oxide (NO_x)	250	40
Sulfur Oxide (SO_x)	250	40
Carbon Monoxide (CO)	550	100
Volatile Organic Compounds (VOCs)	75	40
Reactive Organic Gases (ROG) SCAQMD	75	40
Operational Emissions		
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	100 and 55	15
Nitrogen Oxide (NO_x)	250	40
Sulfur Oxide (SO_x)	250	40
Carbon Monoxide (CO)	550	100
Lead and Lead Compounds	3.2	0.6
Volatile Organic Compounds (VOCs)	75	40
Reactive Organic Gases (ROG) SCAQMD	75	40

Projects creating cancer risks less than one in one million are not required to implement T-BACT technology. This report assumes that Volatile Organic Compounds (VOC) and Reactive Organic Gases (ROG) are essentially the same due to the fact that emissions generated from the Project represent non-methane organic compounds.

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the San Diego Air Basin. This data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS.

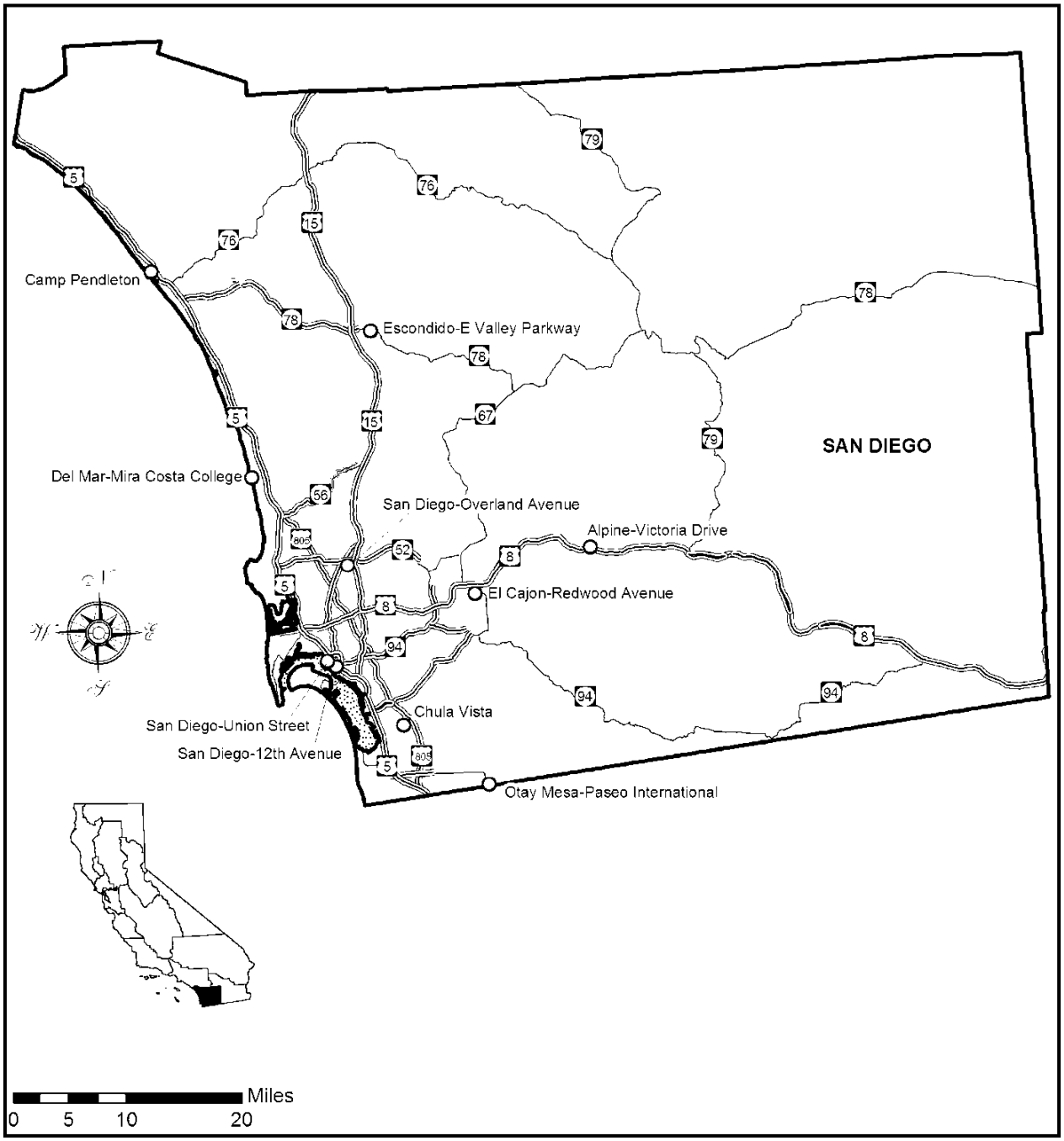
The SDAPCD is responsible for monitoring and reporting monitoring data. The District operates 10 monitoring sites, which collect data on criteria pollutants. Four additional sites collect meteorological data, which is used by the District to assist with pollutant forecasting, data analysis and characterization of pollutant transport.

SDAPCD published the five year air quality summary for all of the monitoring stations within the San Diego basin (SDAPCD, 2015). The proposed development project is closest to the Del Mar, Escondido and Camp Pendleton Monitoring stations. Table 2.3 below identifies the criteria pollutants monitored at the aforementioned station. Figure 2-A shows the relative locations of the monitoring sites.

Table 2.3: Ambient Air Quality Summary near Solana Beach

Pollutant	Closest Recorded Ambient Monitoring Site	Distance to the Project Site (miles)	Averaging Time	CAAQS	NAAQS	2012	2013	2014
O3 (ppm)	Del mar	2.5	1 Hour	0.09 ppm	-	0.09	0.08	0.10
		2.5	8 Hour	0.070 ppm	0.075 ppm	0.08	0.07	0.09
CO (ppm)	Escondido	14	8 Hour	9 ppm	9 ppm	3.8	2.6	3.1
PM10 (µg/m3)		14	24 Hour	50 µg/m3	150 µg/m3	33	80	43
PM2.5 (µg/m3)		17	24 Hour	-	35 µg/m3	N/A	34.2	26.9
NO2 (ppm)	Camp Pendleton	17	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.007	0.007	0.007
		17	1 Hour	0.18 ppm	-	0.061	0.081	0.060

Figure 2-A: San Diego Air Basin Monitoring Stations



3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.1 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2016.The construction module in CalEEMod is used to calculate the emissions associated with the construction of the project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in ***Attachment A*** to this report.

The AERMOD dispersion model will be used to determine the concentration for air pollutants at any location near the pollutant generator. Additionally, the model will predict the maximum exposure distance and concentrations. The AERMOD input/output file for the proposed project is shown in **Attachment B** at the end of this report. The worst case exhaust emissions generated from the Project from construction equipment was utilized and calculated within the CalEEMod model.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (OEHHA, 2015):

Equation 1 $$Dose_{air}=C_{air}*(BR/BW)*A*EF*(1x10^{-6})$$

$Dose_{air}$	=	Dose through inhalation (mg/kg/d)
C_{air}	=	Concentration in air (µg/m3) Annual average DPM concentration in µg/m3 –AERMOD
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
1x10-6	=	Milligrams to micrograms conversion (10^{-3} mg/ µg), cubic meters to liters conversion (10^{-3} m^3/l)

Once the dose is determined then you must calculate the cancer risk. The average daily inhalation dose (mg/kg-day) multiplied by the cancer potency factor $(mg/kg\text{-}day)^{-1}$ will give the inhalation cancer risk (unitless), which is an expression of the chemical's cancer risk during a 70-year lifespan of exposure. For example, an inhalation cancer risk of 5 x 10-6 is

the same as stating that an individual has an estimated probability of developing cancer from their exposure of 5 chances per million people exposed.

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are shown within the project models attached to this report. The worst case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015):

Equation 2

$$RISKinh\text{-}res = DOSEair \times CPF \times ASF \times ED/AT \times FAH$$

RISKinh-res	=	Residential inhalation cancer risk
DOSEair	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

OEHHA recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans.

Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9-and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years.

3.2 Construction Assumptions

The Project construction dates were estimated based a hypothetical construction kickoff in early 2018 with demo of the existing residential unit onsite, grading and paving expected to last about two months. Once building Construction begins, it's expected that the project would be completed roughly 10 months later for a total construction duration of one year. Operations would be expected to begin early 2019. It should be noted that the project would be export roughly 26,200 CY of soil and all demolition debris from removing the

onsite structures. Table 4.1 below shows the expected timeframes for the construction processes for all the project infrastructure, facilities, improvements and commercial structures at the proposed project location as well as the expected number of pieces of equipment.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Demolition	1/1/2018	1/7/2018	
Concrete/Industrial Saws			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Site Preparation	1/8/2018	1/12/2018	
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Grading	1/16/2018	2/20/2018	
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Paving	2/21/2018	2/28/2018	
Cement and Mortar Mixers			1
Pavers			1
Paving Equipment			1
Rollers			2
Tractors/Loaders/Backhoes			1
Building Construction	3/1/2018	12/31/2018	
Forklifts			2
Generator Sets			1
Tractors/Loaders/Backhoes			1
Welders			3
Building Construction Crane	6/1/2018	6/21/2018	
Forklifts			2
Architectural Coating	5/1/2018	12/31/2018	
This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions provided by the project applicant.			

3.3 Operational Emissions

Once construction is completed the proposed project would generate emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as onsite natural gas use. Finally, mobile or transportation related

emissions are calculated in CalEEMod through the use of EMFAC2014. The Operational model is also shown in Attachment A at the end of this report.

The Traffic inputs for CalEEMod were not modified as the default rates are based on 2.74 trips per bed for assumed max beds of 99 or 271 average daily trips (LOS Engineering, Inc., 2014). These traffic numbers were utilized within the CalEEMod analysis. The model also estimates emission predictions for ROG, NOx, CO, SO_2, PM_{10} and $PM_{2.5}$ for area source assumptions. Additionally, it was assumed that an average of 10% of the structural surface area will be re-painted each year.

Consumer product emissions are generated by a wide range of product categories, including air fresheners, automotive products, household cleaners, and personal care products. Emissions associated with these products primarily depend on the increased population associated with residential development. Default emission factors were utilized within the CalEEMod analysis. Additionally, it was assumed an average of 10% of the structural surface area will be re-painted each year.

3.4 Odor Impacts

Odor producing components from the Project would include short-term odors from construction activities such as paving and possibly painting but would be considered short term and wouldn't be considered an impact.

4.0 FINDINGS

4.1 Construction Findings

The Project construction dates were estimated based a hypothetical construction kickoff in early 2018 with demo of the existing residential unit onsite, grading and paving expected to last about two months. Once building Construction begins, it's expected that the project would be completed roughly 10 months later for a total construction duration of one year. Operations would be expected to begin early 2019. It should be noted that the project would be export roughly 26,200 CY of soil and all demolition debris from removing the onsite structures. A summary of the daily and annual construction emissions calculated through CalEEMod is shown in Table 4.1 and 4.2 below.

Table 4.1: Expected Daily Construction Emissions Summary

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2018 (lb/day) Unmitigated Summer	12.81	59.80	23.32	0.11	8.71	1.40	10.02	3.94	1.35	5.15
2018 (lb/day) Unmitigated Winter	12.90	60.18	23.12	0.11	8.71	1.40	10.02	3.94	1.35	5.15
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

Table 4.2: Expected Annual Construction Emissions Summary

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2018 (lb/day) Unmitigated	1.17	2.91	2.30	0.01	0.22	0.15	0.36	0.08	0.14	0.22
Significance Threshold (Tons/Year)	40	40	100	40	-	-	15	-	-	15
SDAPCD Impact?	No	No	No	No	-	-	No	-	-	No

Given these findings, Project emissions would NOT exceed SDAPCD air quality standards during construction. No Mitigation measures will be necessary. Given the project has no

direct impacts and the project is compatible with the general plan, there would not be any impacts to the City's Regional Air Quality Strategy (RAQS).

4.2 Health Risk

Based upon the air quality modeling, worst-case onsite PM_{10} from onsite construction exhaust would cumulatively produce 0.1421 tons over the construction duration (260-working days) or an average of 0.0172 grams/second. The average emission rate over the grading area is 1.47×10^{-6} g/m^2/s, which was calculated as follows:

$$\frac{0.0172\,\frac{grams}{second}}{2.90\,acres * 4{,}046\,\frac{meters^2}{acre}} = 1.47 * 10^{-6}\,\frac{\frac{grams}{meters^2}}{second}$$

Utilizing the AERMOD dispersion model, we find that the peak maximum annual concentration is 5.82 µg/m^3 during the worst-case construction period of 260 days. Using the methodology discussed in Section 3.1 above, the 70-year cancer risk would be 763.11 individuals per million exposed which would be considered a significant impact.

It was found that utilizing Tier IV diesel equipment with diesel particulate filters attached inline to the exhaust system would reduce worst-case PM_{10} from exhaust to .00058 tons over the construction duration (260-working days) or an average of 0.0000702 grams/second. Given this reduced emission, dispersion modeling predicts that worst case annual concentrations would be 0.0237 µg/m^3. Given this the Inhalation Cancer risk would be reduced to 3.11 individual per one million exposed. Given this, the mitigated construction scenario would be considered less than significant under CEQA and would be in compliance with the City's thresholds. The calculations for both mitigated and unmitigated scenarios are shown in ***Attachment C*** to this report. Also, it should be noted that it was assumed that exposed residential units would be away from the house for two weeks per year.

Furthermore, based on discussions with the project applicant, no cumulative projects are identified near the project site. Given the fact that the projects point of maximum exposure is only 100 meters away from the project boundaries; no cumulative construction impacts would be expected at distances greater than four times this distance. Figures 4-A and 4-B on the following few pages shows gridded contour plots of both the unmitigated and the Tier IV mitigated AERMOD dispersion models using a gridded discreet receptor methodology.

Figure 4-A: Unmitigated On-Site Construction Diesel Particulates Dispersion Model

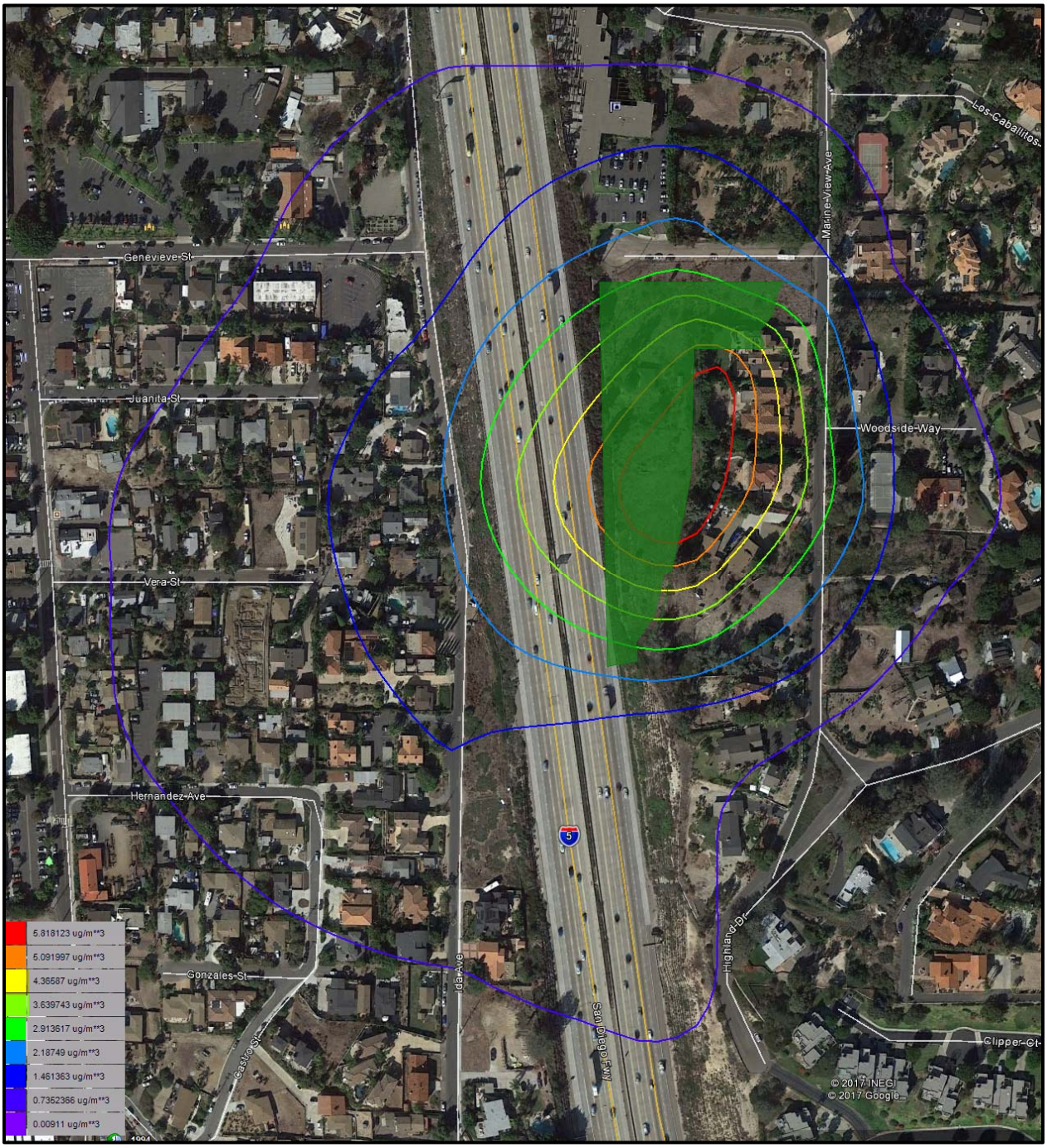
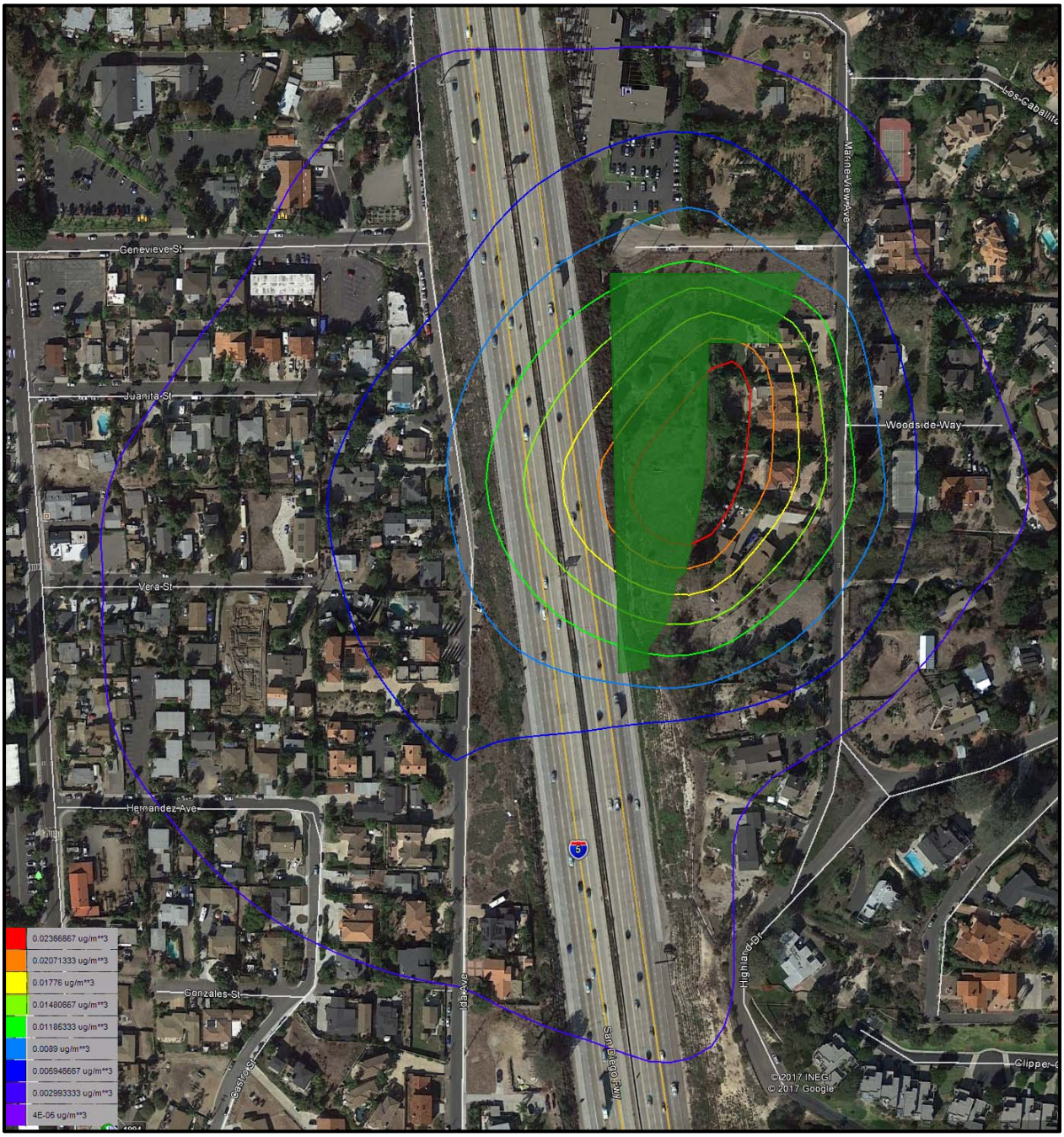


Figure 4-B: Mitigated On-Site Construction Diesel Particulates Dispersion Model



4.3 Operational Findings

Based on the Project's traffic study the proposed Project could add as many as 271 daily trips once the Project is operational in 2018. Additionally, the project would not be expected to have any wood or natural gas hearth devices.

The expected daily pollutant generation can be calculated utilizing the product of the average daily miles traveled and the expected emissions inventory calculated by CalEEMod. The daily pollutants calculated are shown in Table 4.3 below. Based upon these calculations, no impacts are expected during operations of this project.

Table 4.3: Expected Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area	2.45	0.10	8.21	0.00	0.05	0.05
Energy	0.03	0.22	0.09	0.00	0.02	0.02
Mobile	0.56	2.33	6.57	0.02	1.67	0.46
Total (Lb/Day)	**3.04**	**2.65**	**14.88**	**0.02**	**1.73**	**0.52**
SCAQMD Thresholds	75	250	550	250	100	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Scenario						
Area	2.45	0.10	8.21	0.00	0.05	0.05
Energy	0.03	0.22	0.09	0.00	0.02	0.02
Mobile	0.55	2.40	6.48	0.02	1.67	0.46
Total (Lb/Day)	**3.03**	**2.72**	**14.78**	**0.02**	**1.73**	**0.52**
SCAQMD Thresholds	75	250	550	250	100	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Daily pollutant generation assumes trip distances within URBEMIS 2007						

4.4 Conclusion of Findings

Based upon findings in this report, construction health risks would be expected but can be fully mitigated using Tier IV construction equipment with diesel particulate filters installed on their exhaust pipes. Given this, the project grading and construction contractors would be required to utilize only Tier IV equipment. Furthermore, no operational impacts are expected and no mitigation requirements will be necessary.

5.0 REFERENCES

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6.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the proposed development. This report was prepared utilizing the latest emission rates and reduction methodologies.

DRAFT

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Date August 7, 2017

ATTACHMENT A

Criteria Pollutant Definitions

1. ***Carbon Monoxide (CO):*** *is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.*
2. ***Lead (Pb):*** *is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.*
3. ***Nitrogen Dioxide (NO_2):*** *is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO_2 is usually visible as a reddish-brown air layer over urban areas. NO_2 along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.*
4. ***Particulate Matter (PM_{10} or $PM_{2.5}$):*** *is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM_{10} particles are 10 microns (µm) or less and $PM_{2.5}$ particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.*
5. ***Ozone (O_3)****: is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.*

6. ***Sulfur Dioxide (SO_2)***: *is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO_2 exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of SO_2 results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.*
7. ***Visibility Reducing Particles***: *Particles in the Air that obstruct the visibility.*
8. ***Vinyl Chloride***: *also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).*
9. ***Sulfates***: *are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.*
10. ***Hydrogen Sulfide (H_2S)***: *is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H_2S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H_2S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness and possibly death.*

ATTACHMENT B

CalEEMod 2016 Summer, Winter, Annual

Solana Beach Senior Housing 2019

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	99.00	Dwelling Unit	2.90	83,001.00	283

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project

Construction Phase - cs

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - ce

Off-road Equipment - ce

Off-road Equipment -

Off-road Equipment - ce

Grading - 26200 CY Export

Architectural Coating - Rule 67 Paint

Woodstoves - No FP

Area Coating - Rule 67 Paint

Water And Wastewater - Water 75 gallons per day per bed and 75 percent of potable water use for indoor water

Solid Waste - IS states 289 Tons/year

Construction Off-road Equipment Mitigation - Project will utilize Tier 4 equipment

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	175.00
tblConstructionPhase	NumDays	220.00	218.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	26.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	3.00	5.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	54.45	0.00
tblFireplaces	NumberNoFireplace	9.90	99.00
tblFireplaces	NumberWood	34.65	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.58	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.18
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.6000e-003	5.5580e-003
tblFleetMix	MCY	6.2790e-003	6.1810e-003

tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	1.3570e-003	1.2710e-003
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	1.8880e-003	1.9020e-003
tblFleetMix	SBUS	7.4200e-004	7.4500e-004
tblFleetMix	UBUS	2.0880e-003	2.0240e-003
tblGrading	MaterialExported	0.00	23,200.00
tblGrading	MaterialExported	0.00	3,000.00
tblLandUse	BuildingSpaceSquareFeet	99,000.00	83,001.00
tblLandUse	LandUseSquareFeet	99,000.00	83,001.00
tblLandUse	LotAcreage	6.19	2.90
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblSolidWaste	SolidWasteGenerationRate	90.34	289.00
tblWater	IndoorWaterUseRate	6,450,248.54	2,540,674.00
tblWater	OutdoorWaterUseRate	4,066,461.03	846,891.00
tblWoodstoves	NumberCatalytic	4.95	0.00
tblWoodstoves	NumberNoncatalytic	4.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	12.8100	59.7975	23.3174	0.1113	8.7089	1.3974	10.0174	3.9424	1.3467	5.1513	0.0000	11,924.0667	11,924.0667	1.5099	0.0000	11,961.8139
Maximum	**12.8100**	**59.7975**	**23.3174**	**0.1113**	**8.7089**	**1.3974**	**10.0174**	**3.9424**	**1.3467**	**5.1513**	**0.0000**	**11,924.0667**	**11,924.0667**	**1.5099**	**0.0000**	**11,961.8139**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	10.0298	36.6007	22.5017	0.1113	8.7089	0.1452	8.8541	3.9424	0.1391	4.0815	0.0000	11,924.0667	11,924.0667	1.5099	0.0000	11,961.8139
Maximum	**10.0298**	**36.6007**	**22.5017**	**0.1113**	**8.7089**	**0.1452**	**8.8541**	**3.9424**	**0.1391**	**4.0815**	**0.0000**	**11,924.0667**	**11,924.0667**	**1.5099**	**0.0000**	**11,961.8139**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**21.70**	**38.79**	**3.50**	**0.00**	**0.00**	**89.61**	**11.61**	**0.00**	**89.67**	**20.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676
Energy	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Mobile	0.5606	2.3297	6.5746	0.0207	1.6426	0.0226	1.6652	0.4391	0.0213	0.4604		2,101.1770	2,101.1770	0.1139		2,104.0251
Total	**3.0409**	**2.6465**	**14.8770**	**0.0226**	**1.6426**	**0.0855**	**1.7281**	**0.4391**	**0.0842**	**0.5233**	**0.0000**	**2,398.8571**	**2,398.8571**	**0.1338**	**5.1900e-003**	**2,403.7477**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676
Energy	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Mobile	0.5606	2.3297	6.5746	0.0207	1.6426	0.0226	1.6652	0.4391	0.0213	0.4604		2,101.1770	2,101.1770	0.1139		2,104.0251
Total	**3.0409**	**2.6465**	**14.8770**	**0.0226**	**1.6426**	**0.0855**	**1.7281**	**0.4391**	**0.0842**	**0.5233**	**0.0000**	**2,398.8571**	**2,398.8571**	**0.1338**	**5.1900e-003**	**2,403.7477**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/7/2018	5	5	
2	Site Preparation	Site Preparation	1/8/2018	1/12/2018	5	5	
3	Grading	Grading	1/16/2018	2/20/2018	5	26	
4	Paving	Paving	2/21/2018	2/28/2018	5	6	
5	Building Construction	Building Construction	3/1/2018	12/31/2018	5	218	
6	Architectural Coating	Architectural Coating	5/1/2018	12/31/2018	5	175	
7	Building Construction Crane Usage	Building Construction	6/1/2018	6/21/2018	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13

Acres of Paving: 0

Residential Indoor: 168,077; Residential Outdoor: 56,026; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Solana Beach Senior Housing 2019 - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction Crane Usage	Cranes	1	7.00	226	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Crane Usage	1	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7973	0.0000	0.7973	0.1207	0.0000	0.1207			0.0000			0.0000
Off-Road	1.9516	19.1046	10.4373	0.0179		1.0639	1.0639		1.0001	1.0001		1,765.6139	1,765.6139	0.4110		1,775.8900
Total	**1.9516**	**19.1046**	**10.4373**	**0.0179**	**0.7973**	**1.0639**	**1.8612**	**0.1207**	**1.0001**	**1.1208**		**1,765.6139**	**1,765.6139**	**0.4110**		**1,775.8900**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0330	1.1451	0.2362	2.9000e-003	0.0629	4.5000e-003	0.0674	0.0172	4.3100e-003	0.0216		314.9116	314.9116	0.0278		315.6056
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0341	0.0245	0.2739	7.2000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.4000e-004	0.0179		71.7780	71.7780	2.4600e-003		71.8394
Total	**0.0670**	**1.1696**	**0.5100**	**3.6200e-003**	**0.1286**	**4.9700e-003**	**0.1336**	**0.0347**	**4.7500e-003**	**0.0394**		**386.6896**	**386.6896**	**0.0302**		**387.4450**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7973	0.0000	0.7973	0.1207	0.0000	0.1207			0.0000			0.0000
Off-Road	0.2051	0.8888	10.0343	0.0179		4.1000e-003	4.1000e-003		4.1000e-003	4.1000e-003	0.0000	1,765.6139	1,765.6139	0.4110		1,775.8900
Total	**0.2051**	**0.8888**	**10.0343**	**0.0179**	**0.7973**	**4.1000e-003**	**0.8014**	**0.1207**	**4.1000e-003**	**0.1248**	**0.0000**	**1,765.6139**	**1,765.6139**	**0.4110**		**1,775.8900**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0330	1.1451	0.2362	2.9000e-003	0.0629	4.5000e-003	0.0674	0.0172	4.3100e-003	0.0216		314.9116	314.9116	0.0278		315.6056
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0341	0.0245	0.2739	7.2000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.4000e-004	0.0179		71.7780	71.7780	2.4600e-003		71.8394
Total	**0.0670**	**1.1696**	**0.5100**	**3.6200e-003**	**0.1286**	**4.9700e-003**	**0.1336**	**0.0347**	**4.7500e-003**	**0.0394**		**386.6896**	**386.6896**	**0.0302**		**387.4450**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3536	0.0000	5.3536	2.9092	0.0000	2.9092			0.0000			0.0000
Off-Road	1.2532	13.2910	5.8741	0.0102		0.6973	0.6973		0.6415	0.6415		1,026.3306	1,026.3306	0.3195		1,034.3184
Total	**1.2532**	**13.2910**	**5.8741**	**0.0102**	**5.3536**	**0.6973**	**6.0509**	**2.9092**	**0.6415**	**3.5507**		**1,026.3306**	**1,026.3306**	**0.3195**		**1,034.3184**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6865	23.8555	4.9200	0.0603	1.3106	0.0938	1.4044	0.3592	0.0898	0.4490		6,560.6591	6,560.6591	0.5783		6,575.1172
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0213	0.0153	0.1712	4.5000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		44.8612	44.8612	1.5400e-003		44.8996
Total	**0.7078**	**23.8708**	**5.0912**	**0.0608**	**1.3516**	**0.0941**	**1.4458**	**0.3701**	**0.0901**	**0.4601**		**6,605.5203**	**6,605.5203**	**0.5799**		**6,620.0168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3536	0.0000	5.3536	2.9092	0.0000	2.9092			0.0000			0.0000
Off-Road	0.1247	0.5404	5.4037	0.0102		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	1,026.3306	1,026.3306	0.3195		1,034.3184
Total	**0.1247**	**0.5404**	**5.4037**	**0.0102**	**5.3536**	**2.4900e-003**	**5.3561**	**2.9092**	**2.4900e-003**	**2.9117**	**0.0000**	**1,026.3306**	**1,026.3306**	**0.3195**		**1,034.3184**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6865	23.8555	4.9200	0.0603	1.3106	0.0938	1.4044	0.3592	0.0898	0.4490		6,560.6591	6,560.6591	0.5783		6,575.1172
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0213	0.0153	0.1712	4.5000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		44.8612	44.8612	1.5400e-003		44.8996
Total	**0.7078**	**23.8708**	**5.0912**	**0.0608**	**1.3516**	**0.0941**	**1.4458**	**0.3701**	**0.0901**	**0.4601**		**6,605.5203**	**6,605.5203**	**0.5799**		**6,620.0168**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6777	0.0000	6.6777	3.3865	0.0000	3.3865			0.0000			0.0000
Off-Road	2.1515	24.2895	10.3804	0.0206		1.1683	1.1683		1.0748	1.0748		2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**2.1515**	**24.2895**	**10.3804**	**0.0206**	**6.6777**	**1.1683**	**7.8460**	**3.3865**	**1.0748**	**4.4613**		**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0210	35.4774	7.3170	0.0897	1.9491	0.1396	2.0886	0.5342	0.1335	0.6677		9,756.8776	9,756.8776	0.8601		9,778.3795
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0426	0.0307	0.3423	9.0000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.5000e-004	0.0223		89.7225	89.7225	3.0700e-003		89.7992
Total	**1.0636**	**35.5081**	**7.6593**	**0.0906**	**2.0312**	**0.1401**	**2.1713**	**0.5559**	**0.1341**	**0.6900**		**9,846.6001**	**9,846.6001**	**0.8631**		**9,868.1787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6777	0.0000	6.6777	3.3865	0.0000	3.3865			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**6.6777**	**5.0400e-003**	**6.6828**	**3.3865**	**5.0400e-003**	**3.3915**	**0.0000**	**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0210	35.4774	7.3170	0.0897	1.9491	0.1396	2.0886	0.5342	0.1335	0.6677		9,756.8776	9,756.8776	0.8601		9,778.3795
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0426	0.0307	0.3423	9.0000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.5000e-004	0.0223		89.7225	89.7225	3.0700e-003		89.7992
Total	**1.0636**	**35.5081**	**7.6593**	**0.0906**	**2.0312**	**0.1401**	**2.1713**	**0.5559**	**0.1341**	**0.6900**		**9,846.6001**	**9,846.6001**	**0.8631**		**9,868.1787**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4046	14.2518	11.9787	0.0178		0.8505	0.8505		0.7836	0.7836		1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4046**	**14.2518**	**11.9787**	**0.0178**		**0.8505**	**0.8505**		**0.7836**	**0.7836**		**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**0.0639**	**0.0460**	**0.5135**	**1.3500e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**134.5837**	**134.5837**	**4.6100e-003**		**134.6988**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2104	0.9117	12.9737	0.0178		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003	0.0000	1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2104**	**0.9117**	**12.9737**	**0.0178**		**4.2100e-003**	**4.2100e-003**		**4.2100e-003**	**4.2100e-003**	**0.0000**	**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0639	0.0460	0.5135	1.3500e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		134.5837	134.5837	4.6100e-003		134.6988
Total	**0.0639**	**0.0460**	**0.5135**	**1.3500e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**134.5837**	**134.5837**	**4.6100e-003**		**134.6988**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3420	13.8869	13.1965	0.0193		0.9623	0.9623		0.9335	0.9335		1,749.1780	1,749.1780	0.3211		1,757.2066
Total	**2.3420**	**13.8869**	**13.1965**	**0.0193**		**0.9623**	**0.9623**		**0.9335**	**0.9335**		**1,749.1780**	**1,749.1780**	**0.3211**		**1,757.2066**

3.6 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0567	1.4493	0.3838	3.0700e-003	0.0745	0.0113	0.0858	0.0214	0.0108	0.0323		328.0089	328.0089	0.0260		328.6588
Worker	0.3022	0.2176	2.4305	6.4000e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		637.0294	637.0294	0.0218		637.5744
Total	**0.3589**	**1.6669**	**2.8143**	**9.4700e-003**	**0.6577**	**0.0155**	**0.6733**	**0.1761**	**0.0147**	**0.1909**		**965.0383**	**965.0383**	**0.0478**		**966.2332**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2587	3.5633	12.3362	0.0193		3.8600e-003	3.8600e-003		3.8600e-003	3.8600e-003	0.0000	1,749.1780	1,749.1780	0.3211		1,757.2066
Total	**0.2587**	**3.5633**	**12.3362**	**0.0193**		**3.8600e-003**	**3.8600e-003**		**3.8600e-003**	**3.8600e-003**	**0.0000**	**1,749.1780**	**1,749.1780**	**0.3211**		**1,757.2066**

3.6 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0567	1.4493	0.3838	3.0700e-003	0.0745	0.0113	0.0858	0.0214	0.0108	0.0323		328.0089	328.0089	0.0260		328.6588
Worker	0.3022	0.2176	2.4305	6.4000e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		637.0294	637.0294	0.0218		637.5744
Total	**0.3589**	**1.6669**	**2.8143**	**9.4700e-003**	**0.6577**	**0.0155**	**0.6733**	**0.1761**	**0.0147**	**0.1909**		**965.0383**	**965.0383**	**0.0478**		**966.2332**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.9033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**9.2019**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0596	0.0429	0.4793	1.2600e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		125.6114	125.6114	4.3000e-003		125.7189
Total	**0.0596**	**0.0429**	**0.4793**	**1.2600e-003**	**0.1150**	**8.3000e-004**	**0.1158**	**0.0305**	**7.6000e-004**	**0.0313**		**125.6114**	**125.6114**	**4.3000e-003**		**125.7189**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.9033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**8.9330**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0596	0.0429	0.4793	1.2600e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		125.6114	125.6114	4.3000e-003		125.7189
Total	**0.0596**	**0.0429**	**0.4793**	**1.2600e-003**	**0.1150**	**8.3000e-004**	**0.1158**	**0.0305**	**7.6000e-004**	**0.0313**		**125.6114**	**125.6114**	**4.3000e-003**		**125.7189**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4886	5.8390	2.1589	4.9400e-003		0.2527	0.2527		0.2325	0.2325		497.0270	497.0270	0.1547		500.8953
Total	**0.4886**	**5.8390**	**2.1589**	**4.9400e-003**		**0.2527**	**0.2527**		**0.2325**	**0.2325**		**497.0270**	**497.0270**	**0.1547**		**500.8953**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0567	1.4493	0.3838	3.0700e-003	0.0745	0.0113	0.0858	0.0214	0.0108	0.0323		328.0089	328.0089	0.0260		328.6588
Worker	0.3022	0.2176	2.4305	6.4000e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		637.0294	637.0294	0.0218		637.5744
Total	**0.3589**	**1.6669**	**2.8143**	**9.4700e-003**	**0.6577**	**0.0155**	**0.6733**	**0.1761**	**0.0147**	**0.1909**		**965.0383**	**965.0383**	**0.0478**		**966.2332**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0607	0.2630	2.2252	4.9400e-003		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	497.0270	497.0270	0.1547		500.8953
Total	**0.0607**	**0.2630**	**2.2252**	**4.9400e-003**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**497.0270**	**497.0270**	**0.1547**		**500.8953**

3.8 Building Construction Crane Usage - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0567	1.4493	0.3838	3.0700e-003	0.0745	0.0113	0.0858	0.0214	0.0108	0.0323		328.0089	328.0089	0.0260		328.6588
Worker	0.3022	0.2176	2.4305	6.4000e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		637.0294	637.0294	0.0218		637.5744
Total	**0.3589**	**1.6669**	**2.8143**	**9.4700e-003**	**0.6577**	**0.0155**	**0.6733**	**0.1761**	**0.0147**	**0.1909**		**965.0383**	**965.0383**	**0.0478**		**966.2332**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5606	2.3297	6.5746	0.0207	1.6426	0.0226	1.6652	0.4391	0.0213	0.4604		2,101.1770	2,101.1770	0.1139		2,104.0251
Unmitigated	0.5606	2.3297	6.5746	0.0207	1.6426	0.0226	1.6652	0.4391	0.0213	0.4604		2,101.1770	2,101.1770	0.1139		2,104.0251

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	271.26	217.80	241.56	740,609	740,609
Total	271.26	217.80	241.56	740,609	740,609

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
NaturalGas Unmitigated	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2405.27	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Total		**0.0259**	**0.2217**	**0.0943**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**282.9734**	**282.9734**	**5.4200e-003**	**5.1900e-003**	**284.6550**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2.40527	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Total		**0.0259**	**0.2217**	**0.0943**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**282.9734**	**282.9734**	**5.4200e-003**	**5.1900e-003**	**284.6550**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676
Unmitigated	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2513	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450		14.7067	14.7067	0.0144		15.0676
Total	**2.4544**	**0.0951**	**8.2081**	**4.3000e-004**		**0.0450**	**0.0450**		**0.0450**	**0.0450**	**0.0000**	**14.7067**	**14.7067**	**0.0144**	**0.0000**	**15.0676**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2513	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450		14.7067	14.7067	0.0144		15.0676
Total	**2.4544**	**0.0951**	**8.2081**	**4.3000e-004**		**0.0450**	**0.0450**		**0.0450**	**0.0450**	**0.0000**	**14.7067**	**14.7067**	**0.0144**	**0.0000**	**15.0676**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Solana Beach Senior Housing 2019

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	99.00	Dwelling Unit	2.90	83,001.00	283

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project

Construction Phase - cs

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - ce

Off-road Equipment - ce

Off-road Equipment -

Off-road Equipment - ce

Grading - 26200 CY Export

Architectural Coating - Rule 67 Paint

Woodstoves - No FP

Area Coating - Rule 67 Paint

Water And Wastewater - Water 75 gallons per day per bed and 75 percent of potable water use for indoor water

Solid Waste - IS states 289 Tons/year

Construction Off-road Equipment Mitigation - Project will utilize Tier 4 equipment

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	175.00
tblConstructionPhase	NumDays	220.00	218.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	26.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	3.00	5.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	54.45	0.00
tblFireplaces	NumberNoFireplace	9.90	99.00
tblFireplaces	NumberWood	34.65	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.58	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.18
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.6000e-003	5.5580e-003
tblFleetMix	MCY	6.2790e-003	6.1810e-003

tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	1.3570e-003	1.2710e-003
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	1.8880e-003	1.9020e-003
tblFleetMix	SBUS	7.4200e-004	7.4500e-004
tblFleetMix	UBUS	2.0880e-003	2.0240e-003
tblGrading	MaterialExported	0.00	23,200.00
tblGrading	MaterialExported	0.00	3,000.00
tblLandUse	BuildingSpaceSquareFeet	99,000.00	83,001.00
tblLandUse	LandUseSquareFeet	99,000.00	83,001.00
tblLandUse	LotAcreage	6.19	2.90
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblSolidWaste	SolidWasteGenerationRate	90.34	289.00
tblWater	IndoorWaterUseRate	6,450,248.54	2,540,674.00
tblWater	OutdoorWaterUseRate	4,066,461.03	846,891.00
tblWoodstoves	NumberCatalytic	4.95	0.00
tblWoodstoves	NumberNoncatalytic	4.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	12.9008	60.1808	23.1245	0.1097	8.7089	1.3978	10.0207	3.9424	1.3471	5.1545	0.0000	11,756.6702	11,756.6702	1.5420	0.0000	11,795.2191
Maximum	**12.9008**	**60.1808**	**23.1245**	**0.1097**	**8.7089**	**1.3978**	**10.0207**	**3.9424**	**1.3471**	**5.1545**	**0.0000**	**11,756.6702**	**11,756.6702**	**1.5420**	**0.0000**	**11,795.2191**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	10.1207	36.9839	22.3088	0.1097	8.7089	0.1485	8.8574	3.9424	0.1423	4.0847	0.0000	11,756.6702	11,756.6702	1.5420	0.0000	11,795.2191
Maximum	**10.1207**	**36.9839**	**22.3088**	**0.1097**	**8.7089**	**0.1485**	**8.8574**	**3.9424**	**0.1423**	**4.0847**	**0.0000**	**11,756.6702**	**11,756.6702**	**1.5420**	**0.0000**	**11,795.2191**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**21.55**	**38.55**	**3.53**	**0.00**	**0.00**	**89.38**	**11.61**	**0.00**	**89.44**	**20.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676
Energy	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Mobile	0.5469	2.4047	6.4807	0.0197	1.6426	0.0228	1.6654	0.4391	0.0215	0.4605		1,992.1449	1,992.1449	0.1142		1,995.0003
Total	**3.0272**	**2.7214**	**14.7831**	**0.0215**	**1.6426**	**0.0857**	**1.7283**	**0.4391**	**0.0844**	**0.5234**	**0.0000**	**2,289.8251**	**2,289.8251**	**0.1341**	**5.1900e-003**	**2,294.7228**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676
Energy	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Mobile	0.5469	2.4047	6.4807	0.0197	1.6426	0.0228	1.6654	0.4391	0.0215	0.4605		1,992.1449	1,992.1449	0.1142		1,995.0003
Total	**3.0272**	**2.7214**	**14.7831**	**0.0215**	**1.6426**	**0.0857**	**1.7283**	**0.4391**	**0.0844**	**0.5234**	**0.0000**	**2,289.8251**	**2,289.8251**	**0.1341**	**5.1900e-003**	**2,294.7228**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/7/2018	5	5	
2	Site Preparation	Site Preparation	1/8/2018	1/12/2018	5	5	
3	Grading	Grading	1/16/2018	2/20/2018	5	26	
4	Paving	Paving	2/21/2018	2/28/2018	5	6	
5	Building Construction	Building Construction	3/1/2018	12/31/2018	5	218	
6	Architectural Coating	Architectural Coating	5/1/2018	12/31/2018	5	175	
7	Building Construction Crane Usage	Building Construction	6/1/2018	6/21/2018	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13

Acres of Paving: 0

Residential Indoor: 168,077; Residential Outdoor: 56,026; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Solana Beach Senior Housing 2019 - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction Crane Usage	Cranes	1	7.00	226	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Crane Usage	1	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7973	0.0000	0.7973	0.1207	0.0000	0.1207			0.0000			0.0000
Off-Road	1.9516	19.1046	10.4373	0.0179		1.0639	1.0639		1.0001	1.0001		1,765.6139	1,765.6139	0.4110		1,775.8900
Total	**1.9516**	**19.1046**	**10.4373**	**0.0179**	**0.7973**	**1.0639**	**1.8612**	**0.1207**	**1.0001**	**1.1208**		**1,765.6139**	**1,765.6139**	**0.4110**		**1,775.8900**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0339	1.1573	0.2539	2.8500e-003	0.0629	4.6100e-003	0.0675	0.0172	4.4100e-003	0.0217		309.6860	309.6860	0.0288		310.4060
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0385	0.0275	0.2598	6.8000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.4000e-004	0.0179		67.3862	67.3862	2.3400e-003		67.4446
Total	**0.0724**	**1.1849**	**0.5137**	**3.5300e-003**	**0.1286**	**5.0800e-003**	**0.1337**	**0.0347**	**4.8500e-003**	**0.0395**		**377.0721**	**377.0721**	**0.0311**		**377.8505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7973	0.0000	0.7973	0.1207	0.0000	0.1207			0.0000			0.0000
Off-Road	0.2051	0.8888	10.0343	0.0179		4.1000e-003	4.1000e-003		4.1000e-003	4.1000e-003	0.0000	1,765.6139	1,765.6139	0.4110		1,775.8900
Total	**0.2051**	**0.8888**	**10.0343**	**0.0179**	**0.7973**	**4.1000e-003**	**0.8014**	**0.1207**	**4.1000e-003**	**0.1248**	**0.0000**	**1,765.6139**	**1,765.6139**	**0.4110**		**1,775.8900**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0339	1.1573	0.2539	2.8500e-003	0.0629	4.6100e-003	0.0675	0.0172	4.4100e-003	0.0217		309.6860	309.6860	0.0288		310.4060
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0385	0.0275	0.2598	6.8000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.4000e-004	0.0179		67.3862	67.3862	2.3400e-003		67.4446
Total	**0.0724**	**1.1849**	**0.5137**	**3.5300e-003**	**0.1286**	**5.0800e-003**	**0.1337**	**0.0347**	**4.8500e-003**	**0.0395**		**377.0721**	**377.0721**	**0.0311**		**377.8505**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3536	0.0000	5.3536	2.9092	0.0000	2.9092			0.0000			0.0000
Off-Road	1.2532	13.2910	5.8741	0.0102		0.6973	0.6973		0.6415	0.6415		1,026.3306	1,026.3306	0.3195		1,034.3184
Total	**1.2532**	**13.2910**	**5.8741**	**0.0102**	**5.3536**	**0.6973**	**6.0509**	**2.9092**	**0.6415**	**3.5507**		**1,026.3306**	**1,026.3306**	**0.3195**		**1,034.3184**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7062	24.1106	5.2899	0.0593	1.3106	0.0961	1.4066	0.3592	0.0919	0.4511		6,451.7907	6,451.7907	0.6000		6,466.7905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0172	0.1624	4.2000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		42.1164	42.1164	1.4600e-003		42.1529
Total	**0.7303**	**24.1279**	**5.4523**	**0.0597**	**1.3516**	**0.0964**	**1.4480**	**0.3701**	**0.0922**	**0.4622**		**6,493.9071**	**6,493.9071**	**0.6015**		**6,508.9434**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3536	0.0000	5.3536	2.9092	0.0000	2.9092			0.0000			0.0000
Off-Road	0.1247	0.5404	5.4037	0.0102		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	1,026.3306	1,026.3306	0.3195		1,034.3184
Total	**0.1247**	**0.5404**	**5.4037**	**0.0102**	**5.3536**	**2.4900e-003**	**5.3561**	**2.9092**	**2.4900e-003**	**2.9117**	**0.0000**	**1,026.3306**	**1,026.3306**	**0.3195**		**1,034.3184**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7062	24.1106	5.2899	0.0593	1.3106	0.0961	1.4066	0.3592	0.0919	0.4511		6,451.7907	6,451.7907	0.6000		6,466.7905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0240	0.0172	0.1624	4.2000e-004	0.0411	3.0000e-004	0.0414	0.0109	2.7000e-004	0.0112		42.1164	42.1164	1.4600e-003		42.1529
Total	**0.7303**	**24.1279**	**5.4523**	**0.0597**	**1.3516**	**0.0964**	**1.4480**	**0.3701**	**0.0922**	**0.4622**		**6,493.9071**	**6,493.9071**	**0.6015**		**6,508.9434**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6777	0.0000	6.6777	3.3865	0.0000	3.3865			0.0000			0.0000
Off-Road	2.1515	24.2895	10.3804	0.0206		1.1683	1.1683		1.0748	1.0748		2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**2.1515**	**24.2895**	**10.3804**	**0.0206**	**6.6777**	**1.1683**	**7.8460**	**3.3865**	**1.0748**	**4.4613**		**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0503	35.8569	7.8671	0.0882	1.9491	0.1429	2.0919	0.5342	0.1367	0.6708		9,594.9709	9,594.9709	0.8923		9,617.2782
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0481	0.0344	0.3247	8.5000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.5000e-004	0.0223		84.2327	84.2327	2.9200e-003		84.3057
Total	**1.0984**	**35.8913**	**8.1918**	**0.0891**	**2.0312**	**0.1434**	**2.1746**	**0.5559**	**0.1372**	**0.6932**		**9,679.2036**	**9,679.2036**	**0.8952**		**9,701.5839**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6777	0.0000	6.6777	3.3865	0.0000	3.3865			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	2,077.4666	2,077.4666	0.6467		2,093.6352
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**6.6777**	**5.0400e-003**	**6.6828**	**3.3865**	**5.0400e-003**	**3.3915**	**0.0000**	**2,077.4666**	**2,077.4666**	**0.6467**		**2,093.6352**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0503	35.8569	7.8671	0.0882	1.9491	0.1429	2.0919	0.5342	0.1367	0.6708		9,594.9709	9,594.9709	0.8923		9,617.2782
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0481	0.0344	0.3247	8.5000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.5000e-004	0.0223		84.2327	84.2327	2.9200e-003		84.3057
Total	**1.0984**	**35.8913**	**8.1918**	**0.0891**	**2.0312**	**0.1434**	**2.1746**	**0.5559**	**0.1372**	**0.6932**		**9,679.2036**	**9,679.2036**	**0.8952**		**9,701.5839**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4046	14.2518	11.9787	0.0178		0.8505	0.8505		0.7836	0.7836		1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4046**	**14.2518**	**11.9787**	**0.0178**		**0.8505**	**0.8505**		**0.7836**	**0.7836**		**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**0.0721**	**0.0516**	**0.4871**	**1.2700e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**126.3491**	**126.3491**	**4.3800e-003**		**126.4586**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2104	0.9117	12.9737	0.0178		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003	0.0000	1,774.2430	1,774.2430	0.5419		1,787.7896
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2104**	**0.9117**	**12.9737**	**0.0178**		**4.2100e-003**	**4.2100e-003**		**4.2100e-003**	**4.2100e-003**	**0.0000**	**1,774.2430**	**1,774.2430**	**0.5419**		**1,787.7896**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0721	0.0516	0.4871	1.2700e-003	0.1232	8.9000e-004	0.1241	0.0327	8.2000e-004	0.0335		126.3491	126.3491	4.3800e-003		126.4586
Total	**0.0721**	**0.0516**	**0.4871**	**1.2700e-003**	**0.1232**	**8.9000e-004**	**0.1241**	**0.0327**	**8.2000e-004**	**0.0335**		**126.3491**	**126.3491**	**4.3800e-003**		**126.4586**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3420	13.8869	13.1965	0.0193		0.9623	0.9623		0.9335	0.9335		1,749.1780	1,749.1780	0.3211		1,757.2066
Total	**2.3420**	**13.8869**	**13.1965**	**0.0193**		**0.9623**	**0.9623**		**0.9335**	**0.9335**		**1,749.1780**	**1,749.1780**	**0.3211**		**1,757.2066**

3.6 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0591	1.4518	0.4246	2.9900e-003	0.0745	0.0115	0.0860	0.0214	0.0110	0.0325		319.7677	319.7677	0.0277		320.4595
Worker	0.3414	0.2444	2.3056	6.0100e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		598.0524	598.0524	0.0207		598.5705
Total	**0.4005**	**1.6962**	**2.7302**	**9.0000e-003**	**0.6577**	**0.0157**	**0.6734**	**0.1761**	**0.0149**	**0.1910**		**917.8201**	**917.8201**	**0.0484**		**919.0300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2587	3.5633	12.3362	0.0193		3.8600e-003	3.8600e-003		3.8600e-003	3.8600e-003	0.0000	1,749.1780	1,749.1780	0.3211		1,757.2066
Total	**0.2587**	**3.5633**	**12.3362**	**0.0193**		**3.8600e-003**	**3.8600e-003**		**3.8600e-003**	**3.8600e-003**	**0.0000**	**1,749.1780**	**1,749.1780**	**0.3211**		**1,757.2066**

3.6 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0591	1.4518	0.4246	2.9900e-003	0.0745	0.0115	0.0860	0.0214	0.0110	0.0325		319.7677	319.7677	0.0277		320.4595
Worker	0.3414	0.2444	2.3056	6.0100e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		598.0524	598.0524	0.0207		598.5705
Total	**0.4005**	**1.6962**	**2.7302**	**9.0000e-003**	**0.6577**	**0.0157**	**0.6734**	**0.1761**	**0.0149**	**0.1910**		**917.8201**	**917.8201**	**0.0484**		**919.0300**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.9033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**9.2019**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0673	0.0482	0.4546	1.1800e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		117.9258	117.9258	4.0900e-003		118.0280
Total	**0.0673**	**0.0482**	**0.4546**	**1.1800e-003**	**0.1150**	**8.3000e-004**	**0.1158**	**0.0305**	**7.6000e-004**	**0.0313**		**117.9258**	**117.9258**	**4.0900e-003**		**118.0280**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.9033					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	281.4485	281.4485	0.0267		282.1171
Total	**8.9330**	**0.1288**	**1.8324**	**2.9700e-003**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**281.4485**	**281.4485**	**0.0267**		**282.1171**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0673	0.0482	0.4546	1.1800e-003	0.1150	8.3000e-004	0.1158	0.0305	7.6000e-004	0.0313		117.9258	117.9258	4.0900e-003		118.0280
Total	**0.0673**	**0.0482**	**0.4546**	**1.1800e-003**	**0.1150**	**8.3000e-004**	**0.1158**	**0.0305**	**7.6000e-004**	**0.0313**		**117.9258**	**117.9258**	**4.0900e-003**		**118.0280**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4886	5.8390	2.1589	4.9400e-003		0.2527	0.2527		0.2325	0.2325		497.0270	497.0270	0.1547		500.8953
Total	**0.4886**	**5.8390**	**2.1589**	**4.9400e-003**		**0.2527**	**0.2527**		**0.2325**	**0.2325**		**497.0270**	**497.0270**	**0.1547**		**500.8953**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0591	1.4518	0.4246	2.9900e-003	0.0745	0.0115	0.0860	0.0214	0.0110	0.0325		319.7677	319.7677	0.0277		320.4595
Worker	0.3414	0.2444	2.3056	6.0100e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		598.0524	598.0524	0.0207		598.5705
Total	**0.4005**	**1.6962**	**2.7302**	**9.0000e-003**	**0.6577**	**0.0157**	**0.6734**	**0.1761**	**0.0149**	**0.1910**		**917.8201**	**917.8201**	**0.0484**		**919.0300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0607	0.2630	2.2252	4.9400e-003		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	497.0270	497.0270	0.1547		500.8953
Total	**0.0607**	**0.2630**	**2.2252**	**4.9400e-003**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**497.0270**	**497.0270**	**0.1547**		**500.8953**

3.8 Building Construction Crane Usage - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0591	1.4518	0.4246	2.9900e-003	0.0745	0.0115	0.0860	0.0214	0.0110	0.0325		319.7677	319.7677	0.0277		320.4595
Worker	0.3414	0.2444	2.3056	6.0100e-003	0.5833	4.2000e-003	0.5875	0.1547	3.8700e-003	0.1586		598.0524	598.0524	0.0207		598.5705
Total	**0.4005**	**1.6962**	**2.7302**	**9.0000e-003**	**0.6577**	**0.0157**	**0.6734**	**0.1761**	**0.0149**	**0.1910**		**917.8201**	**917.8201**	**0.0484**		**919.0300**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5469	2.4047	6.4807	0.0197	1.6426	0.0228	1.6654	0.4391	0.0215	0.4605		1,992.1449	1,992.1449	0.1142		1,995.0003
Unmitigated	0.5469	2.4047	6.4807	0.0197	1.6426	0.0228	1.6654	0.4391	0.0215	0.4605		1,992.1449	1,992.1449	0.1142		1,995.0003

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	271.26	217.80	241.56	740,609	740,609
Total	271.26	217.80	241.56	740,609	740,609

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
NaturalGas Unmitigated	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2405.27	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Total		**0.0259**	**0.2217**	**0.0943**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**282.9734**	**282.9734**	**5.4200e-003**	**5.1900e-003**	**284.6550**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	2.40527	0.0259	0.2217	0.0943	1.4100e-003		0.0179	0.0179		0.0179	0.0179		282.9734	282.9734	5.4200e-003	5.1900e-003	284.6550
Total		**0.0259**	**0.2217**	**0.0943**	**1.4100e-003**		**0.0179**	**0.0179**		**0.0179**	**0.0179**		**282.9734**	**282.9734**	**5.4200e-003**	**5.1900e-003**	**284.6550**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676
Unmitigated	2.4544	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450	0.0000	14.7067	14.7067	0.0144	0.0000	15.0676

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2513	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450		14.7067	14.7067	0.0144		15.0676
Total	**2.4544**	**0.0951**	**8.2081**	**4.3000e-004**		**0.0450**	**0.0450**		**0.0450**	**0.0450**	**0.0000**	**14.7067**	**14.7067**	**0.0144**	**0.0000**	**15.0676**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7762					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2513	0.0951	8.2081	4.3000e-004		0.0450	0.0450		0.0450	0.0450		14.7067	14.7067	0.0144		15.0676
Total	**2.4544**	**0.0951**	**8.2081**	**4.3000e-004**		**0.0450**	**0.0450**		**0.0450**	**0.0450**	**0.0000**	**14.7067**	**14.7067**	**0.0144**	**0.0000**	**15.0676**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Solana Beach Senior Housing 2019

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	99.00	Dwelling Unit	2.90	83,001.00	283

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project

Construction Phase - cs

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - ce

Off-road Equipment - ce

Off-road Equipment -

Off-road Equipment - ce

Grading - 26200 CY Export

Architectural Coating - Rule 67 Paint

Woodstoves - No FP

Area Coating - Rule 67 Paint

Water And Wastewater - Water 75 gallons per day per bed and 75 percent of potable water use for indoor water

Solid Waste - IS states 289 Tons/year

Construction Off-road Equipment Mitigation - Project will utilize Tier 4 equipment

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	175.00
tblConstructionPhase	NumDays	220.00	218.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	26.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	3.00	5.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	54.45	0.00
tblFireplaces	NumberNoFireplace	9.90	99.00
tblFireplaces	NumberWood	34.65	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.58	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.18
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.6000e-003	5.5580e-003
tblFleetMix	MCY	6.2790e-003	6.1810e-003

tblFleetMix	MDV	0.11	0.11
tblFleetMix	MH	1.3570e-003	1.2710e-003
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	1.8880e-003	1.9020e-003
tblFleetMix	SBUS	7.4200e-004	7.4500e-004
tblFleetMix	UBUS	2.0880e-003	2.0240e-003
tblGrading	MaterialExported	0.00	23,200.00
tblGrading	MaterialExported	0.00	3,000.00
tblLandUse	BuildingSpaceSquareFeet	99,000.00	83,001.00
tblLandUse	LandUseSquareFeet	99,000.00	83,001.00
tblLandUse	LotAcreage	6.19	2.90
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblSolidWaste	SolidWasteGenerationRate	90.34	289.00
tblWater	IndoorWaterUseRate	6,450,248.54	2,540,674.00
tblWater	OutdoorWaterUseRate	4,066,461.03	846,891.00
tblWoodstoves	NumberCatalytic	4.95	0.00
tblWoodstoves	NumberNoncatalytic	4.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	1.1678	2.9109	2.3021	5.2800e-003	0.2167	0.1461	0.3628	0.0825	0.1409	0.2234	0.0000	473.2913	473.2913	0.0628	0.0000	474.8615
Maximum	**1.1678**	**2.9109**	**2.3021**	**5.2800e-003**	**0.2167**	**0.1461**	**0.3628**	**0.0825**	**0.1409**	**0.2234**	**0.0000**	**473.2913**	**473.2913**	**0.0628**	**0.0000**	**474.8615**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.8785	1.1606	2.2145	5.2800e-003	0.2167	4.5600e-003	0.2213	0.0825	4.3700e-003	0.0868	0.0000	473.2910	473.2910	0.0628	0.0000	474.8612
Maximum	**0.8785**	**1.1606**	**2.2145**	**5.2800e-003**	**0.2167**	**4.5600e-003**	**0.2213**	**0.0825**	**4.3700e-003**	**0.0868**	**0.0000**	**473.2910**	**473.2910**	**0.0628**	**0.0000**	**474.8612**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**24.77**	**60.13**	**3.80**	**0.00**	**0.00**	**96.88**	**39.01**	**0.00**	**96.90**	**61.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2018**	**3-31-2018**	1.2829	0.6402
2	**4-1-2018**	**6-30-2018**	1.1738	0.4837
3	**7-1-2018**	**9-30-2018**	1.2459	0.5705
		Highest	1.2829	0.6402

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4247	8.5600e-003	0.7387	4.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	1.2008	1.2008	1.1800e-003	0.0000	1.2302
Energy	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	184.8534	184.8534	6.4500e-003	2.0100e-003	185.6132
Mobile	0.0928	0.4195	1.1146	3.4500e-003	0.2792	3.9500e-003	0.2831	0.0748	3.7100e-003	0.0785	0.0000	317.4036	317.4036	0.0179	0.0000	317.8499
Waste						0.0000	0.0000		0.0000	0.0000	58.6644	0.0000	58.6644	3.4670	0.0000	145.3385
Water						0.0000	0.0000		0.0000	0.0000	0.8060	13.8865	14.6925	0.0834	2.0700e-003	17.3932
Total	**0.5222**	**0.4685**	**1.8705**	**3.7500e-003**	**0.2792**	**0.0113**	**0.2904**	**0.0748**	**0.0110**	**0.0858**	**59.4704**	**517.3443**	**576.8147**	**3.5758**	**4.0800e-003**	**667.4250**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4247	8.5600e-003	0.7387	4.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	1.2008	1.2008	1.1800e-003	0.0000	1.2302
Energy	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	184.8534	184.8534	6.4500e-003	2.0100e-003	185.6132
Mobile	0.0928	0.4195	1.1146	3.4500e-003	0.2792	3.9500e-003	0.2831	0.0748	3.7100e-003	0.0785	0.0000	317.4036	317.4036	0.0179	0.0000	317.8499
Waste						0.0000	0.0000		0.0000	0.0000	58.6644	0.0000	58.6644	3.4670	0.0000	145.3385
Water						0.0000	0.0000		0.0000	0.0000	0.8060	13.8865	14.6925	0.0834	2.0700e-003	17.3932
Total	**0.5222**	**0.4685**	**1.8705**	**3.7500e-003**	**0.2792**	**0.0113**	**0.2904**	**0.0748**	**0.0110**	**0.0858**	**59.4704**	**517.3443**	**576.8147**	**3.5758**	**4.0800e-003**	**667.4250**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Solana Beach Senior Housing 2019 - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/7/2018	5	5	
2	Site Preparation	Site Preparation	1/8/2018	1/12/2018	5	5	
3	Grading	Grading	1/16/2018	2/20/2018	5	26	
4	Paving	Paving	2/21/2018	2/28/2018	5	6	
5	Building Construction	Building Construction	3/1/2018	12/31/2018	5	218	
6	Architectural Coating	Architectural Coating	5/1/2018	12/31/2018	5	175	
7	Building Construction Crane Usage	Building Construction	6/1/2018	6/21/2018	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13

Acres of Paving: 0

Residential Indoor: 168,077; Residential Outdoor: 56,026; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Solana Beach Senior Housing 2019 - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction Crane Usage	Cranes	1	7.00	226	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Crane Usage	1	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8800e-003	0.0478	0.0261	4.0000e-005		2.6600e-003	2.6600e-003		2.5000e-003	2.5000e-003	0.0000	4.0044	4.0044	9.3000e-004	0.0000	4.0277
Total	**4.8800e-003**	**0.0478**	**0.0261**	**4.0000e-005**	**1.9900e-003**	**2.6600e-003**	**4.6500e-003**	**3.0000e-004**	**2.5000e-003**	**2.8000e-003**	**0.0000**	**4.0044**	**4.0044**	**9.3000e-004**	**0.0000**	**4.0277**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.9200e-003	6.1000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7092	0.7092	6.0000e-005	0.0000	0.7108
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	6.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1544	0.1544	1.0000e-005	0.0000	0.1545
Total	**1.7000e-004**	**2.9900e-003**	**1.2600e-003**	**1.0000e-005**	**3.1000e-004**	**1.0000e-005**	**3.3000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.8636**	**0.8636**	**7.0000e-005**	**0.0000**	**0.8653**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	2.2200e-003	0.0251	4.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0043	4.0043	9.3000e-004	0.0000	4.0277
Total	**5.1000e-004**	**2.2200e-003**	**0.0251**	**4.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**4.0043**	**4.0043**	**9.3000e-004**	**0.0000**	**4.0277**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.9200e-003	6.1000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7092	0.7092	6.0000e-005	0.0000	0.7108
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	6.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1544	0.1544	1.0000e-005	0.0000	0.1545
Total	**1.7000e-004**	**2.9900e-003**	**1.2600e-003**	**1.0000e-005**	**3.1000e-004**	**1.0000e-005**	**3.3000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.8636**	**0.8636**	**7.0000e-005**	**0.0000**	**0.8653**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0134	0.0000	0.0134	7.2700e-003	0.0000	7.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1300e-003	0.0332	0.0147	3.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	2.3277	2.3277	7.2000e-004	0.0000	2.3458
Total	**3.1300e-003**	**0.0332**	**0.0147**	**3.0000e-005**	**0.0134**	**1.7400e-003**	**0.0151**	**7.2700e-003**	**1.6000e-003**	**8.8700e-003**	**0.0000**	**2.3277**	**2.3277**	**7.2000e-004**	**0.0000**	**2.3458**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7400e-003	0.0609	0.0127	1.5000e-004	3.2100e-003	2.4000e-004	3.4500e-003	8.8000e-004	2.3000e-004	1.1100e-003	0.0000	14.7756	14.7756	1.3300e-003	0.0000	14.8090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**1.7900e-003**	**0.0609**	**0.0131**	**1.5000e-004**	**3.3100e-003**	**2.4000e-004**	**3.5500e-003**	**9.1000e-004**	**2.3000e-004**	**1.1400e-003**	**0.0000**	**14.8721**	**14.8721**	**1.3300e-003**	**0.0000**	**14.9055**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0134	0.0000	0.0134	7.2700e-003	0.0000	7.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	1.3500e-003	0.0135	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.3277	2.3277	7.2000e-004	0.0000	2.3458
Total	**3.1000e-004**	**1.3500e-003**	**0.0135**	**3.0000e-005**	**0.0134**	**1.0000e-005**	**0.0134**	**7.2700e-003**	**1.0000e-005**	**7.2800e-003**	**0.0000**	**2.3277**	**2.3277**	**7.2000e-004**	**0.0000**	**2.3458**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7400e-003	0.0609	0.0127	1.5000e-004	3.2100e-003	2.4000e-004	3.4500e-003	8.8000e-004	2.3000e-004	1.1100e-003	0.0000	14.7756	14.7756	1.3300e-003	0.0000	14.8090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**1.7900e-003**	**0.0609**	**0.0131**	**1.5000e-004**	**3.3100e-003**	**2.4000e-004**	**3.5500e-003**	**9.1000e-004**	**2.3000e-004**	**1.1400e-003**	**0.0000**	**14.8721**	**14.8721**	**1.3300e-003**	**0.0000**	**14.9055**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0868	0.0000	0.0868	0.0440	0.0000	0.0440	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0280	0.3158	0.1350	2.7000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	24.5004	24.5004	7.6300e-003	0.0000	24.6911
Total	**0.0280**	**0.3158**	**0.1350**	**2.7000e-004**	**0.0868**	**0.0152**	**0.1020**	**0.0440**	**0.0140**	**0.0580**	**0.0000**	**24.5004**	**24.5004**	**7.6300e-003**	**0.0000**	**24.6911**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.4707	0.0982	1.1600e-003	0.0248	1.8300e-003	0.0266	6.8200e-003	1.7500e-003	8.5700e-003	0.0000	114.2648	114.2648	0.0103	0.0000	114.5226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.4000e-004	4.2200e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	1.0033	1.0033	3.0000e-005	0.0000	1.0042
Total	**0.0140**	**0.4712**	**0.1024**	**1.1700e-003**	**0.0259**	**1.8400e-003**	**0.0277**	**7.1000e-003**	**1.7600e-003**	**8.8500e-003**	**0.0000**	**115.2681**	**115.2681**	**0.0103**	**0.0000**	**115.5267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0868	0.0000	0.0868	0.0440	0.0000	0.0440	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2800e-003	0.0142	0.1418	2.7000e-004		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	24.5004	24.5004	7.6300e-003	0.0000	24.6911
Total	**3.2800e-003**	**0.0142**	**0.1418**	**2.7000e-004**	**0.0868**	**7.0000e-005**	**0.0869**	**0.0440**	**7.0000e-005**	**0.0441**	**0.0000**	**24.5004**	**24.5004**	**7.6300e-003**	**0.0000**	**24.6911**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.4707	0.0982	1.1600e-003	0.0248	1.8300e-003	0.0266	6.8200e-003	1.7500e-003	8.5700e-003	0.0000	114.2648	114.2648	0.0103	0.0000	114.5226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.4000e-004	4.2200e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	1.0033	1.0033	3.0000e-005	0.0000	1.0042
Total	**0.0140**	**0.4712**	**0.1024**	**1.1700e-003**	**0.0259**	**1.8400e-003**	**0.0277**	**7.1000e-003**	**1.7600e-003**	**8.8500e-003**	**0.0000**	**115.2681**	**115.2681**	**0.0103**	**0.0000**	**115.5267**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2100e-003	0.0428	0.0359	5.0000e-005		2.5500e-003	2.5500e-003		2.3500e-003	2.3500e-003	0.0000	4.8287	4.8287	1.4700e-003	0.0000	4.8656
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2100e-003**	**0.0428**	**0.0359**	**5.0000e-005**		**2.5500e-003**	**2.5500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**4.8287**	**4.8287**	**1.4700e-003**	**0.0000**	**4.8656**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.4600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3473	0.3473	1.0000e-005	0.0000	0.3476
Total	**1.9000e-004**	**1.5000e-004**	**1.4600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3473**	**0.3473**	**1.0000e-005**	**0.0000**	**0.3476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-004	2.7300e-003	0.0389	5.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.8287	4.8287	1.4700e-003	0.0000	4.8656
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3000e-004**	**2.7300e-003**	**0.0389**	**5.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.8287**	**4.8287**	**1.4700e-003**	**0.0000**	**4.8656**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.4600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3473	0.3473	1.0000e-005	0.0000	0.3476
Total	**1.9000e-004**	**1.5000e-004**	**1.4600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3473**	**0.3473**	**1.0000e-005**	**0.0000**	**0.3476**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2553	1.5137	1.4384	2.1000e-003		0.1049	0.1049		0.1018	0.1018	0.0000	172.9642	172.9642	0.0318	0.0000	173.7581
Total	**0.2553**	**1.5137**	**1.4384**	**2.1000e-003**		**0.1049**	**0.1049**		**0.1018**	**0.1018**	**0.0000**	**172.9642**	**172.9642**	**0.0318**	**0.0000**	**173.7581**

3.6 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2900e-003	0.1601	0.0440	3.3000e-004	7.9600e-003	1.2400e-003	9.2000e-003	2.3000e-003	1.1900e-003	3.4900e-003	0.0000	32.0923	32.0923	2.6400e-003	0.0000	32.1584
Worker	0.0331	0.0262	0.2512	6.6000e-004	0.0621	4.6000e-004	0.0625	0.0165	4.2000e-004	0.0169	0.0000	59.7277	59.7277	2.0600e-003	0.0000	59.7792
Total	**0.0394**	**0.1862**	**0.2952**	**9.9000e-004**	**0.0700**	**1.7000e-003**	**0.0717**	**0.0188**	**1.6100e-003**	**0.0204**	**0.0000**	**91.8200**	**91.8200**	**4.7000e-003**	**0.0000**	**91.9376**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.3884	1.3447	2.1000e-003		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	172.9640	172.9640	0.0318	0.0000	173.7579
Total	**0.0282**	**0.3884**	**1.3447**	**2.1000e-003**		**4.2000e-004**	**4.2000e-004**		**4.2000e-004**	**4.2000e-004**	**0.0000**	**172.9640**	**172.9640**	**0.0318**	**0.0000**	**173.7579**

3.6 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2900e-003	0.1601	0.0440	3.3000e-004	7.9600e-003	1.2400e-003	9.2000e-003	2.3000e-003	1.1900e-003	3.4900e-003	0.0000	32.0923	32.0923	2.6400e-003	0.0000	32.1584
Worker	0.0331	0.0262	0.2512	6.6000e-004	0.0621	4.6000e-004	0.0625	0.0165	4.2000e-004	0.0169	0.0000	59.7277	59.7277	2.0600e-003	0.0000	59.7792
Total	**0.0394**	**0.1862**	**0.2952**	**9.9000e-004**	**0.0700**	**1.7000e-003**	**0.0717**	**0.0188**	**1.6100e-003**	**0.0204**	**0.0000**	**91.8200**	**91.8200**	**4.7000e-003**	**0.0000**	**91.9376**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0261	0.1755	0.1622	2.6000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	22.3410	22.3410	2.1200e-003	0.0000	22.3941
Total	**0.8052**	**0.1755**	**0.1622**	**2.6000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**22.3410**	**22.3410**	**2.1200e-003**	**0.0000**	**22.3941**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2400e-003	4.1500e-003	0.0398	1.0000e-004	9.8200e-003	7.0000e-005	9.9000e-003	2.6100e-003	7.0000e-005	2.6800e-003	0.0000	9.4543	9.4543	3.3000e-004	0.0000	9.4624
Total	**5.2400e-003**	**4.1500e-003**	**0.0398**	**1.0000e-004**	**9.8200e-003**	**7.0000e-005**	**9.9000e-003**	**2.6100e-003**	**7.0000e-005**	**2.6800e-003**	**0.0000**	**9.4543**	**9.4543**	**3.3000e-004**	**0.0000**	**9.4624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0113	0.1603	2.6000e-004		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	22.3410	22.3410	2.1200e-003	0.0000	22.3941
Total	**0.7816**	**0.0113**	**0.1603**	**2.6000e-004**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**22.3410**	**22.3410**	**2.1200e-003**	**0.0000**	**22.3941**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2400e-003	4.1500e-003	0.0398	1.0000e-004	9.8200e-003	7.0000e-005	9.9000e-003	2.6100e-003	7.0000e-005	2.6800e-003	0.0000	9.4543	9.4543	3.3000e-004	0.0000	9.4624
Total	**5.2400e-003**	**4.1500e-003**	**0.0398**	**1.0000e-004**	**9.8200e-003**	**7.0000e-005**	**9.9000e-003**	**2.6100e-003**	**7.0000e-005**	**2.6800e-003**	**0.0000**	**9.4543**	**9.4543**	**3.3000e-004**	**0.0000**	**9.4624**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6600e-003	0.0438	0.0162	4.0000e-005		1.9000e-003	1.9000e-003		1.7400e-003	1.7400e-003	0.0000	3.3817	3.3817	1.0500e-003	0.0000	3.4080
Total	**3.6600e-003**	**0.0438**	**0.0162**	**4.0000e-005**		**1.9000e-003**	**1.9000e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**3.3817**	**3.3817**	**1.0500e-003**	**0.0000**	**3.4080**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0110	3.0300e-003	2.0000e-005	5.5000e-004	9.0000e-005	6.3000e-004	1.6000e-004	8.0000e-005	2.4000e-004	0.0000	2.2082	2.2082	1.8000e-004	0.0000	2.2127
Worker	2.2800e-003	1.8000e-003	0.0173	5.0000e-005	4.2700e-003	3.0000e-005	4.3000e-003	1.1300e-003	3.0000e-005	1.1600e-003	0.0000	4.1097	4.1097	1.4000e-004	0.0000	4.1133
Total	**2.7100e-003**	**0.0128**	**0.0203**	**7.0000e-005**	**4.8200e-003**	**1.2000e-004**	**4.9300e-003**	**1.2900e-003**	**1.1000e-004**	**1.4000e-003**	**0.0000**	**6.3179**	**6.3179**	**3.2000e-004**	**0.0000**	**6.3260**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6000e-004	1.9700e-003	0.0167	4.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3817	3.3817	1.0500e-003	0.0000	3.4080
Total	**4.6000e-004**	**1.9700e-003**	**0.0167**	**4.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.3817**	**3.3817**	**1.0500e-003**	**0.0000**	**3.4080**

3.8 Building Construction Crane Usage - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0110	3.0300e-003	2.0000e-005	5.5000e-004	9.0000e-005	6.3000e-004	1.6000e-004	8.0000e-005	2.4000e-004	0.0000	2.2082	2.2082	1.8000e-004	0.0000	2.2127
Worker	2.2800e-003	1.8000e-003	0.0173	5.0000e-005	4.2700e-003	3.0000e-005	4.3000e-003	1.1300e-003	3.0000e-005	1.1600e-003	0.0000	4.1097	4.1097	1.4000e-004	0.0000	4.1133
Total	**2.7100e-003**	**0.0128**	**0.0203**	**7.0000e-005**	**4.8200e-003**	**1.2000e-004**	**4.9300e-003**	**1.2900e-003**	**1.1000e-004**	**1.4000e-003**	**0.0000**	**6.3179**	**6.3179**	**3.2000e-004**	**0.0000**	**6.3260**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0928	0.4195	1.1146	3.4500e-003	0.2792	3.9500e-003	0.2831	0.0748	3.7100e-003	0.0785	0.0000	317.4036	317.4036	0.0179	0.0000	317.8499
Unmitigated	0.0928	0.4195	1.1146	3.4500e-003	0.2792	3.9500e-003	0.2831	0.0748	3.7100e-003	0.0785	0.0000	317.4036	317.4036	0.0179	0.0000	317.8499

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	271.26	217.80	241.56	740,609	740,609
Total	271.26	217.80	241.56	740,609	740,609

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.0040	138.0040	5.5500e-003	1.1500e-003	138.4854
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.0040	138.0040	5.5500e-003	1.1500e-003	138.4854
NaturalGas Mitigated	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278
NaturalGas Unmitigated	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	877925	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278
Total		**4.7300e-003**	**0.0405**	**0.0172**	**2.6000e-004**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**	**0.0000**	**46.8494**	**46.8494**	**9.0000e-004**	**8.6000e-004**	**47.1278**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	877925	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278
Total		**4.7300e-003**	**0.0405**	**0.0172**	**2.6000e-004**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**	**0.0000**	**46.8494**	**46.8494**	**9.0000e-004**	**8.6000e-004**	**47.1278**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	422278	138.0040	5.5500e-003	1.1500e-003	138.4854
Total		**138.0040**	**5.5500e-003**	**1.1500e-003**	**138.4854**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	422278	138.0040	5.5500e-003	1.1500e-003	138.4854
Total		**138.0040**	**5.5500e-003**	**1.1500e-003**	**138.4854**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4247	8.5600e-003	0.7387	4.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	1.2008	1.2008	1.1800e-003	0.0000	1.2302
Unmitigated	0.4247	8.5600e-003	0.7387	4.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	1.2008	1.2008	1.1800e-003	0.0000	1.2302

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3242					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0226	8.5600e-003	0.7387	4.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	1.2008	1.2008	1.1800e-003	0.0000	1.2302
Total	**0.4247**	**8.5600e-003**	**0.7387**	**4.0000e-005**		**4.0500e-003**	**4.0500e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**1.2008**	**1.2008**	**1.1800e-003**	**0.0000**	**1.2302**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3242					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0226	8.5600e-003	0.7387	4.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.0000	1.2008	1.2008	1.1800e-003	0.0000	1.2302
Total	**0.4247**	**8.5600e-003**	**0.7387**	**4.0000e-005**		**4.0500e-003**	**4.0500e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**1.2008**	**1.2008**	**1.1800e-003**	**0.0000**	**1.2302**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.6925	0.0834	2.0700e-003	17.3932
Unmitigated	14.6925	0.0834	2.0700e-003	17.3932

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	2.54067 / 0.846891	14.6925	0.0834	2.0700e-003	17.3932
Total		**14.6925**	**0.0834**	**2.0700e-003**	**17.3932**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	2.54067 / 0.846891	14.6925	0.0834	2.0700e-003	17.3932
Total		**14.6925**	**0.0834**	**2.0700e-003**	**17.3932**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	58.6644	3.4670	0.0000	145.3385
Unmitigated	58.6644	3.4670	0.0000	145.3385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	289	58.6644	3.4670	0.0000	145.3385
Total		**58.6644**	**3.4670**	**0.0000**	**145.3385**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	289	58.6644	3.4670	0.0000	145.3385
Total		**58.6644**	**3.4670**	**0.0000**	**145.3385**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT C

AERMOD Unmitigated, Mitigated

```
1                    AERMOD PRIME - (DATED 16216r)

                    AERMODPrMSPx VERSION
             (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  8/03/2017 at 17:52:12

** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  PM10 Exhaust SB Construction Unmitigated
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  6Y1FY002  AREAPOLY  476169.4  3650116  40.23
** SRCDESCR  PM 10 Exhaust
SO SRCPARAM  6Y1FY002  1.47E-06  4.15  9  1.93
SO AREAVERT  6Y1FY002  476169.4 3650116  476282.8 3650116  476280.4 3650079.5  476221 3650079.5
SO AREAVERT  6Y1FY002  476219 3650010.9  476215.6 3649991.9  476202.5 3649931.6  476189.8 3649909.7
SO AREAVERT  6Y1FY002  476173.3 3649906.8
SO SRCGROUP  ALL
SO FINISHED

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ME PROFFILE
"C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
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ME UAIRDATA  3190 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME SITEDATA  00001016 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME PROFBASE  20  METERS
ME STARTEND  2012  1  1  1  2012  12  31  24
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

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** It is recommended that the user not edit any data below this line
** ****************************************************************************


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** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
```

```
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE  AERMOD_BREEZE_16216.EXE
** AERMAPEXE  AERMAP_EPA_11103.EXE


 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     106 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:      0 VOLUME source(s)
                and:      1 AREA type source(s)
```

```
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    20.00 ;  Decay Coef. =    0.000     ;
 Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          AERMOD.INP

 **Output Print File:             AERMOD.OUT


 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL


                                                *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER      INIT.   URBAN
EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.     SZ     SOURCE
SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)            (METERS)
   BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - -

 6Y1FY002         0   0.14700E-05  476169.4 3650116.0    40.2     4.15       9         1.93     NO

 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL
```

```
                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
 -----------                                            ----------


  ALL        6Y1FY002    ,
 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

     ( 475586.8, 3650514.3,      20.1,      90.7,       0.0);         ( 475711.6, 3650514.3,
27.5,      89.7,       0.0);
     ( 475836.4, 3650514.3,      39.5,      89.7,       0.0);         ( 475961.2, 3650514.3,
52.5,      89.7,       0.0);
     ( 476086.0, 3650514.3,      42.0,      96.5,       0.0);         ( 476210.8, 3650514.3,
68.7,      89.8,       0.0);
     ( 476335.6, 3650514.3,      89.5,      89.5,       0.0);         ( 476460.4, 3650514.3,
86.5,      86.8,       0.0);
     ( 476585.2, 3650514.3,      66.9,      99.7,       0.0);         ( 476710.0, 3650514.3,
60.6,      99.7,       0.0);
     ( 475586.8, 3650384.7,      18.1,      89.8,       0.0);         ( 475711.6, 3650384.7,
26.7,      52.2,       0.0);
     ( 475836.4, 3650384.7,      38.8,      52.0,       0.0);         ( 475961.2, 3650384.7,
43.5,      89.8,       0.0);
     ( 476086.0, 3650384.7,      41.9,      96.6,       0.0);         ( 476210.8, 3650384.7,
56.6,      96.4,       0.0);
     ( 476335.6, 3650384.7,      64.1,      98.3,       0.0);         ( 476460.4, 3650384.7,
66.5,      99.3,       0.0);
     ( 476585.2, 3650384.7,      89.7,      98.3,       0.0);         ( 476710.0, 3650384.7,
94.0,      98.3,       0.0);
     ( 475586.8, 3650255.1,      18.6,      60.4,       0.0);         ( 475711.6, 3650255.1,
20.5,      89.8,       0.0);
     ( 475836.4, 3650255.1,      25.6,      89.8,       0.0);         ( 475961.2, 3650255.1,
33.2,      89.8,       0.0);
     ( 476086.0, 3650255.1,      38.8,      98.3,       0.0);         ( 476210.8, 3650255.1,
47.6,      98.3,       0.0);
     ( 476335.6, 3650255.1,      48.7,      99.7,       0.0);         ( 476460.4, 3650255.1,
60.0,      99.7,       0.0);
     ( 476585.2, 3650255.1,      71.4,      99.7,       0.0);         ( 476710.0, 3650255.1,
88.0,      99.7,       0.0);
     ( 475586.8, 3650125.5,      21.2,      60.4,       0.0);         ( 475711.6, 3650125.5,
12.7,      89.8,       0.0);
     ( 475836.4, 3650125.5,      16.4,      89.8,       0.0);         ( 475961.2, 3650125.5,
22.8,      98.3,       0.0);
     ( 476086.0, 3650125.5,      35.8,      98.2,       0.0);         ( 476210.8, 3650125.5,
41.2,      99.7,       0.0);
     ( 476335.6, 3650125.5,      48.4,      99.7,       0.0);         ( 476460.4, 3650125.5,
60.2,      99.7,       0.0);
```

```
     ( 476585.2, 3650125.5,      68.3,      99.7,       0.0);         ( 476710.0, 3650125.5,
82.5,      99.7,       0.0);
     ( 475586.8, 3649995.9,      28.7,      60.7,       0.0);         ( 475711.6, 3649995.9,
14.7,      61.8,       0.0);
     ( 475836.4, 3649995.9,      11.9,      89.8,       0.0);         ( 475961.2, 3649995.9,
17.9,      98.3,       0.0);
     ( 476086.0, 3649995.9,      30.1,      96.1,       0.0);         ( 476210.8, 3649995.9,
41.6,      68.6,       0.0);
     ( 476335.6, 3649995.9,      48.5,      99.7,       0.0);         ( 476460.4, 3649995.9,
59.9,      99.7,       0.0);
     ( 476585.2, 3649995.9,      74.0,      76.4,       0.0);         ( 476710.0, 3649995.9,
85.4,      85.4,       0.0);
     ( 475586.8, 3649866.3,      38.4,      59.0,       0.0);         ( 475711.6, 3649866.3,
14.4,      61.8,       0.0);
     ( 475836.4, 3649866.3,      11.6,      68.6,       0.0);         ( 475961.2, 3649866.3,
19.5,      69.6,       0.0);
     ( 476086.0, 3649866.3,      34.8,      68.8,       0.0);         ( 476210.8, 3649866.3,
49.3,      68.6,       0.0);
     ( 476335.6, 3649866.3,      59.1,      68.6,       0.0);         ( 476460.4, 3649866.3,
67.6,      67.6,       0.0);
     ( 476585.2, 3649866.3,      75.8,      75.8,       0.0);         ( 476710.0, 3649866.3,
73.6,      86.5,       0.0);
     ( 475586.8, 3649736.7,      30.4,      61.8,       0.0);         ( 475711.6, 3649736.7,
12.4,      61.8,       0.0);
     ( 475836.4, 3649736.7,       7.4,      69.6,       0.0);         ( 475961.2, 3649736.7,
18.3,      69.6,       0.0);
     ( 476086.0, 3649736.7,      33.8,      68.9,       0.0);         ( 476210.8, 3649736.7,
42.2,      70.1,       0.0);
     ( 476335.6, 3649736.7,      66.5,      67.2,       0.0);         ( 476460.4, 3649736.7,
65.5,      65.5,       0.0);
     ( 476585.2, 3649736.7,      73.4,      73.9,       0.0);         ( 476710.0, 3649736.7,
77.5,      77.5,       0.0);
     ( 475586.8, 3649607.1,      36.0,      38.7,       0.0);         ( 475711.6, 3649607.1,
12.7,      61.8,       0.0);
     ( 475836.4, 3649607.1,       5.0,      68.9,       0.0);         ( 475961.2, 3649607.1,
15.4,      69.6,       0.0);
     ( 476086.0, 3649607.1,      27.6,      69.6,       0.0);         ( 476210.8, 3649607.1,
33.3,      78.8,       0.0);
     ( 476335.6, 3649607.1,      48.7,      68.6,       0.0);         ( 476460.4, 3649607.1,
57.2,      57.2,       0.0);
     ( 476585.2, 3649607.1,      61.0,      80.0,       0.0);         ( 476710.0, 3649607.1,
70.6,      74.7,       0.0);
     ( 475586.8, 3649477.5,      15.3,      61.8,       0.0);         ( 475711.6, 3649477.5,
5.7,      61.8,       0.0);
     ( 475836.4, 3649477.5,       3.3,      68.6,       0.0);         ( 475961.2, 3649477.5,
13.2,      68.8,       0.0);
     ( 476086.0, 3649477.5,      38.7,      50.8,       0.0);         ( 476210.8, 3649477.5,
30.6,      68.9,       0.0);
     ( 476335.6, 3649477.5,      38.1,      69.4,       0.0);         ( 476460.4, 3649477.5,
42.8,      80.0,       0.0);
     ( 476585.2, 3649477.5,      54.1,      73.4,       0.0);         ( 476710.0, 3649477.5,
58.0,      73.5,       0.0);
 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 475586.8, 3649347.9,      20.0,      56.1,       0.0);         ( 475711.6, 3649347.9,
5.6,      56.1,       0.0);
     ( 475836.4, 3649347.9,       3.4,      67.2,       0.0);         ( 475961.2, 3649347.9,
7.0,      68.6,       0.0);
     ( 476086.0, 3649347.9,      41.6,      50.8,       0.0);         ( 476210.8, 3649347.9,
26.1,      50.8,       0.0);
     ( 476335.6, 3649347.9,      32.2,      68.5,       0.0);         ( 476460.4, 3649347.9,
31.2,      80.0,       0.0);
     ( 476585.2, 3649347.9,      40.8,      74.7,       0.0);         ( 476710.0, 3649347.9,
41.5,      74.7,       0.0);
```


*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2012   1 1 1
AND END DATE: 2012 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

```
                                                  1.54,   3.09,   5.14,   8.23,  10.80,
```

*** AERMOD - VERSION 16216r ***   *** PM10 Exhaust SB Construction Unmitigated
***   08/03/17
*** AERMET - VERSION 15181 ***   ***
***   17:52:12

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\
Met Version: 15181
Profile file: C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\
Surface format: FREE

Profile format: FREE

Surface station no.: 93107 Upper air station no.: 3190
Name: KERNEYMESACLOSESTMEDDATATOSITE Name: KERNEYMESACLOSESTMEDDATATOSITE
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-0.5	0.025	-9.000	-9.000	-999.	9.	2.6	0.26	1.32	1.00	0.45	125.	10.0	283.8	10.0
12	01	01	1	02	-2.3	0.053	-9.000	-9.000	-999.	29.	5.8	0.34	1.32	1.00	0.89	334.	10.0	283.8	10.0
12	01	01	1	03	-0.6	0.027	-9.000	-9.000	-999.	11.	3.0	0.38	1.32	1.00	0.45	5.	10.0	285.9	10.0
12	01	01	1	04	-0.5	0.025	-9.000	-9.000	-999.	9.	2.6	0.26	1.32	1.00	0.45	77.	10.0	284.9	10.0
12	01	01	1	05	-0.6	0.027	-9.000	-9.000	-999.	10.	2.9	0.34	1.32	1.00	0.45	336.	10.0	285.4	10.0
12	01	01	1	06	-0.5	0.025	-9.000	-9.000	-999.	10.	2.7	0.29	1.32	1.00	0.45	233.	10.0	284.2	10.0
12	01	01	1	07	-0.5	0.025	-9.000	-9.000	-999.	10.	2.7	0.29	1.32	1.00	0.45	175.	10.0	283.1	10.0
12	01	01	1	08	27.3	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.31	1.32	0.49	0.00	0.	10.0	283.1	10.0
12	01	01	1	09	55.2	0.108	0.487	0.014	75.	85.	-2.0	0.37	1.32	0.29	0.45	329.	10.0	286.4	10.0
12	01	01	1	10	123.3	0.120	0.896	0.007	208.	100.	-1.3	0.37	1.32	0.22	0.45	321.	10.0	291.4	10.0
12	01	01	1	11	169.2	0.295	1.303	0.005	468.	384.	-13.6	0.37	1.32	0.20	1.79	320.	10.0	295.4	10.0
12	01	01	1	12	191.0	0.299	1.625	0.005	805.	392.	-12.5	0.37	1.32	0.19	1.79	310.	10.0	297.0	10.0
12	01	01	1	13	186.3	0.298	1.865	0.005	1245.	391.	-12.7	0.37	1.32	0.19	1.79	307.	10.0	298.8	10.0
12	01	01	1	14	160.2	0.293	1.884	0.005	1493.	381.	-14.1	0.37	1.32	0.20	1.79	305.	10.0	299.9	10.0
12	01	01	1	15	107.4	0.331	1.688	0.005	1601.	456.	-30.0	0.37	1.32	0.23	2.24	305.	10.0	299.2	10.0
12	01	01	1	16	36.1	0.304	1.180	0.005	1627.	403.	-69.5	0.37	1.32	0.32	2.24	300.	10.0	296.4	10.0
12	01	01	1	17	-4.7	0.079	-9.000	-9.000	-999.	139.	9.2	0.33	1.32	0.60	1.34	299.	10.0	294.2	10.0
12	01	01	1	18	-2.2	0.052	-9.000	-9.000	-999.	36.	5.8	0.33	1.32	1.00	0.89	279.	10.0	292.0	10.0
12	01	01	1	19	-0.5	0.025	-9.000	-9.000	-999.	10.	2.6	0.26	1.32	1.00	0.45	63.			

```
10.0  289.9   10.0
 12 01 01   1 20   -0.6  0.027 -9.000 -9.000 -999.   11.      3.1  0.38   1.32   1.00    0.45   19.
10.0  288.1   10.0
 12 01 01   1 21   -2.2  0.052 -9.000 -9.000 -999.   29.      5.7  0.33   1.32   1.00    0.89  290.
10.0  287.0   10.0
 12 01 01   1 22   -2.4  0.054 -9.000 -9.000 -999.   30.      6.0  0.37   1.32   1.00    0.89  329.
10.0  285.4   10.0
 12 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  330.
10.0  284.9   10.0
 12 01 01   1 24   -0.6  0.026 -9.000 -9.000 -999.   10.      2.9  0.33   1.32   1.00    0.45  291.
10.0  284.9   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1  125.    0.45   283.8   48.0  -99.00    0.27

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE
GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     6Y1FY002    ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3
 **

       X-COORD (M)   Y-COORD (M)        CONC                     X-COORD (M)   Y-COORD (M)
CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - -
         475586.80    3650514.30       0.11964                     475711.60    3650514.30
0.14428
         475836.40    3650514.30       0.19901                     475961.20    3650514.30
0.08869
         476086.00    3650514.30       0.17649                     476210.80    3650514.30
0.01876
         476335.60    3650514.30       0.01016                     476460.40    3650514.30
0.00961
         476585.20    3650514.30       0.01355                     476710.00    3650514.30
0.01712
         475586.80    3650384.70       0.13916                     475711.60    3650384.70
0.18029
         475836.40    3650384.70       0.27614                     475961.20    3650384.70
0.32492
         476086.00    3650384.70       0.31437                     476210.80    3650384.70
0.05557
         476335.60    3650384.70       0.02946                     476460.40    3650384.70
0.02323
         476585.20    3650384.70       0.01221                     476710.00    3650384.70
0.00911
```

475586.80	3650255.10	0.16606	475711.60	3650255.10	0.21608
475836.40	3650255.10	0.29631	475961.20	3650255.10	0.43720
476086.00	3650255.10	0.63148	476210.80	3650255.10	0.31536
476335.60	3650255.10	0.17237	476460.40	3650255.10	0.05235
476585.20	3650255.10	0.02561	476710.00	3650255.10	0.01263
475586.80	3650125.50	0.20609	475711.60	3650125.50	0.27722
475836.40	3650125.50	0.40427	475961.20	3650125.50	0.66049
476086.00	3650125.50	1.31822	476210.80	3650125.50	2.79386
476335.60	3650125.50	0.55642	476460.40	3650125.50	0.09414
476585.20	3650125.50	0.04087	476710.00	3650125.50	0.01800
475586.80	3649995.90	0.26703	475711.60	3649995.90	0.36111
475836.40	3649995.90	0.56279	475961.20	3649995.90	1.00993
476086.00	3649995.90	2.25194	476210.80	3649995.90	7.55741
476335.60	3649995.90	1.21397	476460.40	3649995.90	0.17931
476585.20	3649995.90	0.05447	476710.00	3649995.90	0.02503
475586.80	3649866.30	0.36981	475711.60	3649866.30	0.41009
475836.40	3649866.30	0.59066	475961.20	3649866.30	0.90824
476086.00	3649866.30	1.50774	476210.80	3649866.30	0.84603
476335.60	3649866.30	0.23899	476460.40	3649866.30	0.13264
476585.20	3649866.30	0.06665	476710.00	3649866.30	0.04375
475586.80	3649736.70	0.30384	475711.60	3649736.70	0.35045
475836.40	3649736.70	0.45510	475961.20	3649736.70	0.60517
476086.00	3649736.70	0.71190	476210.80	3649736.70	0.88677
476335.60	3649736.70	0.07634	476460.40	3649736.70	0.09057
476585.20	3649736.70	0.05587	476710.00	3649736.70	0.04170
475586.80	3649607.10	0.27008	475711.60	3649607.10	0.27845
475836.40	3649607.10	0.34888	475961.20	3649607.10	0.39150
476086.00	3649607.10	0.38615	476210.80	3649607.10	0.42370
476335.60	3649607.10	0.30680	476460.40	3649607.10	0.11519
476585.20	3649607.10	0.07075	476710.00	3649607.10	

```
0.03775
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE
GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     6Y1FY002    ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3
 **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)
CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - -
         475586.80    3649477.50        0.19273                      475711.60    3649477.50
0.23203
         475836.40    3649477.50        0.25957                      475961.20    3649477.50
0.25896
         476086.00    3649477.50        0.31502                      476210.80    3649477.50
0.27875
         476335.60    3649477.50        0.30331                      476460.40    3649477.50
0.28389
         476585.20    3649477.50        0.11667                      476710.00    3649477.50
0.07470
         475586.80    3649347.90        0.17083                      475711.60    3649347.90
0.18621
         475836.40    3649347.90        0.19087                      475961.20    3649347.90
0.18170
         476086.00    3649347.90        0.23668                      476210.80    3649347.90
0.19754
         476335.60    3649347.90        0.19859                      476460.40    3649347.90
0.18455
         476585.20    3649347.90        0.19260                      476710.00    3649347.90
0.16971
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE
GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     6Y1FY002    ,

                                             *** SENSITIVE DISCRETE RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3
 **
```

```
      X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)   Y-COORD (M)
CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
        476219.20    3650127.50        2.62423                      476300.20    3650109.80
1.66595
        476232.10    3650058.50        6.54425                      476231.20    3649999.10
6.02613
        476059.10    3650039.80        1.73340                      476215.00    3649883.90
1.39794
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        17:52:12

                PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                    *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS
***


                                     ** CONC OF PM10     IN MICROGRAMS/M**3                          **


      NETWORK
GROUP ID                       AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF
TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       7.55741 AT (  476210.80,  3649995.90,    41.63,    68.58,
0.00)  DC
          2ND HIGHEST VALUE IS       6.54425 AT (  476232.10,  3650058.50,    41.88,    99.69,
0.00)  SR
          3RD HIGHEST VALUE IS       6.02613 AT (  476231.20,  3649999.10,    42.17,    98.92,
0.00)  SR
          4TH HIGHEST VALUE IS       2.79386 AT (  476210.80,  3650125.50,    41.24,    99.69,
0.00)  DC
          5TH HIGHEST VALUE IS       2.62423 AT (  476219.20,  3650127.50,    41.48,    99.69,
0.00)  SR
          6TH HIGHEST VALUE IS       2.25194 AT (  476086.00,  3649995.90,    30.07,    96.15,
0.00)  DC
          7TH HIGHEST VALUE IS       1.73340 AT (  476059.10,  3650039.80,    28.19,    98.34,
0.00)  SR
          8TH HIGHEST VALUE IS       1.66595 AT (  476300.20,  3650109.80,    45.50,    99.69,
0.00)  SR
          9TH HIGHEST VALUE IS       1.50774 AT (  476086.00,  3649866.30,    34.77,    68.78,
0.00)  DC
         10TH HIGHEST VALUE IS       1.39794 AT (  476215.00,  3649883.90,    48.04,    68.58,
0.00)  SR


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Unmitigated
      ***        08/03/17
```

```
*** AERMET - VERSION  15181 ***   ***
    ***        17:52:12

               PAGE  12
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of          178 Informational Message(s)

A Total of         8784 Hours Were Processed

A Total of          101 Calm Hours Identified

A Total of           77 Missing Hours Identified (  0.88 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

```
1                    AERMOD PRIME - (DATED 16216r)

                    AERMODPrMSPx VERSION
             (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  8/03/2017 at 20:51:01

** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  PM10 Exhaust SB Construction Mitigated
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  6Y1FY002  AREAPOLY  476169.4  3650116  40.23
** SRCDESCR  PM 10 Exhaust
SO SRCPARAM  6Y1FY002  5.98E-09  4.15  9  1.93
SO AREAVERT  6Y1FY002  476169.4 3650116  476282.8 3650116  476280.4 3650079.5  476221 3650079.5
SO AREAVERT  6Y1FY002  476219 3650010.9  476215.6 3649991.9  476202.5 3649931.6  476189.8 3649909.7
SO AREAVERT  6Y1FY002  476173.3 3649906.8
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE DISCCART  475586.8  3650514.3  20.08  90.73
** RCPDESCR  grid
RE DISCCART  475711.6  3650514.3  27.51  89.73
** RCPDESCR  grid
RE DISCCART  475836.4  3650514.3  39.52  89.73
** RCPDESCR  grid
RE DISCCART  475961.2  3650514.3  52.5  89.73
** RCPDESCR  grid
RE DISCCART  476086.0  3650514.3  41.98  96.5
** RCPDESCR  grid
RE DISCCART  476210.8  3650514.3  68.69  89.78
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RE DISCCART  476335.6  3650514.3  89.5  89.5
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RE DISCCART  476460.4  3650514.3  86.51  86.8
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RE DISCCART  475836.4  3650384.7  38.78  51.96
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RE DISCCART  475961.2  3650384.7  43.53  89.78
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RE DISCCART  475836.4  3650255.1  25.59  89.78
** RCPDESCR  grid
RE DISCCART  475961.2  3650255.1  33.25  89.78
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RE DISCCART  476086.0  3650255.1  38.82  98.34
** RCPDESCR  grid
RE DISCCART  476210.8  3650255.1  47.57  98.34
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RE DISCCART  476300.2  3650109.8  45.5  99.69
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** SENSITIV
** RCPDESCR  EastResident3
RE DISCCART  476059.1  3650039.8  28.19  98.34
** SENSITIV
** RCPDESCR  WestResident
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** SENSITIV
** RCPDESCR  SouthResident
RE FINISHED

ME STARTING
ME SURFFILE
"C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.SFC"
** SURFFILE
"C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.SFC"
ME PROFFILE
"C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
** PROFFILE
"C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
ME SURFDATA  93107 2012 KERNEYMESA
ME UAIRDATA  3190 2012 KERNEYMESA
ME SITEDATA  00001016 2012 KERNEYMESA
ME PROFBASE  20  METERS
ME STARTEND  2012  1  1  1  2012  12  31  24
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

** ****************************************************************************
** It is recommended that the user not edit any data below this line
** ****************************************************************************


** TERRFILE
C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\NEDU99~1\NEDU99048667.TIF  2  0
 WGS84  11  0  474902.5  3648489.0  474910.4  3651566.5  477685.7  3651559.8  477678.7  3648482.3
** AMPTYPE  NED
** AMPDATUM  2
** AMPZONE  11
** AMPHEMISPHERE  N

** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
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** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE UserDefined
** AERMODEXE  AERMOD_BREEZE_16216.exe
** AERMAPEXE  AERMAP_EPA_11103.EXE


 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

                PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     106 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
```

```
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    20.00 ;  Decay Coef. =    0.000     ;
 Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          AERMOD.INP

 **Output Print File:             AERMOD.OUT


 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
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                PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL


                                                *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER      INIT.   URBAN
EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.     SZ     SOURCE
SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)            (METERS)
   BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - -

 6Y1FY002         0   0.59800E-08  476169.4 3650116.0    40.2     4.15       9         1.93     NO

 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

                PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	6Y1FY002 ,

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust SB Construction Mitigated
*** 08/03/17
*** AERMET - VERSION 15181 *** ***
*** 20:51:01

PAGE 4
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 475586.8, 3650514.3,      20.1,      90.7,       0.0);         ( 475711.6, 3650514.3,
27.5,      89.7,       0.0);
     ( 475836.4, 3650514.3,      39.5,      89.7,       0.0);         ( 475961.2, 3650514.3,
52.5,      89.7,       0.0);
     ( 476086.0, 3650514.3,      42.0,      96.5,       0.0);         ( 476210.8, 3650514.3,
68.7,      89.8,       0.0);
     ( 476335.6, 3650514.3,      89.5,      89.5,       0.0);         ( 476460.4, 3650514.3,
86.5,      86.8,       0.0);
     ( 476585.2, 3650514.3,      66.9,      99.7,       0.0);         ( 476710.0, 3650514.3,
60.6,      99.7,       0.0);
     ( 475586.8, 3650384.7,      18.1,      89.8,       0.0);         ( 475711.6, 3650384.7,
26.7,      52.2,       0.0);
     ( 475836.4, 3650384.7,      38.8,      52.0,       0.0);         ( 475961.2, 3650384.7,
43.5,      89.8,       0.0);
     ( 476086.0, 3650384.7,      41.9,      96.6,       0.0);         ( 476210.8, 3650384.7,
56.6,      96.4,       0.0);
     ( 476335.6, 3650384.7,      64.1,      98.3,       0.0);         ( 476460.4, 3650384.7,
66.5,      99.3,       0.0);
     ( 476585.2, 3650384.7,      89.7,      98.3,       0.0);         ( 476710.0, 3650384.7,
94.0,      98.3,       0.0);
     ( 475586.8, 3650255.1,      18.6,      60.4,       0.0);         ( 475711.6, 3650255.1,
20.5,      89.8,       0.0);
     ( 475836.4, 3650255.1,      25.6,      89.8,       0.0);         ( 475961.2, 3650255.1,
33.2,      89.8,       0.0);
     ( 476086.0, 3650255.1,      38.8,      98.3,       0.0);         ( 476210.8, 3650255.1,
47.6,      98.3,       0.0);
     ( 476335.6, 3650255.1,      48.7,      99.7,       0.0);         ( 476460.4, 3650255.1,
60.0,      99.7,       0.0);
     ( 476585.2, 3650255.1,      71.4,      99.7,       0.0);         ( 476710.0, 3650255.1,
88.0,      99.7,       0.0);
     ( 475586.8, 3650125.5,      21.2,      60.4,       0.0);         ( 475711.6, 3650125.5,
12.7,      89.8,       0.0);
     ( 475836.4, 3650125.5,      16.4,      89.8,       0.0);         ( 475961.2, 3650125.5,
22.8,      98.3,       0.0);
     ( 476086.0, 3650125.5,      35.8,      98.2,       0.0);         ( 476210.8, 3650125.5,
41.2,      99.7,       0.0);
     ( 476335.6, 3650125.5,      48.4,      99.7,       0.0);         ( 476460.4, 3650125.5,
60.2,      99.7,       0.0);
```

```
     ( 476585.2, 3650125.5,      68.3,      99.7,       0.0);         ( 476710.0, 3650125.5,
82.5,      99.7,       0.0);
     ( 475586.8, 3649995.9,      28.7,      60.7,       0.0);         ( 475711.6, 3649995.9,
14.7,      61.8,       0.0);
     ( 475836.4, 3649995.9,      11.9,      89.8,       0.0);         ( 475961.2, 3649995.9,
17.9,      98.3,       0.0);
     ( 476086.0, 3649995.9,      30.1,      96.1,       0.0);         ( 476210.8, 3649995.9,
41.6,      68.6,       0.0);
     ( 476335.6, 3649995.9,      48.5,      99.7,       0.0);         ( 476460.4, 3649995.9,
59.9,      99.7,       0.0);
     ( 476585.2, 3649995.9,      74.0,      76.4,       0.0);         ( 476710.0, 3649995.9,
85.4,      85.4,       0.0);
     ( 475586.8, 3649866.3,      38.4,      59.0,       0.0);         ( 475711.6, 3649866.3,
14.4,      61.8,       0.0);
     ( 475836.4, 3649866.3,      11.6,      68.6,       0.0);         ( 475961.2, 3649866.3,
19.5,      69.6,       0.0);
     ( 476086.0, 3649866.3,      34.8,      68.8,       0.0);         ( 476210.8, 3649866.3,
49.3,      68.6,       0.0);
     ( 476335.6, 3649866.3,      59.1,      68.6,       0.0);         ( 476460.4, 3649866.3,
67.6,      67.6,       0.0);
     ( 476585.2, 3649866.3,      75.8,      75.8,       0.0);         ( 476710.0, 3649866.3,
73.6,      86.5,       0.0);
     ( 475586.8, 3649736.7,      30.4,      61.8,       0.0);         ( 475711.6, 3649736.7,
12.4,      61.8,       0.0);
     ( 475836.4, 3649736.7,       7.4,      69.6,       0.0);         ( 475961.2, 3649736.7,
18.3,      69.6,       0.0);
     ( 476086.0, 3649736.7,      33.8,      68.9,       0.0);         ( 476210.8, 3649736.7,
42.2,      70.1,       0.0);
     ( 476335.6, 3649736.7,      66.5,      67.2,       0.0);         ( 476460.4, 3649736.7,
65.5,      65.5,       0.0);
     ( 476585.2, 3649736.7,      73.4,      73.9,       0.0);         ( 476710.0, 3649736.7,
77.5,      77.5,       0.0);
     ( 475586.8, 3649607.1,      36.0,      38.7,       0.0);         ( 475711.6, 3649607.1,
12.7,      61.8,       0.0);
     ( 475836.4, 3649607.1,       5.0,      68.9,       0.0);         ( 475961.2, 3649607.1,
15.4,      69.6,       0.0);
     ( 476086.0, 3649607.1,      27.6,      69.6,       0.0);         ( 476210.8, 3649607.1,
33.3,      78.8,       0.0);
     ( 476335.6, 3649607.1,      48.7,      68.6,       0.0);         ( 476460.4, 3649607.1,
57.2,      57.2,       0.0);
     ( 476585.2, 3649607.1,      61.0,      80.0,       0.0);         ( 476710.0, 3649607.1,
70.6,      74.7,       0.0);
     ( 475586.8, 3649477.5,      15.3,      61.8,       0.0);         ( 475711.6, 3649477.5,
5.7,      61.8,       0.0);
     ( 475836.4, 3649477.5,       3.3,      68.6,       0.0);         ( 475961.2, 3649477.5,
13.2,      68.8,       0.0);
     ( 476086.0, 3649477.5,      38.7,      50.8,       0.0);         ( 476210.8, 3649477.5,
30.6,      68.9,       0.0);
     ( 476335.6, 3649477.5,      38.1,      69.4,       0.0);         ( 476460.4, 3649477.5,
42.8,      80.0,       0.0);
     ( 476585.2, 3649477.5,      54.1,      73.4,       0.0);         ( 476710.0, 3649477.5,
58.0,      73.5,       0.0);
 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

                PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 475586.8, 3649347.9,      20.0,      56.1,       0.0);         ( 475711.6, 3649347.9,
5.6,      56.1,       0.0);
     ( 475836.4, 3649347.9,       3.4,      67.2,       0.0);         ( 475961.2, 3649347.9,
7.0,      68.6,       0.0);
     ( 476086.0, 3649347.9,      41.6,      50.8,       0.0);         ( 476210.8, 3649347.9,
26.1,      50.8,       0.0);
     ( 476335.6, 3649347.9,      32.2,      68.5,       0.0);         ( 476460.4, 3649347.9,
31.2,      80.0,       0.0);
     ( 476585.2, 3649347.9,      40.8,      74.7,       0.0);         ( 476710.0, 3649347.9,
41.5,      74.7,       0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***       08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***       20:51:01

                PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL
```

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1
1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2012 1 1 1
AND END DATE: 2012 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

```
                                                  1.54,   3.09,   5.14,   8.23,  10.80,
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***       08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***       20:51:01
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\
Met Version:  15181
   Profile file:   C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\
   Surface format: FREE

   Profile format: FREE

   Surface station no.:    93107                  Upper air station no.:     3190
                  Name: KERNEYMESA                                  Name: KERNEYMESA

                  Year:   2012                                      Year:   2012

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD
HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -
 12 01 01   1 01   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45  125.
10.0  283.8   10.0
 12 01 01   1 02   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  334.
10.0  283.8   10.0
 12 01 01   1 03   -0.6  0.027 -9.000 -9.000 -999.   11.      3.0  0.38   1.32   1.00    0.45    5.
10.0  285.9   10.0
 12 01 01   1 04   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45   77.
10.0  284.9   10.0
 12 01 01   1 05   -0.6  0.027 -9.000 -9.000 -999.   10.      2.9  0.34   1.32   1.00    0.45  336.
10.0  285.4   10.0
 12 01 01   1 06   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  233.
10.0  284.2   10.0
 12 01 01   1 07   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  175.
10.0  283.1   10.0
 12 01 01   1 08   27.3 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.31   1.32   0.49    0.00    0.
10.0  283.1   10.0
 12 01 01   1 09   55.2  0.108  0.487  0.014   75.   85.     -2.0  0.37   1.32   0.29    0.45  329.
10.0  286.4   10.0
 12 01 01   1 10  123.3  0.120  0.896  0.007  208.  100.     -1.3  0.37   1.32   0.22    0.45  321.
10.0  291.4   10.0
 12 01 01   1 11  169.2  0.295  1.303  0.005  468.  384.    -13.6  0.37   1.32   0.20    1.79  320.
10.0  295.4   10.0
 12 01 01   1 12  191.0  0.299  1.625  0.005  805.  392.    -12.5  0.37   1.32   0.19    1.79  310.
10.0  297.0   10.0
 12 01 01   1 13  186.3  0.298  1.865  0.005 1245.  391.    -12.7  0.37   1.32   0.19    1.79  307.
10.0  298.8   10.0
 12 01 01   1 14  160.2  0.293  1.884  0.005 1493.  381.    -14.1  0.37   1.32   0.20    1.79  305.
10.0  299.9   10.0
 12 01 01   1 15  107.4  0.331  1.688  0.005 1601.  456.    -30.0  0.37   1.32   0.23    2.24  305.
10.0  299.2   10.0
 12 01 01   1 16   36.1  0.304  1.180  0.005 1627.  403.    -69.5  0.37   1.32   0.32    2.24  300.
10.0  296.4   10.0
 12 01 01   1 17   -4.7  0.079 -9.000 -9.000 -999.  139.      9.2  0.33   1.32   0.60    1.34  299.
10.0  294.2   10.0
 12 01 01   1 18   -2.2  0.052 -9.000 -9.000 -999.   36.      5.8  0.33   1.32   1.00    0.89  279.
10.0  292.0   10.0
 12 01 01   1 19   -0.5  0.025 -9.000 -9.000 -999.   10.      2.6  0.26   1.32   1.00    0.45   63.
```

```
10.0  289.9   10.0
 12 01 01   1 20   -0.6  0.027 -9.000 -9.000 -999.   11.      3.1  0.38   1.32   1.00    0.45   19.
10.0  288.1   10.0
 12 01 01   1 21   -2.2  0.052 -9.000 -9.000 -999.   29.      5.7  0.33   1.32   1.00    0.89  290.
10.0  287.0   10.0
 12 01 01   1 22   -2.4  0.054 -9.000 -9.000 -999.   30.      6.0  0.37   1.32   1.00    0.89  329.
10.0  285.4   10.0
 12 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  330.
10.0  284.9   10.0
 12 01 01   1 24   -0.6  0.026 -9.000 -9.000 -999.   10.      2.9  0.33   1.32   1.00    0.45  291.
10.0  284.9   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1  125.    0.45   283.8   48.0  -99.00    0.27

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

               PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE
GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     6Y1FY002    ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3
 **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)   Y-COORD (M)
CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - -
         475586.80    3650514.30       0.00049                        475711.60    3650514.30
0.00059
         475836.40    3650514.30       0.00081                        475961.20    3650514.30
0.00036
         476086.00    3650514.30       0.00072                        476210.80    3650514.30
0.00008
         476335.60    3650514.30       0.00004                        476460.40    3650514.30
0.00004
         476585.20    3650514.30       0.00006                        476710.00    3650514.30
0.00007
         475586.80    3650384.70       0.00057                        475711.60    3650384.70
0.00073
         475836.40    3650384.70       0.00112                        475961.20    3650384.70
0.00132
         476086.00    3650384.70       0.00128                        476210.80    3650384.70
0.00023
         476335.60    3650384.70       0.00012                        476460.40    3650384.70
0.00009
         476585.20    3650384.70       0.00005                        476710.00    3650384.70
0.00004
```

475586.80	3650255.10	0.00068	475711.60	3650255.10	0.00088
475836.40	3650255.10	0.00121	475961.20	3650255.10	0.00178
476086.00	3650255.10	0.00257	476210.80	3650255.10	0.00128
476335.60	3650255.10	0.00070	476460.40	3650255.10	0.00021
476585.20	3650255.10	0.00010	476710.00	3650255.10	0.00005
475586.80	3650125.50	0.00084	475711.60	3650125.50	0.00113
475836.40	3650125.50	0.00164	475961.20	3650125.50	0.00269
476086.00	3650125.50	0.00536	476210.80	3650125.50	0.01137
476335.60	3650125.50	0.00226	476460.40	3650125.50	0.00038
476585.20	3650125.50	0.00017	476710.00	3650125.50	0.00007
475586.80	3649995.90	0.00109	475711.60	3649995.90	0.00147
475836.40	3649995.90	0.00229	475961.20	3649995.90	0.00411
476086.00	3649995.90	0.00916	476210.80	3649995.90	0.03074
476335.60	3649995.90	0.00494	476460.40	3649995.90	0.00073
476585.20	3649995.90	0.00022	476710.00	3649995.90	0.00010
475586.80	3649866.30	0.00150	475711.60	3649866.30	0.00167
475836.40	3649866.30	0.00240	475961.20	3649866.30	0.00369
476086.00	3649866.30	0.00613	476210.80	3649866.30	0.00344
476335.60	3649866.30	0.00097	476460.40	3649866.30	0.00054
476585.20	3649866.30	0.00027	476710.00	3649866.30	0.00018
475586.80	3649736.70	0.00124	475711.60	3649736.70	0.00143
475836.40	3649736.70	0.00185	475961.20	3649736.70	0.00246
476086.00	3649736.70	0.00290	476210.80	3649736.70	0.00361
476335.60	3649736.70	0.00031	476460.40	3649736.70	0.00037
476585.20	3649736.70	0.00023	476710.00	3649736.70	0.00017
475586.80	3649607.10	0.00110	475711.60	3649607.10	0.00113
475836.40	3649607.10	0.00142	475961.20	3649607.10	0.00159
476086.00	3649607.10	0.00157	476210.80	3649607.10	0.00172
476335.60	3649607.10	0.00125	476460.40	3649607.10	0.00047
476585.20	3649607.10	0.00029	476710.00	3649607.10	

```
0.00015
* *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

                PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE
GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     6Y1FY002    ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3
 **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)
CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - -
         475586.80    3649477.50        0.00078                      475711.60    3649477.50
0.00094
         475836.40    3649477.50        0.00106                      475961.20    3649477.50
0.00105
         476086.00    3649477.50        0.00128                      476210.80    3649477.50
0.00113
         476335.60    3649477.50        0.00123                      476460.40    3649477.50
0.00115
         476585.20    3649477.50        0.00047                      476710.00    3649477.50
0.00030
         475586.80    3649347.90        0.00069                      475711.60    3649347.90
0.00076
         475836.40    3649347.90        0.00078                      475961.20    3649347.90
0.00074
         476086.00    3649347.90        0.00096                      476210.80    3649347.90
0.00080
         476335.60    3649347.90        0.00081                      476460.40    3649347.90
0.00075
         476585.20    3649347.90        0.00078                      476710.00    3649347.90
0.00069
* *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
      ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

                PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE
GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     6Y1FY002    ,

                                             *** SENSITIVE DISCRETE RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3
 **
```

```
      X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)   Y-COORD (M)
CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - -
        476219.20    3650127.50        0.01068                     476300.20    3650109.80
0.00678
        476232.10    3650058.50        0.02662                     476231.20    3649999.10
0.02451
        476059.10    3650039.80        0.00705                     476215.00    3649883.90
0.00569
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***        08/03/17
 *** AERMET - VERSION  15181 ***   ***
     ***        20:51:01

                PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS
***


                                    ** CONC OF PM10     IN MICROGRAMS/M**3                          **


      NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF
TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.03074 AT (  476210.80,  3649995.90,    41.63,    68.58,
0.00)  DC
          2ND HIGHEST VALUE IS       0.02662 AT (  476232.10,  3650058.50,    41.88,    99.69,
0.00)  SR
          3RD HIGHEST VALUE IS       0.02451 AT (  476231.20,  3649999.10,    42.17,    98.92,
0.00)  SR
          4TH HIGHEST VALUE IS       0.01137 AT (  476210.80,  3650125.50,    41.24,    99.69,
0.00)  DC
          5TH HIGHEST VALUE IS       0.01068 AT (  476219.20,  3650127.50,    41.48,    99.69,
0.00)  SR
          6TH HIGHEST VALUE IS       0.00916 AT (  476086.00,  3649995.90,    30.07,    96.15,
0.00)  DC
          7TH HIGHEST VALUE IS       0.00705 AT (  476059.10,  3650039.80,    28.19,    98.34,
0.00)  SR
          8TH HIGHEST VALUE IS       0.00678 AT (  476300.20,  3650109.80,    45.50,    99.69,
0.00)  SR
          9TH HIGHEST VALUE IS       0.00613 AT (  476086.00,  3649866.30,    34.77,    68.78,
0.00)  DC
         10TH HIGHEST VALUE IS       0.00569 AT (  476215.00,  3649883.90,    48.04,    68.58,
0.00)  SR


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust SB Construction Mitigated
     ***        08/03/17
```

```
*** AERMET - VERSION  15181 ***   ***
    ***        20:51:01

               PAGE  12
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of          178 Informational Message(s)

A Total of         8784 Hours Were Processed

A Total of          101 Calm Hours Identified

A Total of           77 Missing Hours Identified (  0.88 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

ATTACHMENT D

Cancer Risk Calculations (Unmitigated/Mitigated)

Air Quality Health Risk Calculations
Genevieve Senior Housing (Unmitigated)

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.1421**
	Number of Workdays	**260**
	Emission per day (lb/day)	**1.093076923**
	Construction day (Hours)	**8**
	Emission Rate (Grams/Second)	**0.017193189**
	Project Site Size (Acres)	**2.9**
	Project Site Size (meters	**11735.88362**
	Length of Smalles Side (meters)	**108.3322834**
Used as an input to AERMOD	Emission Rate over Grading Area	**1.46501E-06**
	Concentration Annual	**5.82**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015

1st find Dose (Equation 5.4.1.1) Page 5-24 — 5.4 Estimation of Dose

	Construction Days	Construction Days converted to years				
Duration	260	0.712328767				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	5.82	5.82	5.82	5.82	5.82	5.82
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00201698	0.00609005	0.00481058	0.00416246	0.00187171	0.00162029

8.2.4 Calculating Residential and Offsite Worker Inhalation Cancer Risk

Equation 8.2.4 A Page 8-7

Construction Days	260	0.712328767				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	0.712328767	0.712328767	0.712328767	0.712328767	0.712328767
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	6.73527E-05	0.000579448	0.000116312	0.000100642	1.52946E-05	1.32401E-05
	67.35269829	579.4484027	116.3124621	100.6420259	15.29456091	13.24006766

Cancer Risk Per Million 9-years	763.11
Cancer Risk Per Million 30-years	762.74
Cancer Risk Per Million 70-years	760.68

Air Quality Health Risk Calculations
Genevieve Senior Housing (Mitigated Tier IV)

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.00058**
	Number of Workdays	**260**
	Emission per day (lb/day)	**0.004461538**
	Construction day (Hours)	**8**
	Emission Rate (Grams/Second)	**7.01763E-05**
	Project Site Size (Acres)	**2.9**
	Project Site Size (meters	**11735.88362**
	Length of Smalles Side (meters)	**108.3322834**
Used as an input to AERMOD	Emission Rate over Grading Area	**5.97963E-09**
	Concentration Annual	**0.0237**

Based on Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments - February 2015

1st find Dose (Equation 5.4.1.1) Page 5-24 — 5.4 Estimation of Dose

	Construction Days	Construction Days converted to years				
Duration	260	0.712328767				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.0237	0.0237	0.0237	0.0237	0.0237	0.0237
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000821	0.00002480	0.00001959	0.00001695	0.00000762	0.00000660

8.2.4 Calculating Residential and Offsite Worker Inhalation Cancer Risk

Equation 8.2.4 A Page 8-7

Construction Days	260	0.712328767				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	0.712328767	0.712328767	0.712328767	0.712328767	0.712328767
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	0.73
Risk for Each Age Group	2.74271E-07	2.35961E-06	4.73644E-07	4.09831E-07	6.2282E-08	5.39157E-08
	0.274271297	2.359609475	0.473643531	0.40983093	0.062281975	0.053915739

Cancer Risk Per Million 9-years	3.11
Cancer Risk Per Million 30-years	3.11
Cancer Risk Per Million 70-years	3.10

Appendix 5.2-2 Solana Beach Senior Housing Health Risk Screening Letter

Appendices

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August 8, 2017

Mr. John DeWald
Pacific Sound Invertors, LLC.
1855 Freda Lane
Cardiff, CA 92007

RE: Solana Beach Senior Housing Health Risk Screening Letter

The purpose of this Air Quality Heath Risk screening letter is to identify potential health risks at the proposed project site from toxic air contaminants (TACs) originating from Interstate-5 (I-5). The Project proposes to construct 99 senior housing units and an open space park on approximately 2.9 acres at 929 Genevieve Street within the City of Solana Beach. The residential care facility would be adjacent to Interstate 5 and the open space park would be located on the easternmost section of the property offering a somewhat buffered environment from line of site to I-5.

This health risk analysis uses the California Office of Environmental Health Hazard Assessment (OEHHA) methodologies (Office of Environmental Health Hazard Assessment, 2015) as outlined by the California Air Pollution Control Officers Association (CAPCOA, July 2009). Health risk impacts are generally broken up into two various types. Type A project: are projects which have the potential to emit toxic emissions and have the potential to impact nearby receptor. Type B projects: place receptors in the vicinity of existing toxic sources like freeways, high traffic roads or rail yards. Based on this information the proposed project is classified as Type B.

Projects within the San Diego County air basin are generally regulated by San Diego Air Pollution Control District (SDAPCD). For Type A projects, significance thresholds have been established under SDAPCDs "Hot Spots" and permitting program (SDAPCD Rule 1200 and 1210). Under this program, excess cancer risk significance threshold is set at **10 in a million** and acute and chronic, non-carcinogenic health effect, a hazard index of **one** must not be exceeded.

For Type B projects, there are no clear significance thresholds. California Environmental Quality Act (CEQA) statutes encourage an air district or any lead agency to establish Type B significance thresholds under CEQA for any pollutant. While there are considerations that support the establishment of thresholds, there is no obligation to do so. Significance thresholds for Type B projects within the City of Solana Beach and the County of San Diego

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have also not been defined. According to CAPCOA Air districts have historically recommended CEQA thresholds for air pollutants in the context of the air district's clean air attainment plan, or (in the case of toxic air pollutants) within the framework of a rule or policy that manages risks and exposures due to toxic pollutants such as SDAPCDs Rule 1200 and 1210 for Type A projects above. For purposes of this analysis significance thresholds will be assumed to be those of the "Hot Spot" program discussed above.

Cancer risk calculations are based on a 70 year lifetime exposure. In some limited cases, it may be appropriate to also use between 9 to 40 years exposure in the calculation. The 9 year exposure scenario is based on exposure to children during the first 9 years of life. Some districts use the 9 year exposure scenario to model short term projects. (CAPCOA, July 2009). For purposes of this analysis, it is reasonable to assume a 30 year duration.

For purposes of modeling, AERMOD Version 16216 was used for air quality dispersion modeling and is the preferred/recommended U.S. Environmental Protection Agency (EPA) model for roadway modeling. The software has the ability to incorporate meteorological inputs as well as multiple source and receptor locations and is now used throughout the world. The model input/output is shown in ***Attachment A*** to this letter.

The project is adjacent to I-5 between the off ramp of Lomas Santa Fe Drive and Via De La Valle. According to Caltrans, the annual average daily trips are 231,000 AADT (CALTRANS, 2015). Using the California Air Resource Boards EMFAC 2014 web database model, Emission rates for a 2020 calendar Year having mixed vehicle categories, aggregated vehicle model years and speeds matching Interstate 5 were downloaded. The emission rates for each vehicle type were then categorized in terms of Categorized Vehicle Miles Traveled (VMT) divided by Total fleet VMT. The data is further broken down into only Diesel particulates which are then used as inputs to AERMOD. From this data I-5 would generate 0.000468 grams/second of diesel particulates over the modeled segment. The EMFAC Model and Normalization calculations are shown in ***Attachment B*** to this letter.

Modeling at the site included coordinates for I-5 represented by multiple volume sources identified as red squares, yellow points which represent a gridded receptor matrix and 8 discreet receptors placed around the blue facility façade footprint. Also, modeling was conducted at both the ground and second levels of the facility. A graphical representation of the modeling locations is shown on a site aerial below in Figure 1 on the following page and again Figure 2 which also shows the descriptive discreet receptors locations around the facility on Page 4 of this report. The modeled output plot from AERMOD for the first floor is shown in Figure 3 on Page 5 and the second-floor plot is shown on Figure 4 on Page 6 of this report. Also, a model output report which was generated by AERMOD showing only the discreet modeling receptors emissions is shown in Table 1 on Page 7 of this report.

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Figure 1: Modeling Setup Representation

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Figure 2: Discreet Receptor Locations

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Figure 3: Modeling Graphical Output 1st Floor

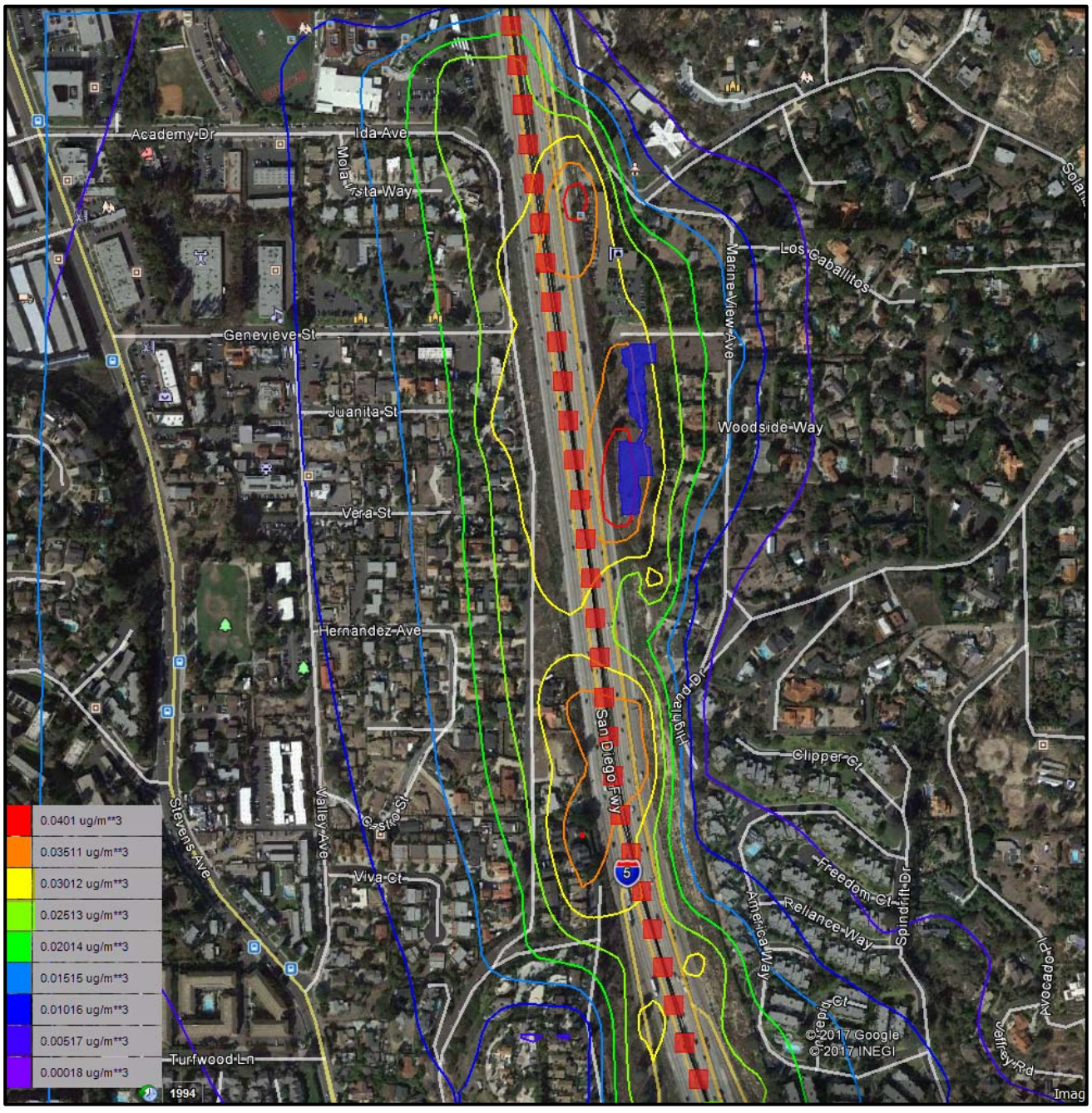

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Figure 4: Modeling Graphical Output 2nd Floor

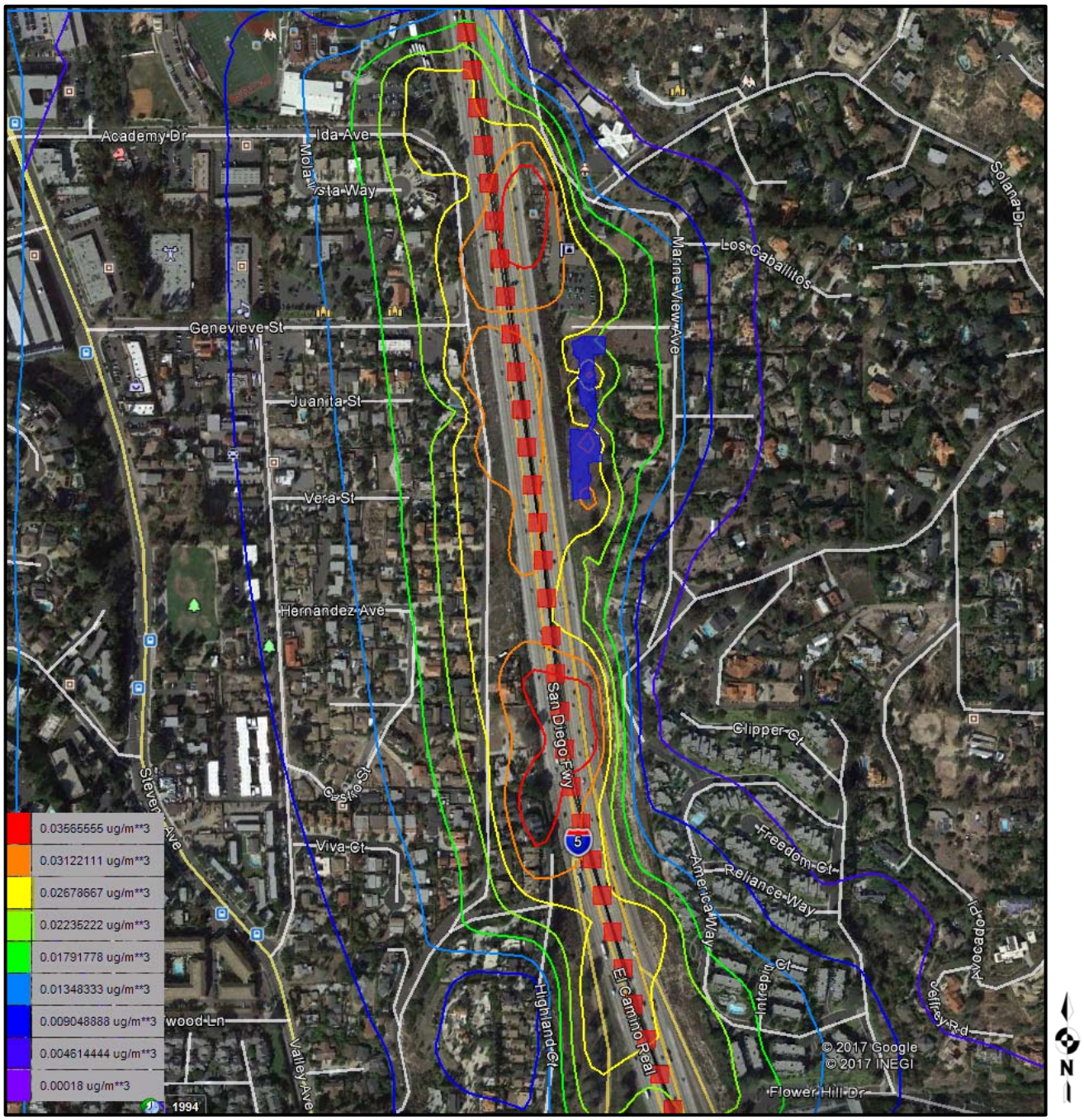

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Table 1: Unmitigated Cancer Risk at each Receptor (1st and 2nd Level)

Floor	Receptor #	Discreet Receptor AERMOD Name	Concentration (µg/m³)
First	1	NW Building GF	0.03724
First	2	NWGF2GF	0.03745
First	3	WGF1GF	0.03758
First	4	RoundaboutBuildingFacadeGF	0.03486
First	5	SWN1GF	**0.04407**
First	6	SWFurthestRecToI5GF	**0.04721**
First	7	SouthBuildingGF	**0.04752**
First	8	NorthEastBuildingGF	0.02827
Second	1	NW Building SF	0.02465
Second	2	NWGF2 SF	0.02460
Second	3	WGF1 SF	0.02442
Second	4	RoundaboutBuildingFacade SF	0.02292
Second	5	SWN1 SF	**0.02759**
Second	6	SWFurthestRecToI5 SF	**0.02937**
Second	7	SouthBuilding SF	**0.02975**
Second	8	NorthEastBuilding SF	0.01978

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Based on the emissions presented above, the highest three emissions are at receptors 7, 6 and 5 in that order which are the closest to Interstate 5.

Cancer Risk Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. It should be noted however, that residents of the proposed facility would not be less than 16 years old so only the 16-70 year bin is considered. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 below (OEHHA, 2015):

Equation 1 $$Dose_{air}=C_{air}*(BR/BW)*A*EF*(1x10^{-6})$$

$Dose_{air}$ = Dose through inhalation (mg/kg/d)

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C_{air}	=	Concentration in air (µg/m3) Annual average DPM concentration in µg/m3 – AERMOD
BR/BW	=	Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range.
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
1x10-6	=	Milligrams to micrograms conversion (10^{-3} mg/ µg), cubic meters to liters conversion (10^{-3} m^3/l)

Once the dose is determined then you must calculate the cancer risk. The average daily inhalation dose (mg/kg-day) multiplied by the cancer potency factor (mg/kg-day)-1 will give the inhalation cancer risk (unitless), which is an expression of the chemical's cancer risk during a 70-year lifespan of exposure. For example, an inhalation cancer risk of 5 x 10-6 is the same as stating that an individual has an estimated probability of developing cancer from their exposure of 5 chances per million people exposed.

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. The worst-case cancer risk calculation is defined in Equation 2 below (OEHHA, 2015).

Equation 2

$$RISKinh\text{-}res = DOSEair \times CPF \times ASF \times ED/AT \times FAH$$

RISKinh-res	=	Residential inhalation cancer risk
DOSEair	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor (mg/kg-day^{-1})
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

Based on review of the discreet receptors, the highest three emissions at each floor level were selected as a means to calculate the worst-case cancer risks at the senior center. The results of the cancer risk calculations are shown in Table 2 on the following page and are shown in detail in ***Attachment C*** to this report. Based on these calculations, cancer risks would be less than ten in one million exposed which would not exceed significance thresholds.

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Table 2: Cancer Risk at Worst-Case Receptors (1st and 2nd Level)

Floor	Receptor	C_i	Cancer Risk	Impact
First	7	0.04752	6.49	No
First	6	0.04721	6.45	No
First	5	0.04407	6.02	No
Second	7	0.02975	4.06	No
Second	6	0.02937	4.02	No
Second	5	0.02759	3.76	No

C_i annual inputs from AERMOD First Floor and Second Floor models.
Cancer Risk = DOSEair × CPF × ASF × ED/AT × FAH

It should be noted though cancer risks are below 10 in one million exposed, cancer risks can be further reduced by installing mechanical air filtrations systems which filter fresh air intakes to the facility. Based on discussions with the project applicant, the facility will be constructed using mechanical filtration systems having a Minimum Efficiency Reporting Value (MERV) of 13. These systems have been found to reduce particulates 2.5 microns or less by 87 to 95% (CARB, 2012) which would significantly reduce diesel particulates within the facility where the residents are living. Table 3 below shows what the cancer risks would be reduced to less than one in one million exposed using the MERV 13 filtrations systems.

Table 3: Reduced Cancer Risk at Worst-Case Receptors with MERV 13 Filtration

Floor	Receptor	C_i	Cancer Risk	Impact
First	7	0.006175	0.84	No
First	6	0.006136	0.84	No
First	5	0.00572	0.78	No
Second	7	0.003861	0.53	No
Second	6	0.003822	0.52	No
Second	5	0.003575	0.49	No

C_i annual inputs from AERMOD First Floor and Second Floor models.
Cancer Risk = DOSEair × CPF × ASF × ED/AT × FAH

It is important to note that this assessment serves simply as a disclosure document to providing a characterization of the background emissions that occupants of the proposed

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project may be exposed to. If you should have any questions regarding this assessment, please do not hesitate to contact me at (760) 473-1253.

Sincerely,
Ldn Consulting, Inc.

Jeremy Louden

Attachments:

A: AERMOD 1st and 2nd Floor

B: EMFAC 2014 Emission Factors

C: Cancer Risk Calculations (1st and 2nd Floor)

References:

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CARB. (2012, August 23). STATUS OF RESEARCH ON POTENTIAL MITIGATION CONCEPTS TO REDUCE EXPOSURE TO NEARBY TRAFFIC POLLUTION. California. Retrieved from http://www.arb.ca.gov/research/health/traff-eff/research%20status%20-reducing%20exposure%20to%20traffic%20pollution.pdf

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1                    AERMOD PRIME - (DATED 16216r)

                    AERMODPrMSPx VERSION
             (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  8/08/2017 at  7:35:45

** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

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RE DISCCART  476079.0  3650268.5  38.53  98.34
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RE DISCCART  475835.0  3650332.5  32.6  89.78
** RCPDESCR  grid2
RE DISCCART  475896.0  3650332.5  35.3  89.78
** RCPDESCR  grid2
RE DISCCART  475957.0  3650332.5  38.61  89.78
** RCPDESCR  grid2
RE DISCCART  476018.0  3650332.5  39.66  89.78
** RCPDESCR  grid2
RE DISCCART  476079.0  3650332.5  41.19  96.61
** RCPDESCR  grid2
RE DISCCART  476140.0  3650332.5  46.25  98.23
** RCPDESCR  grid2
RE DISCCART  476201.0  3650332.5  50.39  98.34
** RCPDESCR  grid2
RE DISCCART  476262.0  3650332.5  55.88  98.34
** RCPDESCR  grid2
RE DISCCART  476323.0  3650332.5  57.01  98.34
** RCPDESCR  grid2
RE DISCCART  476384.0  3650332.5  57.21  99.69
** RCPDESCR  grid2
RE DISCCART  476445.0  3650332.5  61.99  99.69
** RCPDESCR  grid2
RE DISCCART  476506.0  3650332.5  69.22  99.69
** RCPDESCR  grid2
RE DISCCART  476567.0  3650332.5  73.55  99.69
** RCPDESCR  grid2
RE DISCCART  476628.0  3650332.5  86.02  98.73
** RCPDESCR  grid2
RE DISCCART  476689.0  3650332.5  94.32  98.06
** RCPDESCR  grid2
RE DISCCART  476750.0  3650332.5  95.16  98.98
** RCPDESCR  grid2
RE DISCCART  475591.0  3650396.5  18.04  89.84
** RCPDESCR  grid2
RE DISCCART  475652.0  3650396.5  23.86  37.79
** RCPDESCR  grid2
RE DISCCART  475713.0  3650396.5  27.6  52.2
```

```
** RCPDESCR  grid2
RE DISCCART  475774.0  3650396.5  30.37  89.78
** RCPDESCR  grid2
RE DISCCART  475835.0  3650396.5  39.14  51.96
** RCPDESCR  grid2
RE DISCCART  475896.0  3650396.5  42.28  89.78
** RCPDESCR  grid2
RE DISCCART  475957.0  3650396.5  44.2  89.78
** RCPDESCR  grid2
RE DISCCART  476018.0  3650396.5  44.83  89.78
** RCPDESCR  grid2
RE DISCCART  476079.0  3650396.5  41.87  96.61
** RCPDESCR  grid2
RE DISCCART  476140.0  3650396.5  52.04  89.78
** RCPDESCR  grid2
RE DISCCART  476201.0  3650396.5  58.91  89.78
** RCPDESCR  grid2
RE DISCCART  476262.0  3650396.5  63.68  89.78
** RCPDESCR  grid2
RE DISCCART  476323.0  3650396.5  66.51  96.5
** RCPDESCR  grid2
RE DISCCART  476384.0  3650396.5  65.57  98.34
** RCPDESCR  grid2
RE DISCCART  476445.0  3650396.5  66.61  98.73
** RCPDESCR  grid2
RE DISCCART  476506.0  3650396.5  72.24  98.73
** RCPDESCR  grid2
RE DISCCART  476567.0  3650396.5  86.76  98.34
** RCPDESCR  grid2
RE DISCCART  476628.0  3650396.5  96.36  96.36
** RCPDESCR  grid2
RE DISCCART  476689.0  3650396.5  96.04  98.26
** RCPDESCR  grid2
RE DISCCART  476750.0  3650396.5  86.52  98.98
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** RCPDESCR  grid2
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** RCPDESCR  grid2
RE DISCCART  475713.0  3650460.5  32.84  37.48
** RCPDESCR  grid2
RE DISCCART  475774.0  3650460.5  36.03  50.09
** RCPDESCR  grid2
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** RCPDESCR  grid2
RE DISCCART  475896.0  3650460.5  46.26  52.71
** RCPDESCR  grid2
RE DISCCART  475957.0  3650460.5  52.2  52.2
** RCPDESCR  grid2
RE DISCCART  476018.0  3650460.5  50.73  89.78
** RCPDESCR  grid2
RE DISCCART  476079.0  3650460.5  41.74  96.5
** RCPDESCR  grid2
RE DISCCART  476140.0  3650460.5  55.89  89.78
** RCPDESCR  grid2
RE DISCCART  476201.0  3650460.5  68.83  89.78
** RCPDESCR  grid2
RE DISCCART  476262.0  3650460.5  77.52  89.78
** RCPDESCR  grid2
RE DISCCART  476323.0  3650460.5  77.15  89.78
** RCPDESCR  grid2
RE DISCCART  476384.0  3650460.5  75.46  89.78
** RCPDESCR  grid2
RE DISCCART  476445.0  3650460.5  78.87  96.38
** RCPDESCR  grid2
RE DISCCART  476506.0  3650460.5  84.07  96.38
** RCPDESCR  grid2
```

```
RE DISCCART  476567.0  3650460.5  91.46  91.46
** RCPDESCR  grid2
RE DISCCART  476628.0  3650460.5  86.45  98.34
** RCPDESCR  grid2
RE DISCCART  476689.0  3650460.5  76.13  99.69
** RCPDESCR  grid2
RE DISCCART  476750.0  3650460.5  73.57  99.69
** RCPDESCR  grid2
RE FINISHED

ME STARTING
ME SURFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.SFC"
** SURFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.SFC"
ME PROFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
** PROFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
ME SURFDATA  93107 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME UAIRDATA  3190 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME SITEDATA  00001016 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME PROFBASE  20  METERS
ME STARTEND  2012  1  1  1  2012  12  31  24
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

** ****************************************************************************
** It is recommended that the user not edit any data below this line
** ****************************************************************************

** BUILDING BLD  0  0  41.43  8  86
** BUILDING IDN  DDXFI008
** BUILDING NAM  Building
** BUILDING CRN  476218.2  3650119.7
** BUILDING CRN  476193.8  3650119.8
** BUILDING CRN  476186.6  3650114.9
** BUILDING CRN  476184.1  3650114.8
** BUILDING CRN  476183.8  3650108.9
** BUILDING CRN  476185  3650108.6
** BUILDING CRN  476185  3650104.8
** BUILDING CRN  476184.3  3650104.3
** BUILDING CRN  476184.9  3650100.7
** BUILDING CRN  476186.7  3650100.7
** BUILDING CRN  476187  3650097.6
** BUILDING CRN  476190.4  3650097.6
** BUILDING CRN  476191.6  3650081.3
** BUILDING CRN  476190.6  3650080.6
** BUILDING CRN  476190.4  3650076.9
** BUILDING CRN  476191.3  3650076.9
** BUILDING CRN  476192.1  3650074.9
** BUILDING CRN  476188.7  3650074.9
** BUILDING CRN  476192.2  3650049.4
** BUILDING CRN  476193.8  3650047.4
** BUILDING CRN  476195.8  3650047
** BUILDING CRN  476199  3650042.8
** BUILDING CRN  476201  3650037.3
** BUILDING CRN  476203.4  3650037.1
** BUILDING CRN  476203.1  3650034.8
** BUILDING CRN  476205  3650034.8
** BUILDING CRN  476203.1  3650029.5
** BUILDING CRN  476200.8  3650025.2
** BUILDING CRN  476199  3650022.7
** BUILDING CRN  476199.1  3650021
** BUILDING CRN  476190.6  3650020.7
** BUILDING CRN  476190.1  3650023
** BUILDING CRN  476181  3650022.4
```

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** BUILDING CRN  476181.8  3650013.3
** BUILDING CRN  476180.4  3650013.2
** BUILDING CRN  476182.4  3649979.1
** BUILDING CRN  476180.4  3649978.8
** BUILDING CRN  476181.3  3649971
** BUILDING CRN  476182.9  3649970.5
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** BUILDING CRN  476194.4  3649949.4
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** BUILDING CRN  476201.1  3649966.5
** BUILDING CRN  476202.8  3649967.3
** BUILDING CRN  476202.5  3649975.6
** BUILDING CRN  476201  3649975.4
** BUILDING CRN  476199.9  3649987.9
** BUILDING CRN  476215.1  3649988.2
** BUILDING CRN  476214.3  3649996.9
** BUILDING CRN  476212.3  3649997.7
** BUILDING CRN  476211.9  3649999.2
** BUILDING CRN  476213.4  3650000.1
** BUILDING CRN  476212.2  3650016.9
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** BUILDING CRN  476208.7  3650035.1
** BUILDING CRN  476208  3650040
** BUILDING CRN  476210  3650040.5
** BUILDING CRN  476208.7  3650052
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** BUILDING CRN  476206.7  3650058
** BUILDING CRN  476208.4  3650058.5
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** BUILDING CRN  476205.4  3650066.3
** BUILDING CRN  476205.3  3650069
** BUILDING CRN  476207.7  3650069.5
** BUILDING CRN  476207.4  3650071.8
** BUILDING CRN  476208.5  3650073
** BUILDING CRN  476207.7  3650076.4
** BUILDING CRN  476206.7  3650076.4
** BUILDING CRN  476206.4  3650077.9
** BUILDING CRN  476207.9  3650078.7
** BUILDING CRN  476207.1  3650082.6
** BUILDING CRN  476206.4  3650082.4
** BUILDING CRN  476205.4  3650088.5
** BUILDING CRN  476207.1  3650088.8
** BUILDING CRN  476205.4  3650099.4
** BUILDING CRN  476206.8  3650101
** BUILDING CRN  476218.3  3650101.7
** BUILDING CRN  476218.2  3650104.8
** BUILDING CRN  476218.2  3650119.7

** TAG NAM  DDXFI3PS
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
476241.2,3649439.6,0,476200.9,3649563.1,0,476174.0,3649701.9,0,476148.1,3649910.5,0,476122.1,3650118.2,0,476069.3,3
650478.1,0,476067.5,3650508.6,0,476067.5,3650508.6,0
** TAG NAM  DDXFI3QL
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
476306.0,3649246.9,0,476245.1,3649412.6,0,476175.9,3649662.2,0,476148.7,3649907.6,0,476062.7,3650511.7,0,476062.7,3
650511.7,0

** TERRFILE  C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\NEDU99~1\NEDU99048667.TIF  2  0
 WGS84  11  0  474902.5  3648489.0  474910.4  3651566.5  477685.7  3651559.8  477678.7  3648482.3
```

```
** AMPTYPE  NED
** AMPDATUM  2
** AMPZONE  11
** AMPHEMISPHERE  N

** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE  AERMOD_BREEZE_16216.EXE
** AERMAPEXE  AERMAP_EPA_11103.EXE


 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   07:35:45

   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only
```

```
**This Run Includes:     32 Source(s);       1 Source Group(s); and     408 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:     32 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  15181

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    20.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =
0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          AERMOD.INP

**Output Print File:             AERMOD.OUT


↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                       ***
   07:35:45

   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
DDXFI3QM	0	0.14633E-04	476299.1	3649265.7	23.1	3.00	18.60	2.79	NO	
DDXFI3QN	0	0.14633E-04	476285.3	3649303.2	24.7	3.00	18.60	2.79	NO	
DDXFI3QO	0	0.14633E-04	476271.5	3649340.8	25.9	3.00	18.60	2.79	NO	
DDXFI3QP	0	0.14633E-04	476257.7	3649378.3	27.1	3.00	18.60	2.79	NO	
DDXFI3QQ	0	0.14633E-04	476244.2	3649415.9	28.3	3.00	18.60	2.79	NO	
DDXFI3QR	0	0.14633E-04	476233.5	3649454.5	29.5	3.00	18.60	2.79	NO	
DDXFI3QS	0	0.14633E-04	476222.8	3649493.0	30.6	3.00	18.60	2.79	NO	
DDXFI3QT	0	0.14633E-04	476212.1	3649531.6	31.7	3.00	18.60	2.79	NO	
DDXFI3QU	0	0.14633E-04	476201.4	3649570.1	32.7	3.00	18.60	2.79	NO	
DDXFI3QV	0	0.14633E-04	476190.7	3649608.7	33.8	3.00	18.60	2.79	NO	
DDXFI3QW	0	0.14633E-04	476180.1	3649647.2	34.7	3.00	18.60	2.79	NO	
DDXFI3QX	0	0.14633E-04	476173.2	3649686.5	35.4	3.00	18.60	2.79	NO	
DDXFI3QY	0	0.14633E-04	476168.8	3649726.3	35.8	3.00	18.60	2.79	NO	
DDXFI3QZ	0	0.14633E-04	476164.4	3649766.0	36.8	3.00	18.60	2.79	NO	

```
 DDXFI3R0         0   0.14633E-04  476160.0 3649805.8    37.3     3.00    18.60     2.79     NO
 DDXFI3R1         0   0.14633E-04  476155.6 3649845.5    36.8     3.00    18.60     2.79     NO
 DDXFI3R2         0   0.14633E-04  476151.2 3649885.3    39.8     3.00    18.60     2.79     NO
 DDXFI3R3         0   0.14633E-04  476146.2 3649925.0    39.2     3.00    18.60     2.79     NO
 DDXFI3R4         0   0.14633E-04  476140.6 3649964.6    38.9     3.00    18.60     2.79     NO
 DDXFI3R5         0   0.14633E-04  476135.0 3650004.2    38.5     3.00    18.60     2.79     NO
 DDXFI3R6         0   0.14633E-04  476129.3 3650043.8    38.4     3.00    18.60     2.79     NO
 DDXFI3R7         0   0.14633E-04  476123.7 3650083.4    38.4     3.00    18.60     2.79     NO
 DDXFI3R8         0   0.14633E-04  476118.0 3650123.0    38.5     3.00    18.60     2.79     NO
 DDXFI3R9         0   0.14633E-04  476112.4 3650162.6    38.7     3.00    18.60     2.79     NO
 DDXFI3RA         0   0.14633E-04  476106.8 3650202.2    39.3     3.00    18.60     2.79     NO
 DDXFI3RB         0   0.14633E-04  476101.1 3650241.8    39.6     3.00    18.60     2.79     NO
 DDXFI3RC         0   0.14633E-04  476095.5 3650281.4    40.4     3.00    18.60     2.79     NO
 DDXFI3RD         0   0.14633E-04  476089.9 3650321.0    41.5     3.00    18.60     2.79     NO
 DDXFI3RE         0   0.14633E-04  476084.2 3650360.6    41.8     3.00    18.60     2.79     NO
 DDXFI3RF         0   0.14633E-04  476078.6 3650400.2    41.9     3.00    18.60     2.79     NO
 DDXFI3RG         0   0.14633E-04  476072.9 3650439.8    41.7     3.00    18.60     2.79     NO
 DDXFI3RH         0   0.14633E-04  476067.3 3650479.4    41.8     3.00    18.60     2.79     NO
```


*** SOURCE IDs DEFINING SOURCE GROUPS ***

```
 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        DDXFI3QM    , DDXFI3QN    , DDXFI3QO    , DDXFI3QP    , DDXFI3QQ    , DDXFI3QR    , DDXFI3QS    ,
DDXFI3QT    ,

             DDXFI3QU    , DDXFI3QV    , DDXFI3QW    , DDXFI3QX    , DDXFI3QY    , DDXFI3QZ    , DDXFI3R0    ,
DDXFI3R1    ,

             DDXFI3R2    , DDXFI3R3    , DDXFI3R4    , DDXFI3R5    , DDXFI3R6    , DDXFI3R7    , DDXFI3R8    ,
DDXFI3R9    ,

             DDXFI3RA    , DDXFI3RB    , DDXFI3RC    , DDXFI3RD    , DDXFI3RE    , DDXFI3RF    , DDXFI3RG    ,
DDXFI3RH    ,
```


*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
    ( 475591.0, 3649244.5,      17.7,      56.1,       0.0);         ( 475652.0, 3649244.5,       7.5,      56.1,
    0.0);
    ( 475713.0, 3649244.5,       6.2,      56.1,       0.0);         ( 475774.0, 3649244.5,       4.8,      56.1,
    0.0);
    ( 475835.0, 3649244.5,       3.5,      50.8,       0.0);         ( 475896.0, 3649244.5,       5.4,      50.8,
    0.0);
    ( 475957.0, 3649244.5,      29.7,      31.9,       0.0);         ( 476018.0, 3649244.5,      30.9,      48.9,
    0.0);
    ( 476079.0, 3649244.5,      30.6,      50.8,       0.0);         ( 476140.0, 3649244.5,      35.2,      39.9,
    0.0);
    ( 476201.0, 3649244.5,      20.4,      50.8,       0.0);         ( 476262.0, 3649244.5,      21.6,      50.8,
```

```
0.0);
( 476323.0, 3649244.5,      22.6,      70.2,       0.0);         ( 476384.0, 3649244.5,      20.4,      80.0,
0.0);
( 476445.0, 3649244.5,      10.5,      80.7,       0.0);         ( 476506.0, 3649244.5,      10.2,      85.8,
0.0);
( 476567.0, 3649244.5,       8.8,      86.5,       0.0);         ( 476628.0, 3649244.5,       8.8,      86.5,
0.0);
( 476689.0, 3649244.5,       9.9,      86.5,       0.0);         ( 476750.0, 3649244.5,       9.9,      88.4,
0.0);
( 475591.0, 3649308.5,      19.1,      56.1,       0.0);         ( 475652.0, 3649308.5,       6.6,      56.1,
0.0);
( 475713.0, 3649308.5,       5.6,      56.1,       0.0);         ( 475774.0, 3649308.5,       4.7,      56.1,
0.0);
( 475835.0, 3649308.5,       3.7,      50.8,       0.0);         ( 475896.0, 3649308.5,       4.6,      67.3,
0.0);
( 475957.0, 3649308.5,       8.7,      67.3,       0.0);         ( 476018.0, 3649308.5,      30.5,      50.8,
0.0);
( 476079.0, 3649308.5,      36.4,      50.8,       0.0);         ( 476140.0, 3649308.5,      38.7,      50.8,
0.0);
( 476201.0, 3649308.5,      27.6,      50.8,       0.0);         ( 476262.0, 3649308.5,      24.8,      50.8,
0.0);
( 476323.0, 3649308.5,      22.1,      80.0,       0.0);         ( 476384.0, 3649308.5,      27.3,      79.3,
0.0);
( 476445.0, 3649308.5,      22.8,      80.7,       0.0);         ( 476506.0, 3649308.5,      22.5,      80.7,
0.0);
( 476567.0, 3649308.5,      20.8,      81.0,       0.0);         ( 476628.0, 3649308.5,      22.7,      81.0,
0.0);
( 476689.0, 3649308.5,      29.2,      80.7,       0.0);         ( 476750.0, 3649308.5,      14.9,      88.1,
0.0);
( 475591.0, 3649372.5,      17.2,      56.1,       0.0);         ( 475652.0, 3649372.5,       8.1,      61.8,
0.0);
( 475713.0, 3649372.5,       5.5,      56.5,       0.0);         ( 475774.0, 3649372.5,       4.1,      56.1,
0.0);
( 475835.0, 3649372.5,       3.3,      67.8,       0.0);         ( 475896.0, 3649372.5,       4.9,      68.6,
0.0);
( 475957.0, 3649372.5,      12.3,      68.1,       0.0);         ( 476018.0, 3649372.5,      36.4,      50.8,
0.0);
( 476079.0, 3649372.5,      44.4,      50.8,       0.0);         ( 476140.0, 3649372.5,      44.0,      50.8,
0.0);
( 476201.0, 3649372.5,      31.8,      50.8,       0.0);         ( 476262.0, 3649372.5,      26.9,      68.1,
0.0);
( 476323.0, 3649372.5,      32.8,      33.9,       0.0);         ( 476384.0, 3649372.5,      32.2,      79.7,
0.0);
( 476445.0, 3649372.5,      30.7,      80.7,       0.0);         ( 476506.0, 3649372.5,      28.7,      80.7,
0.0);
( 476567.0, 3649372.5,      43.5,      74.7,       0.0);         ( 476628.0, 3649372.5,      44.6,      74.7,
0.0);
( 476689.0, 3649372.5,      47.2,      73.5,       0.0);         ( 476750.0, 3649372.5,      24.9,      86.5,
0.0);
( 475591.0, 3649436.5,      13.8,      61.8,       0.0);         ( 475652.0, 3649436.5,       9.4,      61.8,
0.0);
( 475713.0, 3649436.5,       5.2,      61.8,       0.0);         ( 475774.0, 3649436.5,       3.3,      61.8,
0.0);
( 475835.0, 3649436.5,       3.2,      68.6,       0.0);         ( 475896.0, 3649436.5,       7.2,      68.6,
0.0);
( 475957.0, 3649436.5,      15.3,      68.6,       0.0);         ( 476018.0, 3649436.5,      29.6,      50.8,
0.0);
( 476079.0, 3649436.5,      47.9,      48.9,       0.0);         ( 476140.0, 3649436.5,      50.0,      50.0,
0.0);
( 476201.0, 3649436.5,      30.6,      68.6,       0.0);         ( 476262.0, 3649436.5,      28.6,      79.3,
0.0);
( 476323.0, 3649436.5,      35.4,      67.4,       0.0);         ( 476384.0, 3649436.5,      33.7,      80.0,
0.0);
( 476445.0, 3649436.5,      35.5,      80.7,       0.0);         ( 476506.0, 3649436.5,      38.6,      80.7,
0.0);
( 476567.0, 3649436.5,      55.9,      68.9,       0.0);         ( 476628.0, 3649436.5,      59.2,      69.1,
0.0);
```

```
    ( 476689.0, 3649436.5,      54.8,      73.4,       0.0);         ( 476750.0, 3649436.5,      33.0,      86.2,
    0.0);
    ( 475591.0, 3649500.5,      17.2,      61.8,       0.0);         ( 475652.0, 3649500.5,      15.9,      61.8,
    0.0);
    ( 475713.0, 3649500.5,       8.5,      61.8,       0.0);         ( 475774.0, 3649500.5,       3.6,      68.6,
    0.0);
    ( 475835.0, 3649500.5,       3.2,      68.8,       0.0);         ( 475896.0, 3649500.5,       6.5,      68.9,
    0.0);
    ( 475957.0, 3649500.5,      14.1,      68.8,       0.0);         ( 476018.0, 3649500.5,      20.9,      68.6,
    0.0);
    ( 476079.0, 3649500.5,      33.6,      50.8,       0.0);         ( 476140.0, 3649500.5,      37.7,      50.8,
    0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
    08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                    ***
   07:35:45

   PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 476201.0, 3649500.5,      31.4,      68.9,       0.0);         ( 476262.0, 3649500.5,      34.1,      69.4,
    0.0);
    ( 476323.0, 3649500.5,      40.1,      68.6,       0.0);         ( 476384.0, 3649500.5,      42.9,      75.4,
    0.0);
    ( 476445.0, 3649500.5,      47.6,      57.4,       0.0);         ( 476506.0, 3649500.5,      39.0,      80.7,
    0.0);
    ( 476567.0, 3649500.5,      48.5,      80.0,       0.0);         ( 476628.0, 3649500.5,      62.7,      70.0,
    0.0);
    ( 476689.0, 3649500.5,      68.3,      68.3,       0.0);         ( 476750.0, 3649500.5,      40.5,      81.0,
    0.0);
    ( 475591.0, 3649564.5,      30.0,      38.9,       0.0);         ( 475652.0, 3649564.5,      24.3,      56.1,
    0.0);
    ( 475713.0, 3649564.5,      16.9,      61.1,       0.0);         ( 475774.0, 3649564.5,       4.5,      68.6,
    0.0);
    ( 475835.0, 3649564.5,       4.1,      68.9,       0.0);         ( 475896.0, 3649564.5,       7.8,      69.6,
    0.0);
    ( 475957.0, 3649564.5,      13.2,      69.6,       0.0);         ( 476018.0, 3649564.5,      18.5,      69.6,
    0.0);
    ( 476079.0, 3649564.5,      24.5,      69.6,       0.0);         ( 476140.0, 3649564.5,      33.4,      68.6,
    0.0);
    ( 476201.0, 3649564.5,      32.6,      70.0,       0.0);         ( 476262.0, 3649564.5,      43.7,      68.6,
    0.0);
    ( 476323.0, 3649564.5,      44.3,      68.6,       0.0);         ( 476384.0, 3649564.5,      47.8,      67.6,
    0.0);
    ( 476445.0, 3649564.5,      52.5,      57.4,       0.0);         ( 476506.0, 3649564.5,      50.8,      80.5,
    0.0);
    ( 476567.0, 3649564.5,      56.6,      80.0,       0.0);         ( 476628.0, 3649564.5,      62.9,      74.7,
    0.0);
    ( 476689.0, 3649564.5,      70.3,      70.3,       0.0);         ( 476750.0, 3649564.5,      50.9,      80.7,
    0.0);
    ( 475591.0, 3649628.5,      37.2,      38.3,       0.0);         ( 475652.0, 3649628.5,      23.0,      61.8,
    0.0);
    ( 475713.0, 3649628.5,      11.7,      61.8,       0.0);         ( 475774.0, 3649628.5,       6.6,      68.6,
    0.0);
    ( 475835.0, 3649628.5,       5.3,      69.6,       0.0);         ( 475896.0, 3649628.5,       8.3,      70.5,
    0.0);
    ( 475957.0, 3649628.5,      15.8,      69.6,       0.0);         ( 476018.0, 3649628.5,      22.7,      68.9,
    0.0);
    ( 476079.0, 3649628.5,      28.5,      68.9,       0.0);         ( 476140.0, 3649628.5,      33.8,      68.9,
    0.0);
    ( 476201.0, 3649628.5,      34.1,      72.0,       0.0);         ( 476262.0, 3649628.5,      49.3,      68.6,
    0.0);
    ( 476323.0, 3649628.5,      49.6,      68.9,       0.0);         ( 476384.0, 3649628.5,      52.5,      68.6,
```

```
0.0);
( 476445.0, 3649628.5,      57.7,      61.1,       0.0);         ( 476506.0, 3649628.5,      57.2,      80.0,
0.0);
( 476567.0, 3649628.5,      62.6,      80.0,       0.0);         ( 476628.0, 3649628.5,      67.2,      79.3,
0.0);
( 476689.0, 3649628.5,      72.4,      72.4,       0.0);         ( 476750.0, 3649628.5,      66.9,      75.0,
0.0);
( 475591.0, 3649692.5,      29.4,      61.8,       0.0);         ( 475652.0, 3649692.5,      18.6,      61.8,
0.0);
( 475713.0, 3649692.5,      12.7,      61.8,       0.0);         ( 475774.0, 3649692.5,       7.5,      68.6,
0.0);
( 475835.0, 3649692.5,       5.9,      69.6,       0.0);         ( 475896.0, 3649692.5,      11.1,      69.6,
0.0);
( 475957.0, 3649692.5,      17.3,      69.6,       0.0);         ( 476018.0, 3649692.5,      26.6,      68.9,
0.0);
( 476079.0, 3649692.5,      31.2,      68.9,       0.0);         ( 476140.0, 3649692.5,      38.5,      68.9,
0.0);
( 476201.0, 3649692.5,      35.3,      73.1,       0.0);         ( 476262.0, 3649692.5,      55.2,      68.6,
0.0);
( 476323.0, 3649692.5,      59.5,      68.1,       0.0);         ( 476384.0, 3649692.5,      58.6,      68.6,
0.0);
( 476445.0, 3649692.5,      62.4,      65.4,       0.0);         ( 476506.0, 3649692.5,      62.4,      80.0,
0.0);
( 476567.0, 3649692.5,      68.7,      78.3,       0.0);         ( 476628.0, 3649692.5,      72.7,      79.7,
0.0);
( 476689.0, 3649692.5,      75.4,      75.4,       0.0);         ( 476750.0, 3649692.5,      72.3,      77.5,
0.0);
( 475591.0, 3649756.5,      26.5,      61.8,       0.0);         ( 475652.0, 3649756.5,      30.7,      58.7,
0.0);
( 475713.0, 3649756.5,      11.8,      61.8,       0.0);         ( 475774.0, 3649756.5,       8.3,      68.6,
0.0);
( 475835.0, 3649756.5,       8.2,      68.9,       0.0);         ( 475896.0, 3649756.5,      12.2,      69.6,
0.0);
( 475957.0, 3649756.5,      18.8,      69.6,       0.0);         ( 476018.0, 3649756.5,      25.6,      69.6,
0.0);
( 476079.0, 3649756.5,      33.2,      68.9,       0.0);         ( 476140.0, 3649756.5,      38.3,      68.9,
0.0);
( 476201.0, 3649756.5,      39.5,      71.4,       0.0);         ( 476262.0, 3649756.5,      56.0,      68.6,
0.0);
( 476323.0, 3649756.5,      64.2,      68.6,       0.0);         ( 476384.0, 3649756.5,      67.3,      67.3,
0.0);
( 476445.0, 3649756.5,      67.0,      67.0,       0.0);         ( 476506.0, 3649756.5,      66.1,      78.8,
0.0);
( 476567.0, 3649756.5,      71.9,      78.8,       0.0);         ( 476628.0, 3649756.5,      77.6,      78.3,
0.0);
( 476689.0, 3649756.5,      78.8,      78.8,       0.0);         ( 476750.0, 3649756.5,      74.0,      80.7,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:45

PAGE   6
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

( 475591.0, 3649820.5,      35.8,      59.3,       0.0);         ( 475652.0, 3649820.5,      30.0,      59.2,
0.0);
( 475713.0, 3649820.5,      13.7,      61.8,       0.0);         ( 475774.0, 3649820.5,       9.4,      68.6,
0.0);
( 475835.0, 3649820.5,       9.9,      68.9,       0.0);         ( 475896.0, 3649820.5,      12.4,      69.6,
0.0);
( 475957.0, 3649820.5,      19.5,      69.6,       0.0);         ( 476018.0, 3649820.5,      26.8,      68.9,
0.0);
```

(476079.0, 3649820.5, 33.7, 68.9, 0.0); (476140.0, 3649820.5, 37.1, 69.6, 0.0);
(476201.0, 3649820.5, 45.8, 68.9, 0.0); (476262.0, 3649820.5, 53.2, 68.8, 0.0);
(476323.0, 3649820.5, 63.3, 68.6, 0.0); (476384.0, 3649820.5, 67.3, 67.3, 0.0);
(476445.0, 3649820.5, 68.8, 68.8, 0.0); (476506.0, 3649820.5, 71.0, 71.0, 0.0);
(476567.0, 3649820.5, 73.7, 73.7, 0.0); (476628.0, 3649820.5, 78.2, 78.2, 0.0);
(476689.0, 3649820.5, 78.4, 80.7, 0.0); (476750.0, 3649820.5, 69.5, 86.5, 0.0);
(475591.0, 3649884.5, 37.8, 59.0, 0.0); (475652.0, 3649884.5, 24.8, 61.8, 0.0);
(475713.0, 3649884.5, 14.1, 61.8, 0.0); (475774.0, 3649884.5, 9.7, 68.6, 0.0);
(475835.0, 3649884.5, 11.7, 68.6, 0.0); (475896.0, 3649884.5, 16.8, 68.6, 0.0);
(475957.0, 3649884.5, 19.7, 69.6, 0.0); (476018.0, 3649884.5, 27.2, 68.9, 0.0);
(476079.0, 3649884.5, 33.3, 68.8, 0.0); (476140.0, 3649884.5, 38.9, 68.9, 0.0);
(476201.0, 3649884.5, 46.5, 68.6, 0.0); (476262.0, 3649884.5, 50.7, 68.8, 0.0);
(476323.0, 3649884.5, 56.5, 68.6, 0.0); (476384.0, 3649884.5, 61.6, 67.8, 0.0);
(476445.0, 3649884.5, 65.5, 67.3, 0.0); (476506.0, 3649884.5, 68.4, 73.5, 0.0);
(476567.0, 3649884.5, 74.2, 74.2, 0.0); (476628.0, 3649884.5, 78.7, 78.7, 0.0);
(476689.0, 3649884.5, 77.4, 81.1, 0.0); (476750.0, 3649884.5, 74.7, 86.5, 0.0);
(475591.0, 3649948.5, 36.2, 59.2, 0.0); (475652.0, 3649948.5, 24.5, 61.5, 0.0);
(475713.0, 3649948.5, 14.2, 61.8, 0.0); (475774.0, 3649948.5, 10.4, 61.8, 0.0);
(475835.0, 3649948.5, 11.1, 89.8, 0.0); (475896.0, 3649948.5, 12.8, 89.8, 0.0);
(475957.0, 3649948.5, 18.1, 89.8, 0.0); (476018.0, 3649948.5, 24.0, 89.7, 0.0);
(476079.0, 3649948.5, 31.4, 68.8, 0.0); (476140.0, 3649948.5, 38.9, 68.6, 0.0);
(476201.0, 3649948.5, 43.1, 68.6, 0.0); (476262.0, 3649948.5, 46.1, 69.6, 0.0);
(476323.0, 3649948.5, 50.9, 70.0, 0.0); (476384.0, 3649948.5, 54.5, 79.6, 0.0);
(476445.0, 3649948.5, 58.5, 84.8, 0.0); (476506.0, 3649948.5, 65.0, 83.2, 0.0);
(476567.0, 3649948.5, 71.9, 80.4, 0.0); (476628.0, 3649948.5, 79.1, 79.1, 0.0);
(476689.0, 3649948.5, 82.6, 82.6, 0.0); (476750.0, 3649948.5, 83.5, 86.5, 0.0);
(475591.0, 3650012.5, 29.1, 60.2, 0.0); (475652.0, 3650012.5, 20.9, 61.8, 0.0);
(475713.0, 3650012.5, 14.0, 61.8, 0.0); (475774.0, 3650012.5, 11.2, 89.8, 0.0);
(475835.0, 3650012.5, 12.4, 89.8, 0.0); (475896.0, 3650012.5, 17.0, 89.8, 0.0);
(475957.0, 3650012.5, 18.8, 98.2, 0.0); (476018.0, 3650012.5, 23.8, 98.3, 0.0);
(476079.0, 3650012.5, 29.6, 98.2, 0.0); (476140.0, 3650012.5, 38.7, 38.7, 0.0);
(476201.0, 3650012.5, 41.1, 68.6, 0.0); (476262.0, 3650012.5, 43.1, 99.7, 0.0);
(476323.0, 3650012.5, 47.4, 99.7, 0.0); (476384.0, 3650012.5, 52.3, 99.7, 0.0);
(476445.0, 3650012.5, 58.5, 99.7, 0.0); (476506.0, 3650012.5, 65.5, 99.0,

```
    0.0);
    ( 476567.0, 3650012.5,      72.8,      74.3,       0.0);         ( 476628.0, 3650012.5,      78.0,      78.0,
    0.0);
    ( 476689.0, 3650012.5,      83.5,      83.5,       0.0);         ( 476750.0, 3650012.5,      85.8,      85.8,
    0.0);
    ( 475591.0, 3650076.5,      24.3,      60.4,       0.0);         ( 475652.0, 3650076.5,      17.0,      61.8,
    0.0);
    ( 475713.0, 3650076.5,      11.6,      89.8,       0.0);         ( 475774.0, 3650076.5,      12.3,      89.8,
    0.0);
    ( 475835.0, 3650076.5,      14.6,      89.8,       0.0);         ( 475896.0, 3650076.5,      17.2,      96.5,
    0.0);
    ( 475957.0, 3650076.5,      20.9,      98.3,       0.0);         ( 476018.0, 3650076.5,      24.5,      98.9,
    0.0);
    ( 476079.0, 3650076.5,      31.0,      98.3,       0.0);         ( 476140.0, 3650076.5,      38.9,      96.5,
    0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
    08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                     ***
  07:35:45

  PAGE   7
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

    ( 476201.0, 3650076.5,      40.9,      99.7,       0.0);         ( 476262.0, 3650076.5,      42.9,      99.7,
    0.0);
    ( 476323.0, 3650076.5,      47.5,      99.7,       0.0);         ( 476384.0, 3650076.5,      52.4,      99.7,
    0.0);
    ( 476445.0, 3650076.5,      58.0,      99.7,       0.0);         ( 476506.0, 3650076.5,      64.5,      99.7,
    0.0);
    ( 476567.0, 3650076.5,      68.8,      99.7,       0.0);         ( 476628.0, 3650076.5,      73.6,      99.7,
    0.0);
    ( 476689.0, 3650076.5,      81.1,      99.7,       0.0);         ( 476750.0, 3650076.5,      85.1,      85.1,
    0.0);
    ( 475591.0, 3650140.5,      20.8,      60.4,       0.0);         ( 475652.0, 3650140.5,      16.5,      60.4,
    0.0);
    ( 475713.0, 3650140.5,      12.8,      89.8,       0.0);         ( 475774.0, 3650140.5,      14.8,      89.8,
    0.0);
    ( 475835.0, 3650140.5,      16.9,      89.8,       0.0);         ( 475896.0, 3650140.5,      18.5,      98.2,
    0.0);
    ( 475957.0, 3650140.5,      23.5,      98.3,       0.0);         ( 476018.0, 3650140.5,      26.7,      98.3,
    0.0);
    ( 476079.0, 3650140.5,      33.8,      98.3,       0.0);         ( 476140.0, 3650140.5,      39.5,      98.3,
    0.0);
    ( 476201.0, 3650140.5,      41.0,      99.7,       0.0);         ( 476262.0, 3650140.5,      42.9,      99.7,
    0.0);
    ( 476323.0, 3650140.5,      47.2,      99.7,       0.0);         ( 476384.0, 3650140.5,      53.3,      99.7,
    0.0);
    ( 476445.0, 3650140.5,      59.7,      99.7,       0.0);         ( 476506.0, 3650140.5,      64.3,      99.7,
    0.0);
    ( 476567.0, 3650140.5,      69.1,      99.7,       0.0);         ( 476628.0, 3650140.5,      74.0,      99.7,
    0.0);
    ( 476689.0, 3650140.5,      80.9,      99.7,       0.0);         ( 476750.0, 3650140.5,      84.9,      99.7,
    0.0);
    ( 475591.0, 3650204.5,      19.2,      60.4,       0.0);         ( 475652.0, 3650204.5,      14.7,      89.7,
    0.0);
    ( 475713.0, 3650204.5,      18.5,      89.8,       0.0);         ( 475774.0, 3650204.5,      18.5,      89.8,
    0.0);
    ( 475835.0, 3650204.5,      21.2,      89.8,       0.0);         ( 475896.0, 3650204.5,      26.7,      89.8,
    0.0);
    ( 475957.0, 3650204.5,      30.2,      89.8,       0.0);         ( 476018.0, 3650204.5,      29.9,      98.3,
    0.0);
    ( 476079.0, 3650204.5,      37.6,      98.2,       0.0);         ( 476140.0, 3650204.5,      42.1,      98.3,
    0.0);
```

```
( 476201.0, 3650204.5,      43.3,      99.7,       0.0);         ( 476262.0, 3650204.5,      42.9,      99.7,
0.0);
( 476323.0, 3650204.5,      47.2,      99.7,       0.0);         ( 476384.0, 3650204.5,      52.2,      99.7,
0.0);
( 476445.0, 3650204.5,      59.3,      99.7,       0.0);         ( 476506.0, 3650204.5,      66.8,      99.7,
0.0);
( 476567.0, 3650204.5,      71.9,      99.7,       0.0);         ( 476628.0, 3650204.5,      76.4,      99.7,
0.0);
( 476689.0, 3650204.5,      85.2,      99.7,       0.0);         ( 476750.0, 3650204.5,      93.2,      99.7,
0.0);
( 475591.0, 3650268.5,      18.4,      60.4,       0.0);         ( 475652.0, 3650268.5,      18.6,      37.5,
0.0);
( 475713.0, 3650268.5,      21.2,      89.8,       0.0);         ( 475774.0, 3650268.5,      24.0,      89.8,
0.0);
( 475835.0, 3650268.5,      26.5,      89.8,       0.0);         ( 475896.0, 3650268.5,      29.9,      89.8,
0.0);
( 475957.0, 3650268.5,      34.0,      89.8,       0.0);         ( 476018.0, 3650268.5,      35.4,      96.4,
0.0);
( 476079.0, 3650268.5,      38.5,      98.3,       0.0);         ( 476140.0, 3650268.5,      42.6,      98.3,
0.0);
( 476201.0, 3650268.5,      48.0,      98.3,       0.0);         ( 476262.0, 3650268.5,      48.8,      99.7,
0.0);
( 476323.0, 3650268.5,      49.3,      99.7,       0.0);         ( 476384.0, 3650268.5,      52.9,      99.7,
0.0);
( 476445.0, 3650268.5,      58.7,      99.7,       0.0);         ( 476506.0, 3650268.5,      64.0,      99.7,
0.0);
( 476567.0, 3650268.5,      70.3,      99.7,       0.0);         ( 476628.0, 3650268.5,      76.0,      99.7,
0.0);
( 476689.0, 3650268.5,      84.4,      99.7,       0.0);         ( 476750.0, 3650268.5,      98.2,      98.2,
0.0);
( 475591.0, 3650332.5,      18.3,      60.4,       0.0);         ( 475652.0, 3650332.5,      19.4,      89.1,
0.0);
( 475713.0, 3650332.5,      24.7,      89.7,       0.0);         ( 475774.0, 3650332.5,      27.4,      89.8,
0.0);
( 475835.0, 3650332.5,      32.6,      89.8,       0.0);         ( 475896.0, 3650332.5,      35.3,      89.8,
0.0);
( 475957.0, 3650332.5,      38.6,      89.8,       0.0);         ( 476018.0, 3650332.5,      39.7,      89.8,
0.0);
( 476079.0, 3650332.5,      41.2,      96.6,       0.0);         ( 476140.0, 3650332.5,      46.2,      98.2,
0.0);
( 476201.0, 3650332.5,      50.4,      98.3,       0.0);         ( 476262.0, 3650332.5,      55.9,      98.3,
0.0);
( 476323.0, 3650332.5,      57.0,      98.3,       0.0);         ( 476384.0, 3650332.5,      57.2,      99.7,
0.0);
( 476445.0, 3650332.5,      62.0,      99.7,       0.0);         ( 476506.0, 3650332.5,      69.2,      99.7,
0.0);
( 476567.0, 3650332.5,      73.5,      99.7,       0.0);         ( 476628.0, 3650332.5,      86.0,      98.7,
0.0);
( 476689.0, 3650332.5,      94.3,      98.1,       0.0);         ( 476750.0, 3650332.5,      95.2,      99.0,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:45

PAGE   8
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

( 475591.0, 3650396.5,      18.0,      89.8,       0.0);         ( 475652.0, 3650396.5,      23.9,      37.8,
0.0);
( 475713.0, 3650396.5,      27.6,      52.2,       0.0);         ( 475774.0, 3650396.5,      30.4,      89.8,
0.0);
( 475835.0, 3650396.5,      39.1,      52.0,       0.0);         ( 475896.0, 3650396.5,      42.3,      89.8,
```

```
0.0);
( 475957.0, 3650396.5,      44.2,      89.8,       0.0);         ( 476018.0, 3650396.5,      44.8,      89.8,
0.0);
( 476079.0, 3650396.5,      41.9,      96.6,       0.0);         ( 476140.0, 3650396.5,      52.0,      89.8,
0.0);
( 476201.0, 3650396.5,      58.9,      89.8,       0.0);         ( 476262.0, 3650396.5,      63.7,      89.8,
0.0);
( 476323.0, 3650396.5,      66.5,      96.5,       0.0);         ( 476384.0, 3650396.5,      65.6,      98.3,
0.0);
( 476445.0, 3650396.5,      66.6,      98.7,       0.0);         ( 476506.0, 3650396.5,      72.2,      98.7,
0.0);
( 476567.0, 3650396.5,      86.8,      98.3,       0.0);         ( 476628.0, 3650396.5,      96.4,      96.4,
0.0);
( 476689.0, 3650396.5,      96.0,      98.3,       0.0);         ( 476750.0, 3650396.5,      86.5,      99.0,
0.0);
( 475591.0, 3650460.5,      18.4,      90.7,       0.0);         ( 475652.0, 3650460.5,      26.1,      38.1,
0.0);
( 475713.0, 3650460.5,      32.8,      37.5,       0.0);         ( 475774.0, 3650460.5,      36.0,      50.1,
0.0);
( 475835.0, 3650460.5,      39.4,      89.7,       0.0);         ( 475896.0, 3650460.5,      46.3,      52.7,
0.0);
( 475957.0, 3650460.5,      52.2,      52.2,       0.0);         ( 476018.0, 3650460.5,      50.7,      89.8,
0.0);
( 476079.0, 3650460.5,      41.7,      96.5,       0.0);         ( 476140.0, 3650460.5,      55.9,      89.8,
0.0);
( 476201.0, 3650460.5,      68.8,      89.8,       0.0);         ( 476262.0, 3650460.5,      77.5,      89.8,
0.0);
( 476323.0, 3650460.5,      77.1,      89.8,       0.0);         ( 476384.0, 3650460.5,      75.5,      89.8,
0.0);
( 476445.0, 3650460.5,      78.9,      96.4,       0.0);         ( 476506.0, 3650460.5,      84.1,      96.4,
0.0);
( 476567.0, 3650460.5,      91.5,      91.5,       0.0);         ( 476628.0, 3650460.5,      86.5,      98.3,
0.0);
( 476689.0, 3650460.5,      76.1,      99.7,       0.0);         ( 476750.0, 3650460.5,      73.6,      99.7,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:45

PAGE   9
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                    * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
                      LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL


                 SOURCE          - - RECEPTOR LOCATION - -         DISTANCE
                   ID            XR (METERS)   YR (METERS)         (METERS)
               - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                DDXFI3QM            476323.0     3649244.5            -8.05
                DDXFI3QN            476262.0     3649308.5           -16.10
                DDXFI3QN            476323.0     3649308.5            -1.93
                DDXFI3QO            476262.0     3649308.5            -6.33
                DDXFI3QO            476262.0     3649372.5            -6.91
                DDXFI3QP            476262.0     3649372.5           -32.78
                DDXFI3QQ            476262.0     3649436.5           -12.78
                DDXFI3QR            476201.0     3649436.5            -2.85
                DDXFI3QR            476262.0     3649436.5            -6.29
                DDXFI3QS            476201.0     3649500.5           -16.95
                DDXFI3QS            476262.0     3649500.5            -0.09
                DDXFI3QT            476201.0     3649500.5            -6.98
                DDXFI3QT            476201.0     3649564.5            -5.28
                DDXFI3QU            476201.0     3649564.5           -34.39
                DDXFI3QV            476201.0     3649628.5           -17.68
                DDXFI3QW            476201.0     3649628.5           -11.96
```

DDXFI3QX	476140.0	3649692.5	-6.26
DDXFI3QX	476201.0	3649692.5	-11.56
DDXFI3QZ	476140.0	3649756.5	-13.82
DDXFI3QZ	476201.0	3649756.5	-2.19
DDXFI3R0	476140.0	3649820.5	-15.18
DDXFI3R1	476140.0	3649820.5	-10.53
DDXFI3R2	476140.0	3649884.5	-28.77
DDXFI3R3	476140.0	3649884.5	0.97
DDXFI3R3	476140.0	3649948.5	-15.70
DDXFI3R4	476140.0	3649948.5	-23.89
DDXFI3R5	476140.0	3650012.5	-30.31
DDXFI3R6	476140.0	3650012.5	-6.92
DDXFI3R6	476140.0	3650076.5	-5.59
DDXFI3R7	476140.0	3650076.5	-22.30
DDXFI3R8	476140.0	3650140.5	-11.89
DDXFI3R9	476079.0	3650140.5	0.05
DDXFI3R9	476140.0	3650140.5	-4.64
DDXFI3RA	476079.0	3650204.5	-12.11
DDXFI3RA	476140.0	3650204.5	-6.72
DDXFI3RB	476079.0	3650268.5	-5.34
DDXFI3RC	476079.0	3650268.5	-19.06
DDXFI3RD	476079.0	3650332.5	-24.16
DDXFI3RE	476079.0	3650332.5	-11.42
DDXFI3RE	476079.0	3650396.5	-3.73

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
DDXFI3RF	476079.0	3650396.5	-36.28
DDXFI3RG	476079.0	3650460.5	-18.42
DDXFI3RH	476079.0	3650460.5	-17.77

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
```

```
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1

                     METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2012   1  1  1
                                                          AND END DATE: 2012  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                          (METERS/SEC)

                                                   1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                      ***
   07:35:45

   PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\   Met Version:
15181
   Profile file:   C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\
   Surface format: FREE

   Profile format: FREE

   Surface station no.:    93107                  Upper air station no.:     3190
                  Name: KERNEYMESACLOSESTMEDDATATOSITE             Name: KERNEYMESACLOSESTMEDDATATOSITE
                  Year:   2012                                     Year:   2012

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 12 01 01   1 01   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45  125.   10.0  283.8
10.0
 12 01 01   1 02   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  334.   10.0  283.8
10.0
 12 01 01   1 03   -0.6  0.027 -9.000 -9.000 -999.   11.      3.0  0.38   1.32   1.00    0.45    5.   10.0  285.9
10.0
 12 01 01   1 04   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45   77.   10.0  284.9
10.0
 12 01 01   1 05   -0.6  0.027 -9.000 -9.000 -999.   10.      2.9  0.34   1.32   1.00    0.45  336.   10.0  285.4
10.0
 12 01 01   1 06   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  233.   10.0  284.2
10.0
 12 01 01   1 07   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  175.   10.0  283.1
10.0
 12 01 01   1 08   27.3 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.31   1.32   0.49    0.00    0.   10.0  283.1
10.0
 12 01 01   1 09   55.2  0.108  0.487  0.014   75.   85.     -2.0  0.37   1.32   0.29    0.45  329.   10.0  286.4
10.0
 12 01 01   1 10  123.3  0.120  0.896  0.007  208.  100.     -1.3  0.37   1.32   0.22    0.45  321.   10.0  291.4
10.0
 12 01 01   1 11  169.2  0.295  1.303  0.005  468.  384.    -13.6  0.37   1.32   0.20    1.79  320.   10.0  295.4
10.0
 12 01 01   1 12  191.0  0.299  1.625  0.005  805.  392.    -12.5  0.37   1.32   0.19    1.79  310.   10.0  297.0
10.0
 12 01 01   1 13  186.3  0.298  1.865  0.005 1245.  391.    -12.7  0.37   1.32   0.19    1.79  307.   10.0  298.8
10.0
```

```
 12 01 01   1 14  160.2  0.293  1.884  0.005 1493.  381.    -14.1  0.37   1.32   0.20    1.79  305.   10.0  299.9
10.0
 12 01 01   1 15  107.4  0.331  1.688  0.005 1601.  456.    -30.0  0.37   1.32   0.23    2.24  305.   10.0  299.2
10.0
 12 01 01   1 16   36.1  0.304  1.180  0.005 1627.  403.    -69.5  0.37   1.32   0.32    2.24  300.   10.0  296.4
10.0
 12 01 01   1 17   -4.7  0.079 -9.000 -9.000 -999.  139.      9.2  0.33   1.32   0.60    1.34  299.   10.0  294.2
10.0
 12 01 01   1 18   -2.2  0.052 -9.000 -9.000 -999.   36.      5.8  0.33   1.32   1.00    0.89  279.   10.0  292.0
10.0
 12 01 01   1 19   -0.5  0.025 -9.000 -9.000 -999.   10.      2.6  0.26   1.32   1.00    0.45   63.   10.0  289.9
10.0
 12 01 01   1 20   -0.6  0.027 -9.000 -9.000 -999.   11.      3.1  0.38   1.32   1.00    0.45   19.   10.0  288.1
10.0
 12 01 01   1 21   -2.2  0.052 -9.000 -9.000 -999.   29.      5.7  0.33   1.32   1.00    0.89  290.   10.0  287.0
10.0
 12 01 01   1 22   -2.4  0.054 -9.000 -9.000 -999.   30.      6.0  0.37   1.32   1.00    0.89  329.   10.0  285.4
10.0
 12 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  330.   10.0  284.9
10.0
 12 01 01   1 24   -0.6  0.026 -9.000 -9.000 -999.   10.      2.9  0.33   1.32   1.00    0.45  291.   10.0  284.9
10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1  125.    0.45   283.8   48.0  -99.00    0.27

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
    08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                        ***
   07:35:45

   PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     DDXFI3QM    , DDXFI3QN    , DDXFI3QO    , DDXFI3QP    ,
DDXFI3QQ    ,
                 DDXFI3QR    , DDXFI3QS    , DDXFI3QT    , DDXFI3QU    , DDXFI3QV    , DDXFI3QW    , DDXFI3QX    ,
DDXFI3QY    ,
                 DDXFI3QZ    , DDXFI3R0    , DDXFI3R1    , DDXFI3R2    , DDXFI3R3    , DDXFI3R4    , DDXFI3R5    ,
DDXFI3R6    ,
                 DDXFI3R7    , DDXFI3R8    , DDXFI3R9    , DDXFI3RA    , DDXFI3RB    , DDXFI3RC    , DDXFI3RD    ,
. . .      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                   ** CONC OF PM10     IN MICROGRAMS/M**3                         **

       X-COORD (M)   Y-COORD (M)        CONC                    X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
        475591.00    3649244.50       0.00367                     475652.00    3649244.50       0.00379

        475713.00    3649244.50       0.00416                     475774.00    3649244.50       0.00459

        475835.00    3649244.50       0.00512                     475896.00    3649244.50       0.00578

        475957.00    3649244.50       0.00803                     476018.00    3649244.50       0.00918

        476079.00    3649244.50       0.01076                     476140.00    3649244.50       0.00952

        476201.00    3649244.50       0.01549                     476262.00    3649244.50       0.02414
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476323.00	3649244.50	0.01566	476384.00	3649244.50	0.01587
476445.00	3649244.50	0.01044	476506.00	3649244.50	0.00813
476567.00	3649244.50	0.00665	476628.00	3649244.50	0.00563
476689.00	3649244.50	0.00489	476750.00	3649244.50	0.00431
475591.00	3649308.50	0.00394	475652.00	3649308.50	0.00406
475713.00	3649308.50	0.00449	475774.00	3649308.50	0.00502
475835.00	3649308.50	0.00566	475896.00	3649308.50	0.00648
475957.00	3649308.50	0.00755	476018.00	3649308.50	0.01073
476079.00	3649308.50	0.00986	476140.00	3649308.50	0.00892
476201.00	3649308.50	0.02541	476262.00	3649308.50	0.02015
476323.00	3649308.50	0.02523	476384.00	3649308.50	0.02059
476445.00	3649308.50	0.01296	476506.00	3649308.50	0.00983
476567.00	3649308.50	0.00772	476628.00	3649308.50	0.00669
476689.00	3649308.50	0.00610	476750.00	3649308.50	0.00461
475591.00	3649372.50	0.00409	475652.00	3649372.50	0.00434
475713.00	3649372.50	0.00482	475774.00	3649372.50	0.00542
475835.00	3649372.50	0.00618	475896.00	3649372.50	0.00715
475957.00	3649372.50	0.00849	476018.00	3649372.50	0.01039
476079.00	3649372.50	0.00573	476140.00	3649372.50	0.00655
476201.00	3649372.50	0.02999	476262.00	3649372.50	0.02706
476323.00	3649372.50	0.02582	476384.00	3649372.50	0.01720
476445.00	3649372.50	0.01361	476506.00	3649372.50	0.01083
476567.00	3649372.50	0.00554	476628.00	3649372.50	0.00470
476689.00	3649372.50	0.00372	476750.00	3649372.50	0.00531
475591.00	3649436.50	0.00420	475652.00	3649436.50	0.00460
475713.00	3649436.50	0.00513	475774.00	3649436.50	0.00581
475835.00	3649436.50	0.00667	475896.00	3649436.50	0.00781
475957.00	3649436.50	0.00942	476018.00	3649436.50	0.01365
476079.00	3649436.50	0.00496	476140.00	3649436.50	0.00489
476201.00	3649436.50	0.03234	476262.00	3649436.50	0.02681
476323.00	3649436.50	0.02119	476384.00	3649436.50	0.01651
476445.00	3649436.50	0.01168	476506.00	3649436.50	0.00844
476567.00	3649436.50	0.00233	476628.00	3649436.50	0.00166
476689.00	3649436.50	0.00219	476750.00	3649436.50	0.00549

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
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PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD ,
. . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3649500.50	0.00447	475652.00	3649500.50	0.00493
475713.00	3649500.50	0.00544	475774.00	3649500.50	0.00618
475835.00	3649500.50	0.00715	475896.00	3649500.50	0.00844
475957.00	3649500.50	0.01027	476018.00	3649500.50	0.01317
476079.00	3649500.50	0.01978	476140.00	3649500.50	0.02160
476201.00	3649500.50	0.02675	476262.00	3649500.50	0.03209
476323.00	3649500.50	0.01522	476384.00	3649500.50	0.00971
476445.00	3649500.50	0.00580	476506.00	3649500.50	0.00859
476567.00	3649500.50	0.00439	476628.00	3649500.50	0.00133
476689.00	3649500.50	0.00097	476750.00	3649500.50	0.00478
475591.00	3649564.50	0.00529	475652.00	3649564.50	0.00552
475713.00	3649564.50	0.00583	475774.00	3649564.50	0.00653
475835.00	3649564.50	0.00760	475896.00	3649564.50	0.00905
475957.00	3649564.50	0.01110	476018.00	3649564.50	0.01424
476079.00	3649564.50	0.01982	476140.00	3649564.50	0.03486
476201.00	3649564.50	0.03040	476262.00	3649564.50	0.01535
476323.00	3649564.50	0.01104	476384.00	3649564.50	0.00677
476445.00	3649564.50	0.00391	476506.00	3649564.50	0.00412
476567.00	3649564.50	0.00228	476628.00	3649564.50	0.00132
476689.00	3649564.50	0.00088	476750.00	3649564.50	0.00291

475591.00	3649628.50	0.00561	475652.00	3649628.50	0.00561
475713.00	3649628.50	0.00598	475774.00	3649628.50	0.00685
475835.00	3649628.50	0.00802	475896.00	3649628.50	0.00961
475957.00	3649628.50	0.01193	476018.00	3649628.50	0.01570
476079.00	3649628.50	0.02258	476140.00	3649628.50	0.04109
476201.00	3649628.50	0.02930	476262.00	3649628.50	0.00879
476323.00	3649628.50	0.00685	476384.00	3649628.50	0.00449
476445.00	3649628.50	0.00255	476506.00	3649628.50	0.00238
476567.00	3649628.50	0.00146	476628.00	3649628.50	0.00103
476689.00	3649628.50	0.00080	476750.00	3649628.50	0.00088
475591.00	3649692.50	0.00553	475652.00	3649692.50	0.00556
475713.00	3649692.50	0.00621	475774.00	3649692.50	0.00714
475835.00	3649692.50	0.00839	475896.00	3649692.50	0.01012
475957.00	3649692.50	0.01265	476018.00	3649692.50	0.01712
476079.00	3649692.50	0.02499	476140.00	3649692.50	0.03422
476201.00	3649692.50	0.04009	476262.00	3649692.50	0.00521
476323.00	3649692.50	0.00305	476384.00	3649692.50	0.00272
476445.00	3649692.50	0.00185	476506.00	3649692.50	0.00164
476567.00	3649692.50	0.00104	476628.00	3649692.50	0.00079
476689.00	3649692.50	0.00069	476750.00	3649692.50	0.00066

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3649756.50	0.00543	475652.00	3649756.50	0.00645

475713.00	3649756.50	0.00639	475774.00	3649756.50	0.00739
475835.00	3649756.50	0.00872	475896.00	3649756.50	0.01056
475957.00	3649756.50	0.01328	476018.00	3649756.50	0.01776
476079.00	3649756.50	0.02715	476140.00	3649756.50	0.03788
476201.00	3649756.50	0.03597	476262.00	3649756.50	0.00490
476323.00	3649756.50	0.00232	476384.00	3649756.50	0.00182
476445.00	3649756.50	0.00158	476506.00	3649756.50	0.00132
476567.00	3649756.50	0.00089	476628.00	3649756.50	0.00067
476689.00	3649756.50	0.00059	476750.00	3649756.50	0.00061
475591.00	3649820.50	0.00610	475652.00	3649820.50	0.00649
475713.00	3649820.50	0.00657	475774.00	3649820.50	0.00761
475835.00	3649820.50	0.00901	475896.00	3649820.50	0.01094
475957.00	3649820.50	0.01381	476018.00	3649820.50	0.01859
476079.00	3649820.50	0.02847	476140.00	3649820.50	0.02872
476201.00	3649820.50	0.02142	476262.00	3649820.50	0.00619
476323.00	3649820.50	0.00240	476384.00	3649820.50	0.00179
476445.00	3649820.50	0.00142	476506.00	3649820.50	0.00112
476567.00	3649820.50	0.00088	476628.00	3649820.50	0.00066
476689.00	3649820.50	0.00055	476750.00	3649820.50	0.00073
475591.00	3649884.50	0.00623	475652.00	3649884.50	0.00617
475713.00	3649884.50	0.00670	475774.00	3649884.50	0.00778
475835.00	3649884.50	0.00926	475896.00	3649884.50	0.01132
475957.00	3649884.50	0.01427	476018.00	3649884.50	0.01931
476079.00	3649884.50	0.02935	476140.00	3649884.50	0.03265
476201.00	3649884.50	0.02106	476262.00	3649884.50	0.00808
476323.00	3649884.50	0.00367	476384.00	3649884.50	0.00214
476445.00	3649884.50	0.00153	476506.00	3649884.50	0.00111
476567.00	3649884.50	0.00083	476628.00	3649884.50	0.00063
476689.00	3649884.50	0.00055	476750.00	3649884.50	0.00056
475591.00	3649948.50	0.00626	475652.00	3649948.50	0.00620
475713.00	3649948.50	0.00680	475774.00	3649948.50	0.00792
475835.00	3649948.50	0.00944	475896.00	3649948.50	0.01154
475957.00	3649948.50	0.01465	476018.00	3649948.50	0.01978

476079.00	3649948.50	0.03042	476140.00	3649948.50	0.03150
476201.00	3649948.50	0.03452	476262.00	3649948.50	0.01486
476323.00	3649948.50	0.00639	476384.00	3649948.50	0.00364
476445.00	3649948.50	0.00223	476506.00	3649948.50	0.00128
476567.00	3649948.50	0.00082	476628.00	3649948.50	0.00060
476689.00	3649948.50	0.00047	476750.00	3649948.50	0.00039

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3650012.50	0.00572	475652.00	3650012.50	0.00605
475713.00	3650012.50	0.00684	475774.00	3650012.50	0.00801
475835.00	3650012.50	0.00960	475896.00	3650012.50	0.01183
475957.00	3650012.50	0.01507	476018.00	3650012.50	0.02058
476079.00	3650012.50	0.03231	476140.00	3650012.50	0.03225
476201.00	3650012.50	0.03640	476262.00	3650012.50	0.02103
476323.00	3650012.50	0.00968	476384.00	3650012.50	0.00454
476445.00	3650012.50	0.00216	476506.00	3650012.50	0.00120
476567.00	3650012.50	0.00078	476628.00	3650012.50	0.00059
476689.00	3650012.50	0.00044	476750.00	3650012.50	0.00036
475591.00	3650076.50	0.00539	475652.00	3650076.50	0.00593
475713.00	3650076.50	0.00681	475774.00	3650076.50	0.00804
475835.00	3650076.50	0.00970	475896.00	3650076.50	0.01201
475957.00	3650076.50	0.01551	476018.00	3650076.50	0.02146
476079.00	3650076.50	0.03526	476140.00	3650076.50	0.03292

476201.00	3650076.50	0.03386	476262.00	3650076.50	0.02058
476323.00	3650076.50	0.00943	476384.00	3650076.50	0.00437
476445.00	3650076.50	0.00217	476506.00	3650076.50	0.00121
476567.00	3650076.50	0.00086	476628.00	3650076.50	0.00061
476689.00	3650076.50	0.00041	476750.00	3650076.50	0.00035
475591.00	3650140.50	0.00518	475652.00	3650140.50	0.00585
475713.00	3650140.50	0.00676	475774.00	3650140.50	0.00803
475835.00	3650140.50	0.00973	475896.00	3650140.50	0.01214
475957.00	3650140.50	0.01593	476018.00	3650140.50	0.02246
476079.00	3650140.50	0.03061	476140.00	3650140.50	0.03037
476201.00	3650140.50	0.03122	476262.00	3650140.50	0.01968
476323.00	3650140.50	0.00950	476384.00	3650140.50	0.00384
476445.00	3650140.50	0.00179	476506.00	3650140.50	0.00114
476567.00	3650140.50	0.00078	476628.00	3650140.50	0.00055
476689.00	3650140.50	0.00038	476750.00	3650140.50	0.00030
475591.00	3650204.50	0.00500	475652.00	3650204.50	0.00568
475713.00	3650204.50	0.00670	475774.00	3650204.50	0.00796
475835.00	3650204.50	0.00973	475896.00	3650204.50	0.01243
475957.00	3650204.50	0.01655	476018.00	3650204.50	0.02356
476079.00	3650204.50	0.03467	476140.00	3650204.50	0.03730
476201.00	3650204.50	0.02674	476262.00	3650204.50	0.01863
476323.00	3650204.50	0.00928	476384.00	3650204.50	0.00414
476445.00	3650204.50	0.00170	476506.00	3650204.50	0.00091
476567.00	3650204.50	0.00062	476628.00	3650204.50	0.00045
476689.00	3650204.50	0.00030	476750.00	3650204.50	0.00023

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*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                    ***
   07:35:45

   PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     DDXFI3QM    , DDXFI3QN    , DDXFI3QO    , DDXFI3QP    ,
DDXFI3QQ    ,
                 DDXFI3QR    , DDXFI3QS    , DDXFI3QT    , DDXFI3QU    , DDXFI3QV    , DDXFI3QW    , DDXFI3QX    ,
DDXFI3QY    ,
                 DDXFI3QZ    , DDXFI3R0    , DDXFI3R1    , DDXFI3R2    , DDXFI3R3    , DDXFI3R4    , DDXFI3R5    ,
DDXFI3R6    ,
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DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3650268.50	0.00476	475652.00	3650268.50	0.00551
475713.00	3650268.50	0.00652	475774.00	3650268.50	0.00786
475835.00	3650268.50	0.00970	475896.00	3650268.50	0.01247
475957.00	3650268.50	0.01718	476018.00	3650268.50	0.02555
476079.00	3650268.50	0.02653	476140.00	3650268.50	0.04509
476201.00	3650268.50	0.01380	476262.00	3650268.50	0.00926
476323.00	3650268.50	0.00677	476384.00	3650268.50	0.00349
476445.00	3650268.50	0.00159	476506.00	3650268.50	0.00092
476567.00	3650268.50	0.00058	476628.00	3650268.50	0.00040
476689.00	3650268.50	0.00027	476750.00	3650268.50	0.00019
475591.00	3650332.50	0.00447	475652.00	3650332.50	0.00518
475713.00	3650332.50	0.00623	475774.00	3650332.50	0.00757
475835.00	3650332.50	0.00972	475896.00	3650332.50	0.01282
475957.00	3650332.50	0.01871	476018.00	3650332.50	0.02911
476079.00	3650332.50	0.02711	476140.00	3650332.50	0.02987
476201.00	3650332.50	0.00910	476262.00	3650332.50	0.00326
476323.00	3650332.50	0.00228	476384.00	3650332.50	0.00183
476445.00	3650332.50	0.00104	476506.00	3650332.50	0.00060
476567.00	3650332.50	0.00043	476628.00	3650332.50	0.00026
476689.00	3650332.50	0.00020	476750.00	3650332.50	0.00018
475591.00	3650396.50	0.00414	475652.00	3650396.50	0.00488
475713.00	3650396.50	0.00582	475774.00	3650396.50	0.00708
475835.00	3650396.50	0.00997	475896.00	3650396.50	0.01329
475957.00	3650396.50	0.01769	476018.00	3650396.50	0.02809
476079.00	3650396.50	0.02764	476140.00	3650396.50	0.00929
476201.00	3650396.50	0.00288	476262.00	3650396.50	0.00151
476323.00	3650396.50	0.00099	476384.00	3650396.50	0.00083
476445.00	3650396.50	0.00066	476506.00	3650396.50	0.00045
476567.00	3650396.50	0.00026	476628.00	3650396.50	0.00020

476689.00	3650396.50	0.00018	476750.00	3650396.50	0.00019
475591.00	3650460.50	0.00381	475652.00	3650460.50	0.00451
475713.00	3650460.50	0.00553	475774.00	3650460.50	0.00677
475835.00	3650460.50	0.00866	475896.00	3650460.50	0.00936
475957.00	3650460.50	0.00513	476018.00	3650460.50	0.00892
476079.00	3650460.50	0.01651	476140.00	3650460.50	0.00416
476201.00	3650460.50	0.00123	476262.00	3650460.50	0.00067
476323.00	3650460.50	0.00053	476384.00	3650460.50	0.00046
476445.00	3650460.50	0.00035	476506.00	3650460.50	0.00027
476567.00	3650460.50	0.00022	476628.00	3650460.50	0.00020
476689.00	3650460.50	0.00025	476750.00	3650460.50	0.00025

↑ *** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor *** 08/08/17
*** AERMET - VERSION 15181 *** *** *** 07:35:45

PAGE 18
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
476184.30	3650114.30	0.03724	476186.00	3650098.40	0.03745
476190.80	3650062.40	0.03758	476203.70	3650029.80	0.03486
476181.30	3650020.60	0.04407	476181.70	3649976.60	0.04721
476184.50	3649949.90	0.04752	476217.70	3650119.90	0.02827

↑ *** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor *** 08/08/17
*** AERMET - VERSION 15181 *** *** *** 07:35:45

PAGE 19
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF PM10   IN MICROGRAMS/M**3   **

```
NETWORK
GROUP ID                      AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -

ALL       1ST HIGHEST VALUE IS       0.04752 AT (  476184.50,  3649949.90,    41.00,    68.58,    0.00)  SR

          2ND HIGHEST VALUE IS       0.04721 AT (  476181.70,  3649976.60,    41.00,    68.58,    0.00)  SR

          3RD HIGHEST VALUE IS       0.04509 AT (  476140.00,  3650268.50,    42.61,    98.34,    0.00)  DC

          4TH HIGHEST VALUE IS       0.04407 AT (  476181.30,  3650020.60,    41.00,    66.48,    0.00)  SR

          5TH HIGHEST VALUE IS       0.04109 AT (  476140.00,  3649628.50,    33.75,    68.92,    0.00)  DC

          6TH HIGHEST VALUE IS       0.04009 AT (  476201.00,  3649692.50,    35.27,    73.10,    0.00)  DC

          7TH HIGHEST VALUE IS       0.03788 AT (  476140.00,  3649756.50,    38.30,    68.92,    0.00)  DC

          8TH HIGHEST VALUE IS       0.03758 AT (  476190.80,  3650062.40,    41.00,    99.01,    0.00)  SR

          9TH HIGHEST VALUE IS       0.03745 AT (  476186.00,  3650098.40,    41.00,    99.27,    0.00)  SR

         10TH HIGHEST VALUE IS       0.03730 AT (  476140.00,  3650204.50,    42.06,    98.34,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
    08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   07:35:45

   PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          178 Informational Message(s)

 A Total of         8784 Hours Were Processed

 A Total of          101 Calm Hours Identified

 A Total of           77 Missing Hours Identified (  0.88 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
************************************
*** AERMOD Finishes Successfully ***
************************************
```

```
1                    AERMOD PRIME - (DATED 16216r)

                    AERMODPrMSPx VERSION
             (C) COPYRIGHT 1998-2017, Trinity Consultants

 Run Began on  8/08/2017 at  7:35:59

** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  ANNUAL
CO POLLUTID  PM10
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  DDXFI3QM  VOLUME    476299.1  3649265.7  23.10
** SRCDESCR  I5
SO LOCATION  DDXFI3QN  VOLUME    476285.3  3649303.2  24.68
** SRCDESCR  I5
SO LOCATION  DDXFI3QO  VOLUME    476271.5  3649340.8  25.90
** SRCDESCR  I5
SO LOCATION  DDXFI3QP  VOLUME    476257.7  3649378.3  27.08
** SRCDESCR  I5
SO LOCATION  DDXFI3QQ  VOLUME    476244.2  3649415.9  28.28
** SRCDESCR  I5
SO LOCATION  DDXFI3QR  VOLUME    476233.5  3649454.5  29.50
** SRCDESCR  I5
SO LOCATION  DDXFI3QS  VOLUME    476222.8  3649493.0  30.57
** SRCDESCR  I5
SO LOCATION  DDXFI3QT  VOLUME    476212.1  3649531.6  31.66
** SRCDESCR  I5
SO LOCATION  DDXFI3QU  VOLUME    476201.4  3649570.1  32.73
** SRCDESCR  I5
SO LOCATION  DDXFI3QV  VOLUME    476190.7  3649608.7  33.75
** SRCDESCR  I5
SO LOCATION  DDXFI3QW  VOLUME    476180.1  3649647.2  34.66
** SRCDESCR  I5
SO LOCATION  DDXFI3QX  VOLUME    476173.2  3649686.5  35.42
** SRCDESCR  I5
SO LOCATION  DDXFI3QY  VOLUME    476168.8  3649726.3  35.77
** SRCDESCR  I5
SO LOCATION  DDXFI3QZ  VOLUME    476164.4  3649766.0  36.80
** SRCDESCR  I5
SO LOCATION  DDXFI3R0  VOLUME    476160.0  3649805.8  37.31
** SRCDESCR  I5
SO LOCATION  DDXFI3R1  VOLUME    476155.6  3649845.5  36.79
** SRCDESCR  I5
SO LOCATION  DDXFI3R2  VOLUME    476151.2  3649885.3  39.80
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SO LOCATION  DDXFI3R3  VOLUME    476146.2  3649925.0  39.24
** SRCDESCR  I5
SO LOCATION  DDXFI3R4  VOLUME    476140.6  3649964.6  38.86
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SO LOCATION  DDXFI3R6  VOLUME    476129.3  3650043.8  38.38
** SRCDESCR  I5
SO LOCATION  DDXFI3R7  VOLUME    476123.7  3650083.4  38.37
** SRCDESCR  I5
SO LOCATION  DDXFI3R8  VOLUME    476118.0  3650123.0  38.47
** SRCDESCR  I5
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SO LOCATION  DDXFI3R9  VOLUME    476112.4  3650162.6  38.72
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** SRCDESCR  I5
SO LOCATION  DDXFI3RB  VOLUME    476101.1  3650241.8  39.59
** SRCDESCR  I5
SO LOCATION  DDXFI3RC  VOLUME    476095.5  3650281.4  40.42
** SRCDESCR  I5
SO LOCATION  DDXFI3RD  VOLUME    476089.9  3650321.0  41.51
** SRCDESCR  I5
SO LOCATION  DDXFI3RE  VOLUME    476084.2  3650360.6  41.81
** SRCDESCR  I5
SO LOCATION  DDXFI3RF  VOLUME    476078.6  3650400.2  41.87
** SRCDESCR  I5
SO LOCATION  DDXFI3RG  VOLUME    476072.9  3650439.8  41.73
** SRCDESCR  I5
SO LOCATION  DDXFI3RH  VOLUME    476067.3  3650479.4  41.76
** SRCDESCR  I5
SO SRCPARAM  DDXFI3QM  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3QN  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3QO  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3QP  1.463341E-05  3  18.60465  2.790698
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SO SRCPARAM  DDXFI3QU  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3QV  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3QW  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3QX  1.463341E-05  3  18.60465  2.790698
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SO SRCPARAM  DDXFI3RB  1.463341E-05  3  18.60465  2.790698
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SO SRCPARAM  DDXFI3RD  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3RE  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3RF  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3RG  1.463341E-05  3  18.60465  2.790698
SO SRCPARAM  DDXFI3RH  1.463341E-05  3  18.60465  2.790698
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE DISCCART  476184.3  3650114.3  45  99.27
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** RCPDESCR  NW Building SF
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** RCPDESCR  NWGF2 SF
RE DISCCART  476190.8  3650062.4  45  99.01
** SENSITIV
** RCPDESCR  WGF1 SF
RE DISCCART  476203.7  3650029.8  45  98.92
** SENSITIV
** RCPDESCR  WRoundaboutBuildingFacade SF
```

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** SENSITIV
** RCPDESCR  SWFurthestRecToI5 SF
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** SENSITIV
** RCPDESCR  SouthBuilding SF
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** RCPDESCR  grid2
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RE DISCCART  476445.0  3649500.5  47.6  57.36
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RE DISCCART  476445.0  3650140.5  59.71  99.69
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** RCPDESCR  grid2
RE DISCCART  476079.0  3650268.5  38.53  98.34
```

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** RCPDESCR  grid2
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** RCPDESCR  grid2
RE DISCCART  476201.0  3650396.5  58.91  89.78
** RCPDESCR  grid2
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** RCPDESCR  grid2
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** RCPDESCR  grid2
RE DISCCART  476384.0  3650396.5  65.57  98.34
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** RCPDESCR  grid2
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** RCPDESCR  grid2
RE DISCCART  475896.0  3650460.5  46.26  52.71
** RCPDESCR  grid2
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RE DISCCART  476201.0  3650460.5  68.83  89.78
** RCPDESCR  grid2
RE DISCCART  476262.0  3650460.5  77.52  89.78
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RE DISCCART  476384.0  3650460.5  75.46  89.78
** RCPDESCR  grid2
RE DISCCART  476445.0  3650460.5  78.87  96.38
** RCPDESCR  grid2
RE DISCCART  476506.0  3650460.5  84.07  96.38
```

```
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RE DISCCART  476628.0  3650460.5  86.45  98.34
** RCPDESCR  grid2
RE DISCCART  476689.0  3650460.5  76.13  99.69
** RCPDESCR  grid2
RE DISCCART  476750.0  3650460.5  73.57  99.69
** RCPDESCR  grid2
RE FINISHED

ME STARTING
ME SURFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.SFC"
** SURFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.SFC"
ME PROFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
** PROFFILE  "C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\KMA2012V15181.PFL"
ME SURFDATA  93107 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME UAIRDATA  3190 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME SITEDATA  00001016 2012 KERNEYMESACLOSESTMEDDATATOSITE
ME PROFBASE  20  METERS
ME STARTEND  2012  1  1  1  2012  12  31  24
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

** ****************************************************************************
** It is recommended that the user not edit any data below this line
** ****************************************************************************

** BUILDING BLD  0  0  41.43  8  86
** BUILDING IDN  DDXFI008
** BUILDING NAM  Building
** BUILDING CRN  476218.2  3650119.7
** BUILDING CRN  476193.8  3650119.8
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** BUILDING CRN  476184.1  3650114.8
** BUILDING CRN  476183.8  3650108.9
** BUILDING CRN  476185  3650108.6
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** BUILDING CRN  476184.3  3650104.3
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** BUILDING CRN  476191.6  3650081.3
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** BUILDING CRN  476191.3  3650076.9
** BUILDING CRN  476192.1  3650074.9
** BUILDING CRN  476188.7  3650074.9
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** BUILDING CRN  476190.1  3650023
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** BUILDING CRN  476205.4  3650099.4
** BUILDING CRN  476206.8  3650101
** BUILDING CRN  476218.3  3650101.7
** BUILDING CRN  476218.2  3650104.8
** BUILDING CRN  476218.2  3650119.7

** TAG NAM  DDXFI3PS
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
476241.2,3649439.6,0,476200.9,3649563.1,0,476174.0,3649701.9,0,476148.1,3649910.5,0,476122.1,3650118.2,0,476069.3,3
650478.1,0,476067.5,3650508.6,0,476067.5,3650508.6,0
** TAG NAM  DDXFI3QL
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** TAG CRD
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650511.7,0

** TERRFILE  C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\NEDU99~1\NEDU99048667.TIF  2  0
```

```
 WGS84  11  0  474902.5  3648489.0  474910.4  3651566.5  477685.7  3651559.8  477678.7  3648482.3
** AMPTYPE  NED
** AMPDATUM  2
** AMPZONE  11
** AMPHEMISPHERE  N

** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE  AERMOD_BREEZE_16216.EXE
** AERMAPEXE  AERMAP_EPA_11103.EXE


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                      ***
   07:35:59

   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                         ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses RURAL Dispersion Only.

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM10

 **Model Calculates ANNUAL Averages Only
```

```
 **This Run Includes:     32 Source(s);       1 Source Group(s); and     408 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:     32 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  15181

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    20.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Input Runstream File:          AERMOD.INP

 **Output Print File:             AERMOD.OUT


↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
    08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                      ***
   07:35:59

   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL


                                                  *** VOLUME SOURCE DATA ***
```

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
DDXFI3QM	0	0.14633E-04	476299.1	3649265.7	23.1	3.00	18.60	2.79	NO	
DDXFI3QN	0	0.14633E-04	476285.3	3649303.2	24.7	3.00	18.60	2.79	NO	
DDXFI3QO	0	0.14633E-04	476271.5	3649340.8	25.9	3.00	18.60	2.79	NO	
DDXFI3QP	0	0.14633E-04	476257.7	3649378.3	27.1	3.00	18.60	2.79	NO	
DDXFI3QQ	0	0.14633E-04	476244.2	3649415.9	28.3	3.00	18.60	2.79	NO	
DDXFI3QR	0	0.14633E-04	476233.5	3649454.5	29.5	3.00	18.60	2.79	NO	
DDXFI3QS	0	0.14633E-04	476222.8	3649493.0	30.6	3.00	18.60	2.79	NO	
DDXFI3QT	0	0.14633E-04	476212.1	3649531.6	31.7	3.00	18.60	2.79	NO	
DDXFI3QU	0	0.14633E-04	476201.4	3649570.1	32.7	3.00	18.60	2.79	NO	
DDXFI3QV	0	0.14633E-04	476190.7	3649608.7	33.8	3.00	18.60	2.79	NO	
DDXFI3QW	0	0.14633E-04	476180.1	3649647.2	34.7	3.00	18.60	2.79	NO	
DDXFI3QX	0	0.14633E-04	476173.2	3649686.5	35.4	3.00	18.60	2.79	NO	
DDXFI3QY	0	0.14633E-04	476168.8	3649726.3	35.8	3.00	18.60	2.79	NO	

```
 DDXFI3QZ         0   0.14633E-04  476164.4 3649766.0    36.8     3.00    18.60     2.79     NO
 DDXFI3R0         0   0.14633E-04  476160.0 3649805.8    37.3     3.00    18.60     2.79     NO
 DDXFI3R1         0   0.14633E-04  476155.6 3649845.5    36.8     3.00    18.60     2.79     NO
 DDXFI3R2         0   0.14633E-04  476151.2 3649885.3    39.8     3.00    18.60     2.79     NO
 DDXFI3R3         0   0.14633E-04  476146.2 3649925.0    39.2     3.00    18.60     2.79     NO
 DDXFI3R4         0   0.14633E-04  476140.6 3649964.6    38.9     3.00    18.60     2.79     NO
 DDXFI3R5         0   0.14633E-04  476135.0 3650004.2    38.5     3.00    18.60     2.79     NO
 DDXFI3R6         0   0.14633E-04  476129.3 3650043.8    38.4     3.00    18.60     2.79     NO
 DDXFI3R7         0   0.14633E-04  476123.7 3650083.4    38.4     3.00    18.60     2.79     NO
 DDXFI3R8         0   0.14633E-04  476118.0 3650123.0    38.5     3.00    18.60     2.79     NO
 DDXFI3R9         0   0.14633E-04  476112.4 3650162.6    38.7     3.00    18.60     2.79     NO
 DDXFI3RA         0   0.14633E-04  476106.8 3650202.2    39.3     3.00    18.60     2.79     NO
 DDXFI3RB         0   0.14633E-04  476101.1 3650241.8    39.6     3.00    18.60     2.79     NO
 DDXFI3RC         0   0.14633E-04  476095.5 3650281.4    40.4     3.00    18.60     2.79     NO
 DDXFI3RD         0   0.14633E-04  476089.9 3650321.0    41.5     3.00    18.60     2.79     NO
 DDXFI3RE         0   0.14633E-04  476084.2 3650360.6    41.8     3.00    18.60     2.79     NO
 DDXFI3RF         0   0.14633E-04  476078.6 3650400.2    41.9     3.00    18.60     2.79     NO
 DDXFI3RG         0   0.14633E-04  476072.9 3650439.8    41.7     3.00    18.60     2.79     NO
 DDXFI3RH         0   0.14633E-04  476067.3 3650479.4    41.8     3.00    18.60     2.79     NO
```


*** SOURCE IDs DEFINING SOURCE GROUPS ***

```
 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        DDXFI3QM    , DDXFI3QN    , DDXFI3QO    , DDXFI3QP    , DDXFI3QQ    , DDXFI3QR    , DDXFI3QS    ,
DDXFI3QT    ,

             DDXFI3QU    , DDXFI3QV    , DDXFI3QW    , DDXFI3QX    , DDXFI3QY    , DDXFI3QZ    , DDXFI3R0    ,
DDXFI3R1    ,

             DDXFI3R2    , DDXFI3R3    , DDXFI3R4    , DDXFI3R5    , DDXFI3R6    , DDXFI3R7    , DDXFI3R8    ,
DDXFI3R9    ,

             DDXFI3RA    , DDXFI3RB    , DDXFI3RC    , DDXFI3RD    , DDXFI3RE    , DDXFI3RF    , DDXFI3RG    ,
DDXFI3RH    ,
```


*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
    ( 475591.0, 3649244.5,      17.7,      56.1,       0.0);         ( 475652.0, 3649244.5,       7.5,      56.1,
    0.0);
    ( 475713.0, 3649244.5,       6.2,      56.1,       0.0);         ( 475774.0, 3649244.5,       4.8,      56.1,
    0.0);
    ( 475835.0, 3649244.5,       3.5,      50.8,       0.0);         ( 475896.0, 3649244.5,       5.4,      50.8,
    0.0);
    ( 475957.0, 3649244.5,      29.7,      31.9,       0.0);         ( 476018.0, 3649244.5,      30.9,      48.9,
    0.0);
    ( 476079.0, 3649244.5,      30.6,      50.8,       0.0);         ( 476140.0, 3649244.5,      35.2,      39.9,
    0.0);
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(476201.0, 3649244.5, 20.4, 50.8, 0.0); (476262.0, 3649244.5, 21.6, 50.8, 0.0);
(476323.0, 3649244.5, 22.6, 70.2, 0.0); (476384.0, 3649244.5, 20.4, 80.0, 0.0);
(476445.0, 3649244.5, 10.5, 80.7, 0.0); (476506.0, 3649244.5, 10.2, 85.8, 0.0);
(476567.0, 3649244.5, 8.8, 86.5, 0.0); (476628.0, 3649244.5, 8.8, 86.5, 0.0);
(476689.0, 3649244.5, 9.9, 86.5, 0.0); (476750.0, 3649244.5, 9.9, 88.4, 0.0);
(475591.0, 3649308.5, 19.1, 56.1, 0.0); (475652.0, 3649308.5, 6.6, 56.1, 0.0);
(475713.0, 3649308.5, 5.6, 56.1, 0.0); (475774.0, 3649308.5, 4.7, 56.1, 0.0);
(475835.0, 3649308.5, 3.7, 50.8, 0.0); (475896.0, 3649308.5, 4.6, 67.3, 0.0);
(475957.0, 3649308.5, 8.7, 67.3, 0.0); (476018.0, 3649308.5, 30.5, 50.8, 0.0);
(476079.0, 3649308.5, 36.4, 50.8, 0.0); (476140.0, 3649308.5, 38.7, 50.8, 0.0);
(476201.0, 3649308.5, 27.6, 50.8, 0.0); (476262.0, 3649308.5, 24.8, 50.8, 0.0);
(476323.0, 3649308.5, 22.1, 80.0, 0.0); (476384.0, 3649308.5, 27.3, 79.3, 0.0);
(476445.0, 3649308.5, 22.8, 80.7, 0.0); (476506.0, 3649308.5, 22.5, 80.7, 0.0);
(476567.0, 3649308.5, 20.8, 81.0, 0.0); (476628.0, 3649308.5, 22.7, 81.0, 0.0);
(476689.0, 3649308.5, 29.2, 80.7, 0.0); (476750.0, 3649308.5, 14.9, 88.1, 0.0);
(475591.0, 3649372.5, 17.2, 56.1, 0.0); (475652.0, 3649372.5, 8.1, 61.8, 0.0);
(475713.0, 3649372.5, 5.5, 56.5, 0.0); (475774.0, 3649372.5, 4.1, 56.1, 0.0);
(475835.0, 3649372.5, 3.3, 67.8, 0.0); (475896.0, 3649372.5, 4.9, 68.6, 0.0);
(475957.0, 3649372.5, 12.3, 68.1, 0.0); (476018.0, 3649372.5, 36.4, 50.8, 0.0);
(476079.0, 3649372.5, 44.4, 50.8, 0.0); (476140.0, 3649372.5, 44.0, 50.8, 0.0);
(476201.0, 3649372.5, 31.8, 50.8, 0.0); (476262.0, 3649372.5, 26.9, 68.1, 0.0);
(476323.0, 3649372.5, 32.8, 33.9, 0.0); (476384.0, 3649372.5, 32.2, 79.7, 0.0);
(476445.0, 3649372.5, 30.7, 80.7, 0.0); (476506.0, 3649372.5, 28.7, 80.7, 0.0);
(476567.0, 3649372.5, 43.5, 74.7, 0.0); (476628.0, 3649372.5, 44.6, 74.7, 0.0);
(476689.0, 3649372.5, 47.2, 73.5, 0.0); (476750.0, 3649372.5, 24.9, 86.5, 0.0);
(475591.0, 3649436.5, 13.8, 61.8, 0.0); (475652.0, 3649436.5, 9.4, 61.8, 0.0);
(475713.0, 3649436.5, 5.2, 61.8, 0.0); (475774.0, 3649436.5, 3.3, 61.8, 0.0);
(475835.0, 3649436.5, 3.2, 68.6, 0.0); (475896.0, 3649436.5, 7.2, 68.6, 0.0);
(475957.0, 3649436.5, 15.3, 68.6, 0.0); (476018.0, 3649436.5, 29.6, 50.8, 0.0);
(476079.0, 3649436.5, 47.9, 48.9, 0.0); (476140.0, 3649436.5, 50.0, 50.0, 0.0);
(476201.0, 3649436.5, 30.6, 68.6, 0.0); (476262.0, 3649436.5, 28.6, 79.3, 0.0);
(476323.0, 3649436.5, 35.4, 67.4, 0.0); (476384.0, 3649436.5, 33.7, 80.0, 0.0);
(476445.0, 3649436.5, 35.5, 80.7, 0.0); (476506.0, 3649436.5, 38.6, 80.7, 0.0);
(476567.0, 3649436.5, 55.9, 68.9, 0.0); (476628.0, 3649436.5, 59.2, 69.1,

```
    0.0);
    ( 476689.0, 3649436.5,      54.8,      73.4,       0.0);         ( 476750.0, 3649436.5,      33.0,      86.2,
    0.0);
    ( 475591.0, 3649500.5,      17.2,      61.8,       0.0);         ( 475652.0, 3649500.5,      15.9,      61.8,
    0.0);
    ( 475713.0, 3649500.5,       8.5,      61.8,       0.0);         ( 475774.0, 3649500.5,       3.6,      68.6,
    0.0);
    ( 475835.0, 3649500.5,       3.2,      68.8,       0.0);         ( 475896.0, 3649500.5,       6.5,      68.9,
    0.0);
    ( 475957.0, 3649500.5,      14.1,      68.8,       0.0);         ( 476018.0, 3649500.5,      20.9,      68.6,
    0.0);
    ( 476079.0, 3649500.5,      33.6,      50.8,       0.0);         ( 476140.0, 3649500.5,      37.7,      50.8,
    0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
    08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
  07:35:59

  PAGE   5
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

    ( 476201.0, 3649500.5,      31.4,      68.9,       0.0);         ( 476262.0, 3649500.5,      34.1,      69.4,
    0.0);
    ( 476323.0, 3649500.5,      40.1,      68.6,       0.0);         ( 476384.0, 3649500.5,      42.9,      75.4,
    0.0);
    ( 476445.0, 3649500.5,      47.6,      57.4,       0.0);         ( 476506.0, 3649500.5,      39.0,      80.7,
    0.0);
    ( 476567.0, 3649500.5,      48.5,      80.0,       0.0);         ( 476628.0, 3649500.5,      62.7,      70.0,
    0.0);
    ( 476689.0, 3649500.5,      68.3,      68.3,       0.0);         ( 476750.0, 3649500.5,      40.5,      81.0,
    0.0);
    ( 475591.0, 3649564.5,      30.0,      38.9,       0.0);         ( 475652.0, 3649564.5,      24.3,      56.1,
    0.0);
    ( 475713.0, 3649564.5,      16.9,      61.1,       0.0);         ( 475774.0, 3649564.5,       4.5,      68.6,
    0.0);
    ( 475835.0, 3649564.5,       4.1,      68.9,       0.0);         ( 475896.0, 3649564.5,       7.8,      69.6,
    0.0);
    ( 475957.0, 3649564.5,      13.2,      69.6,       0.0);         ( 476018.0, 3649564.5,      18.5,      69.6,
    0.0);
    ( 476079.0, 3649564.5,      24.5,      69.6,       0.0);         ( 476140.0, 3649564.5,      33.4,      68.6,
    0.0);
    ( 476201.0, 3649564.5,      32.6,      70.0,       0.0);         ( 476262.0, 3649564.5,      43.7,      68.6,
    0.0);
    ( 476323.0, 3649564.5,      44.3,      68.6,       0.0);         ( 476384.0, 3649564.5,      47.8,      67.6,
    0.0);
    ( 476445.0, 3649564.5,      52.5,      57.4,       0.0);         ( 476506.0, 3649564.5,      50.8,      80.5,
    0.0);
    ( 476567.0, 3649564.5,      56.6,      80.0,       0.0);         ( 476628.0, 3649564.5,      62.9,      74.7,
    0.0);
    ( 476689.0, 3649564.5,      70.3,      70.3,       0.0);         ( 476750.0, 3649564.5,      50.9,      80.7,
    0.0);
    ( 475591.0, 3649628.5,      37.2,      38.3,       0.0);         ( 475652.0, 3649628.5,      23.0,      61.8,
    0.0);
    ( 475713.0, 3649628.5,      11.7,      61.8,       0.0);         ( 475774.0, 3649628.5,       6.6,      68.6,
    0.0);
    ( 475835.0, 3649628.5,       5.3,      69.6,       0.0);         ( 475896.0, 3649628.5,       8.3,      70.5,
    0.0);
    ( 475957.0, 3649628.5,      15.8,      69.6,       0.0);         ( 476018.0, 3649628.5,      22.7,      68.9,
    0.0);
    ( 476079.0, 3649628.5,      28.5,      68.9,       0.0);         ( 476140.0, 3649628.5,      33.8,      68.9,
    0.0);
    ( 476201.0, 3649628.5,      34.1,      72.0,       0.0);         ( 476262.0, 3649628.5,      49.3,      68.6,
    0.0);
```

```
( 476323.0, 3649628.5,      49.6,      68.9,       0.0);         ( 476384.0, 3649628.5,      52.5,      68.6,
0.0);
( 476445.0, 3649628.5,      57.7,      61.1,       0.0);         ( 476506.0, 3649628.5,      57.2,      80.0,
0.0);
( 476567.0, 3649628.5,      62.6,      80.0,       0.0);         ( 476628.0, 3649628.5,      67.2,      79.3,
0.0);
( 476689.0, 3649628.5,      72.4,      72.4,       0.0);         ( 476750.0, 3649628.5,      66.9,      75.0,
0.0);
( 475591.0, 3649692.5,      29.4,      61.8,       0.0);         ( 475652.0, 3649692.5,      18.6,      61.8,
0.0);
( 475713.0, 3649692.5,      12.7,      61.8,       0.0);         ( 475774.0, 3649692.5,       7.5,      68.6,
0.0);
( 475835.0, 3649692.5,       5.9,      69.6,       0.0);         ( 475896.0, 3649692.5,      11.1,      69.6,
0.0);
( 475957.0, 3649692.5,      17.3,      69.6,       0.0);         ( 476018.0, 3649692.5,      26.6,      68.9,
0.0);
( 476079.0, 3649692.5,      31.2,      68.9,       0.0);         ( 476140.0, 3649692.5,      38.5,      68.9,
0.0);
( 476201.0, 3649692.5,      35.3,      73.1,       0.0);         ( 476262.0, 3649692.5,      55.2,      68.6,
0.0);
( 476323.0, 3649692.5,      59.5,      68.1,       0.0);         ( 476384.0, 3649692.5,      58.6,      68.6,
0.0);
( 476445.0, 3649692.5,      62.4,      65.4,       0.0);         ( 476506.0, 3649692.5,      62.4,      80.0,
0.0);
( 476567.0, 3649692.5,      68.7,      78.3,       0.0);         ( 476628.0, 3649692.5,      72.7,      79.7,
0.0);
( 476689.0, 3649692.5,      75.4,      75.4,       0.0);         ( 476750.0, 3649692.5,      72.3,      77.5,
0.0);
( 475591.0, 3649756.5,      26.5,      61.8,       0.0);         ( 475652.0, 3649756.5,      30.7,      58.7,
0.0);
( 475713.0, 3649756.5,      11.8,      61.8,       0.0);         ( 475774.0, 3649756.5,       8.3,      68.6,
0.0);
( 475835.0, 3649756.5,       8.2,      68.9,       0.0);         ( 475896.0, 3649756.5,      12.2,      69.6,
0.0);
( 475957.0, 3649756.5,      18.8,      69.6,       0.0);         ( 476018.0, 3649756.5,      25.6,      69.6,
0.0);
( 476079.0, 3649756.5,      33.2,      68.9,       0.0);         ( 476140.0, 3649756.5,      38.3,      68.9,
0.0);
( 476201.0, 3649756.5,      39.5,      71.4,       0.0);         ( 476262.0, 3649756.5,      56.0,      68.6,
0.0);
( 476323.0, 3649756.5,      64.2,      68.6,       0.0);         ( 476384.0, 3649756.5,      67.3,      67.3,
0.0);
( 476445.0, 3649756.5,      67.0,      67.0,       0.0);         ( 476506.0, 3649756.5,      66.1,      78.8,
0.0);
( 476567.0, 3649756.5,      71.9,      78.8,       0.0);         ( 476628.0, 3649756.5,      77.6,      78.3,
0.0);
( 476689.0, 3649756.5,      78.8,      78.8,       0.0);         ( 476750.0, 3649756.5,      74.0,      80.7,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:59

PAGE   6
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                           (METERS)

( 475591.0, 3649820.5,      35.8,      59.3,       0.0);         ( 475652.0, 3649820.5,      30.0,      59.2,
0.0);
( 475713.0, 3649820.5,      13.7,      61.8,       0.0);         ( 475774.0, 3649820.5,       9.4,      68.6,
0.0);
( 475835.0, 3649820.5,       9.9,      68.9,       0.0);         ( 475896.0, 3649820.5,      12.4,      69.6,
0.0);
( 475957.0, 3649820.5,      19.5,      69.6,       0.0);         ( 476018.0, 3649820.5,      26.8,      68.9,
```

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0.0);
( 476079.0, 3649820.5,      33.7,      68.9,       0.0);         ( 476140.0, 3649820.5,      37.1,      69.6,
0.0);
( 476201.0, 3649820.5,      45.8,      68.9,       0.0);         ( 476262.0, 3649820.5,      53.2,      68.8,
0.0);
( 476323.0, 3649820.5,      63.3,      68.6,       0.0);         ( 476384.0, 3649820.5,      67.3,      67.3,
0.0);
( 476445.0, 3649820.5,      68.8,      68.8,       0.0);         ( 476506.0, 3649820.5,      71.0,      71.0,
0.0);
( 476567.0, 3649820.5,      73.7,      73.7,       0.0);         ( 476628.0, 3649820.5,      78.2,      78.2,
0.0);
( 476689.0, 3649820.5,      78.4,      80.7,       0.0);         ( 476750.0, 3649820.5,      69.5,      86.5,
0.0);
( 475591.0, 3649884.5,      37.8,      59.0,       0.0);         ( 475652.0, 3649884.5,      24.8,      61.8,
0.0);
( 475713.0, 3649884.5,      14.1,      61.8,       0.0);         ( 475774.0, 3649884.5,       9.7,      68.6,
0.0);
( 475835.0, 3649884.5,      11.7,      68.6,       0.0);         ( 475896.0, 3649884.5,      16.8,      68.6,
0.0);
( 475957.0, 3649884.5,      19.7,      69.6,       0.0);         ( 476018.0, 3649884.5,      27.2,      68.9,
0.0);
( 476079.0, 3649884.5,      33.3,      68.8,       0.0);         ( 476140.0, 3649884.5,      38.9,      68.9,
0.0);
( 476201.0, 3649884.5,      46.5,      68.6,       0.0);         ( 476262.0, 3649884.5,      50.7,      68.8,
0.0);
( 476323.0, 3649884.5,      56.5,      68.6,       0.0);         ( 476384.0, 3649884.5,      61.6,      67.8,
0.0);
( 476445.0, 3649884.5,      65.5,      67.3,       0.0);         ( 476506.0, 3649884.5,      68.4,      73.5,
0.0);
( 476567.0, 3649884.5,      74.2,      74.2,       0.0);         ( 476628.0, 3649884.5,      78.7,      78.7,
0.0);
( 476689.0, 3649884.5,      77.4,      81.1,       0.0);         ( 476750.0, 3649884.5,      74.7,      86.5,
0.0);
( 475591.0, 3649948.5,      36.2,      59.2,       0.0);         ( 475652.0, 3649948.5,      24.5,      61.5,
0.0);
( 475713.0, 3649948.5,      14.2,      61.8,       0.0);         ( 475774.0, 3649948.5,      10.4,      61.8,
0.0);
( 475835.0, 3649948.5,      11.1,      89.8,       0.0);         ( 475896.0, 3649948.5,      12.8,      89.8,
0.0);
( 475957.0, 3649948.5,      18.1,      89.8,       0.0);         ( 476018.0, 3649948.5,      24.0,      89.7,
0.0);
( 476079.0, 3649948.5,      31.4,      68.8,       0.0);         ( 476140.0, 3649948.5,      38.9,      68.6,
0.0);
( 476201.0, 3649948.5,      43.1,      68.6,       0.0);         ( 476262.0, 3649948.5,      46.1,      69.6,
0.0);
( 476323.0, 3649948.5,      50.9,      70.0,       0.0);         ( 476384.0, 3649948.5,      54.5,      79.6,
0.0);
( 476445.0, 3649948.5,      58.5,      84.8,       0.0);         ( 476506.0, 3649948.5,      65.0,      83.2,
0.0);
( 476567.0, 3649948.5,      71.9,      80.4,       0.0);         ( 476628.0, 3649948.5,      79.1,      79.1,
0.0);
( 476689.0, 3649948.5,      82.6,      82.6,       0.0);         ( 476750.0, 3649948.5,      83.5,      86.5,
0.0);
( 475591.0, 3650012.5,      29.1,      60.2,       0.0);         ( 475652.0, 3650012.5,      20.9,      61.8,
0.0);
( 475713.0, 3650012.5,      14.0,      61.8,       0.0);         ( 475774.0, 3650012.5,      11.2,      89.8,
0.0);
( 475835.0, 3650012.5,      12.4,      89.8,       0.0);         ( 475896.0, 3650012.5,      17.0,      89.8,
0.0);
( 475957.0, 3650012.5,      18.8,      98.2,       0.0);         ( 476018.0, 3650012.5,      23.8,      98.3,
0.0);
( 476079.0, 3650012.5,      29.6,      98.2,       0.0);         ( 476140.0, 3650012.5,      38.7,      38.7,
0.0);
( 476201.0, 3650012.5,      41.1,      68.6,       0.0);         ( 476262.0, 3650012.5,      43.1,      99.7,
0.0);
( 476323.0, 3650012.5,      47.4,      99.7,       0.0);         ( 476384.0, 3650012.5,      52.3,      99.7,
0.0);
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( 476445.0, 3650012.5,      58.5,      99.7,       0.0);         ( 476506.0, 3650012.5,      65.5,      99.0,
0.0);
( 476567.0, 3650012.5,      72.8,      74.3,       0.0);         ( 476628.0, 3650012.5,      78.0,      78.0,
0.0);
( 476689.0, 3650012.5,      83.5,      83.5,       0.0);         ( 476750.0, 3650012.5,      85.8,      85.8,
0.0);
( 475591.0, 3650076.5,      24.3,      60.4,       0.0);         ( 475652.0, 3650076.5,      17.0,      61.8,
0.0);
( 475713.0, 3650076.5,      11.6,      89.8,       0.0);         ( 475774.0, 3650076.5,      12.3,      89.8,
0.0);
( 475835.0, 3650076.5,      14.6,      89.8,       0.0);         ( 475896.0, 3650076.5,      17.2,      96.5,
0.0);
( 475957.0, 3650076.5,      20.9,      98.3,       0.0);         ( 476018.0, 3650076.5,      24.5,      98.9,
0.0);
( 476079.0, 3650076.5,      31.0,      98.3,       0.0);         ( 476140.0, 3650076.5,      38.9,      96.5,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:59

PAGE   7
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

( 476201.0, 3650076.5,      40.9,      99.7,       0.0);         ( 476262.0, 3650076.5,      42.9,      99.7,
0.0);
( 476323.0, 3650076.5,      47.5,      99.7,       0.0);         ( 476384.0, 3650076.5,      52.4,      99.7,
0.0);
( 476445.0, 3650076.5,      58.0,      99.7,       0.0);         ( 476506.0, 3650076.5,      64.5,      99.7,
0.0);
( 476567.0, 3650076.5,      68.8,      99.7,       0.0);         ( 476628.0, 3650076.5,      73.6,      99.7,
0.0);
( 476689.0, 3650076.5,      81.1,      99.7,       0.0);         ( 476750.0, 3650076.5,      85.1,      85.1,
0.0);
( 475591.0, 3650140.5,      20.8,      60.4,       0.0);         ( 475652.0, 3650140.5,      16.5,      60.4,
0.0);
( 475713.0, 3650140.5,      12.8,      89.8,       0.0);         ( 475774.0, 3650140.5,      14.8,      89.8,
0.0);
( 475835.0, 3650140.5,      16.9,      89.8,       0.0);         ( 475896.0, 3650140.5,      18.5,      98.2,
0.0);
( 475957.0, 3650140.5,      23.5,      98.3,       0.0);         ( 476018.0, 3650140.5,      26.7,      98.3,
0.0);
( 476079.0, 3650140.5,      33.8,      98.3,       0.0);         ( 476140.0, 3650140.5,      39.5,      98.3,
0.0);
( 476201.0, 3650140.5,      41.0,      99.7,       0.0);         ( 476262.0, 3650140.5,      42.9,      99.7,
0.0);
( 476323.0, 3650140.5,      47.2,      99.7,       0.0);         ( 476384.0, 3650140.5,      53.3,      99.7,
0.0);
( 476445.0, 3650140.5,      59.7,      99.7,       0.0);         ( 476506.0, 3650140.5,      64.3,      99.7,
0.0);
( 476567.0, 3650140.5,      69.1,      99.7,       0.0);         ( 476628.0, 3650140.5,      74.0,      99.7,
0.0);
( 476689.0, 3650140.5,      80.9,      99.7,       0.0);         ( 476750.0, 3650140.5,      84.9,      99.7,
0.0);
( 475591.0, 3650204.5,      19.2,      60.4,       0.0);         ( 475652.0, 3650204.5,      14.7,      89.7,
0.0);
( 475713.0, 3650204.5,      18.5,      89.8,       0.0);         ( 475774.0, 3650204.5,      18.5,      89.8,
0.0);
( 475835.0, 3650204.5,      21.2,      89.8,       0.0);         ( 475896.0, 3650204.5,      26.7,      89.8,
0.0);
( 475957.0, 3650204.5,      30.2,      89.8,       0.0);         ( 476018.0, 3650204.5,      29.9,      98.3,
0.0);
( 476079.0, 3650204.5,      37.6,      98.2,       0.0);         ( 476140.0, 3650204.5,      42.1,      98.3,
```

```
0.0);
( 476201.0, 3650204.5,      43.3,      99.7,       0.0);         ( 476262.0, 3650204.5,      42.9,      99.7,
0.0);
( 476323.0, 3650204.5,      47.2,      99.7,       0.0);         ( 476384.0, 3650204.5,      52.2,      99.7,
0.0);
( 476445.0, 3650204.5,      59.3,      99.7,       0.0);         ( 476506.0, 3650204.5,      66.8,      99.7,
0.0);
( 476567.0, 3650204.5,      71.9,      99.7,       0.0);         ( 476628.0, 3650204.5,      76.4,      99.7,
0.0);
( 476689.0, 3650204.5,      85.2,      99.7,       0.0);         ( 476750.0, 3650204.5,      93.2,      99.7,
0.0);
( 475591.0, 3650268.5,      18.4,      60.4,       0.0);         ( 475652.0, 3650268.5,      18.6,      37.5,
0.0);
( 475713.0, 3650268.5,      21.2,      89.8,       0.0);         ( 475774.0, 3650268.5,      24.0,      89.8,
0.0);
( 475835.0, 3650268.5,      26.5,      89.8,       0.0);         ( 475896.0, 3650268.5,      29.9,      89.8,
0.0);
( 475957.0, 3650268.5,      34.0,      89.8,       0.0);         ( 476018.0, 3650268.5,      35.4,      96.4,
0.0);
( 476079.0, 3650268.5,      38.5,      98.3,       0.0);         ( 476140.0, 3650268.5,      42.6,      98.3,
0.0);
( 476201.0, 3650268.5,      48.0,      98.3,       0.0);         ( 476262.0, 3650268.5,      48.8,      99.7,
0.0);
( 476323.0, 3650268.5,      49.3,      99.7,       0.0);         ( 476384.0, 3650268.5,      52.9,      99.7,
0.0);
( 476445.0, 3650268.5,      58.7,      99.7,       0.0);         ( 476506.0, 3650268.5,      64.0,      99.7,
0.0);
( 476567.0, 3650268.5,      70.3,      99.7,       0.0);         ( 476628.0, 3650268.5,      76.0,      99.7,
0.0);
( 476689.0, 3650268.5,      84.4,      99.7,       0.0);         ( 476750.0, 3650268.5,      98.2,      98.2,
0.0);
( 475591.0, 3650332.5,      18.3,      60.4,       0.0);         ( 475652.0, 3650332.5,      19.4,      89.1,
0.0);
( 475713.0, 3650332.5,      24.7,      89.7,       0.0);         ( 475774.0, 3650332.5,      27.4,      89.8,
0.0);
( 475835.0, 3650332.5,      32.6,      89.8,       0.0);         ( 475896.0, 3650332.5,      35.3,      89.8,
0.0);
( 475957.0, 3650332.5,      38.6,      89.8,       0.0);         ( 476018.0, 3650332.5,      39.7,      89.8,
0.0);
( 476079.0, 3650332.5,      41.2,      96.6,       0.0);         ( 476140.0, 3650332.5,      46.2,      98.2,
0.0);
( 476201.0, 3650332.5,      50.4,      98.3,       0.0);         ( 476262.0, 3650332.5,      55.9,      98.3,
0.0);
( 476323.0, 3650332.5,      57.0,      98.3,       0.0);         ( 476384.0, 3650332.5,      57.2,      99.7,
0.0);
( 476445.0, 3650332.5,      62.0,      99.7,       0.0);         ( 476506.0, 3650332.5,      69.2,      99.7,
0.0);
( 476567.0, 3650332.5,      73.5,      99.7,       0.0);         ( 476628.0, 3650332.5,      86.0,      98.7,
0.0);
( 476689.0, 3650332.5,      94.3,      98.1,       0.0);         ( 476750.0, 3650332.5,      95.2,      99.0,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:59

PAGE   8
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                   *** DISCRETE CARTESIAN RECEPTORS ***
                                (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)

( 475591.0, 3650396.5,      18.0,      89.8,       0.0);         ( 475652.0, 3650396.5,      23.9,      37.8,
0.0);
( 475713.0, 3650396.5,      27.6,      52.2,       0.0);         ( 475774.0, 3650396.5,      30.4,      89.8,
0.0);
```

```
( 475835.0, 3650396.5,      39.1,      52.0,       0.0);         ( 475896.0, 3650396.5,      42.3,      89.8,
0.0);
( 475957.0, 3650396.5,      44.2,      89.8,       0.0);         ( 476018.0, 3650396.5,      44.8,      89.8,
0.0);
( 476079.0, 3650396.5,      41.9,      96.6,       0.0);         ( 476140.0, 3650396.5,      52.0,      89.8,
0.0);
( 476201.0, 3650396.5,      58.9,      89.8,       0.0);         ( 476262.0, 3650396.5,      63.7,      89.8,
0.0);
( 476323.0, 3650396.5,      66.5,      96.5,       0.0);         ( 476384.0, 3650396.5,      65.6,      98.3,
0.0);
( 476445.0, 3650396.5,      66.6,      98.7,       0.0);         ( 476506.0, 3650396.5,      72.2,      98.7,
0.0);
( 476567.0, 3650396.5,      86.8,      98.3,       0.0);         ( 476628.0, 3650396.5,      96.4,      96.4,
0.0);
( 476689.0, 3650396.5,      96.0,      98.3,       0.0);         ( 476750.0, 3650396.5,      86.5,      99.0,
0.0);
( 475591.0, 3650460.5,      18.4,      90.7,       0.0);         ( 475652.0, 3650460.5,      26.1,      38.1,
0.0);
( 475713.0, 3650460.5,      32.8,      37.5,       0.0);         ( 475774.0, 3650460.5,      36.0,      50.1,
0.0);
( 475835.0, 3650460.5,      39.4,      89.7,       0.0);         ( 475896.0, 3650460.5,      46.3,      52.7,
0.0);
( 475957.0, 3650460.5,      52.2,      52.2,       0.0);         ( 476018.0, 3650460.5,      50.7,      89.8,
0.0);
( 476079.0, 3650460.5,      41.7,      96.5,       0.0);         ( 476140.0, 3650460.5,      55.9,      89.8,
0.0);
( 476201.0, 3650460.5,      68.8,      89.8,       0.0);         ( 476262.0, 3650460.5,      77.5,      89.8,
0.0);
( 476323.0, 3650460.5,      77.1,      89.8,       0.0);         ( 476384.0, 3650460.5,      75.5,      89.8,
0.0);
( 476445.0, 3650460.5,      78.9,      96.4,       0.0);         ( 476506.0, 3650460.5,      84.1,      96.4,
0.0);
( 476567.0, 3650460.5,      91.5,      91.5,       0.0);         ( 476628.0, 3650460.5,      86.5,      98.3,
0.0);
( 476689.0, 3650460.5,      76.1,      99.7,       0.0);         ( 476750.0, 3650460.5,      73.6,      99.7,
0.0);
*** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
08/08/17
*** AERMET - VERSION  15181 ***   ***                                                                    ***
07:35:59

PAGE   9
*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                    * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
                      LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL


                 SOURCE          - - RECEPTOR LOCATION - -         DISTANCE
                   ID            XR (METERS)   YR (METERS)         (METERS)
               - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                DDXFI3QM            476323.0     3649244.5            -8.05
                DDXFI3QN            476262.0     3649308.5           -16.10
                DDXFI3QN            476323.0     3649308.5            -1.93
                DDXFI3QO            476262.0     3649308.5            -6.33
                DDXFI3QO            476262.0     3649372.5            -6.91
                DDXFI3QP            476262.0     3649372.5           -32.78
                DDXFI3QQ            476262.0     3649436.5           -12.78
                DDXFI3QR            476201.0     3649436.5            -2.85
                DDXFI3QR            476262.0     3649436.5            -6.29
                DDXFI3QS            476201.0     3649500.5           -16.95
                DDXFI3QS            476262.0     3649500.5            -0.09
                DDXFI3QT            476201.0     3649500.5            -6.98
                DDXFI3QT            476201.0     3649564.5            -5.28
                DDXFI3QU            476201.0     3649564.5           -34.39
                DDXFI3QV            476201.0     3649628.5           -17.68
```

```
DDXFI3QW            476201.0     3649628.5           -11.96
DDXFI3QX            476140.0     3649692.5            -6.26
DDXFI3QX            476201.0     3649692.5           -11.56
DDXFI3QZ            476140.0     3649756.5           -13.82

DDXFI3QZ            476201.0     3649756.5            -2.19
DDXFI3R0            476140.0     3649820.5           -15.18
DDXFI3R1            476140.0     3649820.5           -10.53
DDXFI3R2            476140.0     3649884.5           -28.77
DDXFI3R3            476140.0     3649884.5             0.97
DDXFI3R3            476140.0     3649948.5           -15.70
DDXFI3R4            476140.0     3649948.5           -23.89
DDXFI3R5            476140.0     3650012.5           -30.31
DDXFI3R6            476140.0     3650012.5            -6.92
DDXFI3R6            476140.0     3650076.5            -5.59
DDXFI3R7            476140.0     3650076.5           -22.30
DDXFI3R8            476140.0     3650140.5           -11.89
DDXFI3R9            476079.0     3650140.5             0.05
DDXFI3R9            476140.0     3650140.5            -4.64
DDXFI3RA            476079.0     3650204.5           -12.11
DDXFI3RA            476140.0     3650204.5            -6.72
DDXFI3RB            476079.0     3650268.5            -5.34
DDXFI3RC            476079.0     3650268.5           -19.06
DDXFI3RD            476079.0     3650332.5           -24.16
DDXFI3RE            476079.0     3650332.5           -11.42
DDXFI3RE            476079.0     3650396.5            -3.73
```



```
* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
  LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL


      SOURCE          - - RECEPTOR LOCATION - -         DISTANCE
        ID            XR (METERS)   YR (METERS)         (METERS)
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

DDXFI3RF            476079.0     3650396.5           -36.28
DDXFI3RG            476079.0     3650460.5           -18.42
DDXFI3RH            476079.0     3650460.5           -17.77
```



```
                    *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
```

```
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1

                      METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2012   1  1  1
                                                          AND END DATE: 2012  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                        (METERS/SEC)

                                                  1.54,   3.09,   5.14,   8.23,  10.80,
 *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                      ***
   07:35:59

   PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\   Met Version:
15181
   Profile file:   C:\Users\ryan_000\OneDrive\LDNWOR~1\GENEVI~1\4-12-16\AQMODE~1\BREEZE~1\KMA_20~1\
   Surface format: FREE

   Profile format: FREE

   Surface station no.:    93107                  Upper air station no.:     3190
                  Name: KERNEYMESACLOSESTMEDDATATOSITE             Name: KERNEYMESACLOSESTMEDDATATOSITE
                  Year:   2012                                     Year:   2012

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 12 01 01   1 01   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45  125.   10.0  283.8
10.0
 12 01 01   1 02   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  334.   10.0  283.8
10.0
 12 01 01   1 03   -0.6  0.027 -9.000 -9.000 -999.   11.      3.0  0.38   1.32   1.00    0.45    5.   10.0  285.9
10.0
 12 01 01   1 04   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45   77.   10.0  284.9
10.0
 12 01 01   1 05   -0.6  0.027 -9.000 -9.000 -999.   10.      2.9  0.34   1.32   1.00    0.45  336.   10.0  285.4
10.0
 12 01 01   1 06   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  233.   10.0  284.2
10.0
 12 01 01   1 07   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  175.   10.0  283.1
10.0
 12 01 01   1 08   27.3 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.31   1.32   0.49    0.00    0.   10.0  283.1
10.0
 12 01 01   1 09   55.2  0.108  0.487  0.014   75.   85.     -2.0  0.37   1.32   0.29    0.45  329.   10.0  286.4
10.0
 12 01 01   1 10  123.3  0.120  0.896  0.007  208.  100.     -1.3  0.37   1.32   0.22    0.45  321.   10.0  291.4
10.0
 12 01 01   1 11  169.2  0.295  1.303  0.005  468.  384.    -13.6  0.37   1.32   0.20    1.79  320.   10.0  295.4
10.0
 12 01 01   1 12  191.0  0.299  1.625  0.005  805.  392.    -12.5  0.37   1.32   0.19    1.79  310.   10.0  297.0
10.0
```

```
 12 01 01   1 13  186.3  0.298  1.865  0.005 1245.  391.    -12.7  0.37   1.32   0.19    1.79  307.   10.0  298.8
10.0
 12 01 01   1 14  160.2  0.293  1.884  0.005 1493.  381.    -14.1  0.37   1.32   0.20    1.79  305.   10.0  299.9
10.0
 12 01 01   1 15  107.4  0.331  1.688  0.005 1601.  456.    -30.0  0.37   1.32   0.23    2.24  305.   10.0  299.2
10.0
 12 01 01   1 16   36.1  0.304  1.180  0.005 1627.  403.    -69.5  0.37   1.32   0.32    2.24  300.   10.0  296.4
10.0
 12 01 01   1 17   -4.7  0.079 -9.000 -9.000 -999.  139.      9.2  0.33   1.32   0.60    1.34  299.   10.0  294.2
10.0
 12 01 01   1 18   -2.2  0.052 -9.000 -9.000 -999.   36.      5.8  0.33   1.32   1.00    0.89  279.   10.0  292.0
10.0
 12 01 01   1 19   -0.5  0.025 -9.000 -9.000 -999.   10.      2.6  0.26   1.32   1.00    0.45   63.   10.0  289.9
10.0
 12 01 01   1 20   -0.6  0.027 -9.000 -9.000 -999.   11.      3.1  0.38   1.32   1.00    0.45   19.   10.0  288.1
10.0
 12 01 01   1 21   -2.2  0.052 -9.000 -9.000 -999.   29.      5.7  0.33   1.32   1.00    0.89  290.   10.0  287.0
10.0
 12 01 01   1 22   -2.4  0.054 -9.000 -9.000 -999.   30.      6.0  0.37   1.32   1.00    0.89  329.   10.0  285.4
10.0
 12 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  330.   10.0  284.9
10.0
 12 01 01   1 24   -0.6  0.026 -9.000 -9.000 -999.   10.      2.9  0.33   1.32   1.00    0.45  291.   10.0  284.9
10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1  125.    0.45   283.8   48.0  -99.00    0.27

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 16216r ***   ***  PM10 Exhaust Interstate5 Operations Unmitigated Second Floor        ***
     08/08/17
 *** AERMET - VERSION  15181 ***   ***                                                                       ***
   07:35:59

   PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     DDXFI3QM    , DDXFI3QN    , DDXFI3QO    , DDXFI3QP    ,
DDXFI3QQ    ,
                DDXFI3QR    , DDXFI3QS    , DDXFI3QT    , DDXFI3QU    , DDXFI3QV    , DDXFI3QW    , DDXFI3QX    ,
DDXFI3QY    ,
                DDXFI3QZ    , DDXFI3R0    , DDXFI3R1    , DDXFI3R2    , DDXFI3R3    , DDXFI3R4    , DDXFI3R5    ,
DDXFI3R6    ,
                DDXFI3R7    , DDXFI3R8    , DDXFI3R9    , DDXFI3RA    , DDXFI3RB    , DDXFI3RC    , DDXFI3RD    ,
. . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                        ** CONC OF PM10     IN MICROGRAMS/M**3                           **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         475591.00    3649244.50        0.00367                       475652.00    3649244.50        0.00379

         475713.00    3649244.50        0.00416                       475774.00    3649244.50        0.00459

         475835.00    3649244.50        0.00512                       475896.00    3649244.50        0.00578

         475957.00    3649244.50        0.00803                       476018.00    3649244.50        0.00918

         476079.00    3649244.50        0.01076                       476140.00    3649244.50        0.00952
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476201.00	3649244.50	0.01549	476262.00	3649244.50	0.02414
476323.00	3649244.50	0.01566	476384.00	3649244.50	0.01587
476445.00	3649244.50	0.01044	476506.00	3649244.50	0.00813
476567.00	3649244.50	0.00665	476628.00	3649244.50	0.00563
476689.00	3649244.50	0.00489	476750.00	3649244.50	0.00431
475591.00	3649308.50	0.00394	475652.00	3649308.50	0.00406
475713.00	3649308.50	0.00449	475774.00	3649308.50	0.00502
475835.00	3649308.50	0.00566	475896.00	3649308.50	0.00648
475957.00	3649308.50	0.00755	476018.00	3649308.50	0.01073
476079.00	3649308.50	0.00986	476140.00	3649308.50	0.00892
476201.00	3649308.50	0.02541	476262.00	3649308.50	0.02015
476323.00	3649308.50	0.02523	476384.00	3649308.50	0.02059
476445.00	3649308.50	0.01296	476506.00	3649308.50	0.00983
476567.00	3649308.50	0.00772	476628.00	3649308.50	0.00669
476689.00	3649308.50	0.00610	476750.00	3649308.50	0.00461
475591.00	3649372.50	0.00409	475652.00	3649372.50	0.00434
475713.00	3649372.50	0.00482	475774.00	3649372.50	0.00542
475835.00	3649372.50	0.00618	475896.00	3649372.50	0.00715
475957.00	3649372.50	0.00849	476018.00	3649372.50	0.01039
476079.00	3649372.50	0.00573	476140.00	3649372.50	0.00655
476201.00	3649372.50	0.02999	476262.00	3649372.50	0.02706
476323.00	3649372.50	0.02582	476384.00	3649372.50	0.01720
476445.00	3649372.50	0.01361	476506.00	3649372.50	0.01083
476567.00	3649372.50	0.00554	476628.00	3649372.50	0.00470
476689.00	3649372.50	0.00372	476750.00	3649372.50	0.00531
475591.00	3649436.50	0.00420	475652.00	3649436.50	0.00460
475713.00	3649436.50	0.00513	475774.00	3649436.50	0.00581
475835.00	3649436.50	0.00667	475896.00	3649436.50	0.00781
475957.00	3649436.50	0.00942	476018.00	3649436.50	0.01365
476079.00	3649436.50	0.00496	476140.00	3649436.50	0.00489
476201.00	3649436.50	0.03234	476262.00	3649436.50	0.02681
476323.00	3649436.50	0.02119	476384.00	3649436.50	0.01651
476445.00	3649436.50	0.01168	476506.00	3649436.50	0.00844
476567.00	3649436.50	0.00233	476628.00	3649436.50	0.00166

476689.00 3649436.50 0.00219 476750.00 3649436.50 0.00549

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
07:35:59

PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3649500.50	0.00447	475652.00	3649500.50	0.00493
475713.00	3649500.50	0.00544	475774.00	3649500.50	0.00618
475835.00	3649500.50	0.00715	475896.00	3649500.50	0.00844
475957.00	3649500.50	0.01027	476018.00	3649500.50	0.01317
476079.00	3649500.50	0.01978	476140.00	3649500.50	0.02160
476201.00	3649500.50	0.02675	476262.00	3649500.50	0.03209
476323.00	3649500.50	0.01522	476384.00	3649500.50	0.00971
476445.00	3649500.50	0.00580	476506.00	3649500.50	0.00859
476567.00	3649500.50	0.00439	476628.00	3649500.50	0.00133
476689.00	3649500.50	0.00097	476750.00	3649500.50	0.00478
475591.00	3649564.50	0.00529	475652.00	3649564.50	0.00552
475713.00	3649564.50	0.00583	475774.00	3649564.50	0.00653
475835.00	3649564.50	0.00760	475896.00	3649564.50	0.00905
475957.00	3649564.50	0.01110	476018.00	3649564.50	0.01424
476079.00	3649564.50	0.01982	476140.00	3649564.50	0.03486
476201.00	3649564.50	0.03040	476262.00	3649564.50	0.01535
476323.00	3649564.50	0.01104	476384.00	3649564.50	0.00677
476445.00	3649564.50	0.00391	476506.00	3649564.50	0.00412
476567.00	3649564.50	0.00228	476628.00	3649564.50	0.00132

476689.00	3649564.50	0.00088	476750.00	3649564.50	0.00291
475591.00	3649628.50	0.00561	475652.00	3649628.50	0.00561
475713.00	3649628.50	0.00598	475774.00	3649628.50	0.00685
475835.00	3649628.50	0.00802	475896.00	3649628.50	0.00961
475957.00	3649628.50	0.01193	476018.00	3649628.50	0.01570
476079.00	3649628.50	0.02258	476140.00	3649628.50	0.04109
476201.00	3649628.50	0.02930	476262.00	3649628.50	0.00879
476323.00	3649628.50	0.00685	476384.00	3649628.50	0.00449
476445.00	3649628.50	0.00255	476506.00	3649628.50	0.00238
476567.00	3649628.50	0.00146	476628.00	3649628.50	0.00103
476689.00	3649628.50	0.00080	476750.00	3649628.50	0.00088
475591.00	3649692.50	0.00553	475652.00	3649692.50	0.00556
475713.00	3649692.50	0.00621	475774.00	3649692.50	0.00714
475835.00	3649692.50	0.00839	475896.00	3649692.50	0.01012
475957.00	3649692.50	0.01265	476018.00	3649692.50	0.01712
476079.00	3649692.50	0.02499	476140.00	3649692.50	0.03422
476201.00	3649692.50	0.04009	476262.00	3649692.50	0.00521
476323.00	3649692.50	0.00305	476384.00	3649692.50	0.00272
476445.00	3649692.50	0.00185	476506.00	3649692.50	0.00164
476567.00	3649692.50	0.00104	476628.00	3649692.50	0.00079
476689.00	3649692.50	0.00069	476750.00	3649692.50	0.00066

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
07:35:59

PAGE 15
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC

- - - - - - - -

475591.00	3649756.50	0.00543	475652.00	3649756.50	0.00645
475713.00	3649756.50	0.00639	475774.00	3649756.50	0.00739
475835.00	3649756.50	0.00872	475896.00	3649756.50	0.01056
475957.00	3649756.50	0.01328	476018.00	3649756.50	0.01776
476079.00	3649756.50	0.02715	476140.00	3649756.50	0.03788
476201.00	3649756.50	0.03597	476262.00	3649756.50	0.00490
476323.00	3649756.50	0.00232	476384.00	3649756.50	0.00182
476445.00	3649756.50	0.00158	476506.00	3649756.50	0.00132
476567.00	3649756.50	0.00089	476628.00	3649756.50	0.00067
476689.00	3649756.50	0.00059	476750.00	3649756.50	0.00061
475591.00	3649820.50	0.00610	475652.00	3649820.50	0.00649
475713.00	3649820.50	0.00657	475774.00	3649820.50	0.00761
475835.00	3649820.50	0.00901	475896.00	3649820.50	0.01094
475957.00	3649820.50	0.01381	476018.00	3649820.50	0.01859
476079.00	3649820.50	0.02847	476140.00	3649820.50	0.02872
476201.00	3649820.50	0.02142	476262.00	3649820.50	0.00619
476323.00	3649820.50	0.00240	476384.00	3649820.50	0.00179
476445.00	3649820.50	0.00142	476506.00	3649820.50	0.00112
476567.00	3649820.50	0.00088	476628.00	3649820.50	0.00066
476689.00	3649820.50	0.00055	476750.00	3649820.50	0.00073
475591.00	3649884.50	0.00623	475652.00	3649884.50	0.00617
475713.00	3649884.50	0.00670	475774.00	3649884.50	0.00778
475835.00	3649884.50	0.00926	475896.00	3649884.50	0.01132
475957.00	3649884.50	0.01427	476018.00	3649884.50	0.01931
476079.00	3649884.50	0.02935	476140.00	3649884.50	0.03265
476201.00	3649884.50	0.02106	476262.00	3649884.50	0.00808
476323.00	3649884.50	0.00367	476384.00	3649884.50	0.00214
476445.00	3649884.50	0.00153	476506.00	3649884.50	0.00111
476567.00	3649884.50	0.00083	476628.00	3649884.50	0.00063
476689.00	3649884.50	0.00055	476750.00	3649884.50	0.00056
475591.00	3649948.50	0.00626	475652.00	3649948.50	0.00620
475713.00	3649948.50	0.00680	475774.00	3649948.50	0.00792
475835.00	3649948.50	0.00944	475896.00	3649948.50	0.01154

475957.00	3649948.50	0.01465	476018.00	3649948.50	0.01978
476079.00	3649948.50	0.03042	476140.00	3649948.50	0.03150
476201.00	3649948.50	0.03452	476262.00	3649948.50	0.01486
476323.00	3649948.50	0.00639	476384.00	3649948.50	0.00364
476445.00	3649948.50	0.00223	476506.00	3649948.50	0.00128
476567.00	3649948.50	0.00082	476628.00	3649948.50	0.00060
476689.00	3649948.50	0.00047	476750.00	3649948.50	0.00039

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
07:35:59

PAGE 16
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3650012.50	0.00572	475652.00	3650012.50	0.00605
475713.00	3650012.50	0.00684	475774.00	3650012.50	0.00801
475835.00	3650012.50	0.00960	475896.00	3650012.50	0.01183
475957.00	3650012.50	0.01507	476018.00	3650012.50	0.02058
476079.00	3650012.50	0.03231	476140.00	3650012.50	0.03225
476201.00	3650012.50	0.03640	476262.00	3650012.50	0.02103
476323.00	3650012.50	0.00968	476384.00	3650012.50	0.00454
476445.00	3650012.50	0.00216	476506.00	3650012.50	0.00120
476567.00	3650012.50	0.00078	476628.00	3650012.50	0.00059
476689.00	3650012.50	0.00044	476750.00	3650012.50	0.00036
475591.00	3650076.50	0.00539	475652.00	3650076.50	0.00593
475713.00	3650076.50	0.00681	475774.00	3650076.50	0.00804
475835.00	3650076.50	0.00970	475896.00	3650076.50	0.01201
475957.00	3650076.50	0.01551	476018.00	3650076.50	0.02146

476079.00	3650076.50	0.03526	476140.00	3650076.50	0.03292
476201.00	3650076.50	0.03386	476262.00	3650076.50	0.02058
476323.00	3650076.50	0.00943	476384.00	3650076.50	0.00437
476445.00	3650076.50	0.00217	476506.00	3650076.50	0.00121
476567.00	3650076.50	0.00086	476628.00	3650076.50	0.00061
476689.00	3650076.50	0.00041	476750.00	3650076.50	0.00035
475591.00	3650140.50	0.00518	475652.00	3650140.50	0.00585
475713.00	3650140.50	0.00676	475774.00	3650140.50	0.00803
475835.00	3650140.50	0.00973	475896.00	3650140.50	0.01214
475957.00	3650140.50	0.01593	476018.00	3650140.50	0.02246
476079.00	3650140.50	0.03061	476140.00	3650140.50	0.03037
476201.00	3650140.50	0.03122	476262.00	3650140.50	0.01968
476323.00	3650140.50	0.00950	476384.00	3650140.50	0.00384
476445.00	3650140.50	0.00179	476506.00	3650140.50	0.00114
476567.00	3650140.50	0.00078	476628.00	3650140.50	0.00055
476689.00	3650140.50	0.00038	476750.00	3650140.50	0.00030
475591.00	3650204.50	0.00500	475652.00	3650204.50	0.00568
475713.00	3650204.50	0.00670	475774.00	3650204.50	0.00796
475835.00	3650204.50	0.00973	475896.00	3650204.50	0.01243
475957.00	3650204.50	0.01655	476018.00	3650204.50	0.02356
476079.00	3650204.50	0.03467	476140.00	3650204.50	0.03730
476201.00	3650204.50	0.02674	476262.00	3650204.50	0.01863
476323.00	3650204.50	0.00928	476384.00	3650204.50	0.00414
476445.00	3650204.50	0.00170	476506.00	3650204.50	0.00091
476567.00	3650204.50	0.00062	476628.00	3650204.50	0.00045
476689.00	3650204.50	0.00030	476750.00	3650204.50	0.00023

*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,

DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
475591.00	3650268.50	0.00476	475652.00	3650268.50	0.00551
475713.00	3650268.50	0.00652	475774.00	3650268.50	0.00786
475835.00	3650268.50	0.00970	475896.00	3650268.50	0.01247
475957.00	3650268.50	0.01718	476018.00	3650268.50	0.02555
476079.00	3650268.50	0.02653	476140.00	3650268.50	0.04509
476201.00	3650268.50	0.01380	476262.00	3650268.50	0.00926
476323.00	3650268.50	0.00677	476384.00	3650268.50	0.00349
476445.00	3650268.50	0.00159	476506.00	3650268.50	0.00092
476567.00	3650268.50	0.00058	476628.00	3650268.50	0.00040
476689.00	3650268.50	0.00027	476750.00	3650268.50	0.00019
475591.00	3650332.50	0.00447	475652.00	3650332.50	0.00518
475713.00	3650332.50	0.00623	475774.00	3650332.50	0.00757
475835.00	3650332.50	0.00972	475896.00	3650332.50	0.01282
475957.00	3650332.50	0.01871	476018.00	3650332.50	0.02911
476079.00	3650332.50	0.02711	476140.00	3650332.50	0.02987
476201.00	3650332.50	0.00910	476262.00	3650332.50	0.00326
476323.00	3650332.50	0.00228	476384.00	3650332.50	0.00183
476445.00	3650332.50	0.00104	476506.00	3650332.50	0.00060
476567.00	3650332.50	0.00043	476628.00	3650332.50	0.00026
476689.00	3650332.50	0.00020	476750.00	3650332.50	0.00018
475591.00	3650396.50	0.00414	475652.00	3650396.50	0.00488
475713.00	3650396.50	0.00582	475774.00	3650396.50	0.00708
475835.00	3650396.50	0.00997	475896.00	3650396.50	0.01329
475957.00	3650396.50	0.01769	476018.00	3650396.50	0.02809
476079.00	3650396.50	0.02764	476140.00	3650396.50	0.00929
476201.00	3650396.50	0.00288	476262.00	3650396.50	0.00151
476323.00	3650396.50	0.00099	476384.00	3650396.50	0.00083
476445.00	3650396.50	0.00066	476506.00	3650396.50	0.00045

476567.00	3650396.50	0.00026	476628.00	3650396.50	0.00020
476689.00	3650396.50	0.00018	476750.00	3650396.50	0.00019
475591.00	3650460.50	0.00381	475652.00	3650460.50	0.00451
475713.00	3650460.50	0.00553	475774.00	3650460.50	0.00677
475835.00	3650460.50	0.00866	475896.00	3650460.50	0.00936
475957.00	3650460.50	0.00513	476018.00	3650460.50	0.00892
476079.00	3650460.50	0.01651	476140.00	3650460.50	0.00416
476201.00	3650460.50	0.00123	476262.00	3650460.50	0.00067
476323.00	3650460.50	0.00053	476384.00	3650460.50	0.00046
476445.00	3650460.50	0.00035	476506.00	3650460.50	0.00027
476567.00	3650460.50	0.00022	476628.00	3650460.50	0.00020
476689.00	3650460.50	0.00025	476750.00	3650460.50	0.00025

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
07:35:59

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): DDXFI3QM , DDXFI3QN , DDXFI3QO , DDXFI3QP , DDXFI3QQ ,
DDXFI3QR , DDXFI3QS , DDXFI3QT , DDXFI3QU , DDXFI3QV , DDXFI3QW , DDXFI3QX , DDXFI3QY ,
DDXFI3QZ , DDXFI3R0 , DDXFI3R1 , DDXFI3R2 , DDXFI3R3 , DDXFI3R4 , DDXFI3R5 , DDXFI3R6 ,
DDXFI3R7 , DDXFI3R8 , DDXFI3R9 , DDXFI3RA , DDXFI3RB , DDXFI3RC , DDXFI3RD , . . . ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
476184.30	3650114.30	0.02465	476186.00	3650098.40	0.02460
476190.80	3650062.40	0.02442	476203.70	3650029.80	0.02292
476181.30	3650020.60	0.02759	476181.70	3649976.60	0.02937
476184.50	3649949.90	0.02975	476217.70	3650119.90	0.01978

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL

HR Attach A - Aermod Output 2nd Floor
*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID GRID-ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
ALL	1ST HIGHEST VALUE IS	0.04509 AT	(476140.00, 3650268.50, 42.61, 98.34, 0.00)	DC
	2ND HIGHEST VALUE IS	0.04109 AT	(476140.00, 3649628.50, 33.75, 68.92, 0.00)	DC
	3RD HIGHEST VALUE IS	0.04009 AT	(476201.00, 3649692.50, 35.27, 73.10, 0.00)	DC
	4TH HIGHEST VALUE IS	0.03788 AT	(476140.00, 3649756.50, 38.30, 68.92, 0.00)	DC
	5TH HIGHEST VALUE IS	0.03730 AT	(476140.00, 3650204.50, 42.06, 98.34, 0.00)	DC
	6TH HIGHEST VALUE IS	0.03640 AT	(476201.00, 3650012.50, 41.06, 68.58, 0.00)	DC
	7TH HIGHEST VALUE IS	0.03597 AT	(476201.00, 3649756.50, 39.46, 71.44, 0.00)	DC
	8TH HIGHEST VALUE IS	0.03526 AT	(476079.00, 3650076.50, 31.03, 98.34, 0.00)	DC
	9TH HIGHEST VALUE IS	0.03486 AT	(476140.00, 3649564.50, 33.43, 68.58, 0.00)	DC
	10TH HIGHEST VALUE IS	0.03467 AT	(476079.00, 3650204.50, 37.60, 98.23, 0.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** AERMOD - VERSION 16216r *** *** PM10 Exhaust Interstate5 Operations Unmitigated Second Floor ***
08/08/17
*** AERMET - VERSION 15181 *** *** ***
07:35:59

PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV RURAL

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 178 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 101 Calm Hours Identified

A Total of 77 Missing Hours Identified (0.88 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

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************************************
*** AERMOD Finishes Successfully ***
************************************
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Attachment B: EMFAC 2014

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County

Region: San Diego
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW

RoadwayADT	231000	Trips/Day
RoadwaySegmentAERMOD_VolumeSourceDistance	0.83	Miles/Trip
SegmentVMT	191730	Miles/Day

From EMFAC2014

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	%ofTotalVMT	VMT on Roadway Segment	PM10_RUNEX (Gram/Mile)	Total Grams	Grams from DSL Only
San Diego	2020	All Other Buses	Aggregated	65	DSL	1054.577	0.00347%	6.645332508	0.016510999	0.109721076	0.109721076
San Diego	2020	LDA	Aggregated	65	GAS	18704528	61.47451%	117865.0825	0.001564727	184.4267019	0
San Diego	2020	LDA	Aggregated	65	DSL	216683.9	0.71216%	1365.416247	0.012537475	17.11887223	17.11887223
San Diego	2020	LDT1	Aggregated	65	GAS	1419639	4.66580%	8945.742364	0.002393577	21.4123248	0
San Diego	2020	LDT1	Aggregated	65	DSL	1456.916	0.00479%	9.180639183	0.139625839	1.28185445	1.28185445
San Diego	2020	LDT2	Aggregated	65	GAS	6098469	20.04330%	38429.0132	0.001506142	57.87956935	0
San Diego	2020	LDT2	Aggregated	65	DSL	11849.1	0.03894%	74.66617387	0.005985301	0.446899551	0.446899551
San Diego	2020	MCY	Aggregated	65	GAS	204770.5	0.67300%	1290.345159	0.001841063	2.375607174	0
San Diego	2020	MDV	Aggregated	65	GAS	3602542	11.84015%	22701.12891	0.001591107	36.1199364	0
San Diego	2020	MDV	Aggregated	65	DSL	67757.48	0.22269%	426.9683313	0.00565409	2.414117431	2.414117431
San Diego	2020	MH	Aggregated	65	GAS	1929.742	0.00634%	12.16011211	0.002098272	0.025515228	0
San Diego	2020	MH	Aggregated	65	DSL	575.7014	0.00189%	3.627736515	0.193345579	0.701406816	0.701406816
San Diego	2020	Motor Coach	Aggregated	65	DSL	698.8304	0.00230%	4.403623613	0.021382375	0.094159932	0.094159932
San Diego	2020	OBUS	Aggregated	65	GAS	1998.384	0.00657%	12.59265415	0.000799849	0.010072222	0
San Diego	2020	SBUS	Aggregated	65	DSL	0	0.00000%	0	0	0	0
San Diego	2020	T6 Ag	Aggregated	65	DSL	104.7955	0.00034%	0.660360523	0.24767418	0.163554251	0.163554251
San Diego	2020	T6 CAIRP heavy	Aggregated	65	DSL	55.94166	0.00018%	0.352511888	0.006180054	0.002178543	0.002178543
San Diego	2020	T6 CAIRP small	Aggregated	65	DSL	171.7271	0.00056%	1.082124494	0.042625535	0.046126136	0.046126136
San Diego	2020	T6 instate construction heavy	Aggregated	65	DSL	907.9167	0.00298%	5.721164475	0.016662359	0.095328099	0.095328099
San Diego	2020	T6 instate construction small	Aggregated	65	DSL	2439.019	0.00802%	15.36928231	0.072987877	1.121771281	1.121771281
San Diego	2020	T6 instate heavy	Aggregated	65	DSL	7064.537	0.02322%	44.51661256	0.010444867	0.464970084	0.464970084
San Diego	2020	T6 instate small	Aggregated	65	DSL	18265.72	0.06003%	115.0999523	0.082767291	9.526511234	9.526511234
San Diego	2020	T6 OOS heavy	Aggregated	65	DSL	32.05247	0.00011%	0.201976064	0.006891221	0.001391862	0.001391862
San Diego	2020	T6 OOS small	Aggregated	65	DSL	98.39317	0.00032%	0.620016667	0.042625535	0.026428542	0.026428542
San Diego	2020	T6 Public	Aggregated	65	DSL	978.133	0.00321%	6.163626568	0.01900107	0.117115499	0.117115499
San Diego	2020	T6 utility	Aggregated	65	DSL	134.8164	0.00044%	0.849534846	0.00159796	0.001357523	0.001357523
San Diego	2020	T6TS	Aggregated	65	GAS	3358.654	0.01104%	21.16429088	0.001028181	0.021760717	0
San Diego	2020	T7 Ag	Aggregated	65	DSL	94.94621	0.00031%	0.59829595	0.500391969	0.299382488	0.299382488
San Diego	2020	T7 CAIRP	Aggregated	65	DSL	10423.05	0.03426%	65.68002362	0.014534637	0.954635317	0.954635317
San Diego	2020	T7 CAIRP construction	Aggregated	65	DSL	784.4742	0.00258%	4.943301306	0.020054639	0.099136123	0.099136123
San Diego	2020	T7 NNOOS	Aggregated	65	DSL	12924.6	0.04248%	81.44331101	0.006889717	0.561121373	0.561121373
San Diego	2020	T7 NOOS	Aggregated	65	DSL	4117.102	0.01353%	25.94358996	0.015196359	0.394248107	0.394248107
San Diego	2020	T7 other port	Aggregated	65	DSL	2815.562	0.00925%	17.74204044	0.018865131	0.334705923	0.334705923
San Diego	2020	T7 POLA	Aggregated	65	DSL	1174.733	0.00386%	7.402489092	0.022362678	0.165539479	0.165539479
San Diego	2020	T7 Public	Aggregated	65	DSL	1001.032	0.00329%	6.307921156	0.04456902	0.281137865	0.281137865
San Diego	2020	T7 Single	Aggregated	65	DSL	5142.882	0.01690%	32.40745872	0.021225409	0.687861578	0.687861578
San Diego	2020	T7 single construction	Aggregated	65	DSL	2029.332	0.00667%	12.78767007	0.018584119	0.237647578	0.237647578
San Diego	2020	T7 SWCV	Aggregated	65	DSL	0	0.00000%	0	0	0	0
San Diego	2020	T7 tractor	Aggregated	65	DSL	15535.03	0.05106%	97.89272046	0.020754906	2.031754178	2.031754178
San Diego	2020	T7 tractor construction	Aggregated	65	DSL	1513.017	0.00497%	9.534153175	0.028652928	0.273181407	0.273181407
San Diego	2020	T7 utility	Aggregated	65	DSL	84.35328	0.00028%	0.531545441	0.002449018	0.001301764	0.001301764
San Diego	2020	T7IS	Aggregated	65	GAS	475.2453	0.00156%	2.994720126	0.000812576	0.002433438	0
San Diego	2020	UBUS	Aggregated	65	GAS	276.6711	0.00091%	1.743420644	0.000768344	0.001339547	0
San Diego	2020	UBUS	Aggregated	65	DSL	519.3906	0.00171%	3.272897984	0.123146124	0.4030447	0.4030447
										342.7337232	
				Total VMT		30426476	100.000%			Total Grams from DSL Only PM10 per Day	40.45846241
										Total Grams from DSL PM10 per Second (g/s)	0.000468269

Attachment C: Cancer Risk Calculations

Unmitigated 1st Floor

REC: SouthBuildingFacadeGF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.0475	0.0475	0.0475	0.0475	0.0475	0.0475
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00001646	0.00004970	0.00003926	0.00003397	0.00001528	0.00001378
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	6.49393E-06
	0	0	0	0	0	6.493928571
Cancer Risk Per Million 70-years	6.49					

REC: SWFurthestRecToI5GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.0472	0.0472	0.0472	0.0472	0.0472	0.0472
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00001636	0.00004939	0.00003901	0.00003376	0.00001518	0.00001369
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	6.45291E-06
	0	0	0	0	0	6.452914286
Cancer Risk Per Million 70-years	6.45					

REC: SWN1GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.044	0.044	0.044	0.044	0.044	0.044
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00001525	0.00004604	0.00003637	0.00003147	0.00001415	0.00001276
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	6.01543E-06
	0	0	0	0	0	6.015428571
Cancer Risk Per Million 70-years	6.02					

Attachment C: Cancer Risk Calculations

MERV 13 Design Features Installed - 1st Floor

REC: SouthBuildingFacadeGF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD *.13	0.006175	0.006175	0.006175	0.006175	0.006175	0.006175
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000214	0.00000646	0.00000510	0.00000442	0.00000199	0.00000179
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	8.44211E-07
	0	0	0	0	0	0.844210714
Cancer Risk Per Million 70-years	0.84					

REC: SWFurthestRecToI5GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD *.13	0.006136	0.006136	0.006136	0.006136	0.006136	0.006136
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000213	0.00000642	0.00000507	0.00000439	0.00000197	0.00000178
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	8.38879E-07
	0	0	0	0	0	0.838878857
Cancer Risk Per Million 70-years	0.84					

REC: SWN1GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD *.13	0.00572	0.00572	0.00572	0.00572	0.00572	0.00572
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000198	0.00000599	0.00000473	0.00000409	0.00000184	0.00000166
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	7.82006E-07
	0	0	0	0	0	0.782005714
Cancer Risk Per Million 70-years	0.78					

Attachment C: Cancer Risk Calculations

Unmitigated 2nd Floor

REC: SouthBuildingFacadeGF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.0297	0.0297	0.0297	0.0297	0.0297	0.0297
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00001029	0.00003108	0.00002455	0.00002124	0.00000955	0.00000861
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	4.06041E-06
	0	0	0	0	0	4.060414286
Cancer Risk Per Million 70-years	4.06					

REC: SWFurthestRecToI5GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.0294	0.0294	0.0294	0.0294	0.0294	0.0294
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00001019	0.00003076	0.00002430	0.00002103	0.00000946	0.00000853
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	4.0194E-06
	0	0	0	0	0	4.0194
Cancer Risk Per Million 70-years	4.02					

REC: SWN1GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.0275	0.0275	0.0275	0.0275	0.0275	0.0275
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000953	0.00002878	0.00002273	0.00001967	0.00000884	0.00000798
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	3.75964E-06
	0	0	0	0	0	3.759642857
Cancer Risk Per Million 70-years	3.76					

Attachment C: Cancer Risk Calculations

MERV 13 Design Features Installed - 2nd Floor

REC: SouthBuildingFacadeGF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD *.13	0.003861	0.003861	0.003861	0.003861	0.003861	0.003861
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000134	0.00000404	0.00000319	0.00000276	0.00000124	0.00000112
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	5.27854E-07
	0	0	0	0	0	0.527853857
Cancer Risk Per Million 70-years	0.53					

REC: SWFurthestRecToI5GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD *.13	0.003822	0.003822	0.003822	0.003822	0.003822	0.003822
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000132	0.00000400	0.00000316	0.00000273	0.00000123	0.00000111
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	5.22522E-07
	0	0	0	0	0	0.522522
Cancer Risk Per Million 70-years	0.52					

REC: SWN1GF						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD *.13	0.003575	0.003575	0.003575	0.003575	0.003575	0.003575
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000124	0.00000374	0.00000295	0.00000256	0.00000115	0.00000104
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0	0	0	0	0	30
AT	70	70	70	70	70	70
FAH (USE 1 if School for 3rd and 2-9) Page 8-5	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	0	0	0	0	0	4.88754E-07
	0	0	0	0	0	0.488753571
Cancer Risk Per Million 70-years	0.49					

Appendix 5.3-1 Biological Resources Survey

Appendices

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March 13, 2019

Mr. John DeWald
c/o The Lightfoot Planning Group
5900 Pasteur Court, Suite 110
Carlsbad, California 92008

Subject: **Biological Resources Survey Report Update for the Solana Beach Senior Center Site Project No. DRP/SDP 17-14-20**

Dear Mr. DeWald,

REC Consultants, Inc. has prepared this letter to update biological resources documentation in the January 25, 2016 "Biological Resources Survey, Residential Care Facility, 959 Genevieve Street" report prepared by Affinis Environmental Services.

INTRODUCTION

Project Background

The 2.9-acre project site was originally surveyed by Affinis in 2011 and a report was prepared at that time. A survey update report was prepared by Affinis in 2014. A second update report was prepared by Affinis in 2016. Those reports are provided in **Attachment 1**. Because several years have passed since the last biological survey was conducted, REC resurveyed the site in 2019 and prepared this report to summarize current site conditions. The site's location is shown in **Figures 1** and **2**.

Project Description

The project description has not changed; please see attached Affinis report.

METHODS AND SURVEY LIMITATIONS

The site was surveyed by REC Senior Biologist and Botanist Catherine MacGregor on March 11, 2019, between the hours of 10:40 and 11:45 AM. Temperature was 53 to 56 degrees Fahrenheit, sky was overcast, and wind was 0-3 miles per hour. The survey consisted of walking the site on foot in meandering transects, mapping vegetation, documenting all observed plant and animal species, and evaluating habitat for potential to support sensitive species. Site features were mapped on an aerial photograph and later transferred to ArcGIS.

Methodology also included records review. The previous Affinis reports for the site were reviewed, and California Natural Diversity Database (CNDDB) records and U.S. Fish and Wildlife Services (USFWS) records were searched for sensitive species observations on or in close proximity to the site.

Survey limitations include under-representation of crepuscular, nocturnal, and fossorial wildlife; and late-blooming annual plants.

Vegetation and land cover classification in this report follow Holland (1986) as updated by Oberbauer et al. (2008), and guidelines for non-native grassland and disturbed land from the North County Multiple Habitat Conservation Program (NCMHCP). Plant taxonomy and nomenclature in this report follow the Jepson eFlora (Jepson 2017) and the Jepson Manual, second edition (Baldwin et al. 2012) for taxonomy and scientific names, and Rebman and Simpson (2014) for common names, with some rare plant common names from the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2016). Wildlife taxonomy and nomenclature in this report follow *San Diego County Mammal Atlas* (Tremor et al. 2017) for mammals, Avibase (Lepage 2015) for birds, California Herps (Nafis 2015) for reptiles and amphibians, Butterflies of America (Warren et al. 2015) for butterflies, BugGuide (ISUDE 2015) for other insects and arachnids, and the Integrated Taxonomic Information System (ITIS 2015) for other invertebrates, as well as the San Diego Natural History Museum spider, butterfly, bird, reptile, and amphibian checklists for localized subspecies information (SDNHM 2005, 2002, and undated).

RESULTS

Vegetation

The following vegetation or land cover categories were found onsite: non-native grassland, non-native vegetation, landscaped land, disturbed land, and developed land. An updated aerial photograph of the site is provided in **Figure 3**, and 2019 vegetation mapping is shown in **Figure 4.** Vegetation and land cover categories are described below. Photographs are provided in **Attachment 2**. A list of all plants observed onsite is provided in **Attachment 3**.

<u>Non-native (Annual) Grassland (Habitat Code 42200)</u>

As defined in the NCMHCP,

> "Annual grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Annual species comprise from 50 percent to more than 90 percent of the vegetative cover, and most annuals are nonnative species. Nonnative grasses typically comprise at least 30 percent of the vegetation, although this number can be much higher in some years and lower in others, depending on land use and climatic conditions. Usually, the annual grasses are less than 1 m (3 ft) in height, and form a continuous or open cover. Emergent shrubs and trees may be present, but do not comprise more than 15 percent of the total vegetative cover. Characteristic annual grassland species include foxtail chess (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), wild oats (*Avena* spp.), fescues (*Vulpia* spp.), red-stem filaree (*Erodium cicutarium*), mustards (*Brassica* spp.), lupines (*Lupinus* spp.), and goldfields (*Lasthenia* spp.), among others." (SANDAG 2003)

Non-native (annual) grassland onsite is dominated by ripgut brome grass (*Bromus diandrus*) and wild radish (*Raphanus sativus*). Other species in the non-native grassland include white-stem filaree (*Erodium moschatum*), London rocket (*Sisymbrium irio*), and oats. Non-native grassland occupies 0.52 acre onsite.

Non-native Vegetation (Habitat Code 11000)

Non-native vegetation is characterized by predominant non-native species introduced and established through human action. These areas are not typically artificially irrigated, but receive water from precipitation or runoff (Oberbauer et al. 2008) Areas that fit the category description for non-native grassland are not included in this category (see above).

Non-native vegetation onsite consists of thickets of tall castor bean in the northern area, ornamentals outside of landscaped areas, and areas dominated wild radish, dwarf nettle (*Urtica urens*), long-beak filaree (*Erodium botrys*), and other non-native species with not enough annual grass cover to qualify as non-native grassland. In the southern portion of the site, some native shrubs such as spreading goldenbush (*Isocoma menziesii* var. *menziesii*), coastal sagebrush (*Artemisia californica*) and California encelia (*Encelia californica*) have begun to spread onto the site from the adjacent Interstate 5 slope which is revegetated with planted coastal sage scrub species, but these native shrubs are not extensive enough onsite to be classified as coastal sage scrub habitat. Non-native vegetation occupies 1.74 acres onsite.

Landscaped (Habitat Code 1200)

This category applies to areas of vegetation onsite that are landscaped in association with development; it is a subcategory of developed land (see below). Vegetation is characterized by ornamental non-native plants (Oberbauer et al. 2008).

Landscaped areas onsite are dominated by sea-fig/hottentot-fig (highway iceplant) (*Carpobrotus* sp.), with other ornamentals such as eucalyptus (*Eucalyptus* spp.) and cyclops acacia (*Acacia cyclops*). Landscaped land occupies 0.31 acre onsite.

Disturbed Land (Habitat Code 11300)

As defined in the NCMHCP,

> "Disturbed land includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance and compaction (e.g., grading); or where the vegetative cover is greater than 10 percent, there is soil surface disturbance and compaction, and the presence of building foundations and debris (e.g., irrigation piping, fencing, old wells, abandoned farming or mining equipment) resulting from legal activities (as opposed to illegal dumping). Vegetation on disturbed land (if present) will have a high predominance of nonnative, weedy species that are indicators of surface disturbance and soil compaction, such as Russian thistle (Salsola tragus), telegraph weed (Heterotheca grandiflora), horehound (Marrubium vulgare), and sow-thistle (Sonchus oleraceus). Although nonnative grasses may be present on disturbed land, they do not dominate the vegetative cover. Examples of disturbed land include recently graded firebreaks,

graded construction pads, construction staging areas, off-road vehicle trails, and old homesites. Lands that meet the criteria for disturbed land but are identified in a subarea plan as agricultural land and have been cultivated in 3 of the last 5 years or according to accepted cultural practices (as determined by the County Agriculture Commission) are considered fallow agricultural land." (SANDAG 2003)

Disturbed land onsite consists of heavily compacted and graveled entry drives and an area next to the northwestern driveway that has also been heavily compacted and disturbed. Plants observed growing in the disturbed areas included Mediterranean schismus (*Schismus barbatus*), garland daisy (*Glebionis coronaria*), and pygmyweed (*Crassula connata*). Disturbed land occupies 0.18 acre onsite.

Developed Land (Habitat Code 12000)

This land cover category consists of areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered urban/developed (e.g. car recycling plant, quarry). Developed land is typically unvegetated or landscaped with a variety of ornamental (usually non-native) plants. (Oberbauer et al. 2008)

Developed land onsite consists of the abandoned residence, greenhouse, and surrounding yard. Developed land occupies 0.15 acre onsite.

Vegetation and land cover categories are summarized in Table 1, below.

Table 1. Vegetation/Land Cover Onsite

Category	Existing Onsite (Acres)
Non-native grassland	0.52
Non-native vegetation	1.74
Landscaped	0.31
Disturbed	0.18
Developed	0.15
TOTAL	**2.90**

Wildlife

During REC's 2019 survey, 12 wildlife species were observed onsite. The most common were house finches (*Haemorhous mexicana*), California towhee (*Melozone crissalis*), Anna's hummingbird (*Calypte anna*), and honey bees (*Apis mellifera*). A list of all wildlife observed is provided in **Attachment 4**.

Sensitive Species

For the purposes of this report, a sensitive or special-status plant or animal is any taxon (species, subspecies, or variety) that is officially listed by the State of California or the federal government as Endangered, Threatened, or Rare, or a candidate for one of those listings; classified as Fully Protected, Watch List, or Species of Special Concern by the California Department of Fish and Wildlife (CDFW); or included in California Rare Plant Ranks (CRPR) 1 through 4.

No sensitive species were detected onsite in 2019, and the site does not appear suitable for any sensitive species due to its disturbed condition and lack of native habitat.

Sensitive species documented near the site in CNDDB consist of San Diego marsh-elder *(Iva hayesiana*), Del Mar manzanita (*Arctostaphylos glandulosa* subsp. *crassifolia*), Nuttall's scrub oak (*Quercus dumosa*), wart-stem ceanothus (*Ceanothus verrucosus*), and Del Mar sand-aster (*Corethrogyne filaginifolia* var. *linifolia*). None of these were observed onsite or are expected to occur onsite.

Coastal sage scrub habitat, which occurs offsite along Interstate 5, can support the federally listed coastal California gnatcatcher. CNDDB and U.S. Fish and Wildlife Service records were checked for any occurrence in proximity to the site, and none were found. The closest record is approximately one-third mile southeast.

Sensitive Habitats

No native sensitive habitats occur onsite. Although non-native grassland is not a native habitat, it potentially provides habitat for sensitive plant species and foraging area for raptors, and mitigation for loss of non-native grassland can be required depending on size and location.

No potentially jurisdictional wetlands or drainages are present onsite.

As described in the 2016 Affinis report, a strip of planted coastal sage scrub approximately 40 feet wide is present between the site and nearby Interstate 5. This Caltrans area would not impacted by the project.

Sensitive habitat documented near the site in CNDDB consists of southern maritime chaparral. No southern maritime chaparral occurs on or adjacent to the site.

As stated in the 2016 Affinis report, the site is not an Environmentally Sensitive Habitat Area (ESHA) due to lack of natural habitat and the site's location within surrounding development.

IMPACTS AND MITIGATION

The senior center would develop almost all of the property, and the entire site is considered impacted as shown in Figure 4. Vegetation/land cover impacts and mitigation are summarized in Table 2, below.

Table 2. Project Vegetation/Land Cover Impacts and Mitigation

Category	Existing Onsite (Acres)	Impacted (Acres)	Mitigation Ratio	Mitigation Required (Acres)
Non-native grassland	0.52	0.52	0.5:1*	0.26
Non-native vegetation	1.74	1.74	-	-
Landscaped	0.31	0.31	-	-
Disturbed	0.18	0.18	-	-
Developed	0.15	0.15	-	-
TOTAL	**2.90**	**2.90**		**0.26**

The direct impact to 0.52 acre of non-native grassland is potentially significant and could require mitigation. As described in the 2016 Affinis report, the City of Solana Beach is covered under the NCMHCP but the City does not have its own Habitat Conservation Plan / Subarea Plan. The site is not within a NCMHCP Focused Planning Area. The NCMHCP requires that impacts to non-native grassland be provided at a ratio of 0.5:1. One of the following two methods of mitigation for impacts to non-native grassland will be implemented:

- Provide for 0.26 (0.3) acre (1,307 SF) of non-native grassland within the project boundaries with low-fuel volume (low foliage when dormant). Native grasses and fire-resistant shrubs, including but not limited to wild lilac (*Ceanothus* sp.), toyon (*Heteromeles arbutifolia*), and lemonade berry (*Rhus integrifolia*), shall be planted onsite in conjunction with completion of project grading/slope preparation, and would satisfy the requirement for 0.3-acre of restoration of native habitat. Other nonnative vegetation types may be considered and would be determined by the projects' landscape architect in consultation with the City;
  OR
- Provide written proof to the satisfaction of the City of the purchase of mitigation credits from a California Department of Fish and Wildlife certified mitigation bank for 0.26 (0.3) acre of nonnative grassland.

Mitigation acreage is typically sold in tenth-of-an-acre increments, so the required amount of offsite mitigation would be 0.3 acre.

Direct impacts to non-native vegetation, landscaped land, disturbed land, and developed land are not considered significant, and no mitigation would be required.

The project would not result in direct impacts to any sensitive species (including coastal California gnatcatcher), wetlands, or other sensitive biological resources.

Indirect impacts to offsite biological resources would not be significant because the site is already surrounded by Interstate 5 and existing development. Planted coastal sage scrub in the Caltrans right-of-way along Interstate 5, where it is already subject to substantial noise and other edge effects, would not be significantly indirectly impacted by the project.

The project would not significantly contribute to cumulative impacts because it is an infill project and impacts to 0.52 acre non-native grassland will be mitigated

OTHER CONSIDERATIONS

The site contains one young native coast live oak tree (*Quercus agrifolia* var. *agrifolia*) that would be covered by the City's Local Coastal Program Native Tree Protection policies. This tree, which is approximately 4 ¼ inches DBH ("diameter at breast height") is located adjacent to the eastern fence line in the southeastern portion of the site. Native Tree Protection policies consists of the following

> Policy 3.51: New development shall be sited and designed to preserve oak, sycamore, alder, willow, toyon, or other native trees that are not otherwise protected as ESHA. Removal of native trees shall be prohibited except where no other feasible alternative exists. Structures, including roads or driveways, shall be sited to prevent any encroachment into the root zone and to provide an adequate buffer outside of the root zone of individual native trees in order to allow for future growth.
>
> Policy 3.52: New development on sites containing native trees shall include a tree protection plan.
>
> Policy 3.53: Where the removal of native trees cannot be avoided through the implementation of project alternatives or where development encroachments into the protected zone of native trees result in the loss or worsened health of the trees, mitigation measures shall include, at a minimum, the planting of replacement trees on-site, if suitable area exists on the project site, at a ratio of 1:1 for every tree removed. Where onsite mitigation is not feasible, off-site mitigation shall be provided through planting replacement trees or by providing an in-lieu fee based on the type, size and age of the tree(s) removed. The number of replacement trees allowed to be planted within the very high fire hazard severity zone will be approved by the Fire Marshal. Proper spacing of tree trunks and canopies will be maintained in accordance with the Fire Code for trees in this zone. Any new or replacement tree planted in this zone shall be fire resistive and on the Planning and Fire Department approved planting list.

The existing oak tree will be impacted by the project. Mitigation at a 1:1 ratio will be provided by including coast live oak in the project landscape design.

California Fish and Game Code Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant to the Code. The federal Migratory Bird Treaty Act prohibits the killing or transport of native migratory birds, or any part, nest, or egg or any such bird unless allowed by another regulation (such as for "game" birds). Therefore, all native, non-game birds on the site and property, and the nests and eggs of all native non-game birds, are protected during the nesting season even if these birds are not special-status or otherwise protected. Project conditions may include restrictions or guidelines regarding clearing of vegetation during bird nesting season.

SUMMARY AND CONCLUSIONS

Biological resources onsite have not substantially changed since the previous Affinis surveys were conducted. Non-native grassland impacts decreased slightly from 0.61 to 0.52, with an updated mitigation requirement of 0.26 acre; however, mitigation acreage is typically sold in tenth-of-an-acre increments so the offsite mitigation requirement would be 0.3 acre. The only substantive change to mitigation is that the existing young coast live oak tree onsite will be mitigated at a 1:1 ratio by including this species in onsite landscaping.

This concludes REC's report. Please do not hesitate to contact REC with any questions or comments.

Sincerely,

Catherine MacGregor

Catherine MacGregor
Senior Biologist and Botanist

FIGURES

1. Regional Location
2. Vicinity Map
3. Project Site on Aerial Photograph
4. 2019 Biological Resources Mapping
5. Project Impacts

ATTACHMENTS

1. 2016 Affinis "Biological Resources Survey, Residential Care Facility, 959 Genevieve Street" Report, including 2011 Report and 2014 Update
2. Solana Beach Senior Center March 2019 Site Photographs
2. Plants Observed on the Solana Beach Senior Center Site - 2019
3. Animals Observed on the Solana Beach Senior Center Site - 2019

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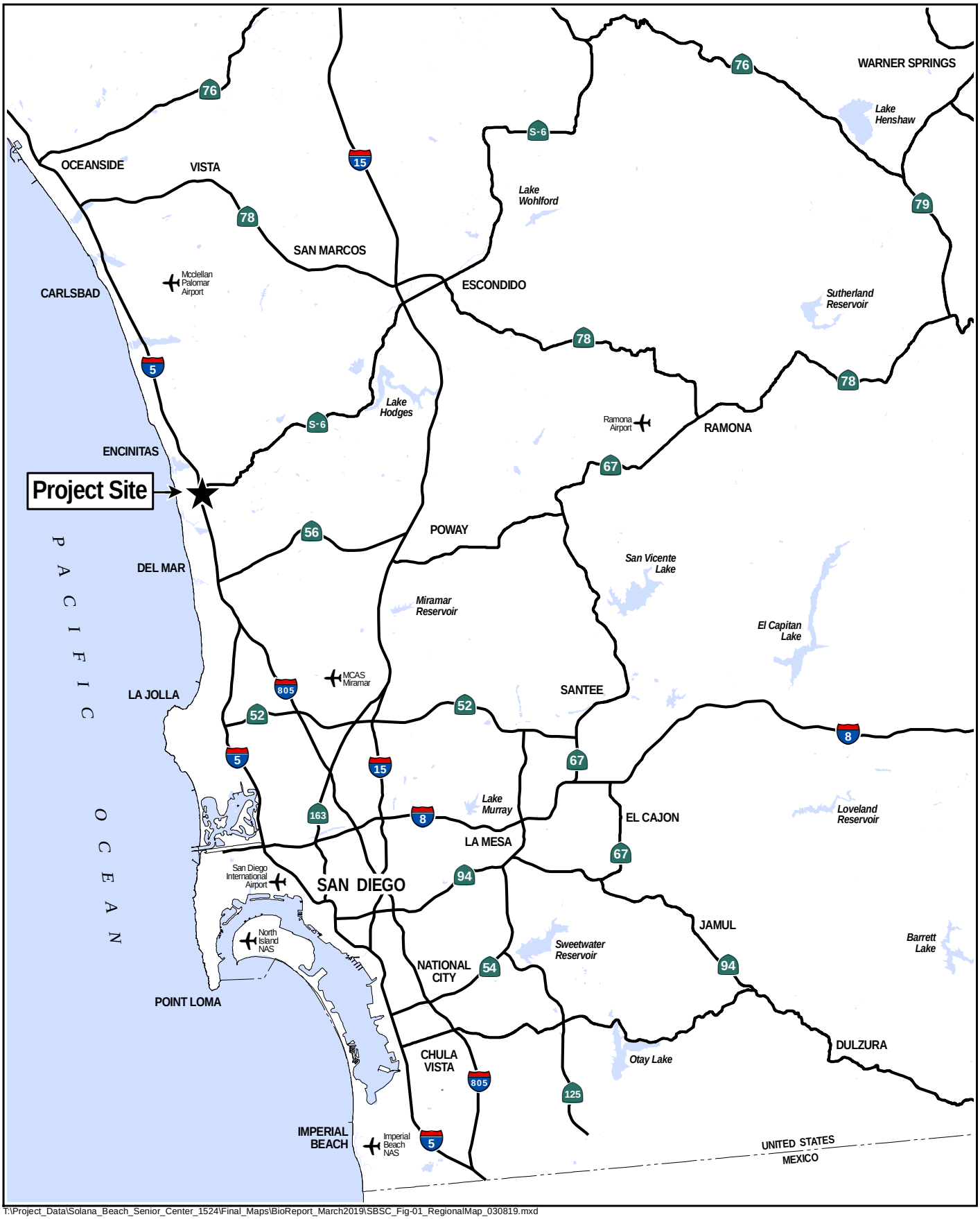
FIGURES



T:\Project_Data\Solana_Beach_Senior_Center_1524\Final_Maps\BioReport_March2019\SBSC_Fig-01_RegionalMap_030819.mxd

R·E·C Consultants, Inc.

Regional Location

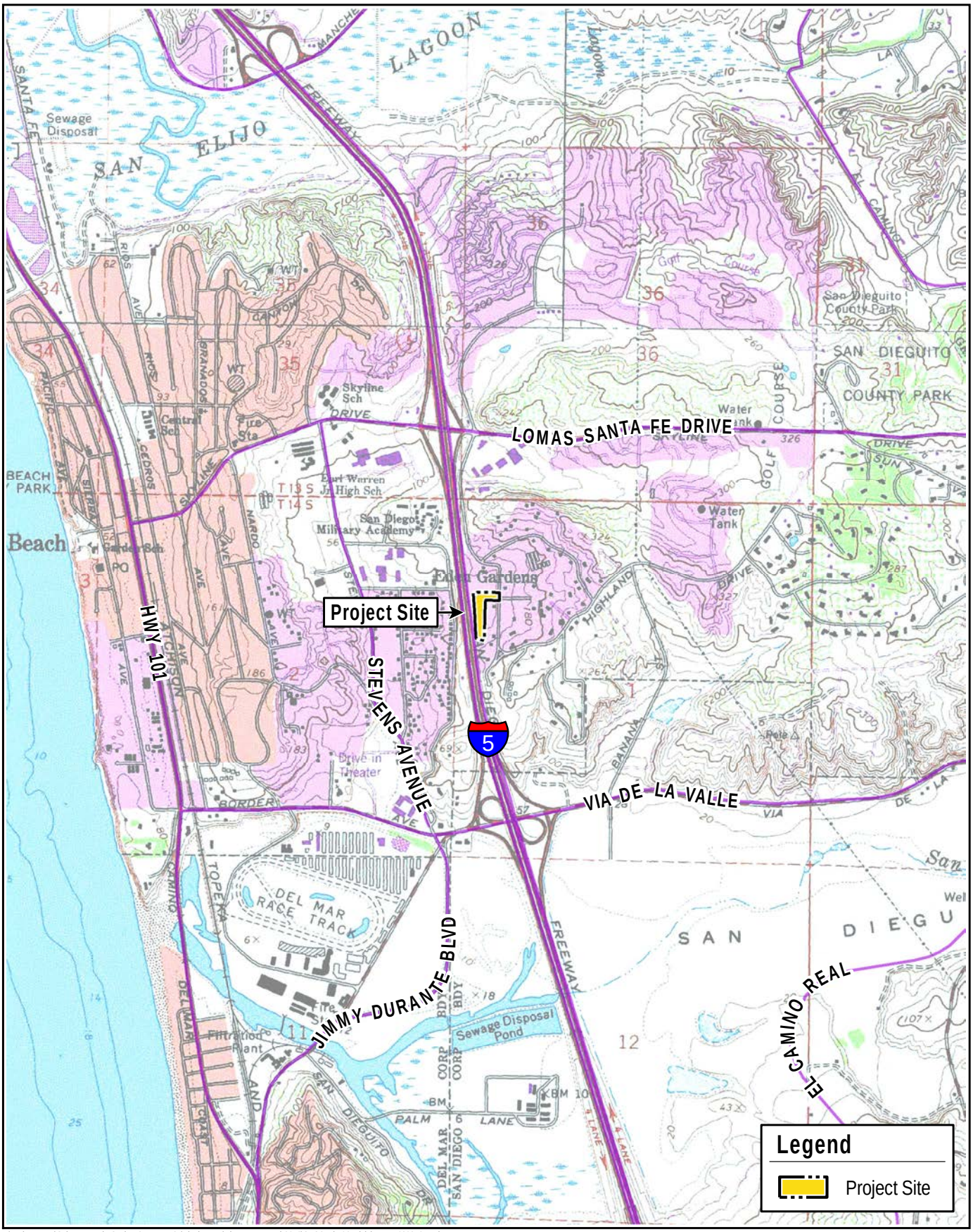
Miles 0 3 6

FIGURE 1

SOLANA BEACH SENIOR CENTER

Source: County of San Diego SanGIS Database, 2019.

March 2019



T:\Project_Data\Solana_Beach_Senior_Center_1524\Final_Maps\BioReport_March2019\SBSC_Fig-02_VicinityMap_030819.mxd

R·E·C Consultants, Inc.

Vicinity Map

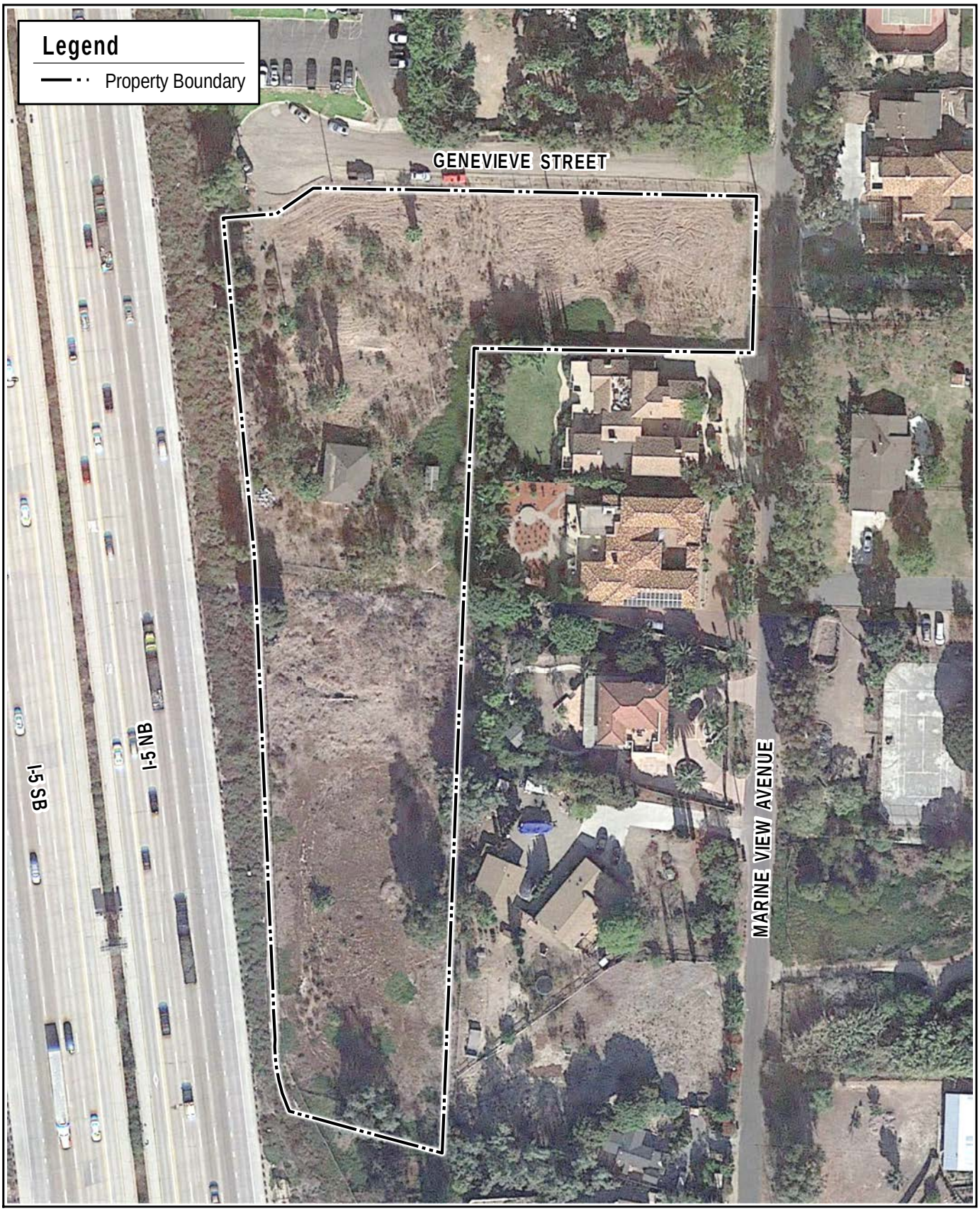
SOLANA BEACH SENIOR CENTER

0 1,000 2,000 Feet

Source: Esri USGS Basemap, 2019.

FIGURE 2

March 2019



R·E·C Consultants, Inc.

Project Site on 2018 Aerial Photograph

0 50 100 Feet

FIGURE 3

SOLANA BEACH SENIOR CENTER

Source: Google Earth, August 2018.

March 2019

T:\Project_Data\Solana_Beach_Senior_Center_1524\Final_Maps\BioReport_March2019\SBSC_Fig-04_BiologicalResources_031219.mxd

R·E·C Consultants, Inc.

2019 Biological Resources Mapping

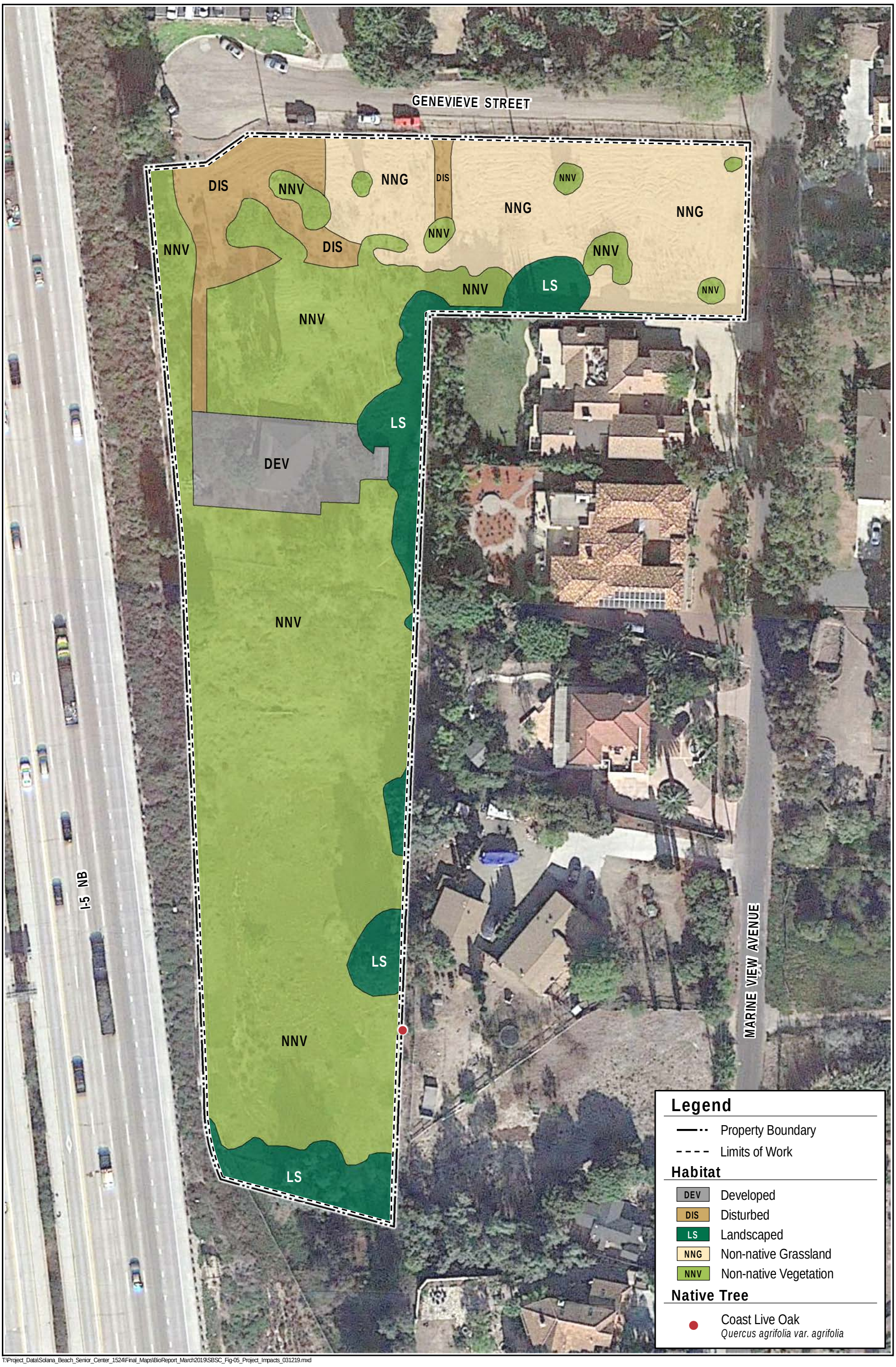
SOLANA BEACH SENIOR CENTER

Feet 0 25 50

Source: REC Biological Survey, March 2019.

FIGURE 4

March 2019



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R·E·C Consultants, Inc.

Project Impacts

SOLANA BEACH SENIOR CENTER

0 25 50 Feet

Source: REC Biological Survey, March 2019.

FIGURE 5

March 2019

ATTACHMENT 1

2016 Affinis "Biological Resources Survey, Residential Care Facility, 959 Genevieve Street" Report, including 2011 Report and 2014 Update

Affinis
environmental
services

810 Jamacha Road, Suite 206 El Cajon, California 92019-3206
tel: (619) 441-0144 fax: (619) 441-6421

January 25, 2016

Mr. John DeWald
Pacific Sound Investments, LLC
1855 Freda Lane
Cardiff, California 92007

RE: Biological Resources Survey, Residential Care Facility, 959 Genevieve Street (Affinis Job No. 2593)

Dear Mr. DeWald,

1. Introduction

A biological resources survey was conducted on a parcel adjacent to Genevieve Street in the City of Solana Beach. The 2.9-acre parcel is south of Genevieve Street, immediately east of Interstate 5. The property is located behind five single-family homes which front on Marine View Avenue.

A field survey was originally conducted in 2011 by Affinis and a report was prepared at that time (see attached). The purpose of the current survey was to determine if there were any changes to the biological resources previously recorded.

2. Methods and Survey Limitations

The updated survey was done on April 23, 2014 by Marcia Adams and Michael Busdosh. The survey was done between 10:00 and 11:00 a.m, with partly cloudy skies, a westerly breeze, and temperatures in the mid 60s. The property was largely traversed, although thick, weedy vegetation was impenetrable in some areas.

At the present time, the site remains largely vacant, although there is a single-family home occupied by a caretaker on-site along with an outbuilding. Several cars, recreational vehicles, and boats continue to be stored on the property.

3. Results

Vegetation. As shown in Figures 3-7 of the 2011 report, no native vegetation occurs on the property. A band of coastal sage scrub has been planted along the off-site slope below Interstate 5 (Figure 8), but only non-native vegetation is found on the site itself.

Conditions found during the 2014 survey were similar to those of the prior survey, except that the site now supports much more weedy vegetation. Portions of the property are nearly impassible due to extremely dense stands of wild radish (*Raphanus sativa*). This noxious weed has also spread to other areas of the site that formerly supported non-native grassland. The updated habitat mapping is shown in Figure 1.

The following table presents habitat acreages observed in 2011 and 2014:

HABITAT TYPE	2011 ACREAGE	2014 ACREAGE
Non-native grassland	1.53	0.61
Non-native vegetation	0.74	1.62
Developed	0.22	0.22
Landscaped	0.25	0.25
Disturbed	0.17	0.20
TOTAL	2.91	2.90

Please refer to the attached 2011 report for an explanation of the distinction between the habitat classifications.

Wildlife. During the updated survey, no avifauna were observed on-site. Pocket gopher (*Thomomys bottae*) mounds were abundant, as was sign of ground squirrel (*Thermopolis beecheyi*). No reptiles were observed. The caretaker advised that he has seen raccoons, coyotes, and on some occasions, cranes on the property.

Sensitive Species. No rare, endangered, or sensitive species were observed or are expected to occur due to the urban/disturbed nature of the property and its surroundings. The coastal California gnatcatcher (*Polioptila californica californica*) is most frequently found in coastal sage scrub habitat, but it would not likely occur in the off-site habitat due to the isolation of the habitat and the high noise levels associated with traffic on the freeway. It has not been reported from the project's vicinity by the California Department of Fish and Wildlife's Natural Diversity Database and was not detected during any of the field visits.

Sensitive Habitats. No sensitive native habitats occur on-site. While the City of Solana Beach is within the Coastal Overlay Zone, the project area would not be considered an Environmentally Sensitive Habitat Area (ESHA) due to the lack of native habitat and surrounding development. Additionally, the Draft EIR for the Solana Beach General Plan Update does not include this site on the City's list of ESHAs.

No natural drainage courses or hydrophytic plant species occur on the property. No jurisdictional wetlands or Waters of the US occur on-site. Similarly, no waters are present under the State's jurisdiction.

4. Impacts and Mitigation

The preliminary grading plan for the project is shown in Figure 2. The project would consist of a 99-bed, approximately 80,000 sq ft residential care facility including assisted living and dementia care. Most of the site would be disturbed, with the exception of a small area in the southeastern corner of the property.

Sensitive Habitats. At the present time, the City of Solana Beach is covered under the SANDAG-approved North County Multiple Habitat Conservation Plan (NCMHCP), but the City does not have its own Habitat Conservation/Subarea Plan. The project area is not within a Focused Planning Area (FPA) per the NCMHCP. The Plan requires that mitigation to non-native grassland be provided at an 0.5:1 ratio. Therefore, the loss of 0.6 acres of non-native grassland would require 0.3 acre of mitigation per the NCMHCP.

Some other incorporated cities within San Diego County have adopted individual Habitat Conservation Plans/Subarea Plans (e.g., Oceanside, Carlsbad) to refine and further implement the goals and objectives of the larger "umbrella" plan afforded by the NCMHCP. As Solana Beach does not have a plan, the following options are suggested for mitigation of project impacts:

- Consider the loss of 0.6 acres of non-native grassland as "deminimus", and require no mitigation. In the City of San Diego, loss of less than 1 acre of non-native grassland is not considered significant if the area is an infill lot surrounded by urban development and is not in close proximity to other habitat. This project would meet the definition of an infill project and thus could be exempted by the City if it chooses. Approval by the resource agencies would be desirable, but is not required as the project will not require any state or federal permits.

- The applicant could provide funds to the City via a Habitat Acquisition Fund, if available, or by purchasing credit in an approved mitigation bank.

The applicant will need to work with the City to determine which option will be chosen.

Sensitive Species. Since the coastal California gnatcatcher is not likely to occur in off-site habitat, impacts to the species are not anticipated, and mitigation would not be required.

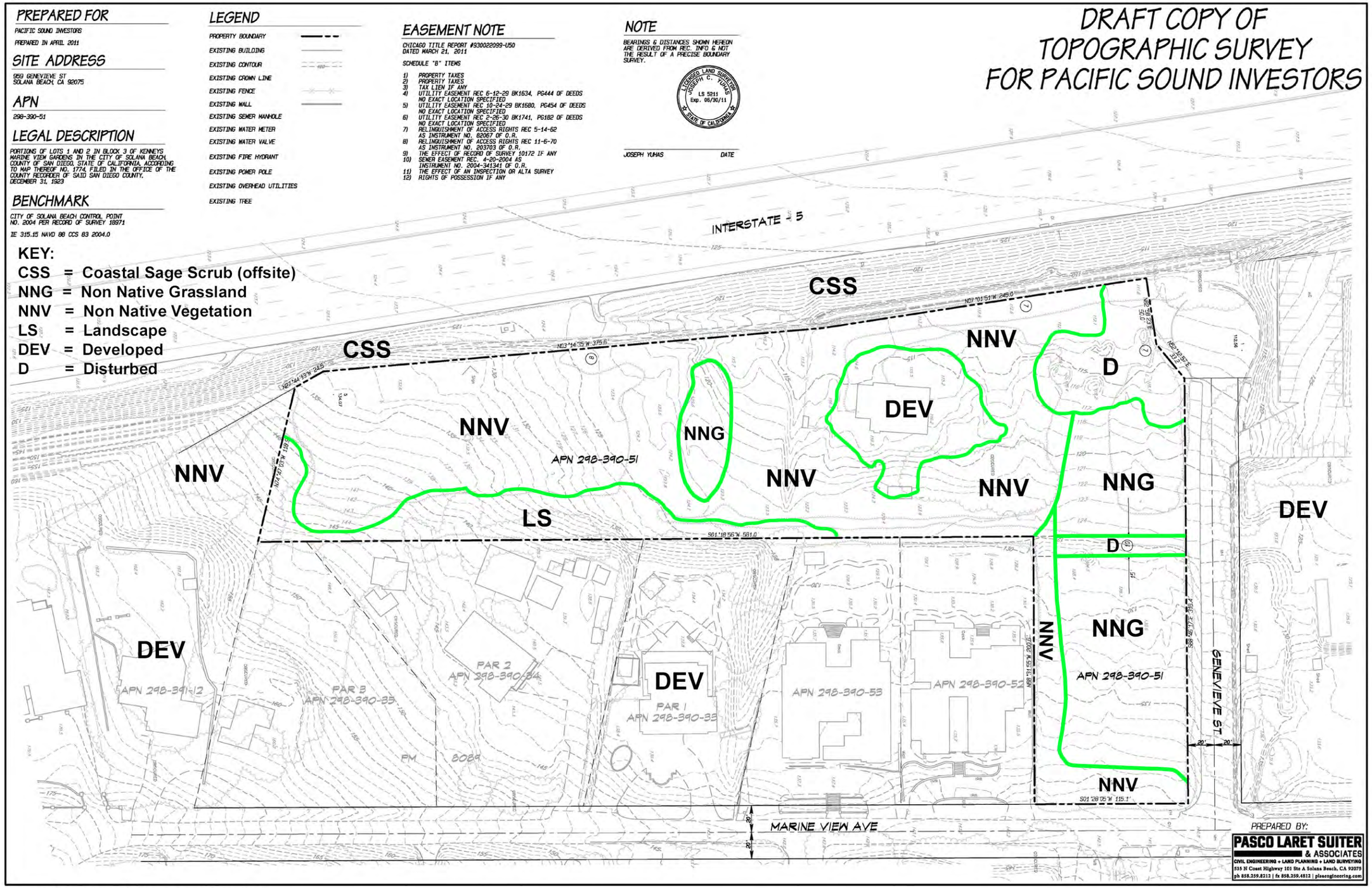
Other Considerations. One native tree species, blue elderberry (*Sambucus mexicana*) was noted on-site during the original biological survey conducted in 2011 near the area mapped as "landscaped" on Figure 3. While this is not considered to be a biologically sensitive species, the City's Local Coastal Program (LCP) includes policies (3.51, 3.52, and 3.53) for protection of native trees. A review of field notes from 2011 indicates that the tree was in poor condition, likely due to on-going drought. The site was field checked on January 23, 2016 and it appears that the elderberry tree has since died,

with only broken trunks and limbs present. The remaining trees on-site are non-native (Eucalyptus, palm, tamarisk) and thus no protection or replacement of native trees would be required.

If you have any questions, please do not hesitate to call.

Marcia Adams

Marcia Adams
Biologist



Source: Pasco Laret Suiter & Associates, 2011

FIGURE 1

VEGETATION MAP

Affinis
810 Jamacha Road
Suite 206
El Cajon, CA 92019

PRELIMINARY GRADING PLAN FOR RESIDENTIAL CARE FACILITY 959 GENEVIEVE STREET

PREPARED FOR

PACIFIC SOUND INVESTORS, LLC

SITE ADDRESS

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

APN'S

298-390-51

LEGAL DESCRIPTION

PORTION OF LOTS 1 & 2 IN BLOCK 3 OF KENNEY'S MARINE VIEW GARDENS IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774 REC 12-31-1923 IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY. BEING PARCEL A OF CERTIFICATE OF COMPLIANCE RECORDED APRIL 28, 2003 AS DOC. NO. 2003-487729 OF OFFICIAL RECORDS OF SAID SAN DIEGO COUNTY.

BENCHMARK

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE BENCHMARK USED TO ESTABLISH SAID ELEVATIONS IS THE CITY OF SOLANA BEACH, CONTROL POINT NUMBER 2004, PER RECORD OF SURVEY 18971.

THE PUBLISHED NAVD88 ELEVATION OF SAID BENCHMARK IS 315.148 FEET. EPOC 2004.0

PROPOSED DISTURBED AREA

2.57 AC

LEGEND

DESCRIPTION	SYMBOL
SITE BOUNDARY	
RIGHT-OF-WAY CENTERLINE	
OFFSITE PROPERTY LINE	
EXISTING EASEMENT	
EXISTING CONTOUR LINE	134
EXISTING FENCE	X X
EXISTING WATER LINE	W
EXISTING SEWER LINE	S
EXISTING OVERHEAD UTILITIES	E
PROPOSED CONTOUR LINE	134
PROPOSED LIMIT OF GRADING	
PROPOSED BUILDING FOOTPRINT	
PROPOSED LOWER BUILDING LEVEL	
PROPOSED RETAINING WALL	
PROPOSED CUT SLOPE	
PROPOSED BROW DITCH	
PROPOSED DRAINAGE DIRECTION	
PROPOSED PERMANENT BMP AREA	
PROPOSED PVC STORMDRAIN	
PROPOSED DRAIN INLET	
PROPOSED RIP-RAP ENERGY DISSIPATOR	
PROPOSED CONCRETE DROP INLET	
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PROPOSED SAWCUT LINE	
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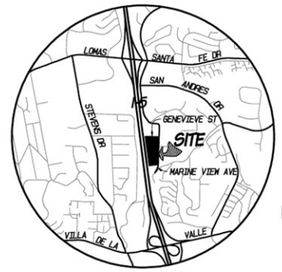
PROPOSED ROLLED CURB & DG SIDEWALK	
PROPOSED AC PAVING	
PROPOSED ENHANCED PAVING PER LANDSCAPE PLAN	

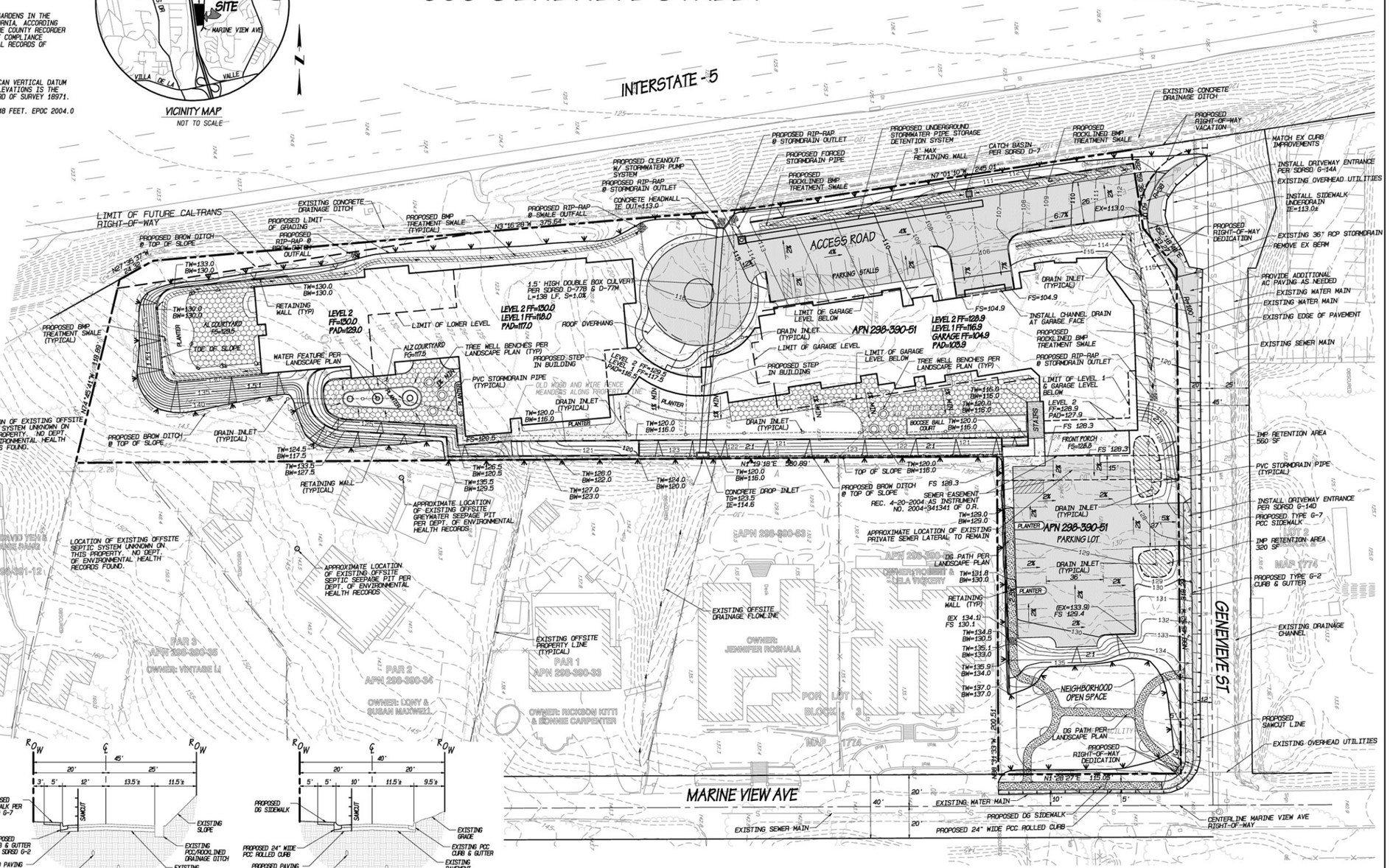


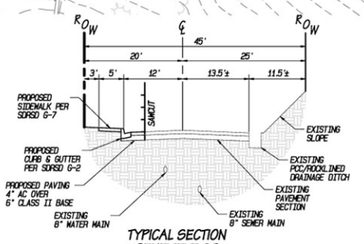
VICINITY MAP
NOT TO SCALE

ESTIMATED EARTHWORK QUANTITIES

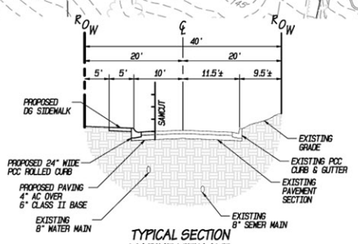
27,000 CY CUT
2,000 CY FILL
25,000 CY NET EXPORT

NOTE:
GRADING QUANTITIES HEREON REPRESENT COMPACTED SOIL VOLUMES AND DO NOT ACCOUNT FOR SPOILS GENERATED FROM FOOTINGS OR UTILITY TRENCHES OR FOR REMEDIAL GRADING THAT MAY BE REQUIRED PER THE PROJECT GEOTECHNICAL RECOMMENDATIONS





TYPICAL SECTION GENEVIEVE ST.
NOT TO SCALE



TYPICAL SECTION MARINE VIEW AVE.
NOT TO SCALE

Source: Pasco Laret Suiter & Associates, 2011

FIGURE 2

PRELIMINARY GRADING PLAN

Affinis
810 Jamacha Road
Suite 206
El Cajon, CA 92019

Affinis
environmental
services

810 Jamacha Road, Suite 206 El Cajon, California 92019-3206
tel: (619) 441-0144 fax: (619) 441-6421

June 4, 2014

Mr. John DeWald
Pacific Sound Investments, LLC
1855 Freda Lane
Cardiff, California 92007

RE: Biological Resources Survey, Residential Care Facility, 959 Genevieve Street (Affinis Job No. 2593)

Dear Mr. DeWald,

1. Introduction

A biological resources survey was conducted on a parcel adjacent to Genevieve Street in the City of Solana Beach. The 2.9-acre parcel is south of Genevieve Street, immediately east of Interstate 5. The property is located behind five single-family homes which front on Marine View Avenue.

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4. Impacts and Mitigation

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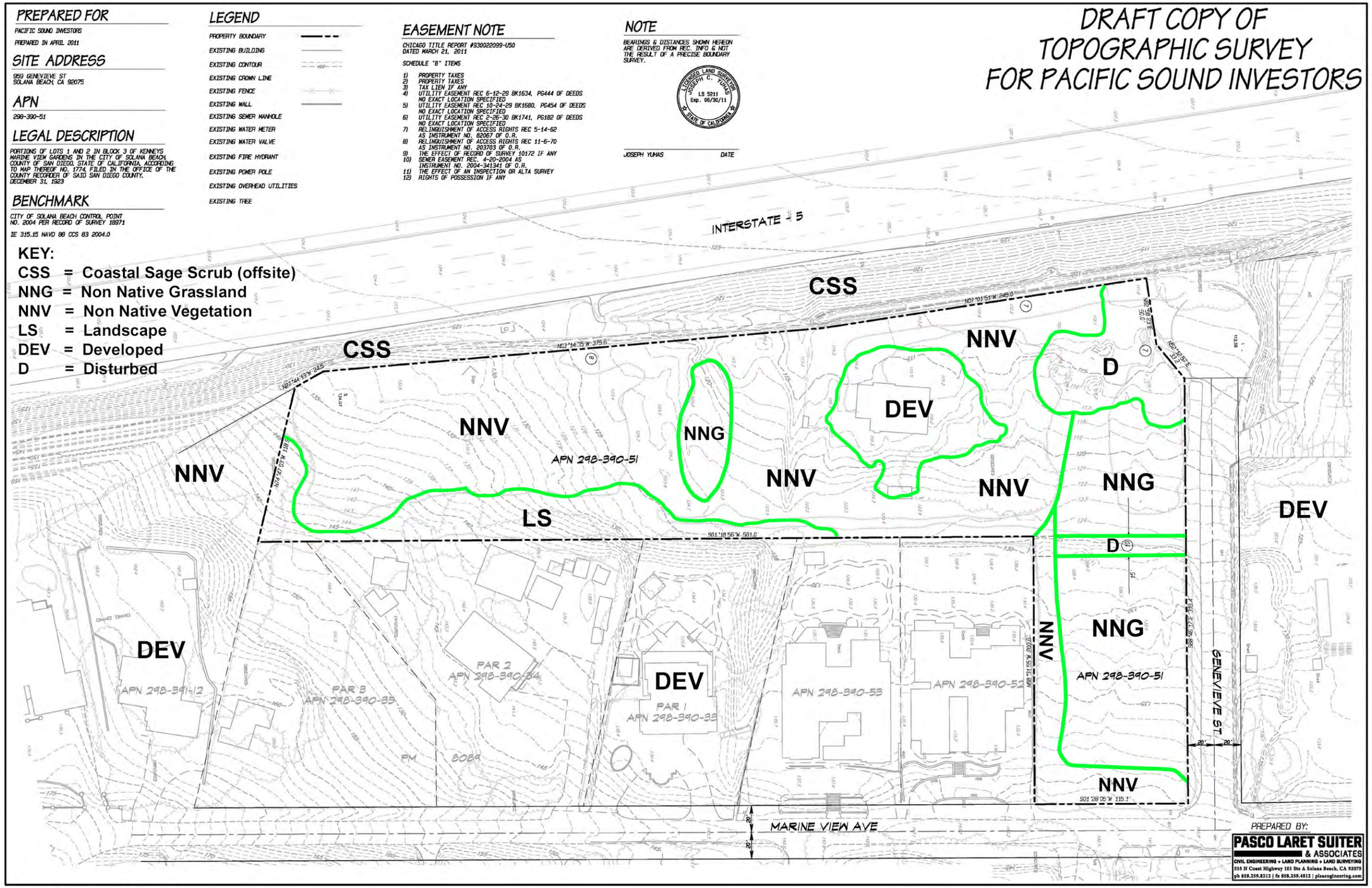
- If mitigation is required, restoration of native habitat on-site might be possible to provide necessary 0.3-acre in the southeastern portion of the property, provided it is low-fuel volume. Native grasses and fire-resistant shrubs such as wild lilac (*Ceanothus* sp.), toyon (*Heteromeles arbutifolia*), and lemonade berry (*Rhus integrifolia*) could be planted upon completion of project grading/slope preparation.

- The applicant could provide funds to the City via a Habitat Acquisition Fund, if available, or by purchasing credit in an approved mitigation bank.

If you have any questions, please do not hesitate to call.

Marcia Adams

Marcia Adams
Biologist



Source: Pasco Laret Suiter & Associates, 2011

FIGURE 1

VEGETATION MAP

Affinis
810 Jamacha Road
Suite 206
El Cajon, CA 92019

PRELIMINARY GRADING PLAN FOR RESIDENTIAL CARE FACILITY 959 GENEVIEVE STREET

PREPARED FOR

PACIFIC SOUND INVESTORS, LLC

SITE ADDRESS

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

APN'S

298-390-51

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PROPOSED DISTURBED AREA

2.57 AC

LEGEND

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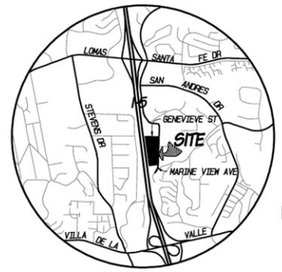

VICINITY MAP
NOT TO SCALE

ESTIMATED EARTHWORK QUANTITIES

27,000 CY CUT
2,000 CY FILL
25,000 CY NET EXPORT

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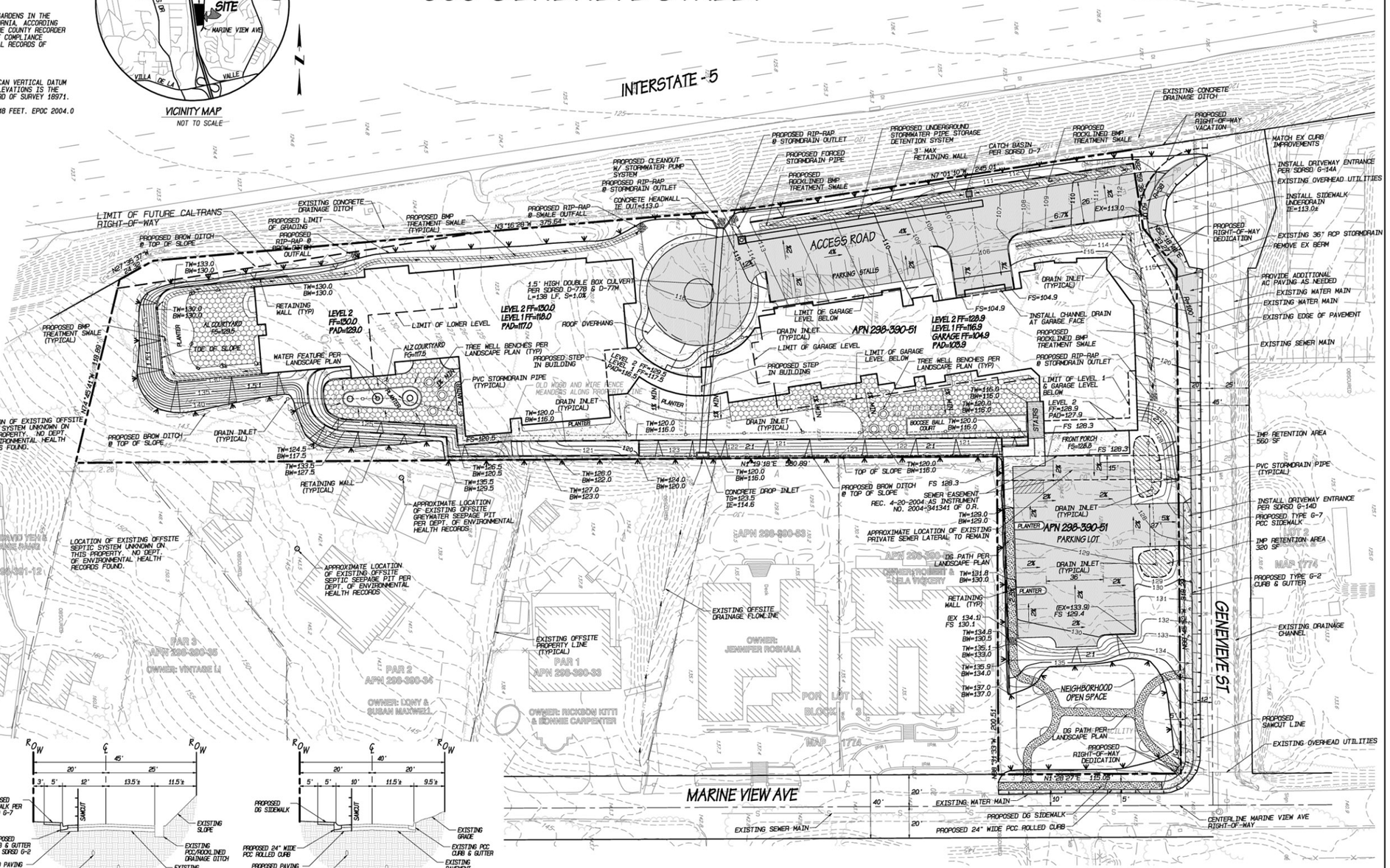

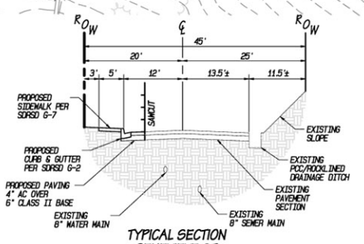

TYPICAL SECTION GENEVIEVE ST.
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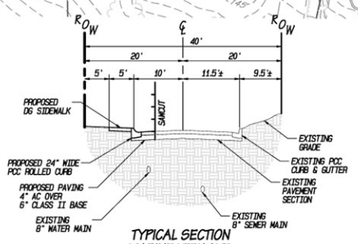


TYPICAL SECTION MARINE VIEW AVE.
NOT TO SCALE

Source: Pasco Laret Suiter & Associates, 2011

FIGURE 2

PRELIMINARY GRADING PLAN

Affinis
810 Jamacha Road
Suite 206
El Cajon, CA 92019

ATTACHMENT

2011 REPORT

Affinis
environmental
services

847 Jamacha Road, El Cajon, California 92019-3206
tel: (619) 441-0144 fax: (619) 441-6421

December 20, 2011

Mr. John DeWald
Pacific Sound Investments, LLC
1855 Freda Lane
Cardiff, California 92007

RE: Biological Resources Survey, Residential Care Facility, 959 Genevieve Street (Affinis Job No. 2429)

Dear Mr. DeWald.

1. Introduction

A biological resources survey was conducted on a parcel adjacent to Genevieve Street in the City of Solana Beach (Figures 1 and 2). The 2.9-acre parcel is south of Genevieve Street, immediately east of Interstate 5. The property is located behind five single-family homes which front on Marine View Avenue.

The purpose of the survey was to determine if any sensitive biological resources would be impacted by construction of a proposed senior care facility on-site.

2. Methods and Survey Limitations

A field survey was conducted on April 4, 2011 by Affinis biologist Marcia Adams and field crew member Andy Giletti. The survey was done between 10:00 and 11:30 a.m, with partly cloudy skies, a westerly breeze, and temperatures in the upper 60s. The property was traversed on foot.

The site is largely vacant, although there is an abandoned house on-site along with an outbuilding. At the time of the survey, several recreational vehicles and boats were stored on the property.

The site slopes gently from the southeast to the northwest. Elevations range from approximately 147 feet above mean sea level (amsl) in the southeastern corner to about 113 feet amsl in the northeastern corner. Soils mapped by the US Soil Conservation Service are Corralitos loamy sand, 9-15% slopes (Bowman, 1973).

3. Results

Vegetation. As shown in Figures 3-7, no native vegetation occurs on the property. A band of coastal sage scrub has been planted along the off-site slope below Interstate 5 (Figure 8), but only non-native vegetation is found on the site itself. As detailed in Appendix 1, 23 vascular plant species were recorded on-site; 19 (83%) are non-native species. Five vegetative associations were mapped, including:

- Non-native grassland (Figures 3 and 4). Areas supporting at least a 30 percent cover of non-native grasses were mapped as non-native grassland (1.53 acres). These areas are largely dominated by ripgut grass (*Bromus diandrus*) and foxtail chess (*Bromus madritensis* L. ssp. *madridtensis*). Also occurring were some patches of saltgrass (*Distichlis spicata*). Many non-native flowering weeds were also observed, including garland chrysanthemum (*Chrysanthemum coronarium*), wild radish (*Raphanus sativus*), and storksbill (*Erodium* sp.). A few native wildflowers (California poppy, Lupine) were noted, near the slopes below Interstate 5.

- Non-native vegetation (Figures 3 and 5). Areas dominated by weeds with less than a 30 percent ground cover of non-native grasses were mapped as non-native vegetation (0.74 acres). These areas were largely dominated by garland chrysanthemum, wild radish, and storksbill, also with other weedy species such as sweet clover (*Melilotus indica*), fleabane (*Conyza bonarinsis*), mustard (*Brassica* sp) and cheeseweed (*Malva parviflora*).

- Developed (0.22 acre). This includes the area of the abandoned house, driveway, outbuilding, and associated driveways/paths. (No photos were taken here, as there appeared to be someone living on-site in a motor home adjacent to the abandoned house).

- Landscaped (Figures 3 and 6; 0.25 acres). Landscaping for residences to the east has escaped onto portions of the eastern site boundary and includes species such as iceplant (*Carpobrotus* and *Aptenia* sp.), Eucalyptus, fan palms, acacias, and tamarisk.

- Disturbed (Figures 3 and 7; 0.17 acres). An area largely devoid of vegetation is present along the northeastern edge of the property was mapped as disturbed habitat.

Wildlife. Little wildlife was observed on the property, and consisted primarily of common birds adapted to urban settings. These included bushtit (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), scrub jay (*Aphelocoma coerulescens*), house finch (*Carpodacus mexicanus*), and Anna's hummingbird (*Calypte anna*). Pocket gopher (*Thomomys bottae*) mounds were abundant across the site. No reptiles were observed.

Sensitive Species. No rare, endangered, or sensitive species were observed or are expected to occur due to the urban/disturbed nature of the property and its surroundings. The coastal California gnatcatcher (*Polioptila californica californica*) is most frequently found in coastal sage scrub habitat, but it would not likely occur in the off-site habitat due to the isolation of the habitat and the high noise levels associated with traffic on the freeway.

4. Impacts and Mitigation

The preliminary grading plan for the project is shown in Figure 9. The project would consist of a 99-bed, approximately 80,00 sq ft residential care facility including assisted living and dementia care. Most of the site would be disturbed, with the exception of a small area in the southeastern corner of the property.

At the present time, the City of Solana Beach is covered under the SANDAG-approved North County Multiple Habitat Conservation Plan (NCMHCP), but the City does not have its own Habitat Conservation/Subarea Plan. The NCMHCP requires that mitigation to non-native grassland be provided at an 0.5:1 ratio. Therefore, the loss of 1.5 acres of non-native grassland would require 0.75 acre of mitigation per the NCMHCP.

Some other incorporated cities within San Diego County have adopted individual Habitat Conservation Plans/Subarea Plans (e.g., Oceanside, Carlsbad) to refine and further implement the goals and objectives of the larger "umbrella" plan afforded by the NCMHCP. As Solana Beach does not have a plan, the following options are suggested for mitigation of project impacts:

- Consider the loss of 1.5 acres of non-native grassland as "deminimus," and require no mitigation. In the City of San Diego, loss of less than 1 acre of non-native grassland is not considered significant if the area is and infill lot surrounded by urban development and is not in close proximity to other habitat. While the project would impact more than one acre, it would meet the definition of an infill project and thus could be exempted by the City if it chooses. Approval by the resource agencies would be desirable, but is not required as the project will not require any state or federal permits.

- If mitigation is required, restoration of native habitat on-site might be possible to provide a portion of the 0.75 acre in the southeastern portion of the property, provided it is low-fuel volume. Native grasses and fire-resistant shrubs such as wild lilac (*Ceanothus* sp.), toyon (*Heteromeles arbutifolia*), and lemonade berry (*Rhus integrifolia*) could be planted upon completion of project grading/slope preparation.

- The applicant could provide funds to the City via a Habitat Acquisition Fund, if available, or by purchasing credit in an approved mitigation bank.

If you have any questions, please do not hesitate to call.

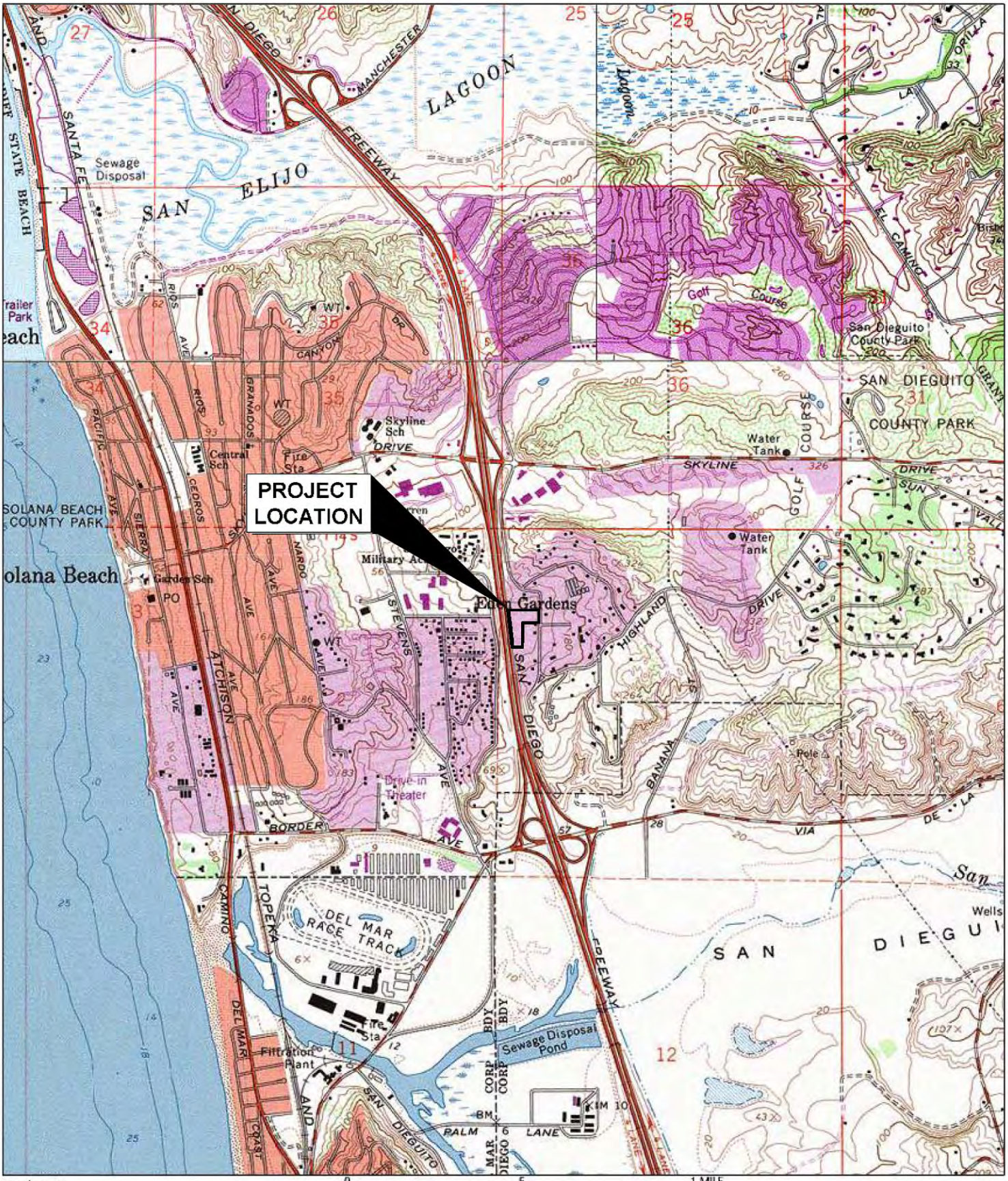
Marcia Adams

Marcia Adams
Biologist

Affinis
Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

REGIONAL LOCATION IN SAN DIEGO COUNTY

FIGURE 1



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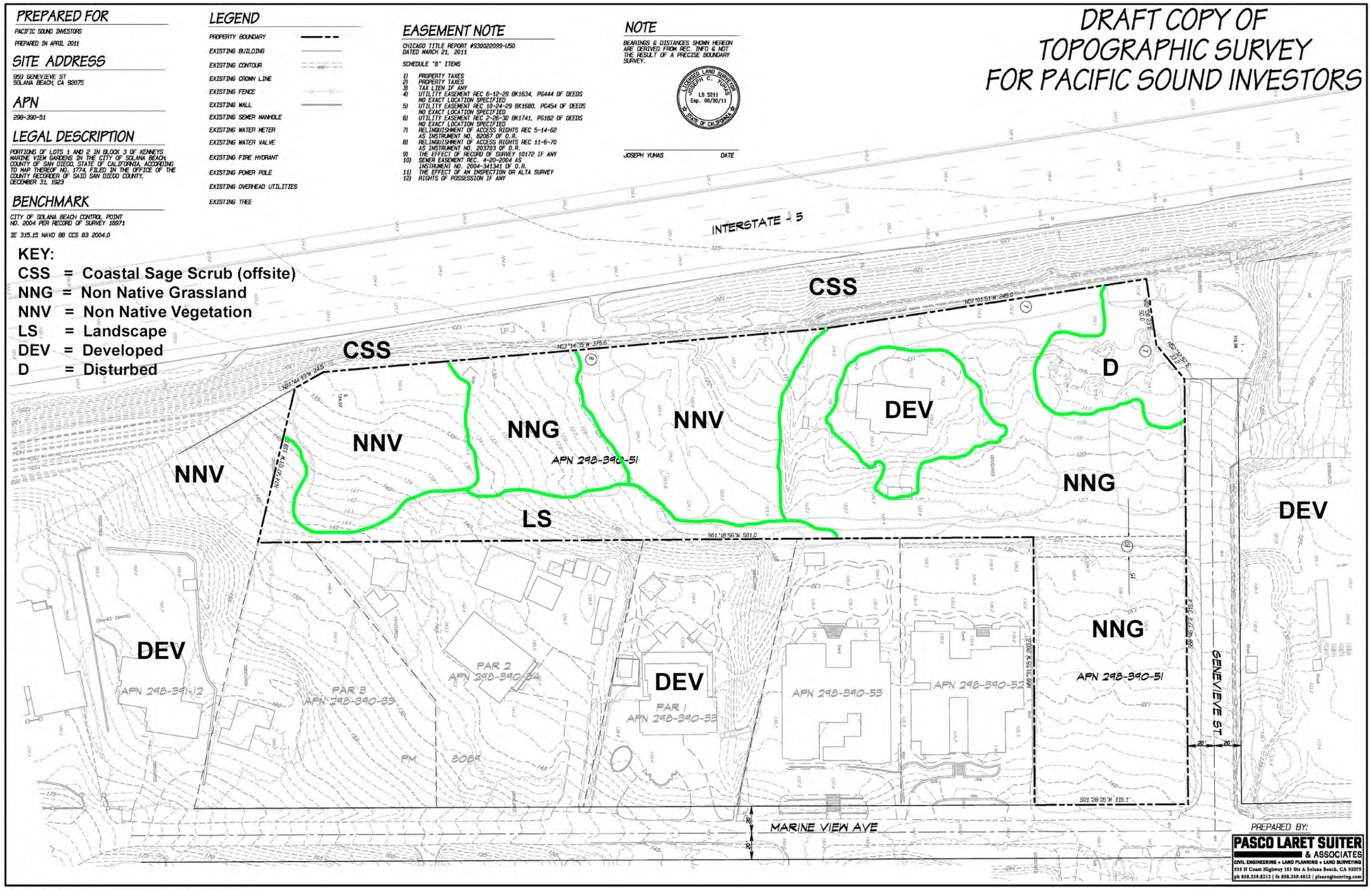
Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

PROJECT LOCATION ON USGS 7.5'
DEL MAR & ENCINITAS QUADRANGLES

FIGURE 2



Source: Pasco Laret Suiter & Associates, 2011

FIGURE 3

VEGETATION MAP

Affinis

Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	**NON-NATIVE GRASSLAND**	**FIGURE 4**

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	**NON-NATIVE VEGETATION**	**FIGURE 5**

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	**ESCAPED LANDSCAPING**	**FIGURE 6**

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	**DISTURBED AREAS**	**FIGURE 7**

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	**COASTAL SAGE SCRUB (OFFSITE)**	**FIGURE 8**

PRELIMINARY GRADING PLAN FOR RESIDENTIAL CARE FACILITY 959 GENEVIEVE STREET

PREPARED FOR

PACIFIC SOUND INVESTORS, LLC

SITE ADDRESS

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

APN'S

298-390-51

LEGAL DESCRIPTION

PORTION OF LOTS 1 & 2 IN BLOCK 3 OF KENNEY'S MARINE VIEW GARDENS IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774 REC 12-31-1923 IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY. BEING PARCEL A OF CERTIFICATE OF COMPLIANCE RECORDED APRIL 28, 2003 AS DOC. NO. 2003-467729 OF OFFICIAL RECORDS OF SAID SAN DIEGO COUNTY.

BENCHMARK

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE BENCHMARK USED TO ESTABLISH SAID ELEVATIONS IS THE CITY OF SOLANA BEACH, CONTROL POINT NUMBER 2004, PER RECORD OF SURVEY 16971.

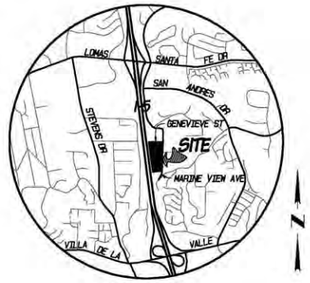
THE PUBLISHED NAVD88 ELEVATION OF SAID BENCHMARK IS 315.148 FEET. EPOC 2004.0

PROPOSED DISTURBED AREA

2.57 AC

LEGEND

DESCRIPTION	SYMBOL
SITE BOUNDARY	
RIGHT-OF-WAY CENTERLINE	
OFFSITE PROPERTY LINE	
EXISTING EASEMENT	
EXISTING CONTOUR LINE	134
EXISTING FENCE	X X
EXISTING WATER LINE	W
EXISTING SEWER LINE	S
EXISTING OVERHEAD UTILITIES	E
PROPOSED CONTOUR LINE	134
PROPOSED LIMIT OF GRADING	
PROPOSED BUILDING FOOTPRINT	
PROPOSED LOWER BUILDING LEVEL	
PROPOSED RETAINING WALL	
PROPOSED CUT SLOPE	
PROPOSED BROW DITCH	
PROPOSED DRAINAGE DIRECTION	
PROPOSED PERMANENT BMP AREA	
PROPOSED PVC STORMDRAIN	
PROPOSED DRAIN INLET	
PROPOSED RIP-RAP ENERGY DISSIPATOR	
PROPOSED CONCRETE DROP INLET	
PROPOSED BOX CULVERT	
PROPOSED CONCRETE WING HEADWALL	
TYPE G CATCH BASIN	
PROPOSED SAWCUT LINE	
PROPOSED G-2 CURB, GUTTER & G-7 SIDEWALK	
PROPOSED ROLLED CURB & DG SIDEWALK	
PROPOSED AC PAVING	
PROPOSED ENHANCED PAVING PER LANDSCAPE PLAN	

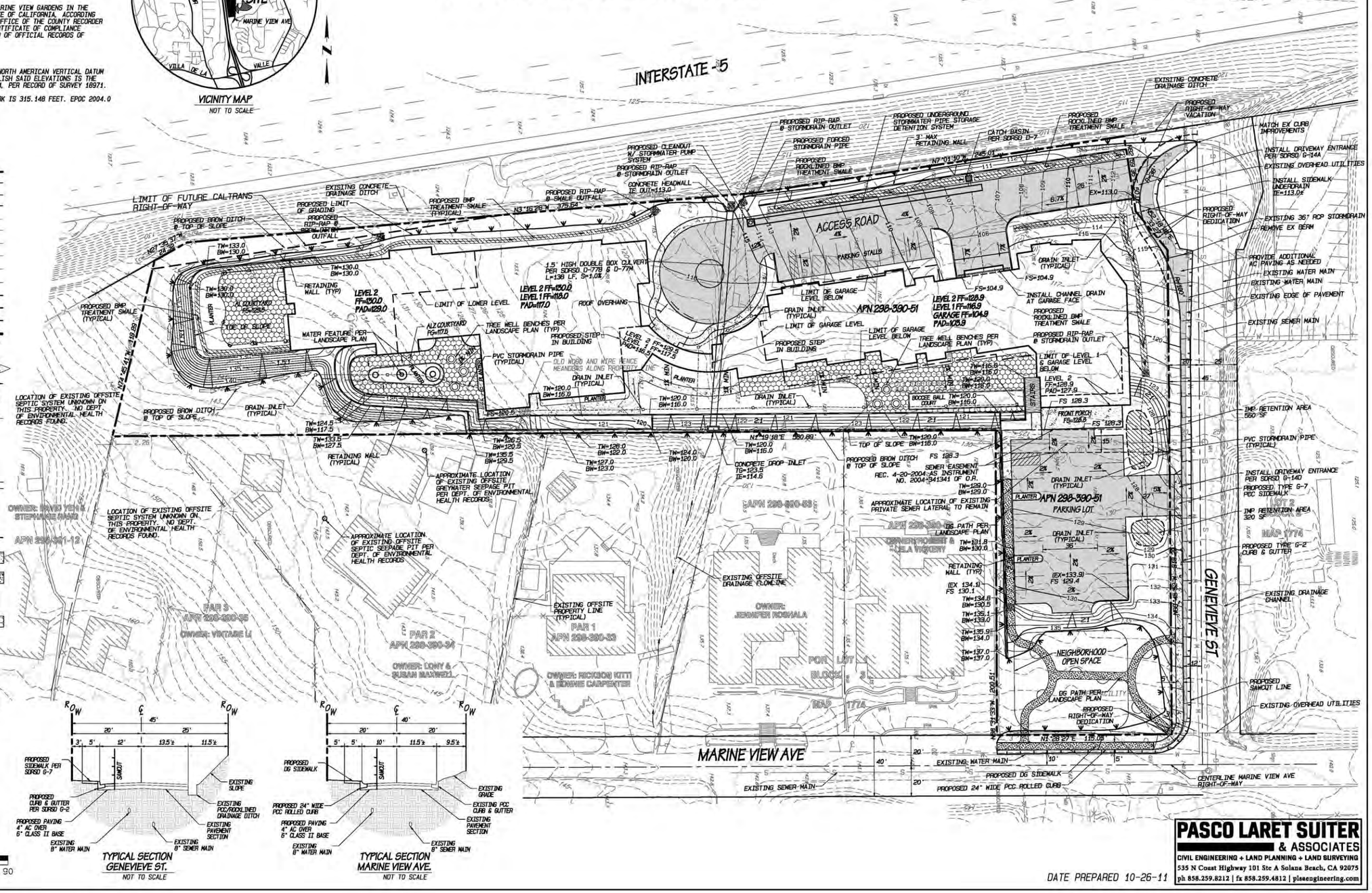


VICINITY MAP
NOT TO SCALE

ESTIMATED EARTHWORK QUANTITIES

27,000 CY CUT
2,000 CY FILL
25,000 CY NET EXPORT

NOTE:
GRADING QUANTITIES HEREON REPRESENT COMPACTED SOIL VOLUMES AND DO NOT ACCOUNT FOR SPOILS GENERATED FROM FOOTINGS OR UTILITY TRENCHES OR FOR REMEDIAL GRADING THAT MAY BE REQUIRED PER THE PROJECT GEOTECHNICAL RECOMMENDATIONS



PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 N Coast Highway 101 Ste A Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

DATE PREPARED 10-26-11

SOURCE: PASCO LARET SUITER & ASSOCIATES, 2011

FIGURE 9

PRELIMINARY GRADING PLAN

Affinis
Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Appendix 1. Plant Species Observed, Solana Beach Seniors Property, April, 2011

DICOTYLEDONES

ASTERACEAE - Sunflower Family

**Chrysanthemum coronarium* L.
Garland Chrysanthemum

**Conyza bonariensis* (L.)Cronq.
Flax-leaf Fleabane

Heterotheca grandiflora Nutt.
Telegraph Weed

**Picris echioides* L.
Bristly Ox-tongue

BRASSICACEAE - Mustard Family

**Brassica nigra* (L.) Koch
Black Mustard

**Raphanus sativus* L.
Wild Radish

CAPRIFOLIACEAE - Honeysuckle Family

Sambucus mexicana C. Presl.
Blue Elderberry

EUPHORBIACEAE - Spurge Family

**Ricinus communis* L.
Castor Bean

FABACEAE - Pea Family

**Acacia* sp.
Acacia

Lupinus sp.
Lupine

**Melilotus indica* (L.) All.
Indian Sweet Clover

Appendix 1. Continued

GERANIACEAE - Geranium Family

**Erodium* sp.
Filaree

MALVACEAE - Mallow Family

**Malva parviflora* L.
Cheeseweed

MYRTACEAE - Myrtle Family

**Eucalyptus* sp.
Eucalyptus

OXALIDACEAE - Wood-Sorrel Family

**Oxalis pes-caprae* L.
Bermuda Buttercup

PAPAVERACEAE - Poppy Family

Eschscholzia californica Cham.
California Poppy

PRIMULACEAE - Primrose Family

**Anagallis arvensis* L.
Scarlet Pimpernel

TAMARICACEAE - Tamarisk Family

**Tamarix* sp.
Tamarisk

URTICACEAE - Nettle Family

**Urtica urens* L.
Dwarf Nettle

Appendix 1. Continued

MONOCOTYLEDONES

ARECACEAE - Palm Family

**Washintonia robusta*
Mexican fan palm

POACEAE - Grass Family

**Bromus diandrus* Roth.
Ripgut Grass

**Bromus madritensis* L. ssp. *madridtensis*
Foxtail chess

Distichlis spicata (L.) E.Greene
Coast Saltgrass

KEY:

* = Non-native taxa

Nomenclature is according to Hickman (1993), Munz (1974), and Beauchamp (1986)

ATTACHMENT 2

Solana Beach Senior Center March 2019 Site Photographs

Attachment 2
Solana Beach Senior Center March 2019 Site Photographs

1. Non-native annual grassland in foreground and non-native vegetation (castor bean thicket) at edge of field.

2. Example of landscaped land along eastern edge of property.

Solana Beach Senior Center
March 2019 Site Photographs

3. Non-native vegetation in southern portion of site.

4. House in developed area, with non-native vegetation in foreground.

Solana Beach Senior Center
March 2019 Site Photographs

5. Northwestern entry driveway (disturbed land) into property.

6. Existing oak tree at southeastern edge of property.

ATTACHMENT 3

Plants Observed on the Solana Beach Senior Center Site – 2019

ATTACHMENT 3

PLANTS OBSERVED ON THE SOLANA BEACH SENIOR CENTER SITE - 2019		
Species Name	**Common Name**	**Family**
*Acacia cyclops**	western coastal wattle	Fabaceae
Acmispon glaber var. glaber	coastal deerweed	Fabaceae
Ambrosia psilostachya	western ragweed	Asteraceae
Amsinckia menziesii	rigid fiddleneck	Boraginaceae
Artemisia californica	coastal sagebrush	Asteraceae
*Arundo donax**	giant reed	Poaceae
*Avena sp.**	oats	Poaceae
Baccharis pilularis subsp. consanguinea	chaparral broom, coyote brush	Asteraceae
*Brassica tournefortii**	Sahara mustard	Brassicaceae
Bromus carinatus var. carinatus	California brome	Poaceae
*Bromus diandrus**	ripgut grass	Poaceae
*Bromus madritensis subsp. rubens**	red brome, foxtail chess	Poaceae
*Carpobrotus sp.**	sea- or hottentot-fig	Aizoaceae
*Chenopodium murale**	nettle-leaf goosefoot	Chenopodiaceae
*Cotula australis**	Australian brass-buttons	Asteraceae
Crassula connata	pygmyweed	Crassulaceae
Datura wrightii	western jimson weed	Solanaceae
*Ehrharta erecta**	panic veldt grass	Poaceae
*Emex spinosa**	devil's thorn, spiny emex	Polygonaceae
Encelia californica	California encelia	Asteraceae
Erigeron sp.(*)	horseweed, fleabane	Asteraceae
*Erodium botrys**	long-beak filaree/storksbill	Geraniaceae
*Erodium cicutarium**	red-stem filaree/storksbill	Geraniaceae
*Erodium moschatum**	white-stem filaree/storksbill	Geraniaceae
*Eucalyptus sp.**	eucalyptus	Myrtaceae
*Euphorbia peplus**	petty spurge	Euphorbiaceae
*Festuca myuros**	rat-tail fescue	Poaceae
*Freesia sp.**	freesia	Iridaceae
*Glebionis coronaria**	garland/crown daisy	Asteraceae
Heterotheca grandiflora	telegraph weed	Asteraceae
*Hirschfeldia incana**	short-pod mustard	Brassicaceae
Hordeum sp.(*)	barley	Poaceae
*Hypochaeris glabra**	smooth cat's ear	Asteraceae
Isocoma menziesii var. menziesii	spreading goldenbush	Asteraceae
*Kalanchoe sp.**	kalanchoe	Crassulaceae
*Lactuca serriola**	prickly lettuce	Asteraceae
*Lamium amplexicaule**	henbit	Lamiaceae
*Malva sp.**	mallow	Malvaceae
*Medicago sp.**	burclover	Fabaceae
*Melaleuca viminalis**	weeping bottlebrush	Myrtaceae
*Opuntia sp.**	prickly-pear (ornamental)	Cactaceae
*Oxalis pes-caprae**	Bermuda-buttercup	Oxalidaceae
Parietaria hespera var. hespera	western pellitory	Urticaceae
*Pennisetum setaceum**	African fountain grass	Poaceae
*Persea americana**	avocado	Lauraceae
*Phoenix canariensis**	Canary Island date palm	Arecaceae
*Pinus thunbergii**	Japanese black pine	Pinaceae
*Portulacaria afra**	elephant food, dwarf jade	Didiereaceae
Pseudognaphalium biolettii	bicolor cudweed	Asteraceae
Pseudognaphalium californicum	California everlasting	Asteraceae
Quercus agrifolia var. agrifolia	coast live oak, encina	Fagaceae

ATTACHMENT 3

Species Name	Common Name	Family
*Raphanus sativus**	wild radish	Brassicaceae
*Ricinus communis**	castor bean	Euphorbiaceae
*Salsola sp.**	Russian-thistle	Chenopodiaceae
*Schinus terebinthifolius**	Brazilian pepper tree	Anacardiaceae
*Schismus barbatus**	Mediterranean schismus	Poaceae
*Sisymbrium irio**	London rocket	Brassicaceae
Solanum sp.(*)	nightshade	Solanaceae
*Sonchus asper subsp. asper**	prickly sow-thistle	Asteraceae
*Sonchus oleraceus**	common sow-thistle	Asteraceae
Stephanomeria sp.	wreath-plant	Asteraceae
*Strelitzia nicolai**	giant white bird of paradise	Strelitziaceae
Syzygium sp.*	-	Myrtaceae
*Tropaeolum majus**	garden nasturtium	Tropaeolaceae
*Urtica urens**	dwarf nettle	Urticaceae
*Washingtonia robusta**	Mexican fan palm	Arecaceae

* non-native

ATTACHMENT 4

Animals Observed on the Solana Beach Senior Center Site - 2019

ATTACHMENT 4

ANIMALS OBSERVED ON THE SOLANA BEACH SENIOR CENTER SITE - 2019		
Species Name	**Common Name**	**Number**
Invertebrates		
*Apis mellifera**	western honey bee	several
Eleodes sp.	desert stink beetle	3
Family Formicidae	ant	several
*Helix aspersa**	brown garden snail	several
Order Araneae	spider	several
Birds		
Calypte anna	Anna's hummingbird	4
Haemorhous mexicanus	house finch	7
Kieneria crissalis	California towhee	3
Melospiza melodia	song sparrow	2
Vireo swainsoni	western warbling-vireo	1
Zonotrichia leucophrys	white-crowned sparrow	1
Mammals		
Thomomys bottae	Botta's pocket gopher	many mounds

* non-native

Appendix 5.4-1 Department of Parks and Recreation Form

Appendices

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State of California — The Resources Agency	**Primary #**	
DEPARTMENT OF PARKS AND RECREATION		**HRI #**
PRIMARY RECORD	**Trinomial**	
		NRHP Status Code
	Other Listings	
	Review Code	**Reviewer** **Date**

Page 1 **of** 9 ***Resource Name or #:** 959 Genevieve Street **APN#:** 298-390-51-00

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** San Diego
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Del Mar **Date:** **T** ; **R** ; **¼ of** **¼ of Sec** ; M.D. **B.M.**
c. Address: 959 Genevieve Street City: Solana Beach, CA Zip: 92075
d. UTM: Zone: 10 ; mE/ mN (G.P.S.)
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
APN # 298-390-51-00

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries).

Architectural Description. This house was most likely originally designed in the Minimal Traditional style with stucco surfacing, a pyramidal hipped roof and steel casement windows. The single story home was built in 1957 according to the County Residential Building Record. Also, a handwritten note on the Residential Building Record from February 24, 1964 describes, "This dwelling moved from Ida Street" in the Eden Gardens neighborhood of Solana Beach and "former owner Gonzales House now in place and needs considerable more work." The original Ida Street location described was most likely Ida Avenue, directly across the I-5 freeway. It is unclear why the house was moved, but it may have been to make way for a larger beach style home or possibly as part of the I-5 widening project. The home sits on a large L-shaped lot and overlooks the modern I-5 freeway. The simple single family residence features a rectangular plan and symmetrical façade with slight extending wing bump outs and an inset covered entryway. The home utilizes an attached single car garage at the southern end, indicative of the postwar period of residential construction. The house has a compound plan and is coated with sandy stucco. The home has a shallow pitched hipped roof with moderately extending open eaves. Fenestration consists of steel casement windows.

***P3b. Resource Attributes:** (List attributes and codes) Single-family residence
***P4. Resources Present:** ■Building ☐Structure ☐Object ☐Site ☐District ☐ Element of District ☐Other
P5b. Description of Photo: (View, date, accession #) Front (west) view, March 2016

P6. Date of Construction/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
Residential Building Record date of construction is 1957.
Note Residential Bldg. Record shows the home was moved in 1964
No notice of completion was found.
No original water or sewer records were found.
***P7. Owner and Address:**
Pacific Sound Investors, LLC
1545 Grand Ave., San Diego, CA 92109

***P9. Date Recorded:** March 2016
***P10. Survey Type:** (Describe) Preliminary Resource Review
***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") None
Preliminary historic review of 959 Genevieve Street, Solana Beach, California, for the City of Solana Beach, by Ronald V. May, RPA, and Kiley Wallace, Legacy 106, Inc., March 2016. Legacy 106, Inc. is indebted to Alexandra Wallace for assistance with the preparation of this report.

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ☐Continuation Sheet ■Building, Structure, and Object Record ☐ Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California – The Resources Agency Primary # _____
DEPARTMENT OF PARKS AND RECREATION HRI # _____
BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 **of** 9 ***Resource Name or #:** 959 Genevieve Street

***Recorded by:** Ronald V. May, RPA and Kiley Wallace ***Date:** March 2016 ☒ **Continuation** ☐ **Update**

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) **(Continued): (See Attachment D, Photographs)**

The home's style appears to have originally been in the Minimal Traditional or minimal Ranch style, also sometimes referred to as the "Ranchette" style.

The home displays the low pitched composition roof with slightly overhanging eaves, minimal added architectural detailing and stucco exterior surfacing indicative of the Minimal Traditional or Minimal Ranch style. However, the lack of widely overhanging eaves, lack of wide sheltered porch, true picture window or low to the ground profile means the house does not truly reflect a Mid Century Ranch style home, but is broadly influenced by the Ranch style. The windows are steel casement and fixed windows. The stucco appears to have been redone in a non-original lacy style stucco. The home was moved in 1964. Also, alterations, deterioration, poor past repair work and the lack of extant architectural details make it difficult to confirm, making positive identification of the original style challenging without historic photos.

Minimal Traditional Style. “Simple” is the main descriptive term used to describe the architectural style. The style is as a simplified interpretation and conglomeration of architectural styles that emerged in direct response to the preceding Great Depression. The style is described and referenced in *A Field Guide to American Houses* by McAlester and McAlester, the City of San Diego Modernism Historic Context and in other historic architectural reference books and materials. "Simplicity in exterior design gives the small house the appearance of maximum size" as stated in the FHA's 1940 version of its *Principles for Planning Small Houses.* The word “simple” is used four times in the first five sentences to describe the style’s exterior design. The book was widely utilized in the Post World War II era for designing the post-war housing tracts that would soon be ubiquitous in suburban America. The Minimal Traditional style flourished due to the great need for working class housing in Southern California in the 1940's and 1950's. The simple style was popular for small homes in the San Diego region in the post-Depression era from about 1939-1959. Overall, the style was first utilized in the 1930's and 1940's on infill lots in more established neighborhoods but soon became mass produced in the new subdivision lots of the 1950's, which created hundreds of nearly identical homes. This post-war development pattern was largely due to assistance from the Federal Housing Authority established during the Depression to insure 20 year mortgages and joined in 1945 by even more generous no money down Veterans Administration programs for returning veterans of World War II and Korea.

Since the style is so common and represented by the hundreds in communities in and around San Diego, in the communities of Clairemont, Rolando, Bonita and others, the style would generally have to rise to an exemplary level of historical significance in order to be considered eligible for historic designation at the National, State or local level. Highly influential and widely published case study houses and houses associated with significant individuals or events, and designs by master architects, are examples of past historic designations of the style. Also, excellent and highly original examples of the style are sometimes included in designated historic districts to show the transition and changes from the Craftsman, Spanish to post-war Minimal Traditional and Ranch styles. The home does not show any large additions.

The following are architectural changes that cause architectural <u>integrity loss</u>:

- The replacement of some original windows with aluminum louvered replacements. Some appear to have been replaced in original window openings while some window changes display altered openings;
- The replacement stucco exterior on all sides of the home. This applied finish is not original and not likely original for the era of the home;
- The filled in and removed exterior windows;
- The replacement of fascia boards and rafters with non-original rough cut replacements.

State of California _ The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**
CONTINUATION SHEET **Trinomial**

Page 3 **of** 9 ***Resource Name or #**: 959 Genevieve Street

***Recorded by:** Ronald V. May, RPA and Kiley Wallace ***Date:** March 2016 ☒ **Continuation** ☐ **Update**

***B10. Significance (continued):**

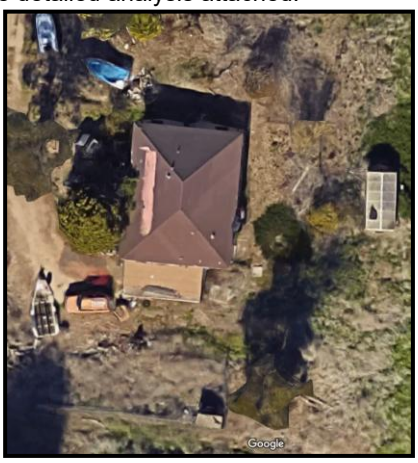
B1. Historic Name: 959 Genevieve Street, Solana Beach, CA B2. Common Name:959 Genevieve Street Solana Beach, CA
B3. Original Use: Single-family residence
B4. Present Use: Single-family residence
***B5. Architectural Style:** Minimal Traditional / Minimal Ranch style
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Construction date. The subject resource is a residential home constructed in 1957 as shown on the county's Residential Building Record. The original water and sewer record were not found.

Additions and alterations. No major additions are shown on the Residential Building Record or were found during site analysis. However, the house has had a number of alterations including windows replaced and filled in as well as the stucco surfacing having been redone at some point with non-original stucco surfacing. The ubiquitousness and huge stock of homes in the style in Southern California makes the threshold very high for designation of this style for its architectural significance. According to the Residential Building Record, the home was moved to its present location in 1964 and the home's orientation to the nearby ocean and original site were most likely changed at this time. It therefore has lost a good portion of its integrity of Setting, Feeling and Association as defined by the *Secretary of Interior's Standards for Historical Evaluation*. In addition to the house being moved, the lack of architectural details on this particular style makes the extent and cumulative effect of its alterations and changes more serious and the effect on of the changes to the home's integrity is grave.

***B7. Moved?** ☐**No** ■ **Yes** ☐**Unknown** **Date:** 1964 **Original Location:** Ida Ave.
***B8. Related Features:**
B9a. Architect: Unknown **b. Builder:** Unknown
***B10. Significance: none** **Theme:** Residential architecture **Area:** Solana Beach

Period of Significance: 1957 **Property Type:** Residential **Applicable Criteria:** None
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
Criterion A. The 1957 residential home does not sufficiently reflect the city's early development and was not found to qualify under Criterion A. The structure does not reflect special elements of the city's development to a greater extent than other typical structures of this era. **Therefore, the subject house at 959 Genevieve Street was not determined to qualify for designation under Criterion A.** Please see detailed analysis attached.
Criterion B. No significant associations or connections with historical persons were found. An occupancy list and chain of title of owners is provided. **Therefore, the subject house at 959 Genevieve was not determined to qualify for designation under Criterion B.** Please see detailed analysis attached.
Criterion C. The home does not represent a good example of the Minimal Traditional style due to lack of original integrity. **The home is not significant under Criterion C and fails to adequately embody the Minimal Traditional or Minimal Ranch architectural style due to a series of alterations and the moving of the resource in 1964.** Please see detailed analysis attached.
Criterion D. The home's architect is unknown and therefore was not shown to qualify under Criterion D as representative of the notable work a known master architect, nor does this home qualify the builder or architect to be considered as a Master Architect or Master Builder. Please see detailed analysis attached.

B11. Additional Resource Attributes: (List attributes and codes): None



***B12. References:** see attached works cited
B13. Remarks: none
***B14. Evaluator:** Ronald V. May, RPA and Kiley Wallace
***Date of Evaluation:** March 2016

(This space reserved for official comments.)

***P3a. Criterion A Context and Analysis (Reflects a special element of development):**

Early History. The Diegueño people were the first to occupy the San Dieguito area, and were its sole occupants for hundreds of years. Their Kulaumai settlement was located in what is now Solana Beach, while their Hapai settlement was located near Rancho Santa Fe. In the mid to late 1700's, their settlements were discovered by the Franciscan missionaries.

The missionaries and Diegueño people clashed early on. The Franciscans described the Diegueño as being passionately devoted to their indigenous culture and resistant to being converted to Christianity (Andre:2). It took nearly a decade before a sizeable amount of Diegueño converted, and as the pace of Catholicism's spread picked up, so did violent confrontations between mission leaders and the Diegueño.

Rancho San Dieguito. Around 1780, Theodoso Osuna, originally from Spain, traveled to the San Diego area via mule from La Paz, Mexico (Andre:5). He married an Indian woman named Luguarda Quisques and their first child, Juan Maria Osuna, was born in 1785. Juan was a soldier and corporal of the San Diego Company and took part in the Mexican Revolution of 1831.

Juan Maria Osuna and his family were the first to build on the plain outside of San Diego's Presidio after he retired as corporal. Juan, along with five other male citizens, urged the governor to establish a pueblo (town) government for San Diego in 1833. The area had previously been under military rule for over sixty years. On January 1, 1835, Juan Maria Osuna was elected as the first Alcade of the San Diego pueblo. Symbolizing the transfer of government from military to civilian self-rule, Lieutenant Santiago Arguello gave Osuna his staff of office. Osuna also served as the area's *juez de pas* (justice of the peace) from 1839-1840 and in 1846.

During Osuna's time, acquiring land was relatively simple for those who held political clout. One had to swear that he was a Catholic and a citizen of the Mexican government, pay a $12 fee for paperwork, and state the size and location of the desired parcel of land. In 1840 and 1841, Osuna was granted informal ownership of the 8,824 acre Rancho San Dieguito, which is now known as Rancho Santa Fe. His ranch also included the eastern portion of Solana Beach. In 1845, Governor Pio Pico granted him formal ownership. Osuna raised horses and cattle there, and had selected the southeast side of the San Dieguito River and Escondido Creek as the boundaries of his rancho. The steady supply of water ensured that he could successfully raise livestock and provide for his family.

Osuna's penchant for gambling forced him to sell a portion of his land to pay off debts. When he died in 1851, he left the remainder of the rancho to his son, Leandro Osuna. Leandro was hostile to the Diegueño who occupied portions of his rancho, and reportedly chased many of them out of their homes and off of the land (Andre:6). In turn, Leandro received threats from the Indians and believed that they had poisoned his food. Convinced that he would suffer a slow, painful death, Leandro shot himself a few days after eating the "tainted" meal and died on April 3, 1859. In the 1940's, singer Bing Crosby purchased and renovated the Osuna family adobe home.

After Leandro's death, his son Julio was left to care for the family and the estate. Financial troubles and crop failures forced the Osunas to sell portions of the rancho, and by 1906 their land holdings in Rancho San Dieguito were reduced to approximately 200 acres.

***P3a. Criterion A (Reflects a special element of development) - continued:**

Santa Fe Land Improvement Company. The Santa Fe Land Improvement Company, a subsidiary of the Santa Fe Railroad, purchased a large portion of the Rancho San Dieguito's original acreage in the early 1900's and changed its name to Rancho Santa Fe. The Company planted thousands of eucalyptus trees, the wood from which they planned to utilize for railroad ties. However, the Santa Fe Railroad ultimately left most of the trees standing when it was discovered that the wood was too soft for its intended purpose.

The Santa Fe Railroad then called upon Colonel Ed Fletcher and his business partner W.G. Henshaw. The two men owned land east of the Rancho San Dieguito as well as water rights. The railroad company's vice-president, W.E. Hodges, negotiated a deal with Fletcher and Henshaw, and the San Dieguito Mutual Water Company was formed. The Water Company constructed Hodges Dam between Rancho Santa Fe and Escondido in 1918, and the water it provided meant the beginning of development in Rancho Santa Fe and the eastern portion of Solana Beach.

Solana Beach. George Jones was the original developer of Solana Beach. In 1908 he purchased 200 acres of the "Lockwood Mesa", named for a Mr. Lockwood who previously owned the mesa's north end. Four years later, Mr. and Mrs. N.H. Estes constructed a home on the original Highway 101, then a narrow two-lane dirt road. Mrs. Estes was the sister of George Jones. Later in 1912, the road was paved. George lived in the Estes home until construction on his own home, located on a hill on present-day Barbara Street, was completed.

Solana Beach was very rural and undeveloped at that time. George Jones described Lockwood Mesa as a "grain and lima bean farm but with two houses on the whole 220 acres and the only outside elements, the occasional car on the highway or a train passing through" (Andre:8). Mr. Estes added, "rabbits and coyotes could be shot from their front porch on the highway at most anytime" (Ibid.).

George Jones sold the majority of Lockwood Mesa to Colonel Ed Fletcher in 1922, except for the 14 acres in the northwest portion where his own home was located, and 5 acres which he gave to his sister. The Santa Fe Land and Improvement Company had hired Fletcher to purchase all the land between Rancho Santa Fe and the coast, and he paid approximately $50 per acre. The Improvement Company paid half of the costs, while Fletcher and his business partners paid the other half. It was around 1923 when the area first became known as Solana Beach, and in 1923 the first map of the subdivision was filed. A real estate office and a service station were established soon after.

Colonel Ed Fletcher had great plans for Solana Beach. Views of the ocean and easy beach access were previously obstructed by the bluffs of the mesa. Utilizing water from Lake Hodges, and the power of hydraulic washing and steam shovels, the portion of the mesa blocking views of the ocean were removed. On July 4, 1925, Fletcher Cove was opened with great fanfare, including horse races on the beach. Fletcher also paved area roads and put in sidewalks.

Fletcher also further improved the Lake Hodges water system so that water could be brought into Solana Beach. This allowed local farmers to transition from growing more drought-tolerant crops, such as grains and lima beans, to growing vegetables and avocados, which were much more profitable. According to a

***P3a. Criterion A (Reflect a special element of development) - continued:**

July 8, 1923 article in the *San Diego Union,* which quotes an unnamed official for the Ed Fletcher Company:

> "The several hundred acres of shore land constituting Solana Beach are typical of the largely developed agricultural empire lying north of San Diego. Giving directly on to the Pacific, the resident can first of all satisfy his craving for the ocean and its beaches and surf. One minute or so away from his play he can raise his living in the form of chickens, winter vegetables, deciduous or citrus fruits, and last but not least the remarkably profitable avocado pear."

Despite his business acumen, Fletcher was hit hard by the Great Depression, and he was forced to sell half of his Solana Beach real estate holdings. Growth in the area stagnated during the 1930's.

Solana Beach in World War II and after. Virtually all development stopped during World War II, however, Solana Beach defense contractor Bill Jack developed the signature Quonset hut structures found along Cedros Avenue during the War and post-war era.

Into the 1950's development took off in Solana Beach as it did nationwide as new families looked to suburbs outside of urban centers and subdivisions began being built on an industrial scale. This is when the subject resource was completed according to the Residential Building Record which records the date of construction as 1957. The Eden Garden neighborhood along Ida Avenue where the home was originally built was an enclave for Latinos and Hispanic immigrants in the community. The area became gentrified during the 1980's and 1990's as the home's coastal location brought new and larger residential homes to the community.

Conclusion / Analysis. Although the modest home, which was once located in nearby Eden Gardens, may in some ways reflect certain overall aspects of history, the 1957 residential home was not found to be the earliest example in Solana Beach or the Eden Gardens neighborhood which was started in the 1920's, nor was the home found to be a model home or important to the early development of this community or the overall development of the area. The house was not found to be an important aspect in the development of the Latino or Hispanic community in Eden Gardens or especially reflective of special elements of the development patterns of Solana Beach and North County San Diego. The home was not found to sufficiently reflect the city's or Latino community's early development and was not found to qualify under Criterion A. The structure does not reflect special elements of the city's development to a greater extent than other typical structures of this era.

***P3a. Criterion B (Associated with Significant Persons or events) Analysis:**

The occupants of the subject property could not be fully ascertained because the home was not included in any area directories. Solana Beach was included in the San Dieguito directories, which were published sporadically between 1952 and 1960. Those directories listed occupants of other addresses on Genevieve Street, but did not include a listing for 959 Genevieve Street. This is likely because although the house was constructed in 1957 (based on the county's Residential Building Record), the home was only moved to its present location in 1964 (also based on the Residential Building Record), and the San Dieguito directory was no longer being published by 1964. Solana Beach was also not included in the San Diego city directories or the San Diego County directories during the historic period up to 1971.

Property owners from the time when the home was moved to its present parcel Llewellyn and Elizabeth Danielsen who owned the property from 1942-1985, as seen in the Chain of Title were also researched and had limited association with the subject home and were not found to rise to a level of historical significance.

A handwritten note on the Residential Building Record dated February 24, 1964 describes, "This dwelling moved from Ida Street in [the] Eden Gardens" neighborhood of Solana Beach and "former owner **Gonzales House** now in place and needs considerable more work."

The 1960 San Dieguito directory lists four individuals with the surname Gonzales living on Ida Avenue. They could have possibly occupied the subject property before it was moved to its current location in 1964, however, its exact original address on Ida Avenue could not be ascertained:

- C. Gonzales at 600 Ida Avenue
- F.M. Gonzales at 619 Ida Avenue
- Frank G. Gonzales at 631 Ida Avenue
- Alfred G. Gonzales at 809 Ida Avenue

Furthermore, neither past four individuals listed with the surname Gonzales living on Ida Avenue were found to have historical significance to community history to rise to the level of designation under Criterion B (Associated with Significant Persons or Events). **Therefore, the subject house at 959 Genevieve was not determined to qualify for designation under Criterion B. The home was not found to qualify for state, local or national designation for important individuals or events associated with the home.**

***P3a. Criterion C - Architectural Analysis:**

***P3a. Criterion C - Architectural Integrity Analysis.** The home was moved to its present location as seen on the Residential Building Record notes, and this change in the location and setting diminishes the home's architectural integrity. In addition, the home does not display the broad sprawling asymmetrical façade and alternating exterior materials which are character defining features of the Mid Century Ranch or Modern Ranch style and instead displays minimal architectural elaborations of the more common Minimal Traditional home style. The Minimal Traditional style is common nationwide and the resource would have to display exceptional significance or originality to be considered eligible for historic designation. The house displays poor architectural integrity compared to the many other extant examples of the style. A series of alterations including newer non-original stucco surfacing and replacement and filling of windows further degrades the home's integrity. These changes, along with the home's common architectural style and movement and likely change in orientation from the other side of the I-5 freeway, have made a substantial and critical impact on the building's integrity as it relates to the 1957 date of construction and period of significance.

Even perfectly preserved, so-called "time capsule" examples of the Minimal Traditional style would currently fail to qualify for designation due to the commonality of the style, unless designed by a Master Architect or having a significant association with important people or events related to the state or community's development. The home, by its movement and rebuilding, has lost a good portion of its integrity of Setting, Feeling and Association as defined by the *Secretary of Interior's Standards for Historical Evaluation*. The extent and cumulative effect of the alterations, along with the moving of the home to its present location, alters the limited character defining features of the home's style. Also, since the style has very little architectural elaboration, these limited alterations have a larger impact on the home's other aspects of integrity. The alterations have impacted the design, materials, workmanship, feeling and association aspects of integrity. The associated greenhouse and shed structures on the parcel were also evaluated. The utility structures do not appear to relate to the home's original date of construction based on materials and methods of construction and were not found to have individual architectural significance.

The building and associated structures therefore fail to qualify under Criterion C due to the lack of original architectural integrity. This lack of integrity is due to modified and replaced windows and altered stucco surfacing, rendering the home a poor example of a very common typical style. The home fails to convey architectural significance or sufficient original architectural integrity to be considered for historic designation for its architecture.

Criterion D (Work of a Master) Analysis.

After an extensive search, the architect and builder of this home could not be determined. The home's architect is unknown and therefore was not shown to qualify under Criterion D as representative of the notable work a known master architect, nor does this home qualify the home's builder or architect to be considered as a Master Architect or Master Builder.

Attachment A
Ownership and Occupant Information

A.1 – Assessor's Building Record
A.2 – Notice of Completion
A.3 – Water / Sewer Record
A.4 – Building / Construction Permits
A.5 – Site Plan with Footprint

BUILDING RECORD

HUGHES — ADDRESS #959 GENEVIEVE ST. — PARCEL 29 · 3 F C — SHEET 1 OF 1 SHEETS

DESCRIPTION OF BUILDING

CLASS & SHAPE: D5.0B

ARCHITECTURE: ✓ Standard; Above-Standard; Special

1 Stories

TYPE — Use / Design: X Single; Double; Duplex; Apartment; Flat-Court; Motel

1 Units — Light / Heavy

CONSTRUCTION: ✓ Light; Sub-Standard

FOUNDATION: X Concrete; Reinforced; Brick; Wood; Piers

STRUCTURAL: ✓ Frame; " x " - "; Sheathing; Concrete Block; B.& B. / T.& G.; Brick; Adobe; Floor Joist: 1st: " x " - "; 2nd: " x " - "; X Sub-Floor; Concrete Floor; Insulated Ceilings; Insulated Walls

EXTERIOR: ✓ Stucco on; Siding " x "; Shingle; Shake; B & B. / T. & G.; Brick; Stone; Screens

WINDOWS: D.H. / X Casement; X Metal Sash

ROOF: Flat ¼ Pitch; Gable ¼; X Hip ⅔ m; Shed ¼; Cut Up; Dormers; Roff. " x " - "; Gutters; Shingle; Shake; Tile; Tile Trim; Compo.; X Compo. Shingle

LIGHTING: X Wiring — K.T. / Conduit; B.X. / Cable

Fixtures: ✓ Few / X Cheap; Avg. / Med.; Many / Special

PLUMBING: X — Poor / Std. / Spec; Sink; X Laundry; X Water Htr.-Auto.; Water-Softner

AIR CONDITION: X Heating / Cooling; Forced / Clean'g; Gravity / Humid.; 2 Wall Unit; Floor Unit; Zone Unit; Central; Oil Burner; M-B.T.U.; Fireplace

ROOM AND FINISH DETAIL

ROOMS	FLOORS B	1	2	FLOOR FINISH Material	Grade	TRIM	INTERIOR FINISH Walls	Ceilings
All		X		A.T.	A	S	INT S. STUCCO	
Ent. Hall								
Living		1						
Dining								
Bed		3						
Bed								
Kitchen		1		A.T.	A			

Drain Bd. Material: M. Lgth: Ft Splash:

CONSTRUCTION RECORD

Permit No.	For	Amount	Date	EFFEC. YEAR	APPR. YEAR	NORMAL % GOOD Age	Remain'g Life	Table	%	RATING (E,G,A,F,P) Cond.	Arch. Attr.	Func. Plan	Con-form	Storage Cupbd	Space Closet	Work-m'ship
183464	RYLE SIDE	11550	11-2-63	3-25-57	1957					F	P	–	–	–	–	F
				1957	1965	8	52	R60	96	A	F	A	F	A	F	A-
				1959	1968	11	44	R58	87	A	F	–	F	–	–	A
					1972	15	46	R60	89							
					1976					A-						

BATH DETAIL

Fl.	No.	FINISH Floors	Walls	FIXTURES Wc.	Lo.	Tub	Type	Grade	SHOWER St.	Q.T.	G.D.	Finish
1	1	AT	MVEN	1	1	1	A	A		1		T1

SPECIAL FEATURES

Book Cases		Built in Refrig.	Venetian Blinds
Shutters		" " Oven & Plate	
Vent Fan		" " Dishwasher	

COMPUTATION RE76

Appraiser & Date		RDE 2-17-64		Wtulle 9-2-64		MLHance 7-25-67		1972					
Unit	Area	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
~~[illegible]~~			2500				—	—					
D	1054	6.70			7062	7.50	7905	9.80	10329				
AC					240		240		260				
G	190			2.80	532	2.40	456	3.75	712				
TOTAL		SK	2500		7834		8601		11301				
NORMAL % GOOD					96		87		89				
R.C.L.N.D			2500		7521		7483		10058				

OLD VALUE
TAKE OFF
LEAVING
+ ADDITION
NEW VALUE

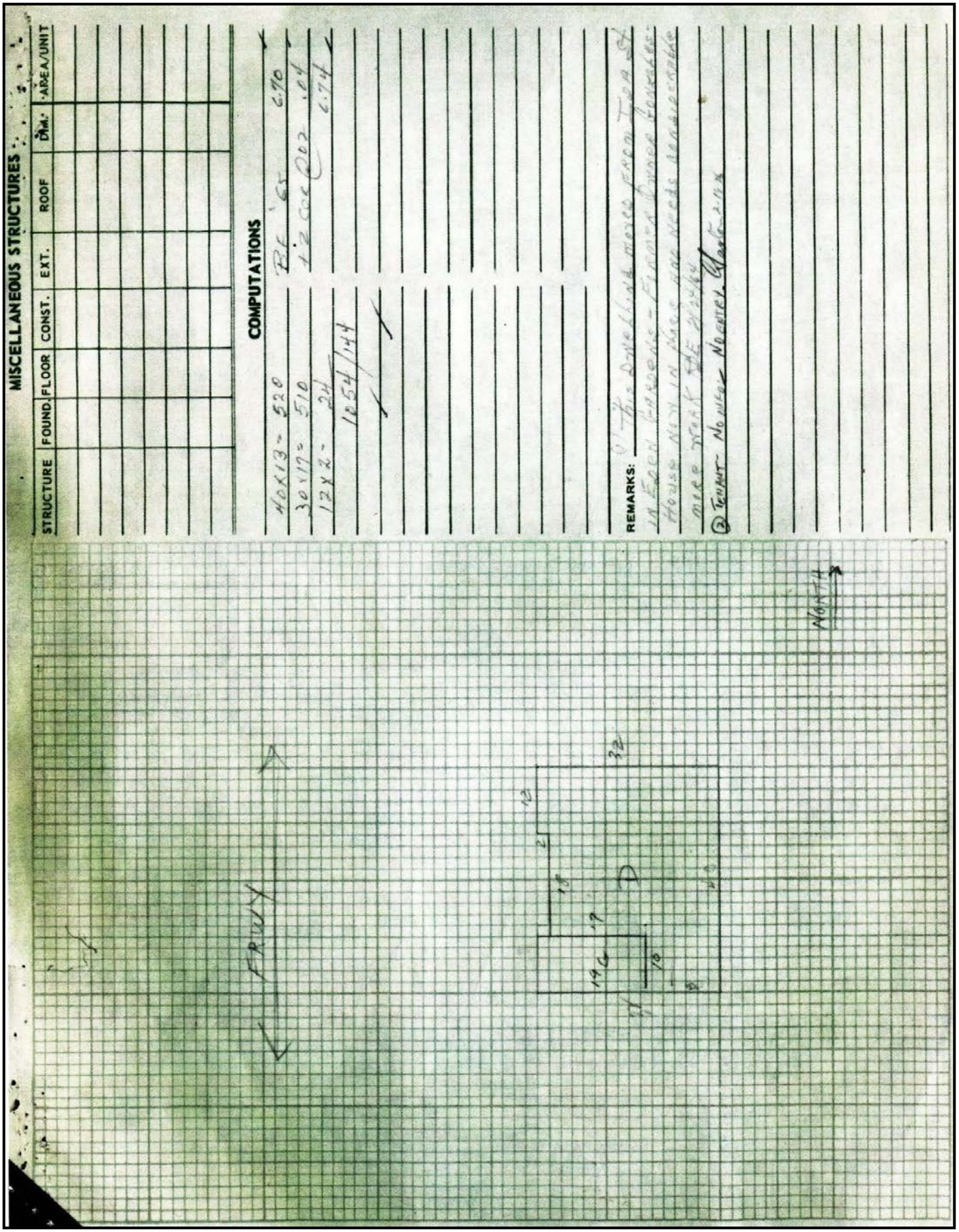
MAKE FIELD CHECK 19__
FIELD CHECK WRITTEN
PERMIT HELD
OCCUPIED / VACANT ✓

STATUS
1 PK. - Finish Floor - Semi Exterior Stucco - Finished (1) 9-2-64

A-14 11-56

A.1 Assessor's Building Record

A.1 Assessor's Building Record



MISCELLANEOUS STRUCTURES

STRUCTURE	FOUND.	FLOOR	CONST.	EXT.	ROOF	DIM.	AREA/UNIT

COMPUTATIONS

40x13 = 520 BE '65 6.70
30x17 = 510 12 Gal @ .02 .64
12x2 = 24 6.74
1054/144

REMARKS: 1) This Dwelling was moved from Tom St
in Eagle Lake - Floors, Doors, windows,
House Next in place, one needs remodeling
more work to be done
2) Tenant No water No water

FRONT

NORTH

A.2 Notice of Completion

After an extensive search, a Notice of Completion for this property could not be located.

A.3 Water Record

The water record could not be located.

A.3 Sewer Record

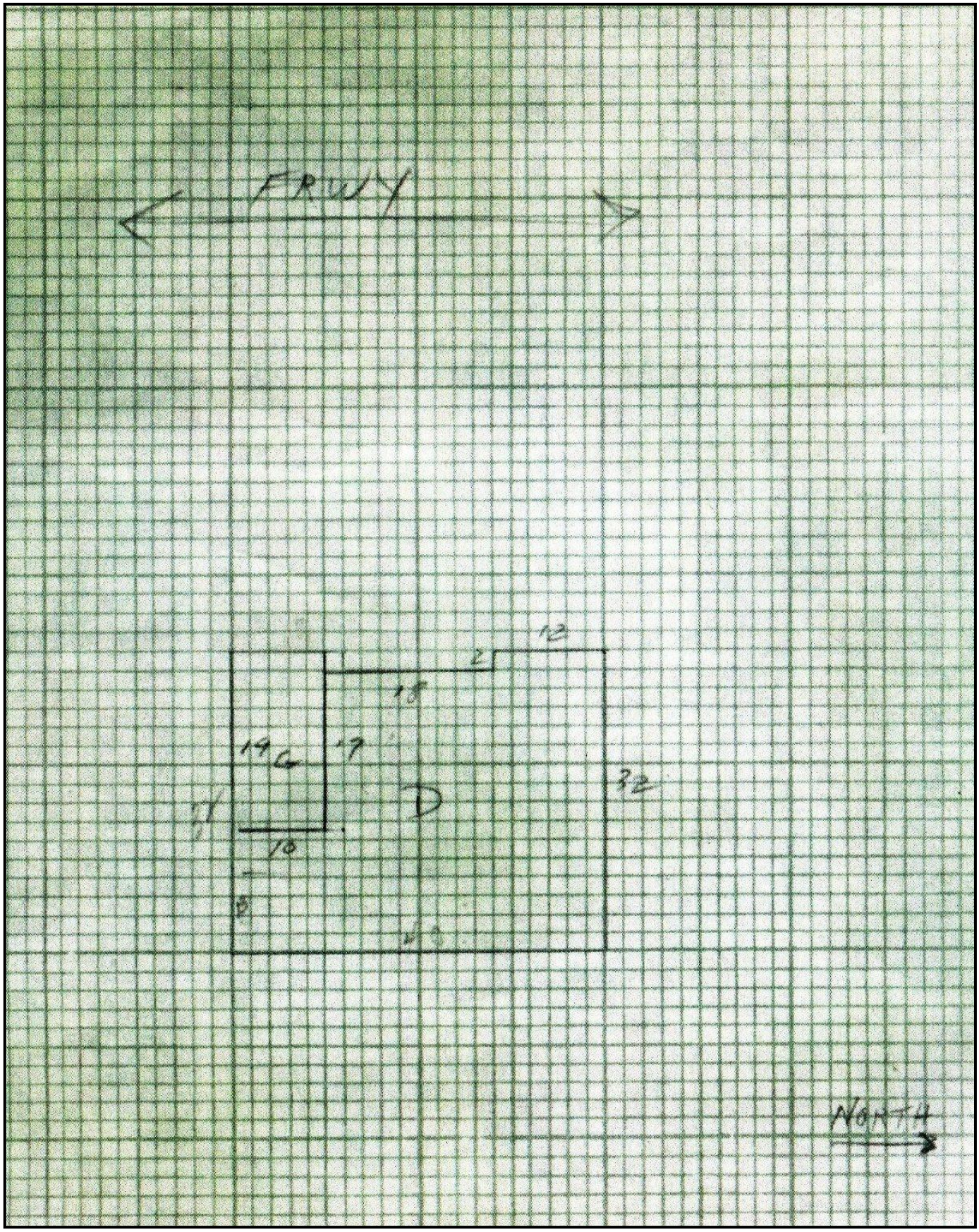
The sewer record could not be located.

A.4 Building / Construction Permits

A Records Request was sent to the City of Solana Beach Clerk's Office, and we are still awaiting a response.

A.5 Site Plan with Footprint

Taken from the Residential Building Record.



Attachment B
Ownership and Occupant Information

B.1 – Chain of Title
B.2 – Directory Search of Occupants

B.1 Chain of Title - **Lot 1**

959 Genevieve Street, Solana Beach, CA 92075
APN # 298-390-51-00

Instrument Date	**Grantor to Grantee, Date Recorded, Book Number, Page Number**
June 13, 1927	Decree of Settlement of Final Account and of Final Distribution (In the Matter of the Estate of W.F. McClure, also known as Wilbur F. McClure, also known as Wilbur Fisk McClure, deceased), File # 36477, recorded June 20, 1927, Deed Book 1342, Page 421.
May 22, 1929	Margaret A. McClure and Margaret McClure (a widow) and Ed Fletcher and Mary Fletcher (husband and wife) to B.B. Bayless (a single woman), recorded June 12, 1929, File # 33820, Deed Book 1634, Page 444.
October 10, 1935	B.B. Bayless (a single woman) to John R. Avery (a married man), File # 59856, recorded October 29, 1935, Official Records Book 441, Page 346.
October 18, 1935	John R. Avery and Norma E. Avery to William C. Tyson and Irene H. Tyson, recorded October 29, 1935, File # 59857, Official Records Book 447, Page 133.
November 16, 1936	William C. Tyson and Irene H. Tyson to Ivan H. Danielsen and Elizabeth E. Danielsen, File # 77786, recorded November 28, 1936, Official Records Book 600, Page 32.
February 10, 1941	Ivan H. Danielsen and Elizabeth E. Danielsen to Elizabeth E. Danielsen (wife of Ivan H. Danielsen, as her sole and separate property), File # 15942, recorded March 17, 1941, Official Records Book 1161, Page 12.
September 5, 1942	Elizabeth E. Danielson (also known as Elizabeth E. Danielsen) to Llewellyn W. Hughes and Elizabeth Anne Hughes, File # 56110, recorded September 15, 1942, Official Records Book 1389, Page 310.
March 13, 1985	Elizabeth A. Hughes to Elizabeth A. Hughes (as Trustee under Trust Agreement dated March 13, 1985), File # 85-091470, recorded March 19, 1985.
March 6, 1986	Elizabeth A. Hughes (as Trustee under Trust Agreement dated March 13, 1985) to Lomas Santa Fe Marine View (a California General Partnership), File # 86-125543 and 86-125544, recorded April 1, 1986.

B.1 Chain of Title - **Lot 2**

October 28, 1970	State of California (acting by and through its Director of Public Works) to Llewellyn W. Hughes and Elizabeth A. Hughes, File # 203703, recorded November 6, 1970.
March 13, 1985	Elizabeth A. Hughes to Elizabeth A. Hughes (as Trustee under Trust Agreement dated March 13, 1985), File # 85-091470, recorded March 19, 1985.

Lots 1 & 2

March 6, 1986	Elizabeth A. Hughes (as Trustee under Trust Agreement dated March 13, 1985) to Lomas Santa Fe Marine View (a California General Partnership), File # 86-125545, recorded April 1, 1986.
April 14, 2003	Certificate of Compliance. Lomas Santa Fe Marine View (a California General Partnership), owners, Document # 2003-0487729, recorded April 28, 2003.
September 19, 2005	Lomas Santa Fe Marine View (a California General Partnership) to Lomas Santa Fe Marine View, LLC, Document # 2006-0221865, recorded March 30, 2006.
September 20, 2006	Lomas Santa Fe Marine View, LLC to Pacific Sound Investors, LLC (a California Limited Liability Company), Document # 2006-0709590, recorded October 5, 2006.

B.2 Directory Search of Occupants

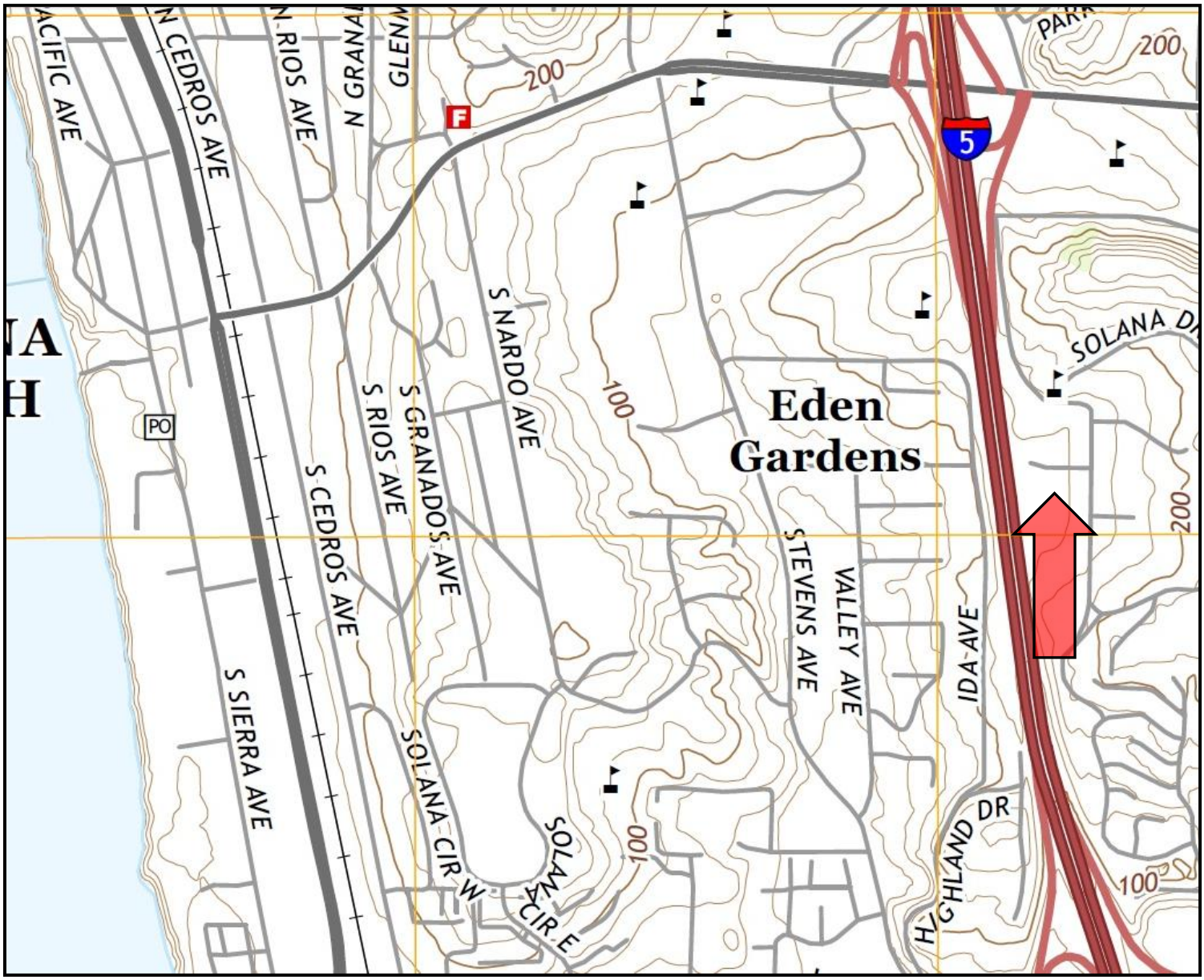
The occupants of the subject property could not be ascertained because the home was not included in any area directories. Solana Beach was included in the San Dieguito directories, which were published sporadically between 1952 and 1960. Those directories listed occupants of other addresses on Genevieve Street, but did not include a listing for 959 Genevieve Street. This is likely because although the house was constructed in 1957 (based on the county's Residential Building Record), the home was only moved to its present location in 1964 (also based on the Residential Building Record), and the San Dieguito directory was no longer being published by 1964. Solana Beach was also not included in the San Diego city directories or the San Diego County directories during the historic period up to 1971.

Attachment C
Maps

C.1 — Current and Historical USGS Maps
C.2 — Original Subdivision Map
C.3 — Sanborn Maps

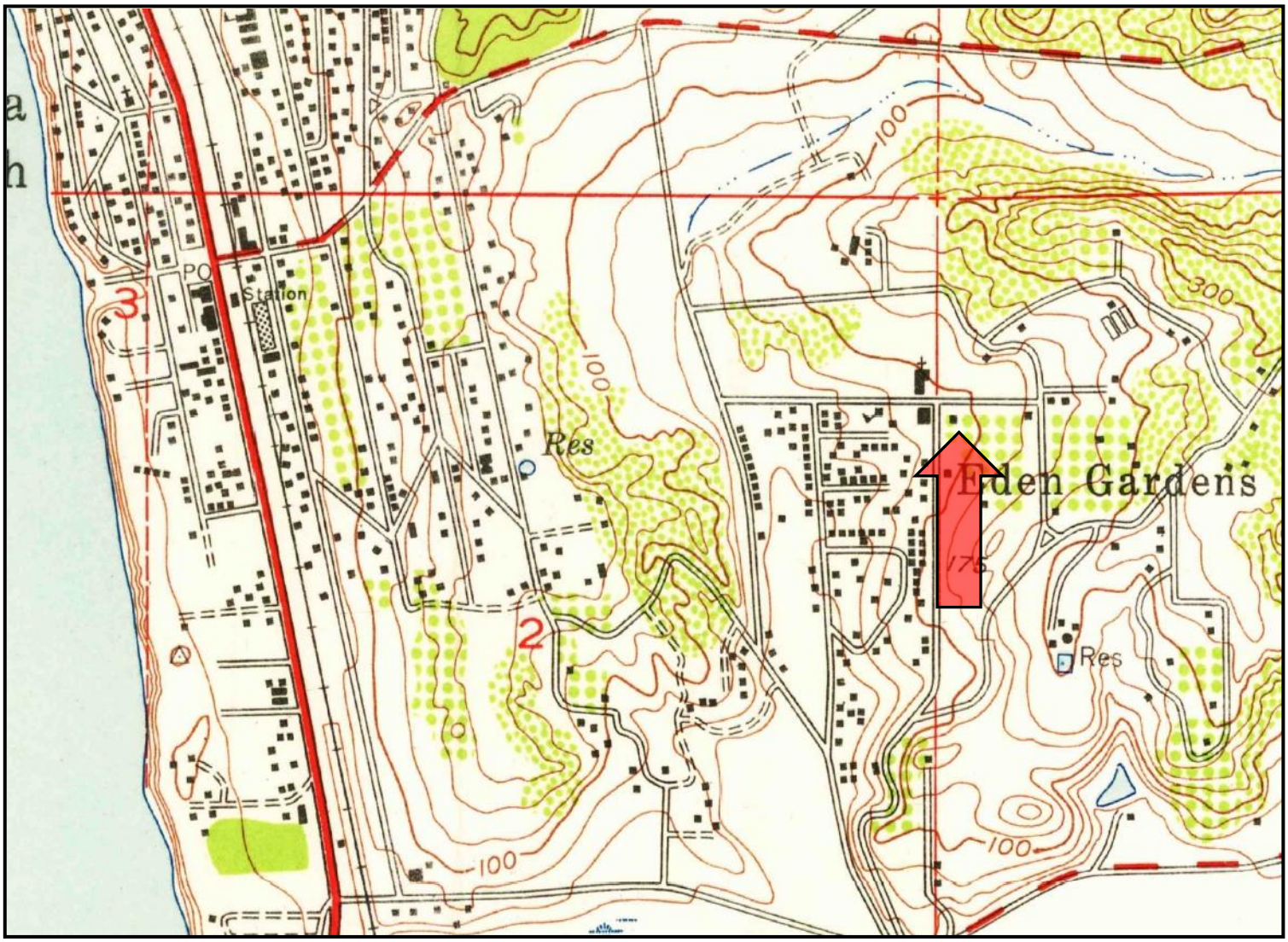
C.1 Current USGS Map - 2015

Del Mar quadrangle

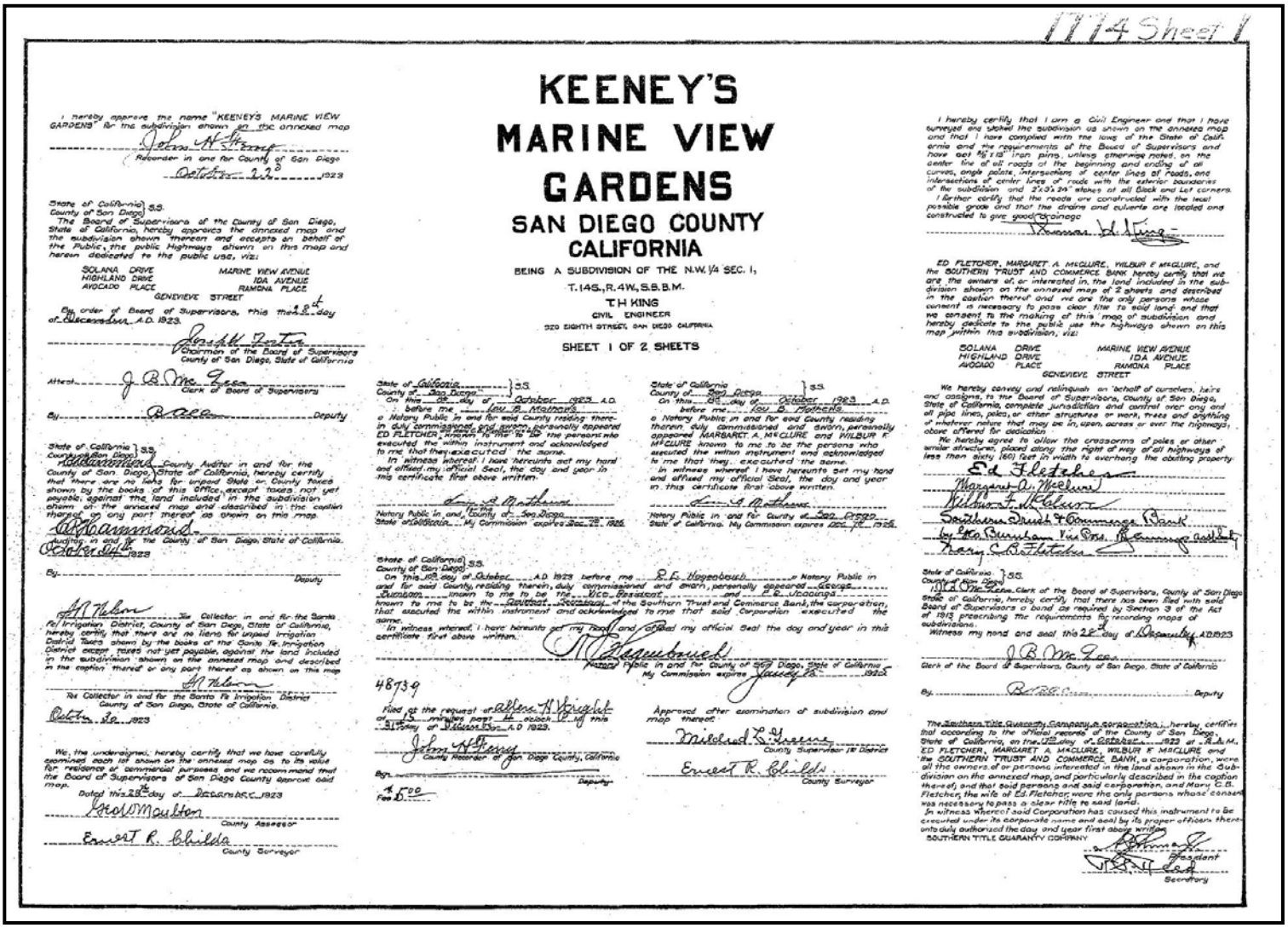


C.1 Historical USGS Map – 1953

Del Mar quadrangle



C.2 Original Subdivision Map



1114 Sheet 1

I hereby approve the name "KEENEY'S MARINE VIEW GARDENS" for the subdivision shown on the annexed map

John H. Haas
Recorder in and for County of San Diego
October 22 1923

State of California } S.S.
County of San Diego
The Board of Supervisors of the County of San Diego, State of California, hereby approves the annexed map and the subdivision shown thereon and accepts on behalf of the Public, the public Highways shown on this map and hereon dedicated to the public use, viz:

SOLANA DRIVE — MARINE VIEW AVENUE
HIGHLAND DRIVE — IDA AVENUE
AVOCADO PLACE — RAMONA PLACE
GENEVIEVE STREET

By order of Board of Supervisors, this 22nd day of December A.D. 1923.

Joseph Sexton
Chairman of the Board of Supervisors
County of San Diego, State of California

Attest J. B. McGee
Clerk of Board of Supervisors

By B. Allen Deputy

State of California } S.S.
County of San Diego
I, A. Hammond County Auditor in and for the County of San Diego, State of California, hereby certify that there are no liens for unpaid State or County taxes shown by the books of this office, except taxes not yet payable, against the land included in the subdivision shown on the annexed map and described in the caption thereof or any part thereof as shown on this map.

A. Hammond
Auditor in and for the County of San Diego, State of California.
October 24th 1923

By Deputy

A. H. Nelson The Collector in and for the Santa Fe Irrigation District, County of San Diego, State of California, hereby certify that there are no liens for unpaid Irrigation District Taxes shown by the books of the Santa Fe Irrigation District except taxes not yet payable, against the land included in the subdivision shown on the annexed map and described in the caption thereof or any part thereof as shown on this map

A. H. Nelson
Tax Collector in and for the Santa Fe Irrigation District
County of San Diego, State of California.
October 30 1923

We, the undersigned, hereby certify that we have carefully examined each lot shown on the annexed map as to its value for residence or commercial purposes and we recommend that the Board of Supervisors of San Diego County approve said map.
Dated this 28th day of December 1923

Fred Moulton
County Assessor

Ernest R. Shields
County Surveyor

KEENEY'S MARINE VIEW GARDENS

SAN DIEGO COUNTY CALIFORNIA

BEING A SUBDIVISION OF THE N.W. 1/4 SEC. 1,
T. 14S., R. 4W., S.B.B.M.

T H KING
CIVIL ENGINEER
920 EIGHTH STREET, SAN DIEGO CALIFORNIA

SHEET 1 OF 2 SHEETS

State of California } S.S.
County of San Diego
On this 22 day of October 1923 A.D. before me Lou B. Mathews a Notary Public in and for said County residing therein, duly commissioned and sworn, personally appeared ED FLETCHER, known to me to be the persons who executed the within instrument and acknowledged to me that they executed the same.
In witness whereof I have hereunto set my hand and affixed my official Seal, the day and year in this certificate first above written.

Lou B. Mathews
Notary Public in and for the County of San Diego
State of California. My Commission expires Dec. 12, 1926.

State of California } S.S.
County of San Diego
On this 22 day of October 1923 A.D. before me Lou B. Mathews a Notary Public in and for said County residing therein, duly commissioned and sworn, personally appeared MARGARET A. McCLURE and WILBUR F. McCLURE known to me to be the persons who executed the within instrument and acknowledged to me that they executed the same.
In witness whereof I have hereunto set my hand and affixed my official Seal, the day and year in this certificate first above written.

Lou B. Mathews
Notary Public in and for County of San Diego
State of California. My Commission expires Dec. 12, 1926.

State of California } S.S.
County of San Diego
On this 18 day of October A.D. 1923 before me R. F. Hagenbuch a Notary Public in and for said County, residing therein, duly commissioned and sworn, personally appeared George Burnham known to me to be the Vice President and F. E. Scoggins known to me to be the Secretary of the Southern Trust and Commerce Bank, the corporation, that executed the within instrument and acknowledged to me that said Corporation executed the same.
In witness whereof, I have hereunto set my hand and affixed my official Seal the day and year in this certificate first above written.

R. F. Hagenbuch
Notary Public in and for County of San Diego, State of California
My Commission expires January 16 1925

48739

Filed at the request of Allen H. Wright at 3 minutes past 4 o'clock P. M. this 31 day of December A.D. 1923.

John H. Haas
County Recorder of San Diego County, California
By Deputy
Fee $5.00

Approved after examination of subdivision and map thereof

Mildred L. Greene
County Supervisor 1st District

Ernest R. Shields
County Surveyor

I hereby certify that I am a Civil Engineer and that I have surveyed and staked the subdivision as shown on the annexed map and that I have complied with the laws of the State of California and the requirements of the Board of Supervisors and have set 5/8" x 18" iron pins, unless otherwise noted, on the center line of all roads at the beginning and ending of all curves, angle points, intersections of center lines of roads, and intersections of center lines of roads with the exterior boundaries of the subdivision and 2"x2"x24" stakes at all Block and Lot corners.
I further certify that the roads are constructed with the least possible grade and that the drains and culverts are located and constructed to give good drainage

T. H. King

ED FLETCHER, MARGARET A. McCLURE, WILBUR F. McCLURE, and the SOUTHERN TRUST AND COMMERCE BANK hereby certify that we are the owners of, or interested in, the land included in the subdivision shown on the annexed map of 2 sheets and described in the caption thereof and we are the only persons whose consent is necessary to pass clear title to said land and that we consent to the making of this map of subdivision and hereby dedicate to the public use the highways shown on this map within this subdivision, viz:

SOLANA DRIVE — MARINE VIEW AVENUE
HIGHLAND DRIVE — IDA AVENUE
AVOCADO PLACE — RAMONA PLACE
GENEVIEVE STREET

We hereby convey and relinquish on behalf of ourselves, heirs and assigns, to the Board of Supervisors, County of San Diego, State of California, complete jurisdiction and control over any and all pipe lines, poles, or other structures or work, trees and anything of whatever nature that may be in, upon, across or over the highways, above offered for dedication
We hereby agree to allow the crossarms of poles or other similar structures, placed along the right of way of all highways of less than sixty (60) feet in width to overhang the abutting property.

Ed Fletcher
Margaret A. McClure
Wilbur F. McClure
Southern Trust & Commerce Bank
by Geo. Burnham Vice Pres. & F. E. Scoggins Cashier
Mary C. B. Fletcher

State of California } S.S.
County of San Diego
I, J. B. McGee, Clerk of the Board of Supervisors, County of San Diego State of California, hereby certify that there has been filed with said Board of Supervisors a bond as required by Section 3 of the Act of 1913 prescribing the requirements for recording maps of subdivisions.
Witness my hand and seal this 28th day of December A.D. 1923

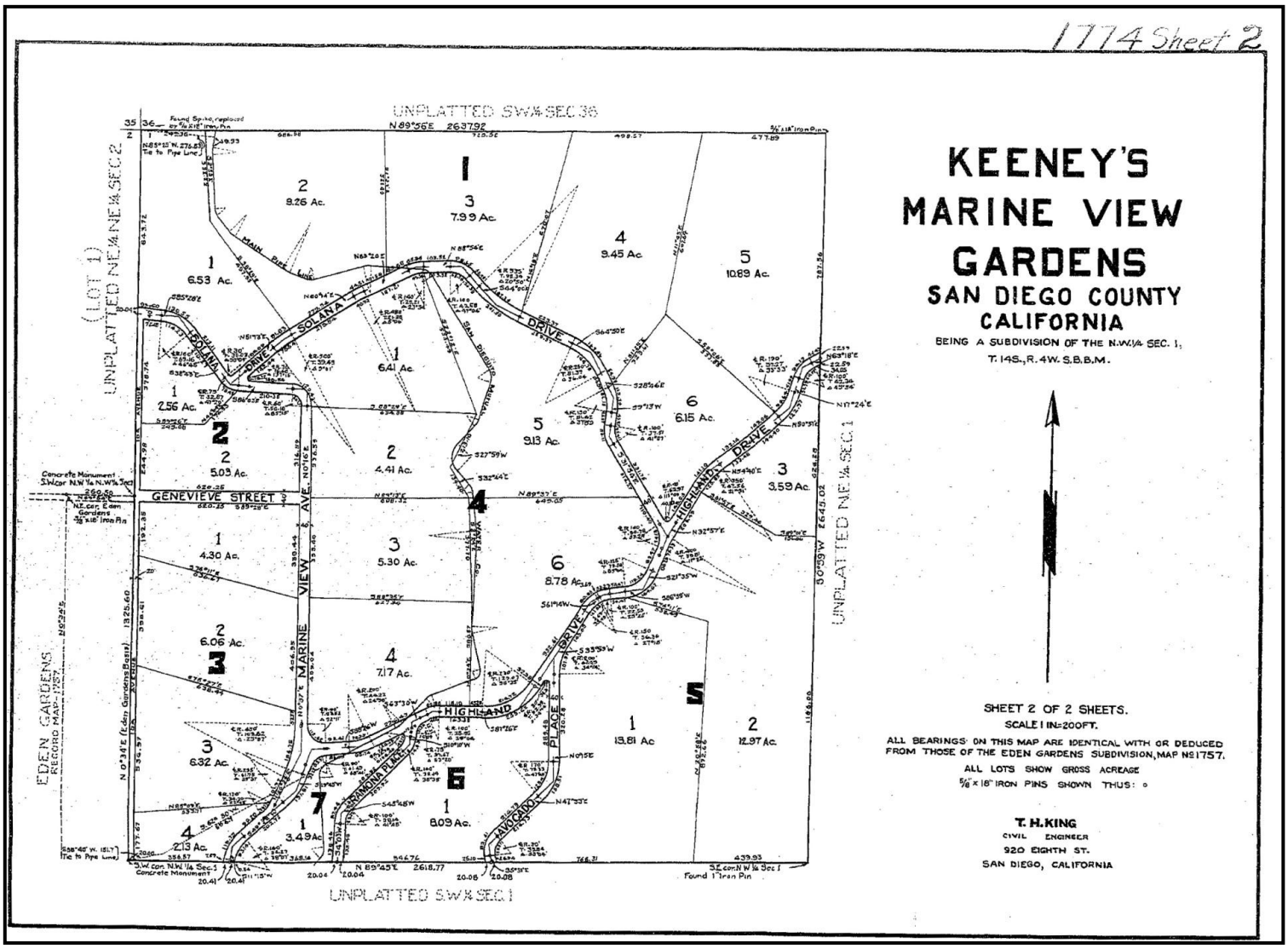
J. B. McGee
Clerk of the Board of Supervisors, County of San Diego, State of California
By Deputy

The Southern Title Guaranty Company a corporation, hereby certifies that according to the official records of the County of San Diego, State of California, on the 15th day of October 1923 at 8 A.M., ED FLETCHER, MARGARET A. McCLURE, WILBUR F. McCLURE and the SOUTHERN TRUST AND COMMERCE BANK, a corporation, were all the owners of or persons interested in the land shown in the subdivision on the annexed map, and particularly described in the caption thereof, and that said persons and said corporation, and Mary C. B. Fletcher, the wife of Ed. Fletcher, were the only persons whose consent was necessary to pass a clear title to said land.
In witness whereof said Corporation has caused this instrument to be executed under its corporate name and seal by its proper officers thereunto duly authorized the day and year first above written
SOUTHERN TITLE GUARANTY COMPANY

President

Secretary

C.2 Original Subdivision Map



C.3 Sanborn Maps

None for this area

Attachment D
Photographs

D.1 — Historical / Transitional Photographs
D.2 — Current Photographs

D.1 Historical Photographs

Historical photographs of the property could not be located.

D.2 Current Photographs – West (front) Elevation

Current photos by Kiley Wallace, March 2016

D.2 Current Photographs – West (front) Elevation

D.2 Current Photographs – West (front) Elevation

D.2 Current Photographs – South (side) Elevation

D.2 Current Photographs – South (side) Elevation

D.2 Current Photographs – East (rear) Elevation

D.2 Current Photographs – East (rear) Elevation

D.2 Current Photographs – North (Side) Elevation

D.2 Current Photographs – Interior

D.2 Current Photographs – Greenhouse

D.2 Current Photographs – Greenhouse

Attachment E
HRB Criteria
Supplemental Documentation

E.1 — Criterion A
E.2 — Criterion B
E.3 — Criterion C
E.4 — Criterion D
E.5 — Criterion E
E.6 — Criterion F

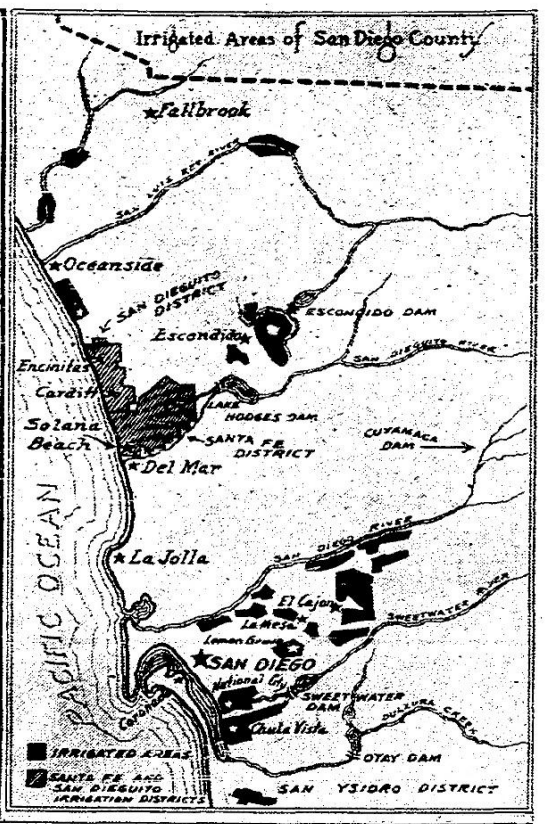
E.1 Criterion A - Community History

San Diego Union, July 8, 1923

Article continued on next page.

New Townsite Under Development at Solana Beach Is Crowning Feature of Rancho Santa Fe Project

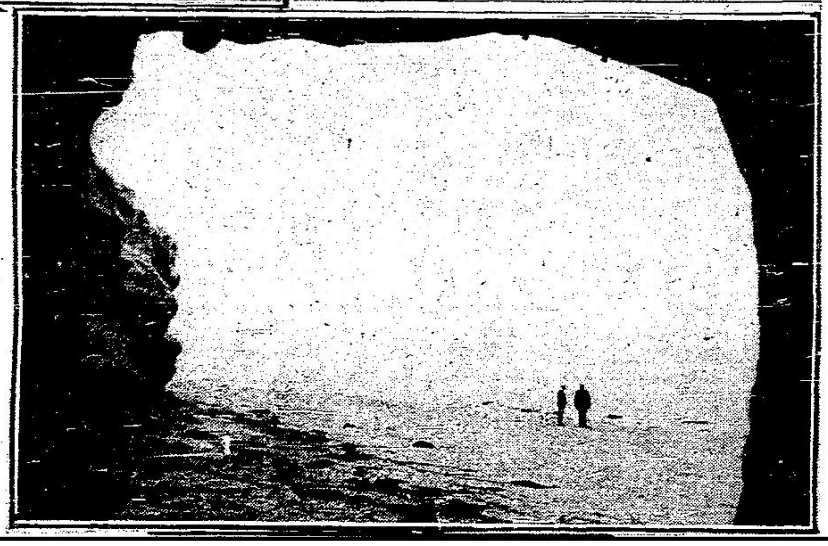
Scenes at Solana Beach, gateway for the new Santa Fe and San Dieguito Irrigation districts, which exceed in acreage the combined areas in San Diego county now under dam irrigation and which provide an important new back country for San Diego. Top, right—Present irrigated areas of San Diego county contrasted in size with the new district. Top, left—A beauty spot at Solana Beach, which possesses numerous grottoes and caves. Insert—Fuel for agricultural and motor activity is already installed at Solana Beach. Below—Picturesque outlook from a Solana Beach grotto.



Community Facing Ocean Will Serve as Approach to Vast Irrigation District.

Announcement by the Ed Fletcher company of San Diego that it is developing a new townsite, Solana Beach, 27 miles north of San Diego on the coast highway, not only accentuates interest in the well known Rancho Santa Fe project to which Solana Beach serves as approach and ocean extremity, but emphasizes the truly tremendous undeveloped agricultural and horticultural resources of San Diego county.

An official of the company said yesterday that the area embraced by the Santa Fe and the San Dieguito irrigation districts, which includes Solana Beach, has now an abundance of water and constitutes



E.1 Criterion A - Community History

San Diego Union, July 8, 1923

Article continued from previous page.

a new agricultural section larger than the combined areas in San Diego county now under dam irrigation. The figures are as follows: There are approximately 20,000 acres under irrigation in the county. Of these, 12,000 acres are dam-irrigated and 8000 individual well-irrigated. The 13,500 acres of new irrigation by means of the Lake Hodges dam is, therefore, 1500 acres in excess of present dam irrigation.

PURPOSE EXPLAINED

The same officer explained the purpose of his organization in stressing the development of Solana (Sunshine) Beach at this time.

"San Diego," he said, "is at the parting of the ways. Its people are no longer content to reside here merely. They are beginning to look to sources of income for themselves and their children. At present all the sons and daughters of this generation would be hard put to find a future in San Diego—which is why we are opening up land development in the county so that they will have a future here. Our 13,500 acres of productive soil one hour north of the city provides many hundred San Diegans opportunity not only for a highly satisfying income but for a homesite for themselves and their children.

"Another reason for our demonstrating the agricultural possibilities of San Diego county is to answer the unvoiced wish of the tourist who would like to remain forever in San Diego but dismisses the thought because he believes he could not make a living here. He certainly can, and we believe it to the interest of every San Diegan to let him know he can.

"The several hundred acres of shore land constituting Solana Beach are typical of the largely developed agricultural empire lying north of San Diego. Giving directly on to the Pacific, the resident can first of all satisfy his craving for the ocean and its beaches and surf. One minute or so away from his play he can raise his living in the form of chickens, winter vegetables, deciduous or citrus fruits, and last but not least the remarkably profitable avocado pear.

BEACH NEAR RANCH

"Another advantage of Solana Beach is that it adjoins Rancho Santa Fe which we consider the most perfectly planned land development in the world. Thus owners of the beach, at a modest price, considering the quality of this coast-line property, are next door to the estates of persons who will spend as high as $15,000 for their dwellings alone.

"In fact, Solana Beach has been selected as the townsite for the whole section adjacent to the Santa Fe and San Dieguito Irrigation districts. It has been justly termed the neck of a huge irrigation bottle.

"There is a misconception on the part of most San Diegans and visitors to San Diego which a little trip would remove. Most persons visualize San Diego as the end of a long highway from Los Angeles, bordered by and mountains and the city itself as hemmed in by similar mountains. The truth is that there are scores of fertile valleys near San Diego, which, when developed, will give this section the same fruitful appearance as those surrounding our northern neighbor. Drive the six short miles from Solana to Rancho Santa Fe and you will traverse a rich and fertile series of valleys and mesas which you probably did not know existed. You will see land, frostless above an 80-foot elevation, capable of producing from $500 to $800 an acre and up.

SITE IS LANDMARK

"And on this drive you will see one of the wonders of San Diego county, and one unknown to most—Rancho Santa Fe. Few realize the history and beauty behind this project. It is the site of the last great Spanish land grant and has played an important part in the history of southern California. Fremont marched through it and Kearny's men also, after the battle of San Pasqual. Twelve years ago when the property changed hands, it was feared by many lovers of California's past that the old place soon would lose its historic atmosphere. But W. E. Hodges of Santa Barbara, for whom the Hodges dam is named, was so struck by the history and beauty of the estate that it was finally decided to subdivide the property into highly restricted tracts for agriculturists, at the same time preserving the romantic aspect of the past including the old buildings.

"This explains why a fortune already has been spent at Rancho Santa Fe and why Solana Beach, the outlet for the entire section, is building so rapidly. Already the oil interests have installed near the beach extensive distributing stations for agricultural development and residences are springing up. Paved walks are being laid, streets graded, the shore line terraced and plans for the townsite consummated. Electricity already is available.

"Solana Beach marks the beginning of a new agricultural domain for San Diego, but it does more. As a new town it opens up an entire district. Soon paved roads will radiate from it to fertile back country now supplied with water through the San Dieguito and Hodges dams. Another thing, Solana Beach explodes the theory that San Diego is not in the same agricultural belt as our productive neighbors to the north. The truth is that San Diego is linked to Los Angeles by a series of fertile sections and has all the possibilities of the larger city."

E.1 Criterion A - Community History

Recalling old Solana Beach

William Mansfield

To complete the series on neighborhoods I thought we would spend some time looking at the two most southerly communities: Solana Beach and Del Mar. This week we will concentrate on old Solana Beach — that area west of the first hilltop.

It is always amazing to me to realize just how short a history our area generally has. This is especially true of some of the beach towns.

This town's history might begin with a gentleman by the name of George Jones. He purchased 220 acres on what was then called Lockwood Mesa in 1908.

By granting the road commission a right of way, Mr. Jones was responsible for the paving of Highway 101 through town. This was a narrow, two-lane road at the time.

The 220 acres were farmed first in hay and grain, later in lima beans. In 1922 the land was sold to Col. Ed Fletcher, a man involved in much of the early development in North County.

He paid $10 for each acre — $2,200 for all of Solana Beach! There were two homes on the land, presumably he received these as part of the sale.

It was Col. Fletcher and his brother-in-law, Eugene Batchelder who subdivided the lots, graded and named the roads, and cut the gap at Fletcher Cove to allow easier access to the beach.

Throughout the 1920s the community grew and was developing into a real town. The Depression of the 1930s stopped that and from there the community remained basically comatose until the 1950s. Most of the homes on the hillside are less than 30 years old, the condominiums along the bluff date from roughly 1970.

Therefore, "baby-boomers" who grew up in this town remember a very different environment. The town once centered on the plaza at Highway 101 and Lomas Santa Fe. The Chart House offices were the site of the movie theater, the "Old Rusty Nail" was the grocery store. There was a bowling alley along the highway (vacant offices now), and the locals' favorite restaurant was a place called "The Firepit" located near the bowling alley.

Values have risen dramatically since the pre-World War II period when lots went to the irrigation district for failure to pay taxes.

The condominiums on the bluff sell for at least $175,000, often pulling in prices of $300,000 or more. The homes on the west facing hillside have an even greater range of values. Fixers and early original homes can still be found for under $300,000.

Yet the large modern homes and those with exceptional views can demand $1 million — the bluff-front homes begin at $1 million.

Today the growth has taken Solana Beach clear to the top of the next hill and filled in most every nook and cranny within the boundaries.

Next week we shall see the largest portion of this growth, the neighborhoods of Lomas Santa Fe.

What an open house

McMillin Realty in Carlsbad opened more than 65 North County homes for viewing during its gala open house last weekend.

Along with previewing numerous homes, those in attendance had the option to enter a raffle offering 20 chances to win dinners to area restaurants as well as other prizes.

Homes ranging in price from $80,000 to $500,000 in Oceanside, Carlsbad, Vista and San Marcos neighborhoods were showcased

E.1 Criterion A - Community History

Los Angeles Times | ARTICLE COLLECTIONS

← Back to Original Article

Solana Beach Losing a Little Bit of Eden : Neighborhood: Soaring land values may signal an end for Eden Gardens, once an area of adobe homes for farm workers.

April 01, 1990 | KIM Q. BERKSHIRE

The spices from old family recipes have been simmering in the kitchens of Eden Gardens' famous Mexican restaurants for more than 40 years. The aroma draws in hordes during the peak lunch and dinner hours.

Fidel's, Tony Jacal's, Blue Bird and the Market Cafe wind down a two-block segment of Valley Avenue. Residents and regulars who have been flocking to this mini-restaurant row for decades agree that this is some of the best Mexican food around.

"Those four restaurants are as nice as any in San Diego," said Solana Beach resident Eddie Lewis.

The restaurants are one remaining constant in a community that is changing daily, and shrinking rapidly.

Part of Solana Beach, Eden Gardens is hidden between the Via de la Valle and Lomas Santa Fe Drive exits off Interstate 5 and is half a mile north of the Del Mar Racetrack.

Back in the 1920s, colorful adobe structures housed Latino migrants in need of affordable housing near their workplaces: the agricultural fields of La Costa and Carlsbad, the ranches of Rancho Santa Fe, and the Hotel Del Mar.

Almost 70 years later, many of the original adobes have been torn down and replaced with more-modern houses, condominiums and apartment projects. Real estate agent Roy Underell said most of the homes in Eden Gardens are dilapidated, but properties are still snatched up quickly, at an average price of $300,000-350,000--by buyers who covet the land. He predicted that within two years, Eden Gardens will be completely gentrified.

Frank Renteria, a second generation resident, has lived in Eden Gardens for 52 years. While he is happy to see the area cleaned up, he said the face lift Eden Gardens is undergoing has forced many longtime residents to move to less expensive areas of North County.

Five to 10 families initially settled in Eden Gardens in the early 1920s, and longtime residents said that number stayed about the same until the early 1950s, peaking in the mid-1960s. During that period, a steady migration from Mexico bolstered its population to approximately 200.

Although other cultures are slowly finding their way to Eden Gardens, it is primarily a Latino neighborhood. Second and third generations of those first families still live here, but have lost many of their parents' ways.

Al Gonzales is a third-generation resident. He and his parents are bilingual, but his three children speak little Spanish.

"Most of the kids growing up here now don't even speak Spanish," Gonzales said. "They don't know much about their own culture any more."

There are no schools, recreation or shopping centers in Eden Gardens. It does, however, have a park, two churches, an iron company, and its own dance troupe.

La Colonia Park was established in the early 1970s, to the chagrin of developers who wanted to build apartments there. It is a popular gathering place for family picnics, soccer games, fiestas--and drug dealers.

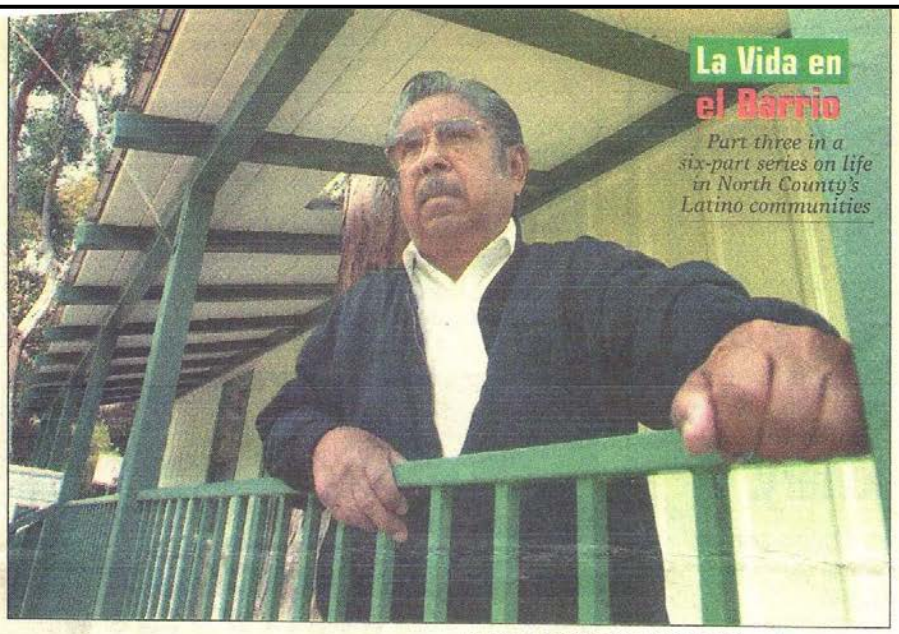
But increased drug activity in the park began to tarnish Eden Gardens' reputation. So two years ago, Eddie Lewis formed the "Eden Gardens Against Drugs" organization to battle that reputation.

Ground breaking for Eden Gardens' own community center, complete with a basketball court, soccer field, meeting rooms, a preschool and satellite library, was to be last summer, but the city is still trying to find money for the project.

E.1 Criterion A - Community History

San Diego Union-Tribune, August 21, 2001

Article continued on next page.



Photos by JAMIE SCOTT LYTLE / STAFF PHOTOGRAPHER

Elisio Ramirez grew up in Eden Gardens, but now lives in Cardiff. He volunteers as a docent at the Solana Beach Heritage Museum in La Colonia Park.

Eden Gardens of Solana Beach: 'There was nothing here'

EDWARD SIFUENTES
STAFF WRITER

SOLANA BEACH — When Elisio Ramirez was a boy growing up in Eden Gardens, the neighborhood was just a hillside dotted with about a dozen homes divided by unnamed dirt roads and dusty fields covered with chaparral.

■ Volunteer dental clinic earns award. **See Page B-1.**

"This was a real community, everybody helped each other out," said the 79-year-old Ramirez on a slow walk through the old neighborhood recently.

Today, it is one of a handful of neighborhoods in North County that is populated almost exclusively by Latino families. A few of the homes built in the 1920s remain on the hillside once called La Colonia, which roughly translates in English to the colony.

Juan Gomez, with back to us, who has lived in Eden Gardens all his life, kicks the ball around with his cousin, Zuleima Alvarado Rodriquez, who also lives in the Solana Beach neighborhood.

La Colonia is a six-block enclave of old homes packed into small lots that seem to buck the landscape of what is largely a white, wealthy beachside community just north of the Del Mar racetrack and fairgrounds.

In a short walk, Ramirez covered most of the neighborhood beginning at La Colonia Park, then the recreation center, and then across the street to visit lifelong friends.

The name was changed

The La Colonia name was changed to Eden Gardens in 1929 by a developer who thought the new name would attract more settlers, mainly whites, by evoking an image of the biblical paradise. But the neighborhood remained mostly Latino.

"There was nothing here," said Jesus Granados, whose family arrived in 1919. His father, Jose Granados, bought a piece of land on Valley Avenue just south of Genevieve in 1936 and opened Granados

➤ **BARRIOS,** A-6

E.1 Criterion A - Community History

Article continued from previous page.

Market.

Ramirez, a longtime friend of the Granados family, said he was paid 30 cents to sweep the floor of the market in the afternoons and on Saturdays when he was 13 years old.

The descendants of the original Mexican settlers who came in the early 1900s have inherited many of the homes in La Colonia.

Several of them established popular restaurants over the years, including Don Chuy's, Tony's Jacal, Fidel's and the Blue Bird Cafe.

The Granados turned their grocery store into a restaurant, called Don Chuy's, in 1942. Tony and Catalina Gonzalez opened Tony's Jacal in 1946. Fidel and Ramona Montanez turned their barbershop into an eatery in 1965. Guillermo and Ramona Rincon turned an old pool hall into the Blue Bird Cafe in 1934, which closed in 1996 and is now used as office space.

"I gave it to my son, and I bought it from my mother when I left the military," Granados, 86, said of the family business.

An extended front lawn

In this little neighborhood there are few secrets, Ramirez said. Most everyone knows each other. And not only do they know each other, "almost everyone seems to be related to someone else," said Richard Wahl, a docent at the Solana Beach Heritage Museum at La Colonia Park. He has worked for the city for eight years.

Among the older families there are some newcomers who make the park an extended front lawn.

The neighborhood amounts to about a half-dozen streets spilling from the hillside on to Valley Avenue and the park, between Via de la Valle and Genevieve Street. The names of the streets ring of the neighborhood's Latino heritage: Hernandez, Juanita and ... many more.

The park, between Valley and Stevens avenues, is the heart of the neighborhood.

Those who were around before there was a park remember thugs hanging out on the empty lot near Valley Avenue selling drugs late into the night and most of the day. The lot had a small creek running through it and a field of tall bamboo where the dealers would hide when patrol cars came around.

Most of that changed when the park was built in 1991. A sheriff's substation and community recreation center were built at the park. On the south end, there is a jungle gym that neighborhood children play in.

Young men and women use the park benches on the west side as a place to eat their noontime lunch or read a magazine. On the east end of the park, local women sit and gossip about the goings-on in the community.

On the weekends, families use the picnic area to celebrate birthdays and other family occasions.

Change

Much as it was many years ago, La Colonia remains home to Mexican immigrants who came to toil in the dry field ranches around Solana Beach and Rancho Santa Fe.

In the afternoons, a large truck drives through the streets selling produce door to door. The truck offers hard-to-find Mexican products, like the green chilies used in Mexican salsas, and caters to people who often don't have transportation. The nearest grocery store is a large chain supermarket several blocks away.

Like most Latino neighborhoods in North County, Eden Gardens shares a similar history that begins with the Spanish settlements in 1769. After winning independence from Spain, Mexico ruled most of what is now the western United States until the late 1840s, when California officially became a part of the United States.

The transition from Mexican to United States rule was a difficult one. Land titles were tenuous at best and many of the Mexican owners sold or lost their lands during the period.

The Solana Beach area began to develop rapidly after Lake Hodges Dam was completed and the Santa Fe Irrigation District was formed in 1918. In the early 1920s, new Mexican immigrants began to arrive in Solana Beach to harvest avocados, tomatoes, grain and lima beans.

No Spanish allowed

The children of those early Mexican settlers remember attending the Americanization School on Genevieve Street in the barrio. At the school, speaking Spanish was forbidden and children were "Americanized" by learning English and having some of their names changed.

Much of the early Latino history of Solana Beach would have been lost were it not for the Civic and Historical Society and former Councilwoman Tere Renteria, who helped create the Heritage Museum.

The museum is the oldest standing house in Solana Beach, dating back to the 1890s. It belonged to North Dakota Sen. James West Stevens.

The museum today features an exhibit of photographs, newspaper clippings and other family items of the early Latino families.

One Saturday a month Ramirez volunteers at the museum, telling visitors stories about the old Mexican neighborhood.

Despite the efforts to Americanize the barrio, the culture and traditions remain very much as they were in the old country: Mexican music can be heard from small radios in the lawn, Spanish is widely spoken in the park, and old neighbors alternate from English to Spanish in the same conversation.

But if there were ever any question about the barrio's patriotism and love of this country, Ramirez would point to a wall on the park's recreation center. There, he and old friends have placed more than 80 photographs of soldiers from the barrio who have fought and lost their lives in foreign wars since World War II.

"There are stories I could tell you; there are stories they could tell you," Ramirez said pointing to the men in the pictures, and holding back a tear.

E.1 Criterion A - Community History

The San Diego Union-Tribune | NORTH COUNTY | Sunday, October 31, 2004

THE WAY WE WERE

Tale of two neighborhoods in Solana Beach

By Diane Welch

SOLANA BEACH — In 1925, avocado groves and rows of lima and string beans dominated Solana Beach.

That was the year 4-year-old George Wilkens arrived with his family in their Model T Ford.

Two years later, Robert "Chuckles" Hernandez was born to a Mexican family in Solana Beach.

Both men still live in Solana Beach and are pieces of living history. Their diverse recollections describe the evolution of two neighborhoods within the small community.

Jim Nelson, president of the Solana Beach Civic and Historical Society, has published their childhood memories in "Early Solana Beach."

Hernandez spent his first years on Cedros Avenue. In 1933 Mexican families who lived there were relocated to La Colonia, also known as Eden Gardens.

The relocation was based on a legal document for school property in Solana Beach, which specified that there could be "no children of Negro or Mexican descent in any school," according to a 1981 story in *The Tribune*.

The Americanization School was opened in La Colonia, and Hispanic students were sent there. Speaking Spanish was forbidden, and learning English was mandatory.

Hernandez started attending the Americanization School when he was 5.

"We didn't realize that we were being segregated. We were happy kids," Hernandez said.

He split his time between working in the avocado groves and attending school.

Wilkens attended Central School on Rios Street.

"Sometimes there were only three or four in a class," he said.

From an early age, Wilkens worked in his family's garden supply store, on the northeast corner of Lomas Santa Fe Drive and Cedros Avenue. The store sold 100-pound bags of fertilizer that Wilkens and his brother would load and unload.

"There weren't any forklift trucks in those days. We were in pretty good shape," he said.

Hernandez would play barefoot in the sandy soil on Genevieve Avenue, up the hill from the Americanization School.

"We'd play cowboys and Indians, and golf," he said. "When the lima beans had been harvested, we dug holes in the dirt and placed cans in them. This was our golf course."

Wilkens made a scooter from pieces of wood and steel skate wheels and rode it on the newly installed sidewalks on the west side of U.S. Highway 101.

"It made a racket, but the people didn't complain," he said.

Wilkens used a long wagon he'd been given for Christmas to carry friends.

Later, he would use it to carry wood bought from Hershall Larrick's lumberyard. Wilkens and friends used the lumber to build their own hut. They also dug trenches that would be covered with wood.

"We'd conduct our secret club meetings there," he said.

South of Fletcher Cove, atop the bluff now occupied by condominiums, Wilkens would set up camp.

"I camped up there many times as a young boy, even lighting fires by rubbing sticks together," he said.

To earn a quarter, Hernandez would sweep the cantina on his street, where Tony's Jacal restaurant now stands. Ice cream treats were a nickel apiece.

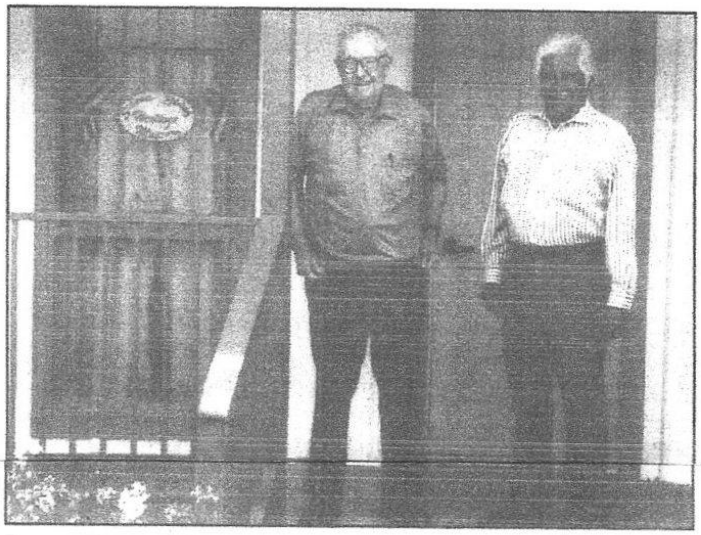
Later, he would caddy for Bing Crosby and Victor Mature in Rancho Santa Fe.

Copies of "Early Solana Beach" may be obtained from: Solana Beach Civic and Historical Society, P.O. Box 504, Solana Beach, CA 92075. The cost is $20, and half of the cost is tax deductible.

For more information, call Jim Nelson at (858) 259-7657.

Diane Welch is a freelance writer.

In 1929, George Wilkens (right) and other kids from his Solana Beach neighborhood took a watermelon break while lined up on their homemade scooter. *Courtesy of George Wilkens*



George Wilkens (left) and Robert Hernandez at the Solana Beach Heritage Museum in 2002. *Courtesy Solana Beach Civic and Historical Society*

E.1 Criterion A - Community History

4 COVER STORY

NORTH COAST | THE SAN DIEGO UNION-TRIBUNE | SUNDAY • JUNE 26, 2011

AT 25, SOLANA BEACH HAS COME INTO ITS

City incorporated so it could have control over its destiny

JONATHAN HORN • U-T

SOLANA BEACH

Happy 25th, Solana Beach.

On July 1, 1986, Solana Beach became a city. This Friday it will hold a quarter-century birthday party at the newly renovated Fletcher Cove Community Center.

Before 1986, Solana Beach was part of unincorporated San Diego County, with residents and leaders constantly feeling ignored by the board of supervisors. Moneys that could have stayed in Solana Beach, such as revenue from sales tax, were being directed to other parts of the county. And there was a constant threat of development without local decision makers.

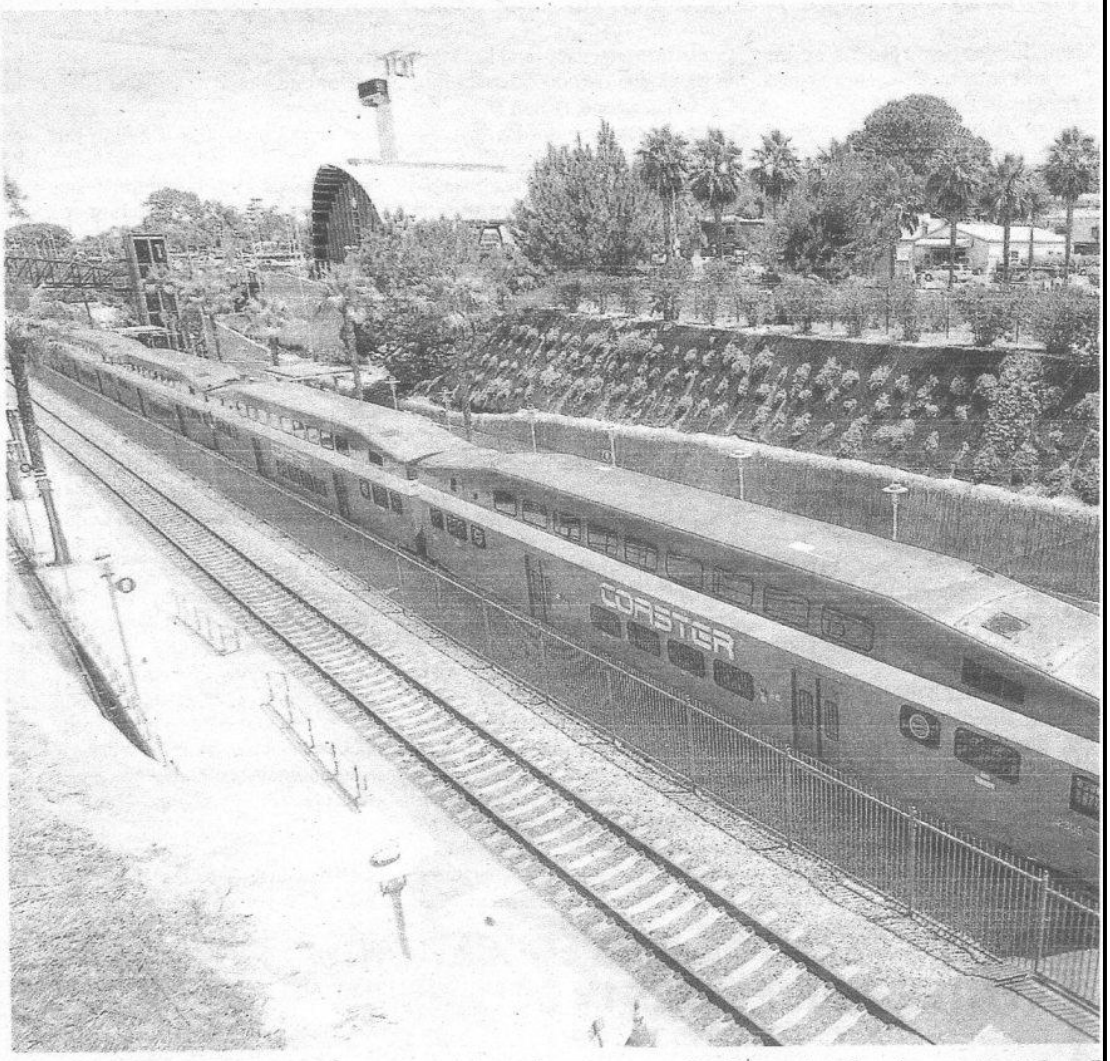
"What really fueled the campaign for incorporation was to have some say over land use," said Margaret Schlesinger, the city's first mayor. "This is a wonderful place to live and we've just done so many improvements."

Indeed. Solana Beach has become a draw to people across the county over the past quarter century. The Cedros Avenue Design District has become a regional draw. A large train station is now a transit center in North County. The city built Fletcher Cove park above its coastal bluffs. And the lush Coastal Rail Trail walkway traverses Highway 101.

One move was ideologic. In 2003, the city became the first in America to ban smoking on beaches.

A lot of this may not have happened if Solana Beach didn't have local authority.

"Oh my gosh it's been phenomenal," said Councilman Joe Kellejian, first elected in 1992. "It's gone by so fast. We've accomplished great things....We have a wonderful place that we call Solana Beach."



The Coaster sits at the transit center (background). The center has been a key development in Solana I

The citizens of Solana Beach voted to incorporate by a 64 percent majority in June 1986. Solana Beach became a city at 7 a.m. July 1 of that year. The first order of action? Stop all county-issued development permits in Solana Beach.

"We all got sued immediately," Schlesinger said. "We won them all. We just wanted to stop everything to take a look at what was happening."

Solana Beach's first attempt to incorporate was unsuccessful. A ballot measure for it to become a city in 1981 failed by 200 votes, Schlesinger said. But five years later, Solana Beach residents successfully drove the effort for cityhood. A group of roughly 75 made it happen with a campaign called Citizens Intending to Incorporate, or CITI.

Encinitas also incorporated in 1986. The two areas had been considering forming one city as the San Dieguito region, but Encinitas would incorporate on its own in October of that year.

One of Solana Beach's next big projects will be revitalizing its downtown stretch of the Coast Highway. The city will borrow up to $6 million from the San Diego Association of Governments for the first phase of a project that could ultimately create a pedestrian and bicyclist friendly shopping district, with roundabouts instead of traffic lights and a reduced number of lanes for cars. Construction could begin in the fall.

jonathan.horn@uniontrib.com
(760) 752-6755

Solana Beach 2

Where: Fletcher Cov
When: Friday, July 1
Admission: Free
Schedule:
- **5:30 p.m.** Grand R Community Center
- **6 p.m.** Celebration
- **6:45 p.m.** Magicia
- **7 p.m.** 1980s tribu
- **7:45 p.m.** Present dignitaries
- **8:45 p.m.** Laser li

Works Cited

E.1 — Provide a list of works cited (bibliography)

E.1 Bibliography

Books

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1991 "San Diego Architects 1868-1939." University of San Diego

California Office of Historic Preservation
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Hartmann, Glenn D.
1977 *Architectural Description Guide: Developed for Use in Preparing Nominations for State and National Registers of Historic Places*. Office of Archaeology and Historic Preservation, Washington State Parks & Recreation Commission, Olympia, Washington

McAlester, Virginia
2013 *Field Guide to American Houses*. New York: Alfred A. Knopf, Inc.

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1922 *City of San Diego and San Diego County, the Birthplace of California*. Volume I. The American Historical Society, Chicago.

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1985 *Historic American Building Survey Guidelines for Preparing Written and Historical Descriptive Data*. Division of National Register Programs, Western Regional Office, San Francisco, California

Smith, G.E. Kidder
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2009 Historical Resource Research Report Guidelines and Requirements, Land Development Manual, Historical Resources Guidelines, Appendix E, Part 1.1, Adopted by the Historical Resources Board November 30, 2006, Updated January 24, 2008 and February 9, 2009.

Internet

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Newspaper

San Diego Union

San Diego Evening Tribune

San Diego Union-Tribune

Appendix 5.4-2 Cultural Resources Study

Appendices

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HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
Suite 200
La Mesa, CA 91942
619.462.1515 **tel**
619.462.0552 **fax**
www.**helixepi**.com

January 29, 2016 JDW-01

Mr. John DeWald
John DeWald & Associates
1855 Freda Lane
Cardiff, CA 92007

Subject: 959 Genevieve Street/Residential Care Facility Cultural Resources Study Addendum

Dear Mr. DeWald:

Affinis conducted a cultural resources survey for the proposed residential care facility (project) at 959 Genevieve Street in the City of Solana Beach (City). The survey report, dated December 16, 2011, was submitted to the City. A third-party review of the letter report recommended that additional supporting materials be provided; no additional fieldwork or updated records searches were recommended. This letter and accompanying materials serve as an addendum to the 2011 report (Giletti and Robbins-Wade 2011) to meet the recommendations of the third-party review by Sue A. Wade of Heritage Resources. HELIX Environmental Planning, Inc. (HELIX) acquired the cultural resources division of Affinis in 2014, so the cultural resources staff who conducted the study under Affinis are now staff members at HELIX.

The third-party review of the 2011 report made the following recommendations:

> While the 12/16/2011 report meets the requirements for basic research and field tasks to determine the significance of impacts on archaeological resources at the project site, it needs to be updated to include additional historic background and context of the region and project site. The below items referenced in the 12/16/2011 archaeological report need to be incorporated into the report in order to support its findings.

1. Confirmation and results of the record search at South Coastal Information Center (SCIC)
2. Detailed discussion of the regional results of the SCIC record search
3. Detailed discussion of historic maps and aerial photographs documenting the site history (including the 50+-year old structure(s) on the property)
4. Archaeological site record for CA-SDI-15,885

5. Confirmation and results of the Sacred Lands File search and request for Native American Contact List with the Native American Heritage Commission (NAHC)
6. List of Tribal Contacts and results of those contacts, particularly recommendations pursuant to discussions with Clint Linton of Red Tail Monitoring and Research, Inc.

Items 1, 4, 5, and 6 are included with this letter as Confidential Attachments A, B, C, and D, respectively. Item 2, a detailed discussion of the regional results of the records search is included below. Item 3 is to be provided by a separate consultant.

REGIONAL SETTING AND RECORDS SEARCH RESULTS

The project site is located between two areas with a great deal of archaeological and cultural sensitivity: the San Dieguito River Valley to the south and San Elijo Lagoon to the north. The lagoon margins were centers of habitation and resource gathering/processing, due to the abundance of natural resources available. The proximity to riverine, lagoon, marsh, open coast, and upland habitats gave inhabitants access to a variety of plant and animal resources, and water would have been available in seasonal drainages. However, as discussed below, few cultural resources have been recorded in the vicinity of the project area itself.

A records search was obtained from the South Coastal Information Center (SCIC) in April 2011 for the project area and a 1-mile radius around it. The records search shows 57 cultural resource studies conducted within the 1-mile search radius; several of these studies addressed the Interstate 5 (I-5) corridor, immediately west of the project site, and one specifically covered the project site (Buysse and Smith 2000).

As addressed in the 2011 report, 17 cultural resources were recorded within the 1-mile radius records search area (Table 1, *Previously Recorded Sites Within 1-Mile Radius*). These include two sites described as artifact scatters, one which also had fire-affected rock (FAR); one shell scatter with no artifacts (CA-SDI-15885, located on the project property); two shell scatters with limited artifacts (some debitage and ground stone at one, a single flake and a piece of FAR at the other); a shell and artifact scatter with a more diverse assemblage, including manos, metates, cobble tools, cores, and debitage; a site that included bedrock milling features, as well as flakes, cores, and ceramics; four habitation sites with shell and artifacts, two of which included hearths, another included lithics, shell, animal bone, shell beads, and possible human bone; two sites consisting of historic foundations; an isolated lithic artifact; two isolated shell fragments; and one site for which no information is available other than the map location. The locations of these resources are shown in Confidential Attachment A.

With the exception of CA-SDI-15885, located within the project area, and CA-SDI-13484, which is mapped 500 feet to the southwest, none of the recorded archaeological sites are closer than approximately ½ mile away. Six of the recorded sites and the two shell isolates were located along the northern edge of the San Dieguito River Valley, south of the project area. Other sites were on ridge fingers or along drainages to the north of the project location, near the southern margins of San Elijo Lagoon. The historic foundations were recorded along the railroad tracks, near the coastal bluffs.

CA-SDI-15,885 was originally recorded in May of 2000 by ASM Affiliates, Inc., as an isolate containing "Two pieces of *Chione* shell, scattered and probably in secondary context." The fieldwork by ASM Affiliates was confined to the I-5 right-of-way, adjacent to the current project area. Brian F. Smith & Associates (BFSA) personnel revisited the site later that year as part of a survey and testing program covering the current project area. The site record prepared by BFSA staff indicated:

> The site consists of a sparse, shallow deposit of heavily fragmented marine shell on a gradual northwest-trending slope in an area now used as a palm nursery. The deposit has been heavily disturbed by a dirt road, the movement of large, potted palms, the installation of an irrigation system, and erosion. Marine shell genera present include *Chione* sp., *Pecten* sp., *Ostrea* sp., and *Tagelus* sp. A small amount of charcoal was recovered from the shovel tests but is likely modern. No artifacts were identified. The site is probably related to the isolated pieces of Chione identified by Caltrans (P-018807) during a survey along the cut for Interstate 5 directly southwest of this property [site record, on file at SCIC].

Based on a surface examination and excavation of six shovel tests, BFSA concluded, "The site is evaluated as not important by CEQA [California Environmental Quality Act] standards based on a lack of artifacts, unique elements, and integrity" (site record, on file at SCIC). Marine shell was generally found in the 0-10 centimeter (cm) level, with some shell recovery in the 10-20 cm level of one shovel test. Two of the six shovel tests were negative.

HISTORIC MAPS AND AERIAL PHOTOGRAPHS

As previously noted, another consultant is addressing the house on the property that is over 50 years old. That study will include the detailed discussion requested as item 3.

SUMMARY OF NATIVE AMERICAN CONTACTS

As addressed in the 2011 report, Affinis contacted the NAHC for a Sacred Lands File search, which indicated that Native American cultural resources were not identified within ½ mile of the project Area of Potential Effect (Confidential Attachment C). Affinis coordinated with Clint Linton of Red Tail Monitoring and Research and the Iipay Nation of Santa Ysabel; outreach to other tribal entities was not undertaken. Mr. Linton was not able to visit the project site, but he agreed with the recommendation that no further work was required, based on the results of the testing conducted by BFSA and the disturbed nature of the project site. In January 2016, Mr. Linton reviewed the 2011 report and information regarding CA-SDI-15885 and provided a letter indicating his agreement that no further measures were required for this project (Confidential Attachment D).

The City notified interested tribes of the project under the mandate of Assembly Bill 52 (AB 52), which requires the consideration of traditional cultural resources in the environmental review process under CEQA. The Viejas Band of Kumeyaay Indians requested that a Kumeyaay cultural monitor be present for ground-disturbing activities. As previously noted, due to the amount of past ground disturbance, subsurface cultural resources are not anticipated, and

monitoring was not recommended for the project. Standard conditions will be placed on the project that, if cultural material is encountered during grading or other ground-disturbing activity, work will halt in the immediate area until an archaeologist and a Kumeyaay Native American monitor make a determination as to the significance of the finds.

If you have any questions regarding the cultural resources study or the attached materials, please call me at (619) 462-1515.

Mary Robbins-Wade, RPA
Director of Cultural Resources
Southern California

Attachment:

Table 1 Previously Recorded Sites within 1-Mile Radius

Confidential Attachments:

A Records Search Maps
B CA-SDI-15885 Site Record
C Native American Heritage Commission Correspondence
D Native American Correspondence

REFERENCES

Buysse, Johnna L., and Brian F. Smith
2000 *An Archaeological Survey and Evaluation of a Cultural Resource for the Health Care Group Project*. Brian F. Smith and Associates, Poway. Report on file at South Coastal Information Center, San Diego State University.

Giletti, Andrew, and Mary Robbins-Wade
2011 Residential Care Facility, 959 Genevieve Street -- Archaeology (Affinis Job No. 2428). Letter report. Affinis, El Cajon, CA. Report on file at South Coastal Information Center, San Diego State University.

Table 1 PREVIOUSLY RECORDED SITES WITHIN 1-MILE RADIUS			
Trinomial (CA-SDI-#)	**Primary Number (P-37-#)**	**Site Description**	**Site Recorder and Date**
191	000191	No information given, only map location	Treganza, n.d.; transcribed by Bull and Gross, n.d.
4351	004351	Prehistoric artifact scatter	Bull, 1976
4352	004352	Prehistoric artifact scatter and fire affected rock concentrations	Bull, 1976
5957	005957	Prehistoric shell and artifact scatter, including manos, metates, ceramics, cobble scrapers, choppers, cores, and debitage (destroyed by grading)	Carrico, n.d.; Pigniolo and Bark, 1998; Zepeda-Herman, 2009
7287	007287	Prehistoric milling features and shell and artifact scatters, including flakes, cores, and ceramics	Zepeda-Herman, 2009; Carrillo, 1979
7288	007288	Prehistoric lithic isolate	Carrillo, 1979
10238	010238	Prehistoric habitation site with lithics, faunal bone, shell, shell beads, and potentially human bone	Cooley, 2002; Wade, 1988; Smith, 1986
13484	013484	Prehistoric shell scatter with some debitage and ground stone	Laylander, 2006; Laylander, 2003; Crafts and Rosen, 1993
13506H	013506	Historic foundations	Diehl and Rushing, 1993
13507H	013507	Historic foundations	Diehl and Rushing, 1993
15885	018807	Prehistoric shell scatter	Brian F. Smith & Associates, 2000; O'Neill, 2000
16697	016569	Prehistoric shell scatter with one flake and one fire affected rock	Pigniolo and Bark, 1998
17390	026494	Prehistoric habitation site with shell, a few artifacts, and hearths	Rogers, n.d.

Table 1 (cont.) PREVIOUSLY RECORDED SITES WITHIN 1-MILE RADIUS			
Trinomial (CA-SDI-#)	**Primary Number (P-37-#)**	**Site Description**	**Site Recorder and Date**
17397	026501	Prehistoric habitation site with shell, a few artifacts, and hearths	Rogers, n.d.
18609	029051	Prehistoric habitation site with shell and artifacts	Noah, 1986
---	016571	Isolated shell fragment (Chione)	Pigniolo and Bark, 1998
---	016572	Isolated shell fragment (Argopecten)	Pigniolo and Bark, 1998

Affinis
environmental
services

847 Jamacha Road, El Cajon, California 92019-3206
tel: (619) 441-0144 fax: (619) 441-6421

December 16, 2011

Mr. John DeWald
JD & Associates
1855 Freda Lane
Cardiff, California 92007

Reference: Residential Care Facility, 959 Genevieve Street -- Archaeology (Affinis Job No. 2428)

Mr. DeWald:

Affinis was contracted to conduct an archaeological survey for the proposed Residential Care Facility, 959 Genevieve Street, in the City of Solana Beach. The survey took place in April 2011. One previously recorded archaeological site, CA-SDI-15,885, was relocated at the time of the survey. This site has been tested and was determined not to be a significant resource (Smith and Buysse 2000). Based on this, development of the proposed project will have no significant effect on cultural resources. This letter report summarizes the methods and results on the archaeological survey.

The Residential Care Facility project is located in the City of Solana Beach, in western San Diego County (Figure 1). The property, as it currently stands, consists of a single-family residence and former palm nursery located at 959 Genevieve Street. The parcel (APN 298-390-51) is bounded on the north by Genevieve Street and on the west by the Interstate 5 (I-5) right-of-way; it is 200 feet west of Marine View Avenue (Figures 2 and 3). The project area is within Section 1 of Township 14 South, Range 4 West, on the USGS 7.5' Del Mar quadrangle (Figure 2).

A record search was obtained from the South Coastal Information Center for the project area and a 1-mile radius surrounding the property. A total of 15 sites were mapped within the 1-mile radius, including CA-SDI-15,885 which lies on the property. Of the 15 sites, two are historic resources, with the remaining 13 being either flake and shell scatters or habitation sites with hearth features, pottery, ground stone implements, and lithic tools.

CA-SDI-15,885 was originally recorded in May of 2000 by ASM Affiliates, Inc., as an isolate containing "Two pieces of *Chione* shell, scattered and probably in secondary context". The fieldwork by ASM Affiliates was confined to the I-5 right-of-way, adjacent to the current project area. Brian F. Smith & Associates personnel revisited the site later that year as part of a survey and testing program covering the current project area.

The site record indicates, "The site consists of a sparse, shallow deposit of heavily fragmented marine shell ..." in a highly disturbed context. A series of six shovel test pits were excavated across the site. No artifacts or fire-affected rocks were identified. "The site is a sparse, shallow marine shell deposit probably resulting from short-term resource processing by a prehistoric group. No evidence of artifacts was identified, thus a temporal assignment for the site is not possible. Development in the area has heavily impacted the deposit, leaving a very dispersed scattered [sic] of shell. The site is evaluated as not important by CEQA standards based on lack of artifacts, unique elements, and integrity" (site record, on file at South Coastal Information Center. No further work was recommended for the site.

Affinis was contracted to survey the 3-acre parcel as part of the environmental review for the proposed Residential Care Facility, 959 Genevieve Street project. The survey was carried out on April 12, 2011 by Affinis' field director Andrew Giletti under sunny skies with temperatures in the mid 60's. The property was walked in 10-meter intervals with close attention paid to those areas devoid of vegetation, as the majority of the lot was covered in tall grasses and annual flowers. CA-SDI-15,885 was relocated and found as described when last recorded by Brian F. Smith & Associates in 2000. There was a light density weathered shell scatter at the time of the survey.

The Native American Heritage Commission (NAHC) was contacted in April 2011 for a Sacred Lands File Search. The NAHC indicated that no Native American cultural resources have been recorded within ½ mile of the project area. Affinis Director of Cultural Resources, Mary Robbins-Wade, discussed the project with Clint Linton of Red Tail Monitoring and Research (Native American representative).

The project area has been subject to a great deal of disturbance from previous residential use and a palm nursery. A previously recorded archaeological resource consisting of marine shell with no artifactual material was found during the current survey. As addressed above, the site (CA-SDI-15,885) was previously tested and determined not to be a significant cultural resource. No significant Native American cultural resources have been identified in the vicinity by the NAHC. Based on this, the project will have no significant effects to cultural resources, and no mitigation measures are recommended.

If you have any questions, please call Andrew Giletti or Mary Robbins-Wade at (619) 441-0144, or e-mail at mary@affinis.net.

Andrew Giletti,
Field Director, Archaeologist

Mary Robbins-Wade, M.A., RPA
Director of Cultural Resources

Affinis
Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Regional location in San Diego County

Figure 1

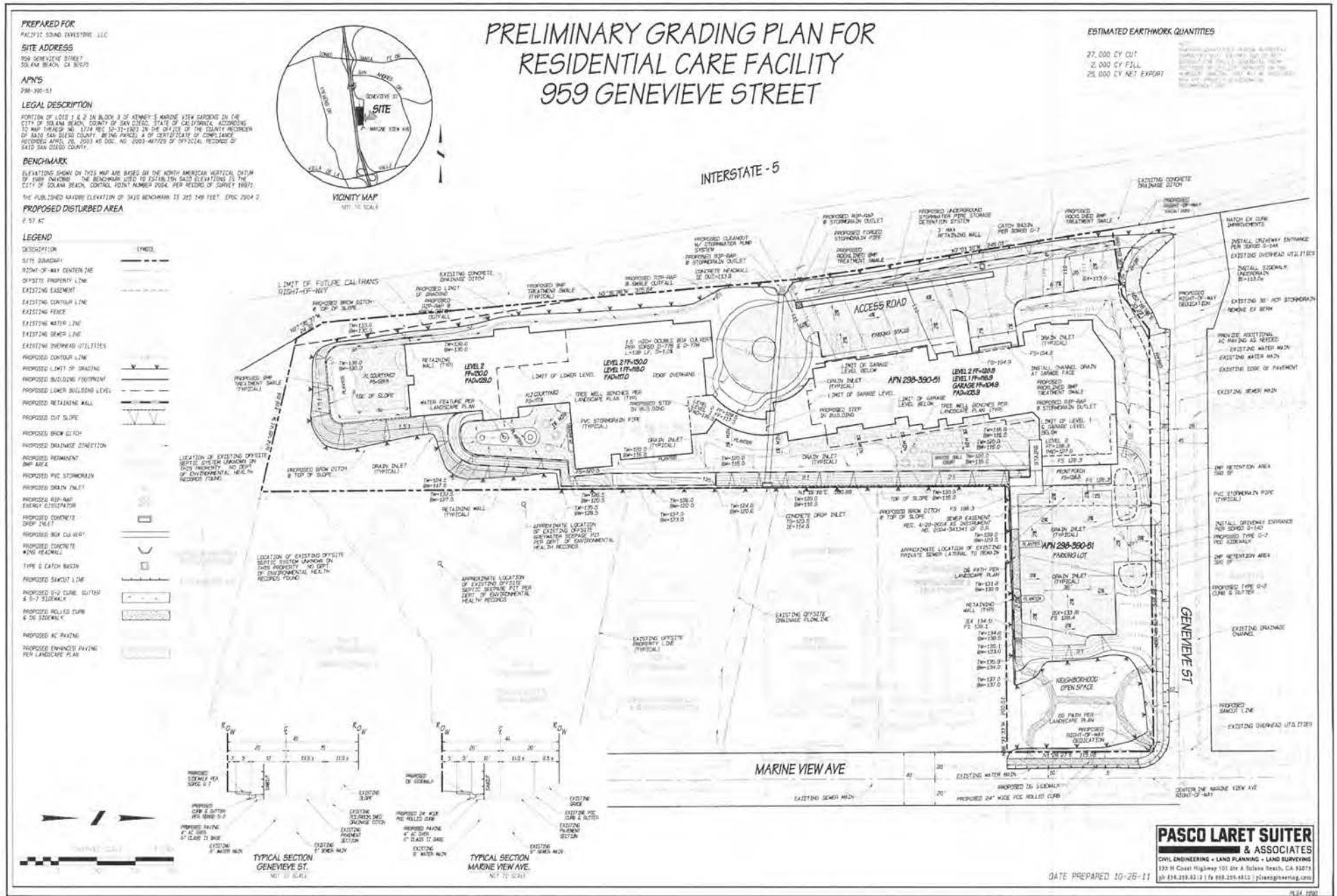
Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

Affinis

Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Project location on USGS 7.5'
Del Mar & Encinitas quadrangle

Figure 2



Affinis

Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Project Plans

Figure 3

Appendix 5.4-3 Paleontological Record Search for Solana Beach Seniors Project

Appendices

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SAN DIEGO NATURAL HISTORY MUSEUM
BALBOA PARK - SAN DIEGO SOCIETY OF NATURAL HISTORY - ESTABLISHED 1874

12 November 2015

Kelly Kanaster
The Lightfoot Planning Group
5900 Pasteur Ct #110
Carlsbad, CA 92008

RE: Paleontological Record Search for the Solana Beach Seniors Project (APN 289-390-51)

Dear Ms. Kanaster:

This letter presents the results of a paleontological record search conducted for the Solana Beach Seniors project (APN 289-390-51), located east and adjacent to Interstate 5, and bounded to the north by Genevieve Street, and to the east by Marine View Avenue, in the City of Solana Beach. The project area occupies approximately 2.9 acres, with an approximate perimeter of 0.4 miles. The sedimentary rocks directly underlying the project site have been mapped by Kennedy (1975) as the early to middle Eocene-age (approximately 48 to 49 million years old) Torrey Sandstone.

The San Diego Natural History Museum documents twenty-four recorded fossil collecting localities (see attached descriptions) within a one-mile radius of the project site (see attached map). Three of these localities were discovered in a late Pleistocene-age unnamed lagoonal deposit. These localities produced shell remains of marine invertebrates (e.g., segmented worms, barnacles, crabs, ostracods, bryozoans, sea urchins, snails, clams, mussels, oysters, and foraminifera), fossilized remains of marine vertebrates (e.g., fish), and fossilized remains of terrestrial vertebrates (e.g., rodents). Thirteen localities were discovered in lagoonal and estuarine deposits of the late Pleistocene-age (approximately 80,000 to 220,000 years old) Bay Point Formation. Fossils produced include leaf impressions of plants (e.g., flowering plants), shell remains and molds of marine invertebrates (e.g., segmented worms, barnacles, shrimp, crabs, ostracods, bryozoans, sand dollars, heart urchins, snails, clams, mussels, oysters, chitons, tusk shells, foraminifera, and sponges), mineralized remains of marine vertebrates (e.g., fish and rays), and fossilized remains of terrestrial vertebrates (e.g., birds, rabbits, lizards, and rodents). One locality was discovered in marine deposits of the early Eocene-age (approximately 48 to 49 million years old) Torrey Sandstone. Recovered fossils include molds of marine invertebrates (e.g., segmented worms, shrimp, corals, sea urchins, snails, clams, oysters, tusk shells, and sponges). The remaining seven localities were found in estuarine deposits of the early Eocene-age (approximately 49 to 50 million years old) Delmar Formation. These localities produced shell remains and molds of marine invertebrates (e.g., snails, clams, mussels, and oysters), fossilized remains of marine vertebrates (e.g., sharks), and mineralized remains of terrestrial vertebrates (e.g., brontotheres).

Post Office Box 121390 * San Diego, California 92112-1390 * Telephone 619-255-0309 * FAX 619-255-0187 * www.sdnhm.org

Deméré and Walsh (1993) have assigned a moderate paleontological resource sensitivity to the Torrey Sandstone. Depending on the depth of excavation, ground-disturbing activities associated with the proposed project have the potential to impact previously undisturbed sedimentary deposits of the Torrey Sandstone, and thus have the potential to cause negative impacts to paleontological resources preserved in these deposits. For the reasons described above, implementation of a complete paleontological resource mitigation program during construction is recommended.

The information contained within this paleontological record search should be considered private and is the sole property of the San Diego Natural History Museum. Any use or reprocessing of information contained within this document beyond the scope of the Solana Beach Seniors project (APN 289-390-51) is prohibited.

If you have any questions concerning these findings please feel free to contact me at 619-255-0320 or nanderson@sdnhm.org.

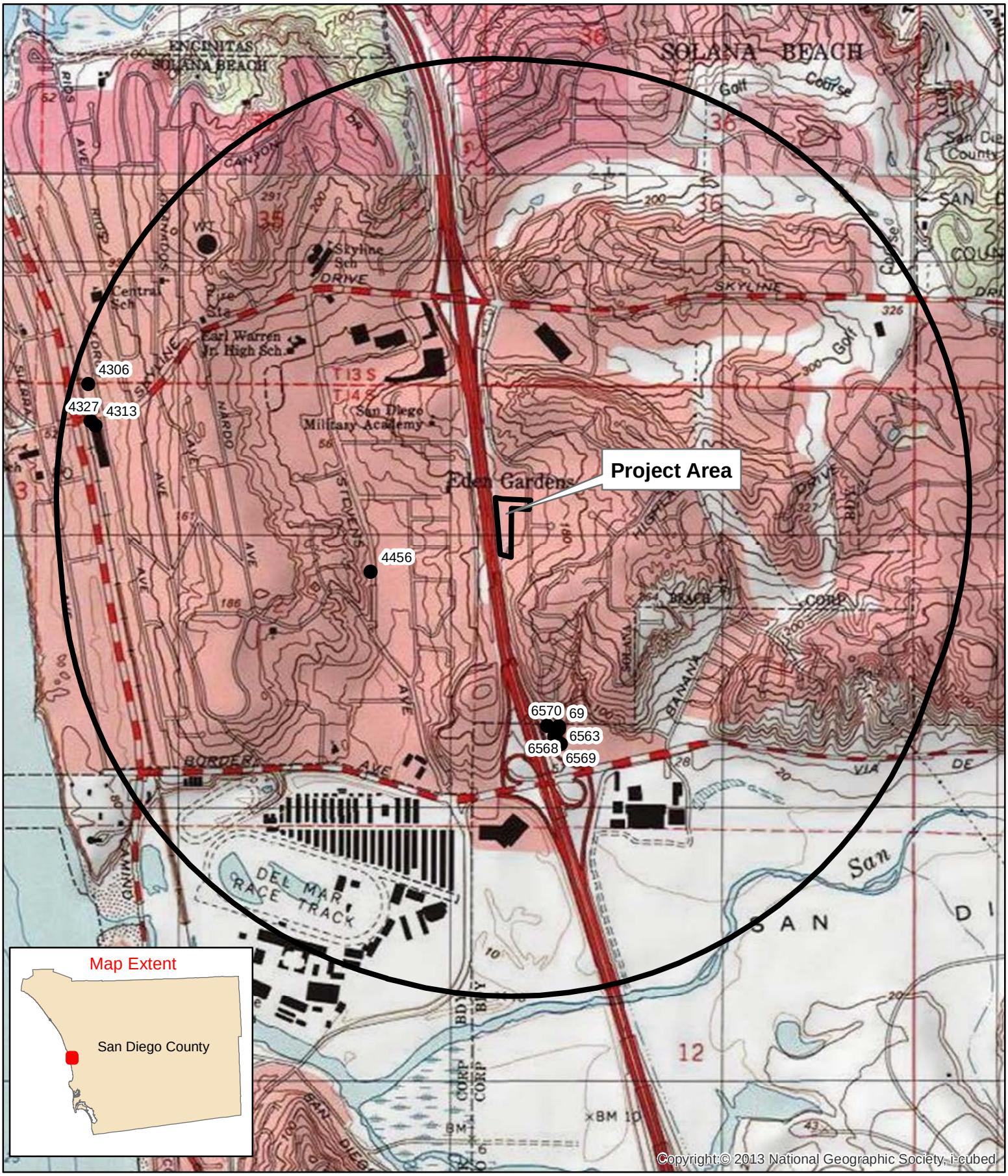
Sincerely,

Nikki Anderson
Lead Fossil Preparator
Department of Paleontology

Literature Cited:

Deméré, T. A. and Walsh, S.L. 1993. Paleontological Resources, County of San Diego. Prepared for the San Diego Planning Commission: 1-68.

Kennedy, M.P. 1975. Geology of the Western San Diego Metropolitan area, California. California Division of Mines and Geology Bulletin. 200-A:1-39.



SDNHM fossil localities within one mile of the Solana Beach Seniors project (APN:289-390-51) (Base maps USGS Topographic Maps of the Encinitas, Rancho Santa Fe, and Del Mar 7.5' Quadrangles, California).

0 1 Miles

N

SAN DIEGO NATURAL HISTORY MUSEUM
DEPARTMENT OF PALEONTOLOGY
LOCALITY LIST

NUMBER	---LOCALITY NAME AND GEOGRAPHIC LOCATION---	----------ROCK AND TIME UNITS-ROCK TYPE-FIELD NOTES----------	----------COLLECTORS-COMPILED BY-ENTERED BY-DONOR----------
69	San Dieguito Valley San Diego San Diego Co. CA U.S.A. 32°58'54"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967	unnamed lagoonal deposit Cenozoic Quaternary late Pleistocene sdst-	Frank Stephens 11 Oct 1928 U.S. Grant IV 10 Jan 1929 H.P. Don Vito 25 Mar 1994
2904	Flower Hill Shopping Center San Diego San Diego Co. CA U.S.A. 32°58'54"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967	unnamed lagoonal deposit Cenozoic Quaternary late Pleistocene sdst-	T.A. Demere 28 Feb 1976 T.A. Demere 10 Sep 1985 H.P. Don Vito 24 Apr 1995
5009	San Dieguito Valley - I-5 & Via de la Valle San Diego San Diego Co. CA U.S.A. 32°58'54"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	unnamed lagoonal deposit Cenozoic Quaternary late Pleistocene sdst-lagoonal Tom's find and loose leaf binder	Donald E. Thompson & Dr. George Cox 0 0 H.P. Don Vito 10 Sep 2003 H.P. Don Vito 10 Sep 2003
4306	Solana Beach Grade Change Solana Beach San Diego Co. CA U.S.A. 32°59'35"N--117°16'13"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Nestor Terrace Cenozoic Quaternary late Pleistocene sdst-marine	D.R. Swanson, B.O. Riney 22 Apr 1999 T.A. Demere 8 Jun 1999 N.S. Rugh 9 Jun 1999
4313	Solana Beach Grade Change Solana Beach San Diego Co. CA U.S.A. 32°59'30"N--117°16'12"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Nestor Terrace Cenozoic Quaternary late Pleistocene mdst-estuarine channel fill deposit B.O. Riney	B.O. Riney, D.R. Swanson 28 Jan 1999 T.A. Demere 18 Jun 1999 N.S. Rugh 21 Jun 1999
4327	Solana Beach Grade Change Solana Beach San Diego Co. CA U.S.A. 32°59'30"N--117°16'12"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Nestor Terrace Cenozoic Quaternary late Pleistocene sltst-estuarine channel fill deposit	D.R. Swanson 14 May 1999 T.A. Demere 18 Jun 1999 N.S. Rugh 21 Jun 1999
6553	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal GC #3, pgs 12-14, CSP #12, pgs 57-58	G. Calvano, C.S. Plouffe, J.E. El Adli 31 Aug 2011 K.A. Randall 1 May 2012 K.A. Randall 1 May 2012
6554	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal GC #3, pgs 12-14	G. Calvano, 19 Aug 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6555	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal GC #3, pg 12-14, CSP #12, pg 65	G. Calvano, C.S. Plouffe 9 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6556	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary Pleistocene sdst-lagoonal TAD #13 pg 82,83,84,85; CSP #12, pg 61-62	T. Demere, C.S. Plouffe 2 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6557	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal CSP #12, pg 74	C.S. Plouffe 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6558	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal CSP #12, pg 74	C.S. Plouffe 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6560	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal CSP #12, pg 74, TAD #13 pg 89, 92, 94, 95	C.S. Plouffe, T.A. Demere 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012

SAN DIEGO NATURAL HISTORY MUSEUM
DEPARTMENT OF PALEONTOLOGY
LOCALITY LIST

NUMBER	---LOCALITY NAME AND GEOGRAPHIC LOCATION---	----------ROCK AND TIME UNITS-ROCK TYPE-FIELD NOTES----------	----------COLLECTORS-COMPILED BY-ENTERED BY-DONOR----------
6561	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal CSP #12, pg 74; TAD #13m pgs. 89, 92-94	C.S. Plouffe, T.A. Demere 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6562	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-lagoonal CSP #12, pg 74; TAD #13 pg 98, 100	C.S. Plouffe, T.A. Demere 22 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6563	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'52"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	Bay Point Formation Cenozoic Quaternary late Pleistocene sdst-estuarine TAD #13, pg 88-89, 93-94	T.A. Demere 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
4456	SER #1 Solana Beach San Diego Co. CA U.S.A. 32°59'12"N--117°15'33"W Del Mar, CA 1:24000 USGS 1975	La Jolla Group Torrey Sandstone Cenozoic Paleogene middle Eocene Uintan sdst-marine D.R. Swanson	D.R. Swanson 2 Feb 2000 D.R. Swanson 2 May 2000 H.M. Wagner 4 May 2000
6564	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-lagoonal CSP #12, pg 75-76	C.S. Plouffe 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6565	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 7"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-estuarine CSP #12, pg 75	C.S. Plouffe 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6566	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 7"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-estuarine CSP #12, pg 75	C.S. Plouffe 20 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6567	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'53"N--117°15' 7"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-estuarine GC #3, PG 24	G. Calvano 23 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6568	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'54"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-estuarine CSP #12, pgs 62-63	C.S. Plouffe 2 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6569	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'54"N--117°15' 6"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-estuarine CSP #12, pgs 34	C.S. Plouffe 25 Jul 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012
6570	Flower Hill Promenade San Diego San Diego Co. CA USA 32°58'54"N--117°15' 8"W Del Mar, CA 1:24000 USGS 1967(1975)	La Jolla Group Delmar Formation Cenozoic Paleogene middle Eocene sdst-estuarine CSP #12, pg 66	C.S. Plouffe 12 Sep 2011 K.A. Randall 3 May 2012 K.A. Randall 4 May 2012

Appendix 5.5-1 Preliminary Geotechnical Investigation

Appendices

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Preliminary Geotechnical Investigation for the Proposed Residential Care Facility, Located at 959 Genevieve Street, APN: 298-390-51, City of Solana Beach, County of San Diego, California

Project No. M1109-001

Dated: May 22, 2014

Prepared For:

Mr. John DeWald
PACIFIC SOUND INVESTORS, LLC
1855 Freda Lane
Cardiff, California 92007

MATRIX
Geotechnical Consulting, Inc.

MATRIX

Date: May 22, 2014

Project No. M1109-001

Client: **PACIFIC SOUND INVESTORS, LLC**
1855 Freda Lane
Cardiff, California 92007

Attention: Mr. John DeWald

Subject: Preliminary Geotechnical Investigation for the Proposed Residential Care Facility, Located at 959 Genevieve Street, APN: 298-390-51, City of Solana Beach, County of San Diego, California

Matrix Geotechnical Consulting (MATRIX) is pleased to submit herewith our Preliminary Geotechnical Report for the proposed Residential Care Facility, located at 959 Genevieve Street, APN: 298-390-51-00, City of Solana Beach, County of San Diego, California. This report presents the results of our review of published geologic reports and/or maps; our review of aerial photographs; the results of our geologic field mapping, a previous field exploration and laboratory testing review by others, and presents our engineering judgment, opinions, conclusions and recommendations pertaining to the geotechnical design aspects of the proposed facility.

Based on the results of the above efforts, it is our opinion that the subject site is suitable for the proposed development, provided the recommendations presented herein are incorporated into the design of the project and implemented during site grading and construction. MATRIX should review final rough grading plans and structural plans when those become available and revise our recommendations presented herein, if we deem it necessary.

It has been a pleasure to be of service to you on the preliminary design aspects of this project. Should you have any questions regarding the content of this report or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

Very Truly Yours,

MATRIX GEOTECHNICAL CONSULTING

Chris Josef | Principal

MATRIX
Geotechnical Consulting, Inc.

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Appendix D – General Earthwork and Grading Specifications for Rough Grading (Rear of Text)

1.0 INTRODUCTION

1.1 Purpose and Scope of Services

The purpose of our preliminary geotechnical investigation was to review previous geotechnical reporting completed for the subject site, evaluate the pertinent geologic and geotechnical conditions on the site and to provide preliminary geotechnical design criteria for grading, construction, foundation design, and other relevant geotechnical aspects to the proposed residential care facility.

Our scope of services consisted of:

- Review of previously prepared geotechnical/geologic reports, geologic maps and aerial photographs pertinent to the site (Appendix A).
- A review of a previous subsurface investigation consisting of the excavation, sampling, and logging of six (6) hollow-stem auger borings, to depths ranging from approximately 16½ feet to 50½ feet. Logs of the borings are presented in Appendix B, with the approximate locations depicted on the Geotechnical Map, Plate 1. The borings were excavated to evaluate the general characteristics of the subsurface soil/bedrock on the site including classification of site soil, determination of depth to groundwater (if present), and to obtain representative soil samples.
- Geologic mapping of the site.
- A review of previous laboratory testing of representative soil samples obtained during the 2011 subsurface exploration (Appendix C).
- Engineering and geologic analysis of the data with respect to the design and construction of the proposed residential care facility.
- Preparation of General Earthwork and Grading Specifications (Appendix D).
- Preparation of this report presenting our review, conclusions and preliminary geotechnical design recommendations for the design and construction of the proposed development.

1.2 Location and Site Description

The subject site is located at 959 Genevieve Street, bounded by Genevieve Street to the north, Marine View Avenue and existing residences to the east, an existing residence to the south, and Interstate 5 to the west. The general location and configuration of the site is shown on the Site Location Map (Figure 1).

A single story residential structure exists in the north central portion of the site along with a driveway, shed, and other improvements. An existing sewer easement partially bisects the site extending from Genevieve to the rear property lines of the existing residences to the east. In addition, a small drainage ditch extends westerly across the site, south of the existing residential structure. The remainder of the site is open space area. The topography of the site is gently sloping to the west at a general elevation ranging from approximately 112 to 148 feet above mean sea level (msl) within the site.

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FIGURE 1

SITE LOCATION MAP

Project Name	PACIFIC SOUND INVESTORS
Project No.	M1109-001
Geo/Eng	MIB/JPN
Scale	NOT TO SCALE
Date	MAY 2014

1.3 Previous Geotechnical Investigations and Aerial Photograph Review

Based on our review and discussion with Mr. John DeWald of Pacific Sound Investors, LLC, previous geotechnical investigations have been conducted on the site by LGC, 2011. Report copies were reviewed by Matrix Geotechnical Consulting and incorporated into our conclusions and recommendations for the site (referenced in Appendix A).

We reviewed paired stereo aerial photographs for the site and vicinity taken between from 1972 through 2010. The photographs were obtained from Continental Aerial Photo, Inc. Scales of the photographs reviewed (where available) ranged from approximately 1" = 1,250' to approximately 1" = 5,000'. A summary table of the photos reviewed is presented in Appendix A.

1.4 Proposed Development and Grading

It is our understanding that the proposed development is to be a residential care facility. The preliminary configuration of the development is shown on the Geotechnical Map, Plate 1. Grading plans were not provided for this investigation, however, once grading plans become available, MATRIX should review the proposed development and provide supplemental recommendations/information as necessary.

1.5 Previous Report Review and Subsurface Investigation

A prior consultant performed the previous subsurface investigation in 2011, which consisted of six (6) hollow-stem borings to depths ranging from approximately 16.5 to 50.5 feet below existing ground surface. The approximate locations of the borings are shown on the Geotechnical Map (Plate 1).

Based upon our review of the previous report and subsurface exploration, selective site soil/bedrock samples consisting of representative relatively undisturbed, standard penetration test and bulk samples were retained for laboratory testing. MATRIX reviewed the prior consultant's laboratory testing and determined that in-situ density and water content, maximum dry density and optimum water content, expansion, sulfate and chloride content, resistivity, pH, and R-value were evaluated for the subject site. The previously evaluated data have been incorporated into this report and presented in Appendix C.

2.0 GEOTECHNICAL CONDITIONS

2.1 Regional Geology

Regionally, the site is located in the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are characterized by steep, elongated valleys that trend west to northwest. The mountainous regions are underlain by Pre-Cretaceous, metasedimentary and metavolcanic rocks and Cretaceous plutonic rocks of the Southern California Batholith. Tertiary and Quaternary rocks are generally comprised of non-marine and marine sediments consisting of sandstone, mudstones, conglomerates, and occasional volcanic units. A map of the regional geology is presented on the Regional Geologic Map, Figure 2.

2.2 Local Geology

Based upon our understanding of the regional area, a review of the geotechnical bore logs, and review of the previous reporting, the earth materials on the site are comprised of undocumented artificial fill, residual soil, Quaternary alluvium, and Tertiary Torrey Sandstone. A general description of the earth materials observed on the site is provided in the following paragraphs:

Artificial Fill, Undocumented (Afu): Undocumented artificial fill was encountered within the existing residential pad and driveway areas within approximately 1 foot of the ground surface. This soil consists predominately of light brown, dry to damp, medium dense silty sand.

Residual Soil (not a mapped unit): Residual soil was encountered mantling the Tertiary Torrey Sandstone throughout the site to a maximum depth of approximately 2.5 feet below ground surface. This soil consists predominately of dark brown to brown, dry to moist, loose to medium dense silty sand.

Quaternary Alluvium (map symbol Qal): Quaternary young alluvium was mapped within the drainage channel and low-relief portions of the site to an estimated depth of 4 to 6 feet below existing surface. These alluvial deposits consist predominately of silty sand and sand which are generally light brown to dark brown, damp to moist, and loose to medium dense.

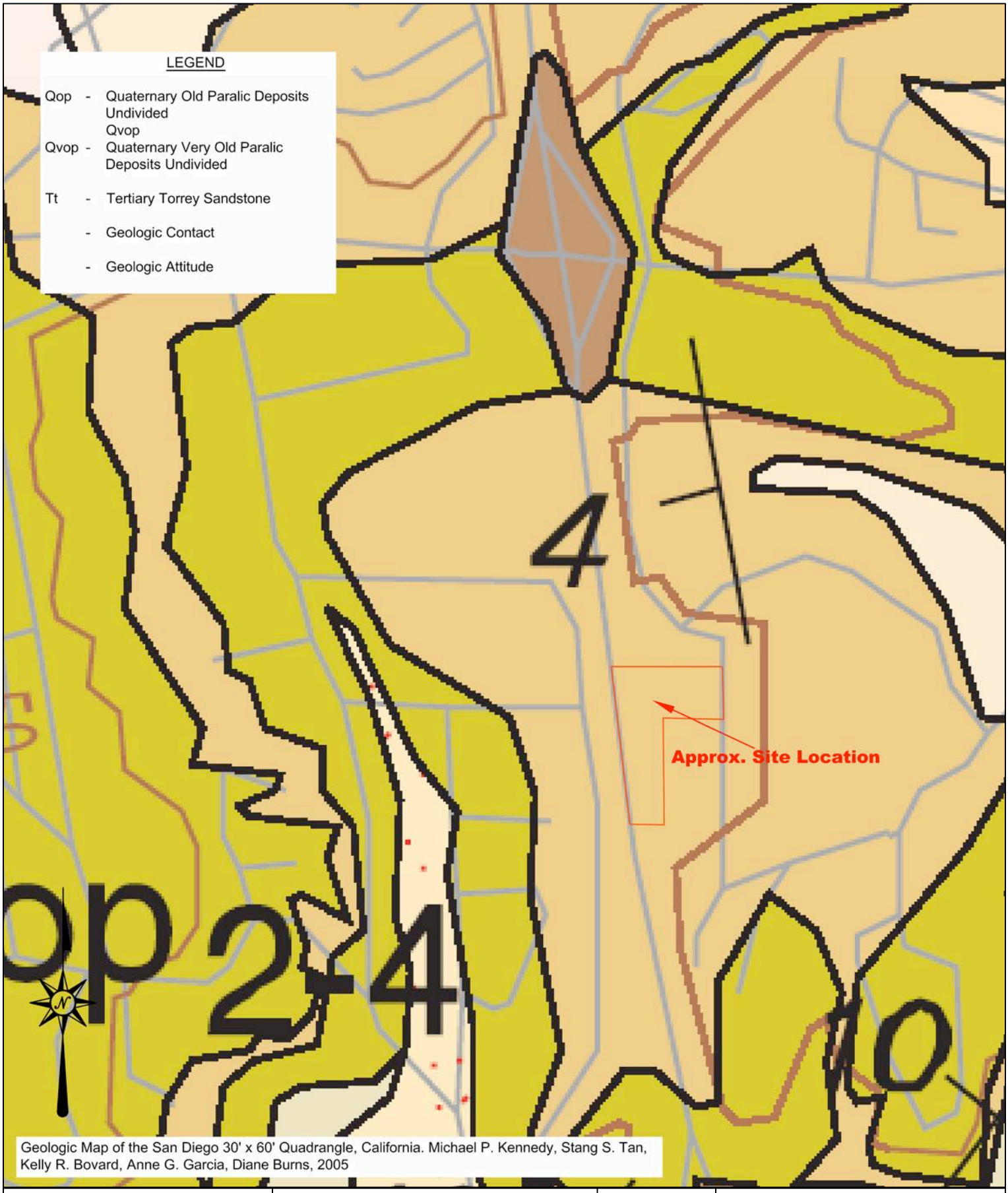
Tertiary Torrey Sandstone (map symbol Tt): Tertiary Torrey Sandstone was encountered below the near surface soil described above and extended across the site to the depths of the various borings. This formation consists predominately of light brown to red brown, dry to moist, moderately hard to very hard, massive, slightly to intensely weathered sandstone. Bedding generally dips approximately 4 degrees to the west (USGS, 2005).

2.3 Landslides

Our review of the pertinent geologic literature did not indicate the presence of landslides on or directly adjacent to the site.

2.4 Groundwater

Groundwater was not encountered during the current subsurface investigation to the maximum explored depth of 50.5 feet below existing ground surface.



Geologic Map of the San Diego 30' x 60' Quadrangle, California. Michael P. Kennedy, Stang S. Tan, Kelly R. Bovard, Anne G. Garcia, Diane Burns, 2005

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FIGURE 2
REGIONAL GEOLOGIC MAP

Project Name	PACIFIC SOUND INVESTORS
Project No.	M1109-001
Geo/Eng	MIB/JPN
Scale	NOT TO SCALE
Date	MAY 2014

2.5 Surface Water

Surface water runoff should be directed away from planned structures. The design of surface drainage is the responsibility of the project civil engineer.

2.6 Faulting

The subject site is not located within an Alquist-Priolo Earthquake Fault Zone and there are no known faults (active, potentially active, or inactive) onsite. The possibility of damage from ground rupture is considered nil because active faults are not known to cross the site. Secondary seismic related hazards are provided below:

2.6.1 Liquefaction & Seismically Induced Settlement

Liquefaction is a seismic phenomenon in which loose, saturated, granular soil behaves similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: 1) shallow groundwater; 2) low density non-cohesive (granular) soil; and 3) high-intensity ground motion. Studies indicate that saturated, loose to medium dense, near surface cohesionless soil exhibits the highest liquefaction potential. Dry cohesionless soil may experience dynamic compaction during an earthquake. In general, cohesive soil is not considered susceptible to liquefaction.

The potential for liquefaction is considered nil because of the absence of shallow groundwater and lack of low-density cohesionless soil (site is underlain by Torrey Sandstone Formation). A dry sand settlement of approximately 1-inch is anticipated. For design purposes a differential settlement of approximately ½-inch because of seismic shaking may be used.

2.6.2 Shallow Ground Rupture

Shallow ground rupture cannot be completely precluded at the proposed site. However, based on our geologic mapping, literature review, and aerial photo analysis it appears that active faulting/potential shallow ground rupture is considered unlikely because of the absence of faulting on or near the subject site. The potential for ground cracking due to shaking from distant seismic events is considered nil, although it is a possibility at any site.

2.6.3 Tsunamis and Seiches

The subject site is not located within a tsunami inundation area (CGS, 2009). Based on the elevation of the proposed development at the site with respect to sea level and its distance from large open bodes of water, the potential of seiche and/or tsunami is considered to be nil.

2.7 Seismic Design Parameters

The design spectrum was developed based on the CBC, 2013. A site Coordinate of 32.9884° N, -117.2548° W was used to derive the seismic parameters presented below.

Table 1- Seismic Design Parameters

Seismic Soil Parameters (2013 CBC Section 1613)	
Site Class Definition (Table 1613.5.2)	D
Mapped Spectral Response Acceleration Parameter Ss (for 0.2 second) (Figure 1613.5(3))	1.38
Mapped Spectral Response Acceleration Parameter, S_1 (for 1.0 second) (Figure 1613.5(4))	0.51
Site Coefficient Fa (short period) (Table 1613.5.3(1))	1.00
Site Coefficient F_v (1-second period) (Table 1613.5.2(2))	1.50
Adjusted Maximum Considered Earthquake (MCE) Spectral Response Acceleration Parameter S_{MS} (short period) (Eq. 16-37)	1.38
Adjusted Maximum Considered Earthquake (MCE) Spectral Response Acceleration Parameter S_{M1} (1-second period) (Eq. 16-38)	0.77
Design Spectral Response Acceleration Parameter, S_{DS} (short period) (Eq. 16-39)	0.92
Design Spectral Response Acceleration Parameter, S_{D1} (1-second period) (Eq. 16-40)	0.51

2.8 Slope Stability

The site is gently sloping and we understand that significant slopes are not proposed to develop the site for its intended use. Once final grading plans become available, MATRIX should review the proposed development and provide supplemental recommendations regarding slope stability as necessary.

2.9 Laboratory Testing

From our review of the previous reporting, laboratory testing of the onsite soil consisted of representative samples obtained from within the bores. The following tests were performed: in-situ density and water content, R-value, Expansion Index, sulfate and chloride content, resistivity, pH, direct shear, and remolded direct shear. The prior consultants evaluated data and discussion of the tests performed and a summary of the results are presented in Appendix C. These results should be confirmed at the completion of site grading performed by the engineering geologist/geotechnical engineer's on site representative.

3.0 CONCLUSIONS

Based on the review of the previous consultant's preliminary geotechnical investigation and our understanding of the site, it is our opinion that the proposed residential care facility is feasible from a geotechnical standpoint, provided the conclusions and recommendations contained in this report are considered and incorporated into the project design process and implemented during construction. The following is a summary of the primary geotechnical factors determined from our review of the prior report and our analysis of the site.

- Based on the review of the prior subsurface exploration and review of pertinent geologic maps and reports, the site is underlain by undocumented artificial fill, residual soil, Quaternary alluvium, and Tertiary Torrey Sandstone.

- The site is not located within a State of California Earthquake fault zone.

- Groundwater is not considered a constraint for the proposed development.

- The potential for liquefaction is considered negligible.

- Active or potentially active faults are not known to exist on the site.

- There are not any known landslides impacting the site.

- Laboratory test results of the near surface soil indicate a very low expansion potential and a negligible potential for soluble sulfate attack on Type II/V concrete.

- Laboratory test results of the near surface soil indicate that onsite soil has a moderate corrosion potential to buried metals.

- All existing undocumented artificial fill, residual soil, Quaternary alluvium, and unsuitable upper intensely weathered Tertiary Torrey Sandstone are prone to potential settlement and should be overexcavated to underlying competent Tertiary Torrey Sandstone, within areas of proposed structures, fill or improvements. Anticipated removal depths range from approximately 2 to 6 feet below the existing surface.

- The existing onsite soil appears, from a geotechnical perspective, to be suitable material for use as fill, provided it is relatively free from rocks (larger than 3 inches in maximum dimension), construction debris, and organic material. It is anticipated that the onsite soil may be excavated with conventional heavy-duty construction equipment.

4.0 RECOMMENDATIONS

4.1 Site Earthwork

We anticipate that earthwork at the site will consist of site preparation and remedial grading, followed by construction of slab-on-grade type foundations. All earthwork and grading should be performed in accordance with all applicable requirements of the appropriate reviewing agency and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. In case of conflict, the following recommendations shall supersede those included as part of Appendix D.

4.1.1 Site Preparation

Prior to grading of areas that may receive structural fill, engineered structures or other improvements the areas should be cleared of surface obstructions, existing debris and stripped of vegetation. Vegetation and debris should be removed and properly disposed of offsite. All debris from the proposed demolition activities at the site should be removed and properly disposed of offsite. Holes resulting from the removal of buried tree root systems, obstructions, structures or utilities, which extend below finished site grades should be excavated to firm native soil and replaced with a suitable compacted fill material. Areas to receive fill and/or other surface improvements should be scarified to a minimum depth of 6 inches per the attached earthwork and grading specifications, brought to a near-optimum field water content, and recompacted to 90 percent or more relative compaction (based on American Standard of Testing and Materials [ASTM] Test Method D1557).

4.1.2 Overexcavation and Recompaction

The site is underlain by approximately 2 to 6 feet of potentially compressible soil (undocumented artificial fills, residual soil, Quaternary alluvium, and upper intensely weathered Tertiary Torrey Sandstone), which may settle under the surcharge of fill and/or foundation loads.

The upper 2 to 6 feet of soil within the proposed structural building areas should be over excavated and replaced with compacted fill. In addition, overexcavation should extend a minimum of three (3) feet below the bottom of any proposed footings. Overexcavation within building areas should extend 5 feet or more beyond the proposed structure. In areas where walls are proposed, the upper 2 to 3 feet of unsuitable soil should be overexcavated and recompacted. Within any pavement areas the upper 2 feet of all unsuitable soil, should be removed and recompacted. However, localized, deeper overexcavation should be anticipated where deemed necessary by the geotechnical consultant based on observations during grading. The proposed grading should provide a 1:1 (h:v) fill prism, extending outwards, below the proposed structural building footprints or wall foundations.

4.1.3 Import Soil for Grading

In the event import soil is needed to achieve final design grades, all potential import materials should be free of deleterious/oversize materials, have a very low expansion potential, negligible corrosion potential, and receive prior approval by the project geotechnical consultant 48 hours prior to commencement of delivery onsite. Laboratory testing of import soil must consist of maximum density and optimum water content, expansion index, sulfate, chloride, resistivity, pH, and sieve analysis.

4.1.4 Shrinkage and Bulking

Volumetric changes in earth quantities occur when excavated onsite earth materials are replaced as properly compacted fill. The following (Table 2) is an estimate of shrinkage and bulking factors for the various geologic units found on the site. These estimates are based on in-place densities of the various materials and on the estimated average degree of relative compaction specified during grading.

TABLE 2
Bulking and Shrinkage

GEOLOGIC UNIT	SHRINKAGE/BULKING PERCENT
Undocumented Artificial Fill	5 to 10 (shrinkage)
Residual Soil	5 to 15 (shrinkage)
Quaternary Alluvium	5 to 15 (shrinkage)
Tertiary Torrey Sandstone	0 to 1 (bulking)

The above estimates of shrinkage are intended as an aid for project engineers in determining earthwork quantities. **However, these estimates should be used with some caution because those are not absolute values,** rather preliminary rough estimates which may vary with depth of overexcavation, stripping losses, field conditions at the time of grading, etc. (Handling losses, and reduction in volume because of removal of oversized material, are not included in these estimates).

4.1.5 Temporary Stability of Excavations

All excavations for the proposed development must be performed in accordance with current OSHA (Occupational Safety and Health Agency) regulations and those of other regulatory agencies, as appropriate.

Temporary excavations maybe cut vertically up to five feet. Excavations over five feet should be slot-cut, shored, or cut to a 1H:1V (horizontal, H: vertical, V) slope gradient. Surface water should be diverted away from exposed cuts, and not be allowed to pond on top of the cut slopes. Temporary cuts should not be left open for an extended period of time. Recommendations and stability calculations can be provided upon request for the use of cantilevered shoring, soldier piles, and underpinning.

4.1.6 Fill Placement and Compaction

Areas prepared to receive structural fill and/or other surface improvements should be scarified to a minimum depth of 6 inches, brought to optimum-water content, and recompacted to 90 percent or more relative compaction (based on ASTM Test Method D1557). The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts generally not exceeding 8 inches in uncompacted thickness. Placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of the geotechnical consultant. In general, oversized material greater than 8 inches shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

4.1.7 Trench Backfill and Compaction

Onsite soil is generally considered to be suitable as trench backfill provided it is screened of rocks and other material over 3 inches in diameter and organic matter. Trench backfill should be compacted in uniform lifts (generally not exceeding 8 inches in uncompacted thickness) by mechanical means to 90 percent or more relative compaction (per ASTM Test Method D1557).

If trenches are shallow and the use of conventional equipment may result in damage to the utilities clean sand, having sand equivalent (SE) of 30 or greater, should be used to bed and shade the utilities. Sand backfill should be densified. The densification may be accomplished by jetting or flooding. However, a representative of MATRIX shall observe the sub-soil conditions within the trench to determine the soil drainage condition potential. Silt or clay bearing sub-soil within a trench suggests the use of a vibratory plate and then tamping to ensure adequate compaction of the trench backfill. A representative from MATRIX should observe, probe, and test the backfill to verify compliance with the project specifications.

4.1.8 Cal/OSHA Soil Classification

Based on the soil types encountered during our preliminary investigation, onsite soil can be generally classified as Type B. MATRIX does not limit the soil classification to one type as soil may locally change over short distances. Furthermore, this classification should not preclude a Cal/OSHA “competent person” from determining soil type on a case-by-case basis.

4.2 Foundation Selection

4.2.1 General

Preliminary recommendations for conventional foundation design and construction are presented herein. When the final structural loads for the proposed structures become available, those should be provided to our office to verify the recommendations presented herein.

The information and recommendations presented in this section are not meant to supersede design by the project structural engineer or civil engineer specializing in the structural design or those of a corrosion consultant.

4.2.2 Conventional Foundations

Continuous footings must be founded at a minimum depth of 18-inches for both exterior and interior construction. All continuous footings should have a minimum width of 15 inches.

Shallow foundations may be designed for a maximum allowable bearing capacity of 2,000 lb/ft^2, for continuous and spread footings. This value may be increased by 300 psf for each additional foot in depth and 150 psf for each additional foot of width to a maximum value of 3,000 psf. Spread or isolated interior pad footings shall have a minimum width of 24 inches and be founded 18 inches deep into certified compacted fill. A factor of safety greater than 3 was used in evaluating the above bearing capacity values. The bearing capacities should be re-evaluated when loads and footing sizes have been finalized.

Lateral forces on footings may be resisted by passive earth resistance and friction at the bottom of the footing. Foundations may be designed for a coefficient of friction of 0.35, and a passive earth pressure of 225 $lb/ft^2/ft$. The passive earth pressure incorporates a factor of safety of about 1.5. A one third increase in the passive pressure may be used for wind and seismic loads. When combining passive and friction forces, passive resistance should be reduced by 1/3.

All footing trenches and bearing pads must be cut neat and level, and should be free of sloughed materials. Subgrade soil must be pre-moistened at optimum water content or slightly above.

TABLE 3 CONVENTIONAL CONTINUOUS FOUNDATION DESIGN PARAMETERS	
Expansion Potential	**Very Low**
Footing Depth Below Lowest Adjacent Finish Grade	
Interior/Exterior	18
Footing Width	15
Footing Reinforcement	No. 4 Rebar One (1) on Top One (1) on Bottom
Slab Thickness	4 inches
Under-Slab Requirements	A moisture and vapor retarding system (Stego) should be placed below the slab on grade and water sensitive areas as discussed in Section 4.2.3
Slab Subgrade Moisture	At 10% optimum water content or slightly above prior to placing concrete
Footing Embedment Next to Swales and Slopes If exterior footings adjacent to drainage swales are proposed within five (5) feet horizontally of the swale, the footing should be embedded sufficiently to assure embedment below the bottom of the swale is maintained. Footings adjacent to slopes should be embedded such that at least five (5) feet is provided horizontally from the edge of the footing to the face of the slope.	

4.2.3 Building Floor Slabs

We recommend a minimum floor slab thickness of 4 inches, reinforced with No. 3 bars spaced a maximum of 18 inches on center, both ways. All slab reinforcement should be supported on concrete chairs to provide proper placement of the reinforcing near mid-depth of the slab, or as otherwise specified by the project structural engineer.

Interior floor slabs with moisture sensitive floor coverings should be underlain by a 15-mil thick moisture/vapor barrier (Stego), to mitigate the upward migration of moisture from the underlying subgrade soil. The moisture/vapor barrier product used should meet the performance standards of an ASTM E 1745 Class A material, and be properly installed in accordance with ACI publication 302. It is the responsibility of the contractor to ensure that the moisture-vapor barrier system is placed in accordance with the project plans and manufacturers and architectural specifications, and that the moisture/vapor retarder materials are free of tears and punctures prior to concrete placement. Additional moisture reduction and/or prevention measures may be needed, depending on the performance requirements of future interior floor coverings. Lap the membrane twelve inches or more and tape the seams.

Sand layer requirements are the purview of the structural engineer, and should be provided in accordance with ACI Publication 302 "Guide for Concrete Floor and Slab Construction". Two inches of sand above and below the vapor barrier can be used as a guide. Ultimately, the design of the moisture retarder system and recommendations for concrete placement and curing are the purview of the developer, architect, building designer or the engineer responsible for the design of the foundations and floor slabs on grade.

Subgrade preparation below the concrete and sand shall consist of 4-inches of ¾-inch crushed aggregate rock or equivalent material. The crushed aggregate base should be water conditioned and be proofrolled a minimum of 3 passes, each way, with a vibratory plate compactor.

Prior to placing concrete, vapor barrier, and sand, the subgrade soil below all floor slabs should be pre-watered to achieve a water content that is at least equal or slightly greater than optimum water content. This water content should penetrate to a minimum depth of 12 inches into the subgrade soil. The water content of the floor slab subgrade soil should be verified by the geotechnical engineer within 24-hours prior to concrete placement. Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

4.3 Lateral Earth Pressures and Retaining Wall Design Considerations

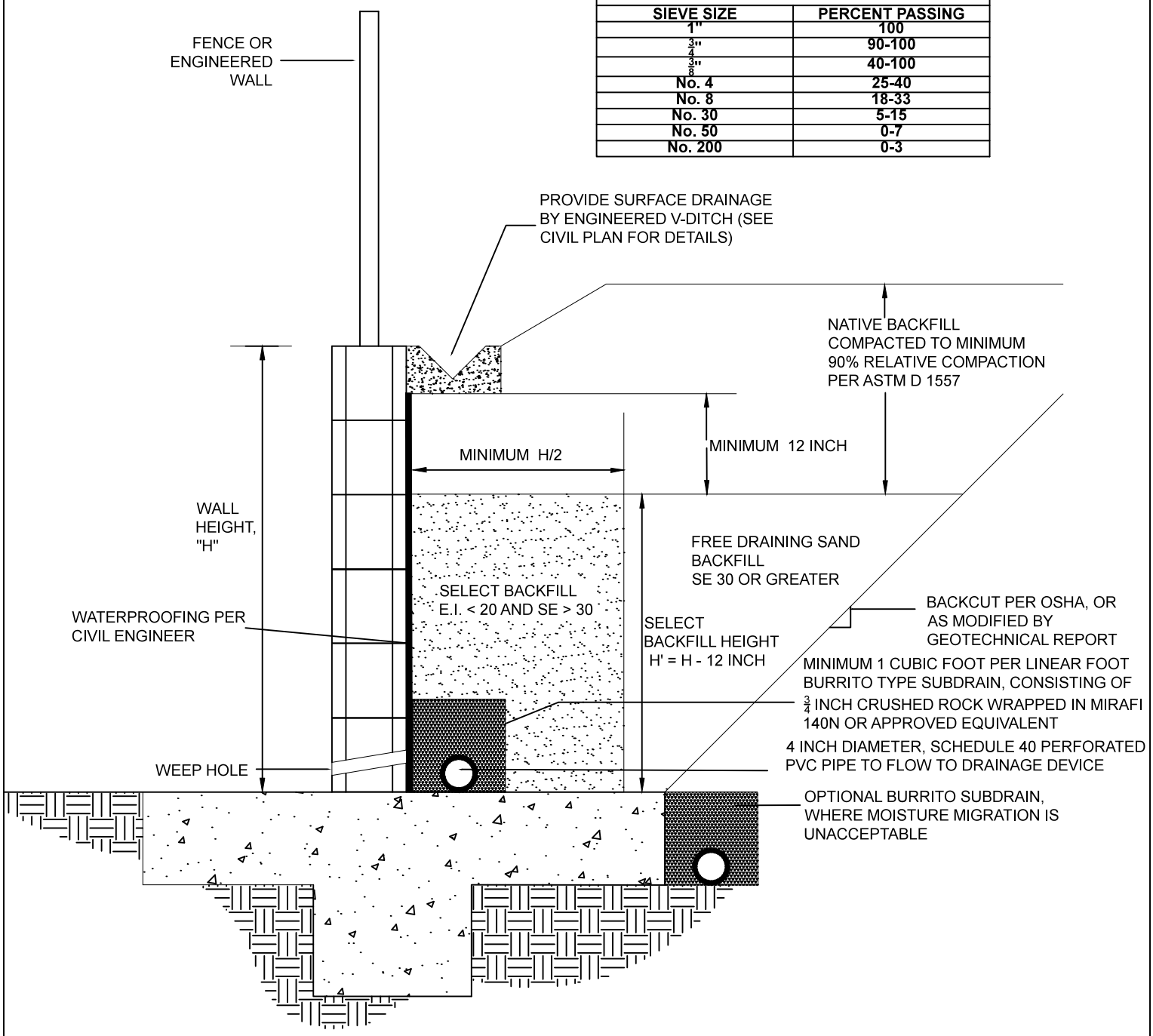
The following lateral earth pressures are recommended for any proposed retaining walls. The recommended lateral pressures for approved on-site soil (sand equivalency greater than 30, expansion index less than 20) for level or sloping backfill are presented on Table 4.

TABLE 4
Lateral Earth Pressures

CONDITIONS	EQUIVALENT FLUID WEIGHT (pcf)	
	Level Backfill	2:1 Backfill Sloping Upwards
Active	45	55
At-Rest	65	95
Passive	250	

Restrained structural walls should be designed for lateral earth pressures exerted on it. The magnitude of these pressures depends on the amount of deformation that the wall can yield under load. If the wall can yield enough to mobilize the full shear strength of the soil, it can be designed for "active" pressure. If the wall cannot yield under the applied load, the shear strength of the soil cannot be mobilized and the earth pressure will be higher. Such walls should be designed for "at-rest" conditions. If a structure moves toward the soil, the resulting resistance developed by the soil is the "passive" resistance. The equivalent fluid pressure values assume free-draining conditions. The backfill soil shall have a sand equivalency greater than 30, expansion index less than 20, and be compacted to 90 percent or more relative compaction (based on ASTM Test Methods D2922 and D3017).

CLASS 2 FILTER PERMEABLE MATERIAL GRADATION PER CALTRANS SPECIFICATIONS	
SIEVE SIZE	PERCENT PASSING
1"	100
$\frac{3}{4}$"	90-100
$\frac{3}{8}$"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3



MATRIX

FIGURE 3

RETAINING WALL DIAGRAM

Project Name	PACIFIC SOUND INVESTORS
Project No.	M1109-001
Geo/Eng	MIB/JPN
Scale	NOT TO SCALE
Date	MAY 2014

The walls should be constructed and backfilled as soon as possible after backcut excavation. Prolonged exposure of backcut slopes may result in some localized slope instability. If conditions other than those assumed above are anticipated, the project geotechnical engineer should provide the equivalent fluid pressure values on an individual-case basis.

The geotechnical and structural engineers must evaluate surcharge-loading effects from the adjacent structures. All retaining wall structures must be provided with appropriate drainage, and appropriately waterproofed and constructed with backdrains to include perforated drain pipe. The drain pipe should be sloped to drain to a suitable outlet. Typical wall drainage design is illustrated on Figure 3. It should be noted that the recommended subdrain does not provide protection against seepage through the face of the wall and/or efflorescence. If such seepage or efflorescence is undesirable, retaining walls should be waterproofed to mitigate this potential.

A friction coefficient of 0.35 may be used for sliding resistance at the concrete and soil interface. Wall footings should be designed in accordance with structural considerations. The passive resistance value may be increased by one-third when considering loads of short duration such as wind or seismic loads.

Foundations for retaining walls in properly compacted fill should be embedded at least 24 inches below lowest adjacent grade. At this depth, an allowable bearing capacity of 2,000 psf may be assumed.

All excavations must be made in accordance with Cal/OSHA. Excavation safety is the sole responsibility of the contractor.

4.4 Structural Setbacks

Structural setbacks, in addition to those required per the CBC, are not required due to geologic or geotechnical conditions within the site.

4.5 Corrosivity to Concrete and Metal

The National Association of Corrosion Engineers (NACE) defines corrosion as “a deterioration of a substance or its properties because of a reaction with its environment”. The “environment” from a geotechnical viewpoint is the prevailing foundation soil and the “substances” are the reinforced concrete foundations or various buried metallic elements such as rebars, piles, pipes, etc., which are in direct contact with or within close vicinity of the foundation soil.

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. ACI 318R-05 Table 4.3.1 provides specific guidelines for the concrete mix design based on different amount of soluble sulfate content. The minimum amount of chloride ions in the soil environment that are corrosive to steel, either in the form of reinforcement protected by concrete cover, or plain steel substructures such as steel pipes or piles, is 500 ppm per California Test 532.

Based on testing performed during this investigation within the project site, the onsite soil is classified as having a negligible sulfate exposure condition in accordance with ACI 318R-05 Table 4.3.1. It is also our opinion that onsite soil should be considered to have a moderate corrosion potential to buried metals because of its low resistivity.

Despite the minimum recommendation above, Matrix Geotechnical Consulting is not a corrosion-engineering firm. Therefore, if required by the local government agency, we recommend that you consult with a competent corrosion engineer and conduct additional testing to evaluate the actual corrosion potential of the site and to provide recommendations to reduce the corrosion potential with respect to the proposed improvements. The recommendations of the corrosion engineer may supersede our findings and recommendations.

4.6 Nonstructural Concrete Flatwork

Concrete flatwork (such as walkways, bicycle trails, etc.) has a high potential for cracking because of changes in soil volume related to soil-moisture fluctuations. To mitigate that potential, concrete should be designed in accordance with the minimum guidelines outlined in Table 5. These guidelines will reduce the potential for irregular cracking and promote cracking along construction joints, but will not eliminate all cracking or lifting. Thickening the concrete and/or adding additional reinforcement will further reduce cosmetic distress.

TABLE 5
Nonstructural Concrete Flatwork for Very Low Expansive Soil

	Private Sidewalks	Private Drives	Patios/ Entryways	City Sidewalk Curb and Gutters
Minimum Thickness (in.)	4 (nominal)	4(full)	4 (full)	City/Agency Standard
Presaturation	Presoak to 12 inches	Presoak to 12 inches	Presoak to 12 inches	City/Agency Standard
Reinforcement		No. 3 at 24 inches on centers*	No. 3 at 24 inches on centers	City/Agency Standard
Thickened Edge		8” x 8”	8” X 8”	City/Agency Standard
Crack Control	Saw cut or deep open tool joint to a minimum of 1/3 the concrete thickness	Saw cut or deep open tool joint to a minimum of 1/3 the concrete thickness	Saw cut or deep open tool joint to a minimum of 1/3 the concrete thickness	City/Agency Standard
Maximum Joint Spacing	5 feet	10 feet or quarter cut whichever is closer	6 feet	City/Agency Standard

*Confirm Through Structural Design

4.7 Preliminary Pavement Design

Structural pavement sections presented herein for pavements are based on test results from soil samples recovered during our subsurface exploration. However, it should be understood that the soil material exposed during grading may differ from the materials sampled and tested during this investigation. Therefore, preliminary pavement recommendations are subject to verification and possible revision based on any revised Traffic Indicies as well as sampling and testing of subgrade soil present after grading.

Previous Laboratory testing indicated an R-value of 30 for near surface soil. For planning and design purposes, we have prepared the following preliminary pavement section (Table 6) based on assumed Traffic Indices (T.I.) of 5.0, 6.0, and 7.0 for the site. The City of Solana Beach minimum pavement section was also considered in our pavement design.

TABLE 6
Preliminary Pavement Design
Recommended Minimum Pavement Sections

Preliminary Asphaltic Concrete Pavement Design			
Assumed Traffic Index	5.0	6.0	7.0
Design R-value	30	30	30
AC Thickness (inches)	3.0	4.0	5.5
AB Thickness (inches)	6.0	7.0	13.0

Notes: AC – Asphaltic Concrete
AB – Aggregate Base

The thicknesses of the provided section are considered minimum thicknesses. We utilized a design R-Value of 30 for these minimum recommendations. Increasing the thickness of any or all of the above layers will reduce the likelihood of the pavement experiencing distress during its service life. The above recommendations are based on the assumption that proper maintenance and irrigation of the areas adjacent to the roadway will occur through the design life of the pavement. Failure to maintain a proper maintenance and/or irrigation program may jeopardize the integrity of the pavement.

Aggregate base should be compacted to a minimum of 95 percent relative compaction over subgrade compacted to a minimum of 95 percent relative compaction per ASTM D1557, through the upper 12 inches. Aggregate base should meet the specifications of the latest edition of the "Standard Specifications for Public Works Construction" (Greenbook) or the specifications of Caltrans Class 2 aggregate base. MATRIX should provide geotechnical observation and testing during construction.

4.8 Control of Surface Water and Drainage Control

Positive drainage of surface water away from structures is very important. Water must not be allowed to pond adjacent to buildings. Positive drainage may be accomplished by providing drainage away from buildings at a gradient of at least 2 percent for a distance of at least 5 feet, and further maintained by a swale or drainage path at a gradient of at least 1 percent. Where necessary, drainage paths may be shortened by use of area drains and collector pipes.

Planters with open bottoms adjacent to buildings should be avoided. Planters should not be located adjacent to buildings unless provisions for drainage, such as catch basins, and/or area drains, are made. Over watering must be avoided.

4.9 Slope Landscaping and Maintenance (as necessary)

Adequate slope and pad drainage facilities must be incorporated into the design of the finish grading for the subject site. The overall stability of graded slopes should not be adversely affected provided all drainage provisions are properly constructed and maintained thereafter and provided all engineered slopes are landscaped with a deep rooted, drought tolerant and maintenance free plant species, as recommended by the project landscape architect and reviewed by MATRIX.

4.10 Future Plan Reviews, Construction Observation and Testing

Future plan reviews are necessary to verify that recommendations and conclusions from Matrix Geotechnical Consulting feasibility and preliminary studies have been incorporated into the plans. Modifications to the plan or additional subsurface exploration/laboratory testing may be required based upon our review; therefore our review should be performed before any related construction is initiated. Such reviews should include, but are not limited to:

- Rough Grading Plans
- Precise Grading Plans
- Foundation Plans
- Retaining Wall Plans
- Onsite Storm Water Disposal System Evaluation
- Storm Drain/Sewer/Water/Dry Utility Plans

Plans should be forwarded to the project geotechnical engineer and/or engineering geologist for review and comments, as deemed necessary.

The recommendations provided in this report are based on limited subsurface observations and geotechnical analysis. The interpolated subsurface conditions should be checked in the field during construction by a representative of MATRIX.

The geotechnical consultant should also perform construction observation and testing during future grading, excavations, backfill of utility trenches, preparation of pavement subgrade and placement of aggregate base, foundation or retaining wall construction or when an unusual soil condition is encountered at the site. Grading plans, foundation plans, and final project drawings should be reviewed by this office prior to construction.

5.0 LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The samples taken and submitted for laboratory testing, the observations made and the in-situ field testing performed are believed representative of the entire project; however, soil and geologic conditions revealed by excavation may be different than our preliminary findings. If this occurs, the changed conditions must be evaluated by the project soil engineer and geologist and design(s) adjusted as required or alternate design(s) recommended.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and/or project engineer and incorporated into the plans, and the necessary steps are taken to see that the contractor and/or subcontractor properly implements the recommendations in the field. The contractor and/or subcontractor should notify the owner if they consider any of the recommendations presented herein to be unsafe.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

The opportunity to be of service is appreciated. Should you have any questions regarding the content of this report, or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

Respectfully submitted,

MATRIX GEOTECHNICAL CONSULTING

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APPENDIX A

REFERENCES

APPENDIX A

References

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_____, 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada, Prepared by California Division of Mines and Geology.

CGS, Tsunami Inundation Map for Emergency Planning, State of California, County of San Diego, Del Mar Quadrangle, dated June 1, 2009.

LGC Inland, Inc., 2011, Preliminary Geotechnical Investigation for the Proposed Assisted and Dementia Residential Facility Complex, Located at 959 Genevieve Street, APN: 298-390-51, City of Solana Beach, County of San Diego, California, Dated May 17.

USGS, 2005, Geologic Map of the San Diego 30'x60' Quadrangle, Southern California, Version 1.0

Aerial Photograph Interpretation Table

SOURCE	FLIGHT	FRAME (S)	FLIGHT DATE	SCALE
Continental	107-5	11, 12	4/16/72	1"=5,000'
Continental	210 17B	39, 40	10/23/78	1"=1,250'
Continental	FC SD 11	21, 22	4/8/80	1"=4,000'
Continental	SD 3	15, 16	1/14/88	1"=2,500'
Continental	C98-5	104, 105	10/30/93	1"=2,200'
Continental	C-123-5	56, 57	8/12/98	1"=2,000'
Google Earth	N/A	N/A	11/1/2010	N/A

APPENDIX B

PREVIOUS BORE LOGS

Geotechnical Boring Log B-1

Date: 4/25/11	**Project Name:** Pacific Sound Investors-Solana Beach
Project Number: I11-2413-10	**Logged By:** SER
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8
Top of Hole Elevation (ft): 114	**Hole Location:** See Geotechnical Map

Elevation (MSL)	Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	Type of Test
	0				Afu	**Artifical Fill, Undocumented**					
					SM	Silty Sand; brown to dark brown, moist, loose to medium dense					
					Tt	**Tertiary Torrey Sandstone**					
110	5	3 4 8	R-1 Bag 1 @ 1-5'			SANDSTONE; light brown to brown, moist, moderately hard, fine to medium grained, slightly friable	11.9	106.4	2.5-4.0	8	Corrosion Expansion
		4 7 8	R-2				8.8	102.4	5.0-6.5	10	
105		6 8 13	R-3			brown, moist, moderately hard, fine to medium grained	15.8	113.2	7.5-9.0	14	
100	10	5 8 11	R-4			light brown	13.4	106.6	10.0-11.5	13	
95	15	3 4 5	S-1			SANDSTONE: light brown, damp, soft to moderately hard, fine to coarse grained	7.5		15.0-16.5	9	
90	20	5 9 14	R-5			SANDSTONE: light brown, damp, moderately hard, fine to coarse grained	4.2	102.9	20.0-21.5	15	
85	25	4 5 7	S-2			SANDSTONE: light brown, damp, moderately hard, fine to medium grained, friable	8.7		25.0-26.5	12	
	30										

Standard Penetration Test CURVE: 10 30 50

Sample Legend
- Bag Sample
- SPT
- Ring Sample (CA modified)

Geotechnical Consulting

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Geotechnical Boring Log B-1

Date: 4/25/11	**Project Name:** Pacific Sound Investors-Solana Beach
Project Number: I11-2413-10	**Logged By:** SER
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8
Top of Hole Elevation (ft): 114	**Hole Location:** See Geotechnical Map

Elevation (MSL) and Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE (10 30 50)	Type of Test
30	8 14 23	R-6			SANDSTONE; light brown, moist, moderately hard, fine to medium grained, slightly friable, well indurated	10.9	111.8	30.0-31.5	25		
80											
35	18 50[5.5"]	S-3			SANDSTONE; light brown to reddish brown, damp, hard, fine to medium grained, highly friable	6.4		35.0-36.0	50		
75											
40	21 50[2"]	R-7			Silty SANDSTONE; light brown, damp, very hard, very fine to medium grained	5.8	101.7	40.0-40.8	50		
70											
45	13 50	S-4			Silty SANDSTONE; light brown, damp, very hard, very fine to medium grained	8.7		45.0-46.0	50		
65											
50	50[6"]	R-8			Silty SANDSTONE; light brown, dry, very hard, very fine to medium grained (partial recovery)			50.0-50.5	50		
60											
55											
55											
60											

Total Depth: 50.5'
No Groundwater
0-3': Capped with Concrete
3-50.5': Backfilled with Bentonite

Sample Legend
- Bag Sample
- SPT
- Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

Geotechnical Boring Log B-2

Date: 4/25/11	**Project Name:** Pacific Sound Investors-Solana Beach	Page 1 of 1
Project Number: I11-2413-10	**Logged By:** SER	
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61	
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8	
Top of Hole Elevation (ft): 115	**Hole Location:** See Geotechnical Map	

Elevation (MSL)	Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE (10 30 50)	Type of Test
115	0				Afu SM	**Artificial Fill, Undocumented** Silty Sand; light brown, dry to damp, medium dense						
					Tt	**Tertiary Torrey Sandstone**						
		3 3 3	R-1			Silty SANDSTONE; brown, moist, moderately hard, fine to medium grained, intensely weathered, scattered rootlets	14.6	99.6	2.5-4.0	4		
110	5	4 8 11	R-2				11.3	114.4	5.0-6.5	13		
		6 7 17	R-3			SANDSTONE; brown, moist, moderately hard, moderately weathered, scattered rootlets	14.8	111.6	7.5-9.0	16		
105	10	5 7 11	R-4			SANDSTONE; light brown, moist, moderately hard, fine to medium grained, slightly weathered	12.9	106.9	10.0-11.5	12		
100	15	8 9 11	S-1			SANDSTONE; light brown to brown, damp, moderately hard, fine to coarse grained	9.9		15.0-16.5	20		
						Total Depth: 16.5' No Groundwater						
95	20											
90	25											
85	30											

Sample Legend
- Bag Sample
- SPT
- Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

Geotechnical Boring Log B-3

Date: 4/25/11	**Project Name:** Pacific Sound Investors-Solana Beach	Page 1 of 1
Project Number: I11-2413-10	**Logged By:** SER	
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61	
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8	
Top of Hole Elevation (ft): 123	**Hole Location:** See Geotechnical Map	

Elevation (MSL) and Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE (10 30 50)	Type of Test
0				SM	**Residual Soil**						
				Tl	Silty Sand; dark brown, moist, loose, fine to medium grained, abundant rootlets						
120	3 3 7	R-1			**Tertiary Torrey Sandstone** Silty SANDSTONE; dark brown to brown, moist, soft to moderately hard,fine to medium grained, intensely weathered, scattered rootlets	10.1	98.4	2.5-4.0	7		
5	3 4 6	R-2			SANDSTONE; brown, moist, moderately hard, fine to meduim grained, slightly weathered	7.9	101.2	5.0-6.5	7		
115	3 4 8	R-3			Silty SANDSTONE; dark brown, very moist, moderately hard, fine to medium grained	17.7	105.9	7.5-9.0	8		
10	9 10 16	R-4			dark brown to brown	11.9	117.0	10.0-11.5	17		
110											
15	3 4 9	S-1			SANDSTONE; light brown to brown, very moist, moderately hard, fine to medium grained	10.5		15.0-16.5	13		
105					Total Depth: 16.5' No Groundwater						
20											
100											
25											
95											
30											

Sample Legend
- ☒ Bag Sample
- ◪ SPT
- ☒ Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

Geotechnical Boring Log B-4

Date: 4/27/11	**Project Name:** Pacific Sound Investors-Solana Beach
Project Number: I11-2413-10	**Logged By:** SER
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8
Top of Hole Elevation (ft): 123	**Hole Location:** See Geotechnical Map

Elevation (MSL) and Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE (10 30 50)	Type of Test
0		Bag 1 @ 1-5'		SM	**Residual Soil** Silty Sand, brown to dark brown, moist, loose, fine to medium grained						
120	4 5 7	R-1		SC	Clayey Sand; dark brown to black,very moist, medium dense, fine to medium grained	18.2	109.3	2.5-4.0	8		
5	7 7 10	R-2			**Tertiary Torrey Sandstone** SANDSTONE; light brown to brown, moist, moderately hard, fine to medium grained with trace clay	10.4	111.4	5.0-6.5	11		
115	9 21 23	R-3			SANDSTONE; light brown, moist, hard, fine to medium grained with trace clay, slight oxidation	13.0	118.6	7.5-9.0	30		
10	8 13 23	R-4			SANDSTONE; light brown to brown, moist, hard, fine to medium grained	10.9	119.6	10.0-11.5	24		
110											
15	5 13 15	S-1			moderately hard	9.9		15.0-16.5	28		
105											
20	9 13 15	R-5			SANDSTONE; light brown, damp, moderately hard, fine to medium grained with trace coarse grains	9.2	123.9	20.0-21.5	19		
100											
25	6 9 14	S-2			SANDSTONE; light brown to yellow brown, damp, moderately hard, fine to medium grained	7.5		25.0-26.5	23		
95											
30											

Sample Legend
- Bag Sample
- SPT
- Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

Geotechnical Boring Log B-4

Date: 4/27/11	**Project Name:** Pacific Sound Investors-Solana Beach
Project Number: I11-2413-10	**Logged By:** SER
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8
Top of Hole Elevation (ft): 123	**Hole Location:** See Geotechnical Map

Elevation (MSL) and Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE 10 30 50	Type of Test
30	50[3 5"]	R-6			SANDSTONE; orange to yellow brown, damp, very hard, fine to medium grained	5.6	94.0	30.0-30.3	50		
90											
35	44 50[3"]	S-3			SANDSTONE; light brown to yellow brown, damp, very hard, fine to medium grained	8.7		35.0-35.8	50		
					Total Depth: 36' No Groundwater 0-3': Capped with Concrete 3-36': Backfilled with Bentonite						
85											
40											
80											
45											
75											
50											
70											
55											
65											
60											

Sample Legend
- Bag Sample
- SPT
- Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

Geotechnical Boring Log B-5

Date: 4/27/11	**Project Name:** Pacific Sound Investors-Solana Beach
Project Number: I11-2413-10	**Logged By:** SER
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8
Top of Hole Elevation (ft): 131	**Hole Location:** See Geotechnical Map

Elevation (MSL)	Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE (10 30 50)	Type of Test
130	0				SM	**Residual Soil** Silty SAND; brown to dark brown, moist, loose to slightly hard, fine to medium grained						
		4 4 6	R-1		Tt	**Tertiary Torrey Sandstone** SANDSTONE; light brown to brown, moist, loose to moderately hard, fine to medium grained	13.7	110.7	2.5-4.0	7		
125	5	5 8 10	R-2			SANDSTONE; light brown to brown, moist, moderately hard, fine to medium grained	14.9	112.7	5.0-6.5	12		
		6 8 10	R-3			fine to medium grained with trace coarse grains	13.5	107.1	7.5-9.0	12		
120	10	5 9 11	R-4			fine to medium grained	14.4	110.0	10.0-11.5	13		
115	15	4 6 7	S-1			SANDSTONE; light brown, moist, moderately hard, fine to medium grained	8.1		15.0-16.5	13		
110	20					Total Depth: 16.5' No Groundwater						
105	25											
	30											

Sample Legend
- ☒ Bag Sample
- ◪ SPT
- ✖ Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

Geotechnical Boring Log B-6

Date: 4/27/11	**Project Name:** Pacific Sound Investors-Solana Beach
Project Number: I11-2413-10	**Logged By:** SER
Drilling Company: CALPAC Drilling	**Type of Rig:** B-61
Drive Weight (lbs.): 140 lbs	**Drop (in.):** 30 inches **Hole Dia. (in.):** 8
Top of Hole Elevation (ft): 144	**Hole Location:** See Geotechnical Map

Elevation (MSL) and Depth (ft.)	Blow Count / 12"	Sample No.	Soil Graphic	Geologic / Group Symbol	DESCRIPTION	In-Situ Moist.(%)	Dry Density (pcf)	Standard Penetration Test SPT Depth	SPT N	CURVE (10 30 50)	Type of Test
0				SM	**Residual Soil** Silty SAND; dark brown, moist, loose, trace rootlets						
140	5 7 10	R-1		Tt	**Tertiary Torrey Sandstone** Silty SANDSTONE; light brown to brown, damp, moderately hard, fine to medium grained	4.4	106.6	2.5-4.0	11		
5	5 7 12	R-2			SANDSTONE; light brown to tan, dry to damp, moderately hard, fine to medium grained	1.4	109.6	5.0-6.5	13		
135	6 11 15	R-3				4.9	108.9	7.5-9.0	17		
10	8 10 16	R-4			SANDSTONE; light brown to brown, moist, moderately hard, fine to medium grained with trace clay	6.7	114.1	10.0-11.5	17		
130											
15	8 38 50[4"]	S-1			SANDSTONE: light brown, damp, very hard, fine to medium grained	8.1		15.0-16.3	50		
					Total Depth: 16.5' No Groundwater						
125											
20											
120											
25											
115											
30											

Sample Legend
- Bag Sample
- SPT
- Ring Sample (CA modified)

Geotechnical Consulting

LGC INLAND

APPENDIX C

LABORATORY TESTING PROCEDURES AND TEST RESULTS

APPENDIX C

Laboratory Testing Procedures and Test Results

The laboratory-testing program was directed towards providing quantitative data relating to the relevant engineering properties of the soil. Samples considered representative of site conditions were tested in general accordance with American Society for Testing and Materials (ASTM) procedure and/or California Test Methods (CTM), where applicable. The following summary is a brief outline of the test type and a table summarizing the test results.

Soil Classification: Soil were classified according the Unified Soil Classification System (USCS) in accordance with ASTM Test Methods D2487 and D2488. The soil classifications (or group symbol) are shown on the laboratory test data and boring logs.

Expansion Index: the Expansion Index Test, U.B.C. Standard No. 18 2 and/or ASTM D4829 evaluated the expansion potential of selected samples. Specimens are molded under a given compactive energy to approximately the optimum water content and approximately 50 percent saturation or approximately 90 percent relative compaction. The prepared 1-inch-thick by 4-inch-diameter specimens are loaded to an equivalent 144 psf surcharge and are inundated with tap water until volumetric equilibrium is reached. The results of these tests are presented in the table below:

SAMPLE LOCATION	SAMPLE DESCRIPTION	EXPANSION INDEX	EXPANSION POTENTIAL*
B-1 @ 1-5’	Brown Silty SAND	0	Very Low

* Per ASTM D4829

Soluble Sulfates: The soluble sulfate contents of selected samples were determined by standard geotechnical methods (CTM 417). The soluble sulfate content is used to determine the appropriate cement type and maximum water-cement ratios. The test results are presented in the table below:

SAMPLE LOCATION	SAMPLE DESCRIPTION	SULFATE CONTENT (ppm)	SULFATE EXPOSURE*
B-1 @ 1-5’	Brown Silty SAND	0.000	Negligible

*Per ACI 318R-05 Table 4.3.1

Minimum Resistivity and pH Tests: Minimum resistivity and pH tests were performed with CTM 643. The results are presented in the table below:

SAMPLE LOCATION	SAMPLE DESCRIPTION	pH	MINIMUM RESISTIVITY (ohm-cm)
B-1 @ 1-5’	Brown Silty SAND	7.5	3400

Chloride Content: Chloride content was tested with CTM 422. The results are presented below:

SAMPLE LOCATION	SAMPLE DESCRIPTION	CHLORIDE CONTENT (ppm)
B-1 @ 1-5’	Brown Silty SAND	0

R-Value: The resistance R-value was determined by the ASTM D2844 for street subgrade soil. The results were used for pavement design purposes.

SAMPLE LOCATION	SAMPLE DESCRIPTION	R-VALUE
B-4 @ 1-5’	Dark brown clayey SAND	30

Maximum Dry Density Tests: The maximum dry density and optimum water content of typical materials were determined in accordance with ASTM D1557. The results of these tests are presented in the table below:

SAMPLE LOCATION	SAMPLE DESCRIPTION	MAXIMUM DRY DENSITY (% by weight)	OPTIMUM WATER CONTENT (%)
B-1 @ 1-5’	Brown Silty SAND	123.3	9.8

Direct Shear: Direct shear tests were performed on selected remolded and/or undisturbed samples in accordance with ASTM 3080. The results of these tests ate presented in the table below and in the test data in the following page(s

SAMPLE LOCATION	SAMPLE DESCRIPTION	FRICTION ANGLE (degrees)	APPARENT COHESION (psf)
B-1 @ 5’	Light brown SANDSTONE	37	235
B-4 @ 1-5’	Brown Silty SAND	36	219

APPENDIX D

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

APPENDIX D

MATRIX GEOTECHNICAL CONSULTING

EARTHWORK SPECIFICATIONS

These specifications present generally accepted standards and minimum earthwork requirements for the development of the project. These specifications shall be the guidelines for earthwork except where specifically superceded in preliminary geology and soil reports, grading plan review reports or by prevailing grading codes or ordinances of the controlling agency.

1.0 GENERAL

1.1 The contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications.

1.2 The project Soil Engineer and Engineering Geologist of their representative shall provide testing services, and Geotechnical consultation during the duration of the project.

1.3 All clearing, grubbing, stripping and site preparation for the project shall be accomplished by the Contractor to the satisfaction of the Soil Engineer.

1.4 It is the Contractor's responsibility to prepare the ground surface to receive the fills to the satisfaction of the Soil Engineer and to place, spread, mix and compact the fill in accordance with the job specifications and as requested by the Soil Engineer. The Contractor shall also remove all material considered by the Soil Engineer to be unsuitable for use in the construction of compacted fill.

1.5 The Contractor shall have suitable and sufficient equipment in operation to handle the amount of fill being placed. When necessary, equipment will be shut down temporarily in order to permit proper compaction of fills.

2.0 GENERAL

2.1 Excessive vegetation and all deleterious material should be disposed of offsite as required by the Soil Engineer. Existing fill, soil, alluvium or rock materials determined by the Soil Engineer as being unsuitable for placement in compacted fills shall be removed and wasted from the site. Where applicable, the Contractor may obtain the approval of the Soil Engineer and the controlling authorities for the project to dispose of the above-described materials, or a portion thereof, in designated areas onsite.

After removals as described above have been accomplished, earth materials deemed unsuitable in their natural, in-place condition, shall be removed as recommended by the Soil Engineer/Engineering Geologist.

2.2 After the removals as delineated in Item 2.0, 2.1 above, the exposed surfaces shall be disked or bladed by the Contractor to the satisfaction of the Soil Engineer. The prepared

ground surfaces shall then be brought to the specified water content, mixed as required, and compacted and tested as specified. In areas where it is necessary to obtain the approval of the controlling agency, prior to placing fill, it will be the contractor's responsibility to notify the proper authorities.

2.3 Any underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipelines or others not located prior to grading are to be removed or treated in a manner prescribed by the Soil Engineer and/or the controlling agency for the project.

3.0 COMPACTED FILLS

3.1 Any materials imported or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable by the Soil Engineer. Deleterious material not disposed of during clearing or demolition shall be removed from the fill as directed by the Soil Engineer.

3.2 Rock or rock fragments less than eight inches in the largest dimension may be utilized in the fill, provided they are not placed in contracted pockets and the distribution of the rocks is approved by the Soil Engineer.

3.3 Rocks greater than eight inches in the largest dimension shall be taken offsite, or placed in accordance with the recommendations of the Soil Engineer in areas designated as suitable for rock disposal.

3.4 All fills, including onsite and import materials to be used for fill, shall be tested in the laboratory by the Soil Engineer. Proposed import materials shall be approved prior to importation.

3.5 The fill materials shall be placed by the Contractor in layers that when compacted shall not exceed six inches. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to obtain near uniform water content and a uniform blend of materials.

All compaction shall be achieved at optimum water content, or above, as determined by the applicable laboratory standard. No upper limit on the optimum water content is necessary; however, the Contractor must achieve the necessary compaction and will be alerted when the material is too wet and compaction cannot be attained.

3.6 Where the water content of the fill material is below the limit specified by the Soil Engineer, water shall be added and the materials shall be blended until a uniform water content, within specified limits, is achieved. Where the water content of the fill material is above the limits specified by the Soil Engineer, the fill materials shall be aerated by disked, blading or other satisfactory methods until the water content is within the limits specified.

3.7 Each fill layer shall be compacted to minimum project standards, in compliance with the testing methods specified by the controlled governmental agency and in accordance with recommendations for the Soil Engineer.

In the absence of specific recommendations by the Soil Engineer to the contrary, the compaction standard shall be ASTM D 1557.

3.8 Where a slope-receiving fill exceeds a ration of five-horizontal to one-vertical, the fill shall be keyed and benched through all unsuitable topsoil, colluvium, alluvium, or creep material, into sound bedrock or firm material, in accordance with the recommendations and approval of the Soil Engineer.

3.9 Side hill fills shall have a minimum key width of 15 feet into bedrock of firm material, unless otherwise specified in the soil report and approved by the Soil Engineer in the field.

3.10 Drainage terraces and subdrainage devices shall be constructed in compliance with the ordinances of the controlling governmental agency and/or with the recommendations of the Soil Engineer and Engineering Geologist.

3.11 The contractor shall be required to maintain the specified minimum relative compaction our to the finish slope face of fill slopes, buttresses, and stabilization fills as directed by the Soil Engineer and/or governing agency for the project. The may be achieved by either overbuilding the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment, or by any other procedure which produces the designated result.

3.12 Fill-over-cut slopes shall be properly keyed through topsoil, colluvium or creep material into rock or firm material: and the transition shall be stripped of all soil or unsuitable materials prior to placing fill.

The cut portion should be made and evaluated by the Engineering Geologist prior to placed of fill above.

3.13 Pad areas in natural ground and cut shall be approved by the Soil Engineer. Finished surfaces of these pads may require scarification and recompaction.

4.0 CUT SLOPES

4.1 The Engineering Geologist shall inspect all cut slopes and shall be notified by the Contractor when cut slopes are started.

4.2 During the course of grading, unforeseen adverse or potentially adverse geologist conditions are encountered, the Engineering Geologist and Soil Engineer shall investigate, analyze and make recommendations to treat these problems.

4.3 Non-erodible interceptor swales shall be placed at the top of cut slopes that face the same direction as the prevailing drainage.

4.4 Unless otherwise specified in soil and geological reports, no cut slopes shall be excavated higher or steeper than allowed by the ordinances or controlling governmental agencies.

4.5 Drainage terraces shall be constructed in compliance with the ordinances of the controlling governmental agencies, and/or in accordance with the recommendations of the Soil Engineer or Engineering Geologist.

5.0 GRADING CONTROL

5.1 Fill placement shall be observed by the Soil Engineer and/or his representative during the progress of grading.

Field density tests shall be made by the Soil Engineer and/or his representative to evaluate the compaction and water content compliance of each layer of fill. Density tests shall be performed at intervals not to exceed two feet of fill height. Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density determinations shall be taken in the compacted material below the disturbed surface at a depth determined by the Soil Engineer or his representative.

5.2 Where tests indicate that the density of any layer of fill, or portion thereof, is below the required relative compaction, or improper water content is evident, the particular layer or portion shall be reworked until the required density and/or water content has been attained. No additional fill shall be placed over an area until the last placed lift of fill has been test and found to meet the density and water content requirements and that lift approved by the Soil Engineer.

5.3 Where the work is interrupted by heavy rains, fill operations shall not be resumed until field observations and tests by the Soil Engineer indicate the water content and density of the fill are within the limits previously specified.

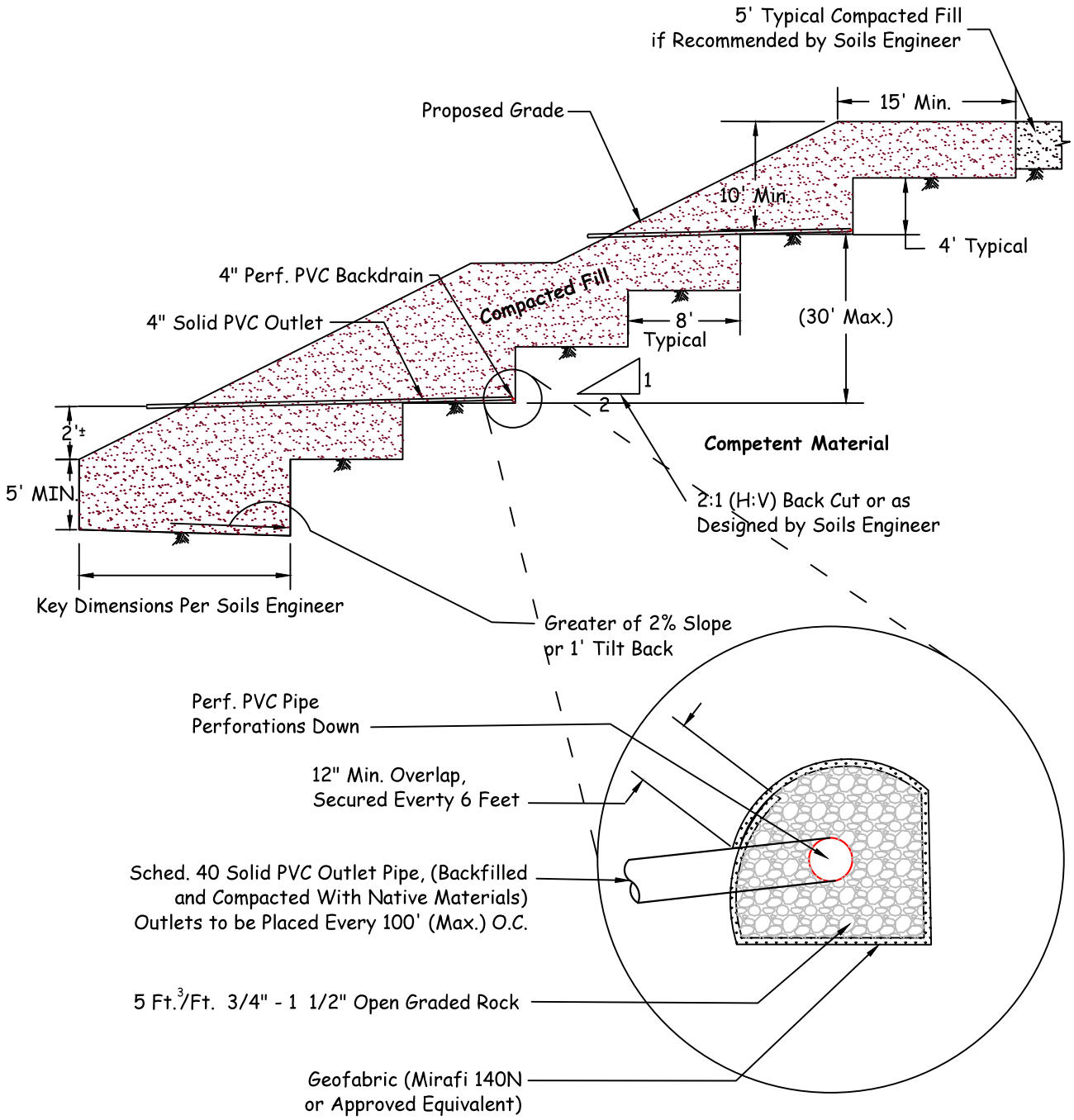
5.4 During construction, the Contractor shall properly grade all surfaces to maintain good drainage and prevent ponding of water. The Contractor shall take remedial measures to control surface water and to prevent erosion of graded area until such time as permanent drainage and erosion measures have been installed.

5.5 Observation and testing by the Soil Engineer shall be conducted during the filling and compacting operations in order that he will be able to state in his opinion all cut and filled areas area graded in accordance within the approved specifications.

5.6 After completion of grading and after the Soil Engineer and Engineering Geologist have finished their observations of the work, final reports shall be submitted. No further excavation or filling shall be undertaken without prior notification of the Soil Engineer and/or Engineering Geologist.

6.0 SLOPE

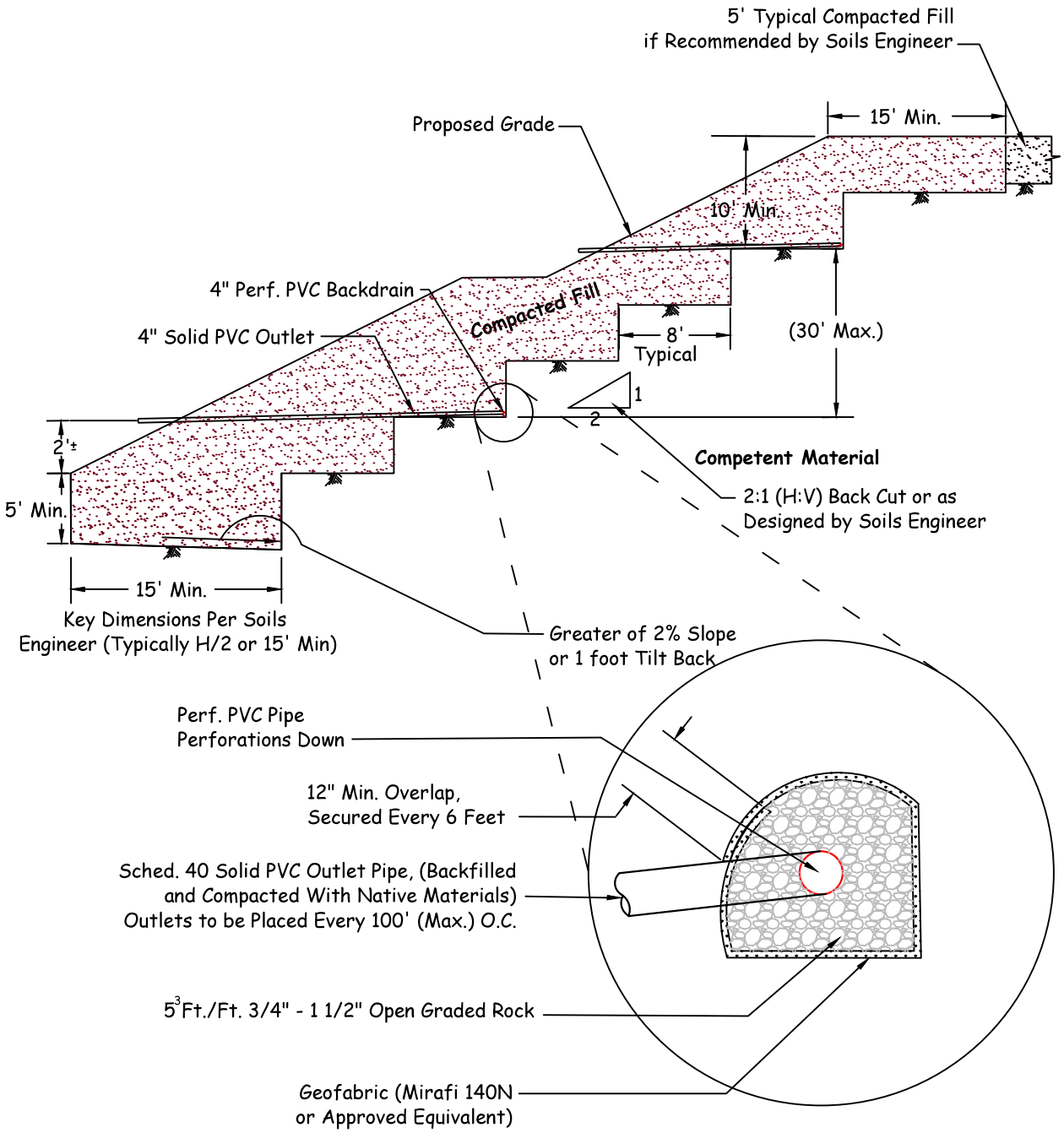
6.1 All finished cut and fill slopes shall be planted and/or protected from erosion in accordance with the project specification and/or recommended by a landscape architect.



MATRIX

TYPICAL BUTTRESS DETAIL

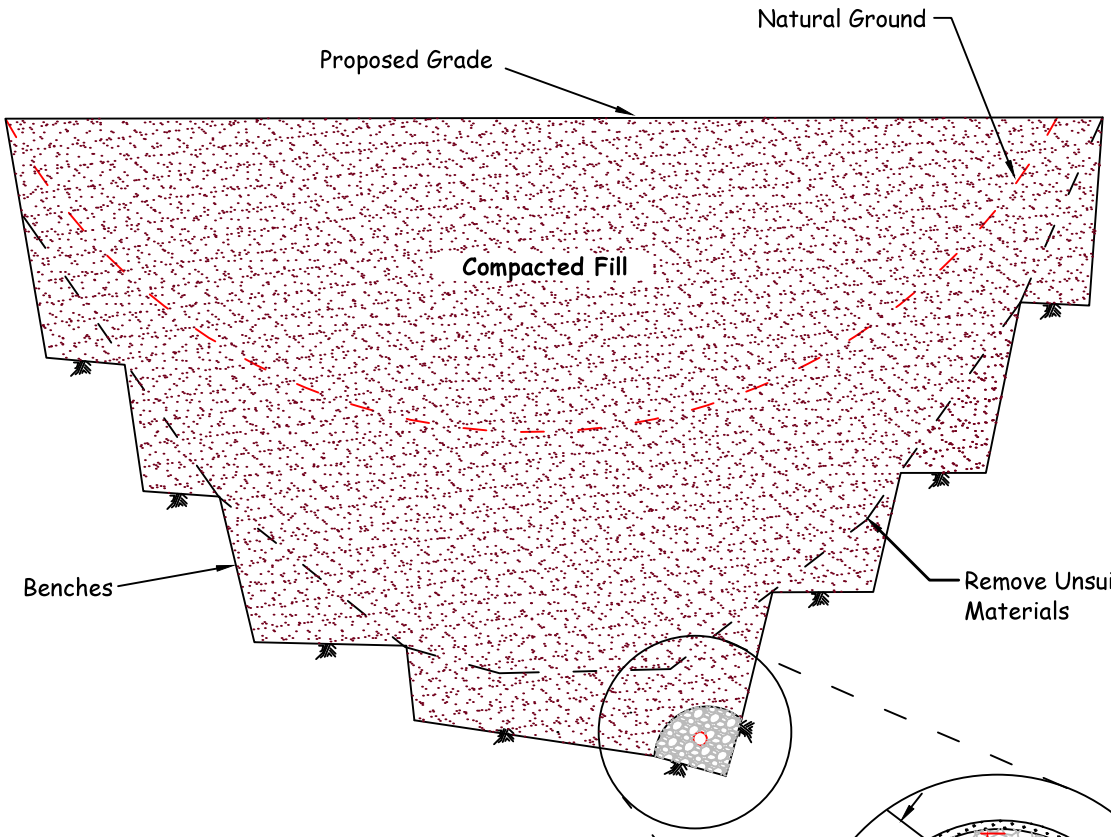
July 1, 2012



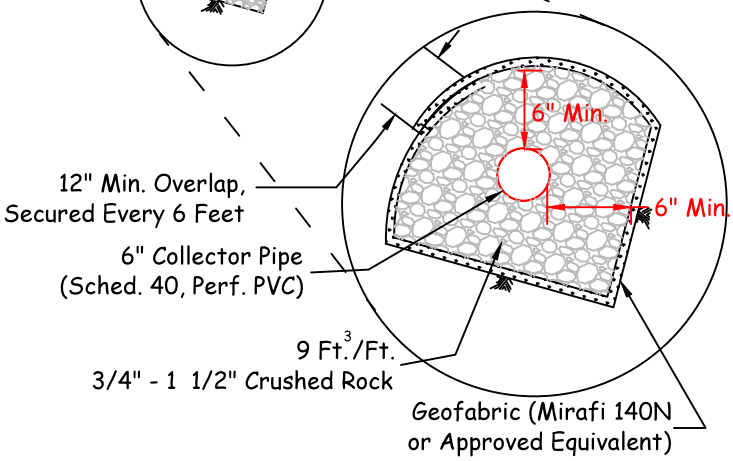
MATRIX

TYPICAL STABILIZATION FILL DETAIL

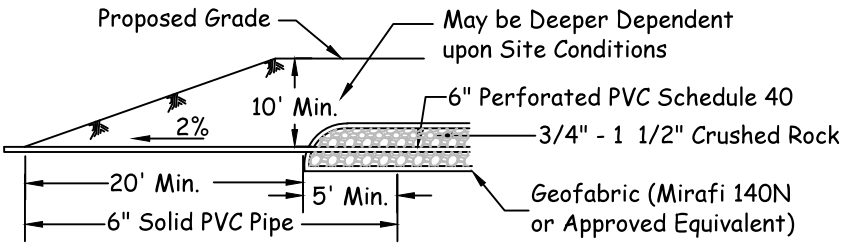
July 1, 2012



Notes:
1) Continuous Runs in Excess of 500' Shall Use 8" Diameter Pipe.
2) Final 20' of Pipe at Outlet Shall be Solid and Backfilled with Fine-grained Material.



Proposed Outlet Detail

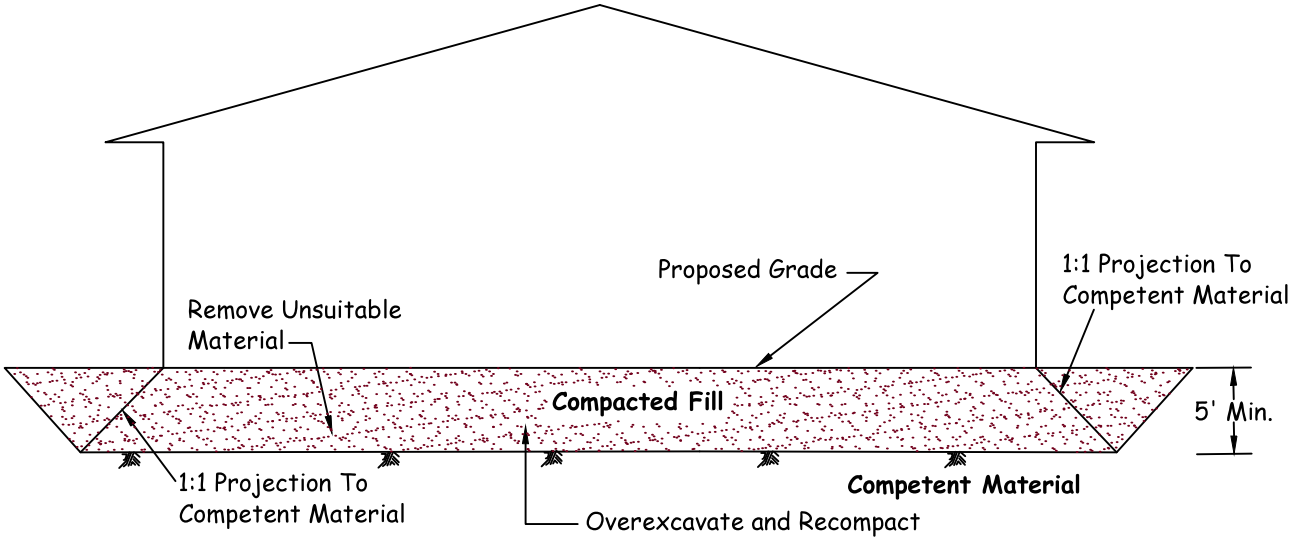


MATRIX

CANYON SUBDRAINS

July 1, 2012

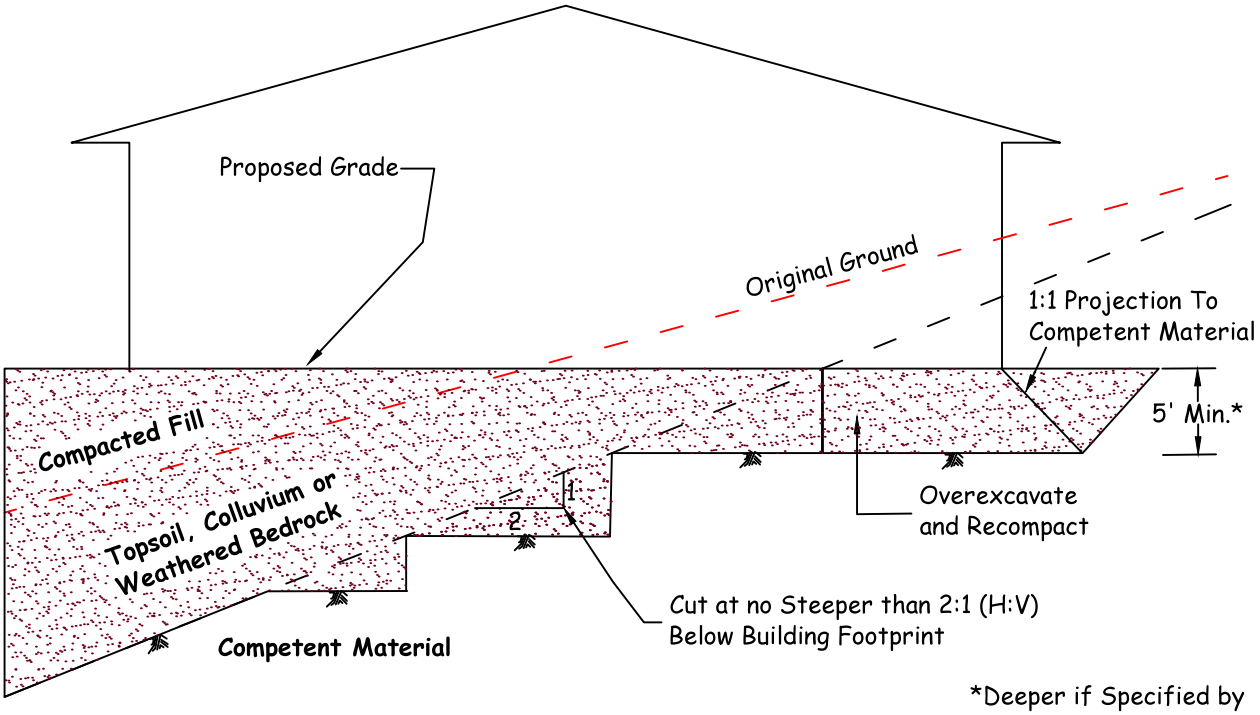
Cut Lot
(Exposing Unsuitable Soils at Design Grade)



Note 1: Removal Bottom Should be Graded With Minimum 2% Fall Towards Street or Other Suitable Area (as Determined by Soils Engineer) to Avoid Ponding Below Building

Note 2: Where Design Cut Lots are Excavated Entirely Into Competent Material, Overexcavation May Still be Required for Hard-Rock Conditions or for Materials With Variable Expansion Characteristics.

Cut/Fill Transition Lot



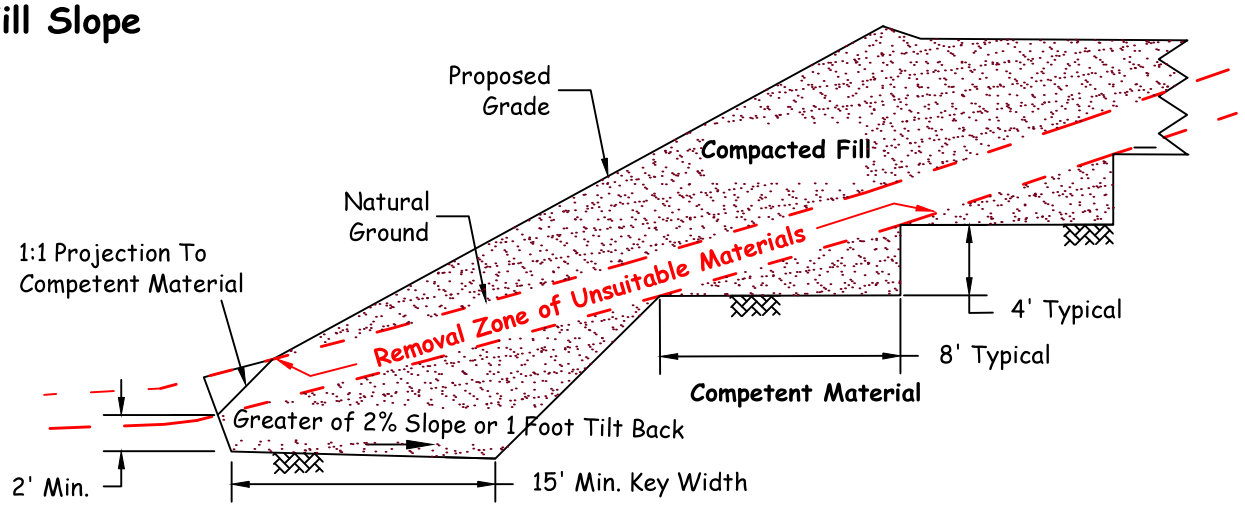
*Deeper if Specified by Soils Engineer

MATRIX

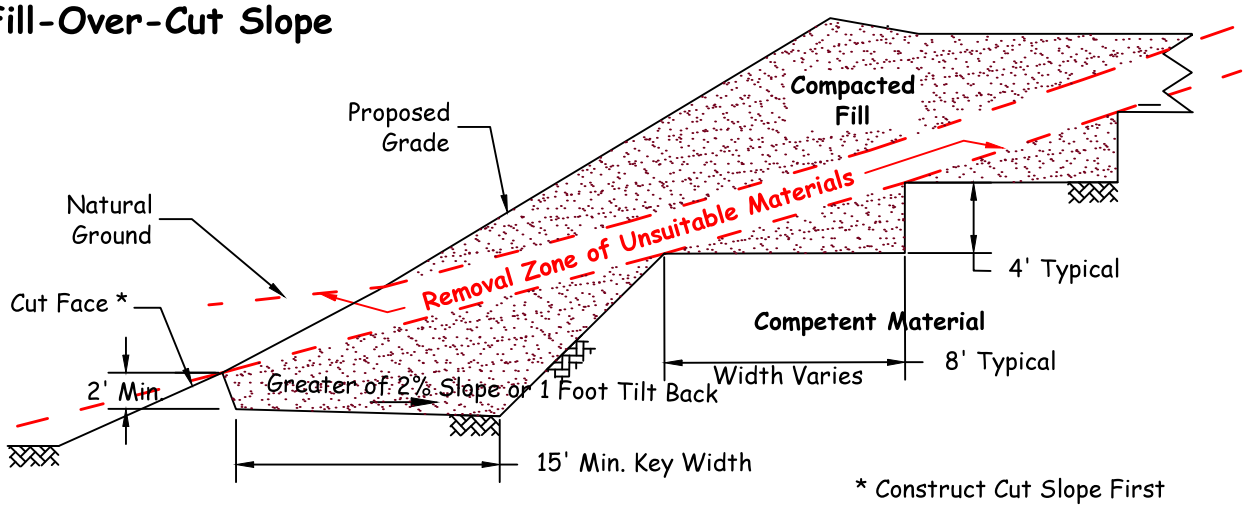
CUT AND TRANSITION LOT OVEREXCAVATION DETAIL

July 1, 2012

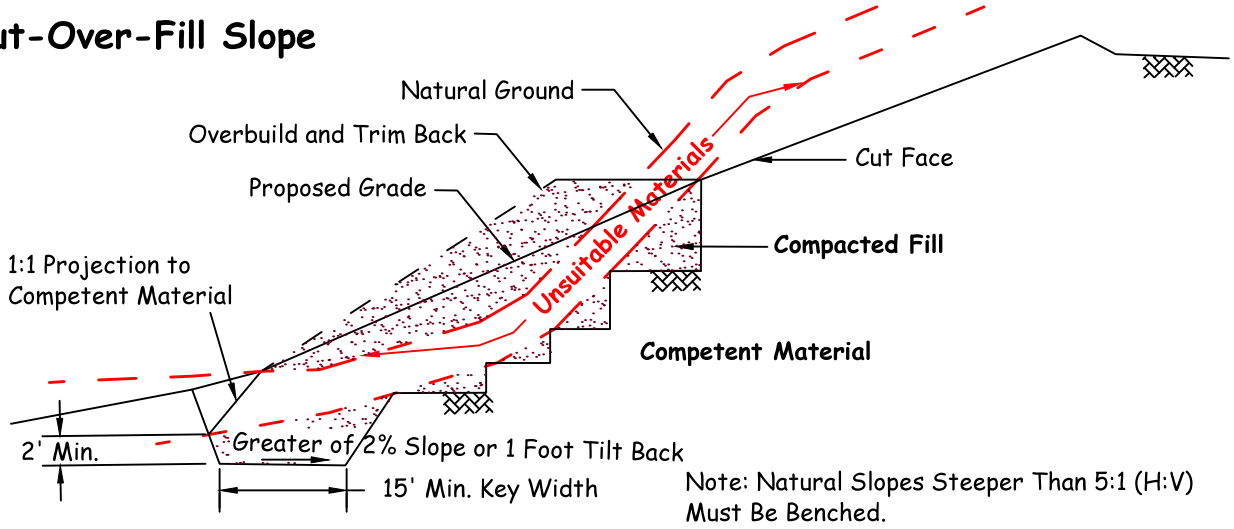
Fill Slope



Fill-Over-Cut Slope



Cut-Over-Fill Slope

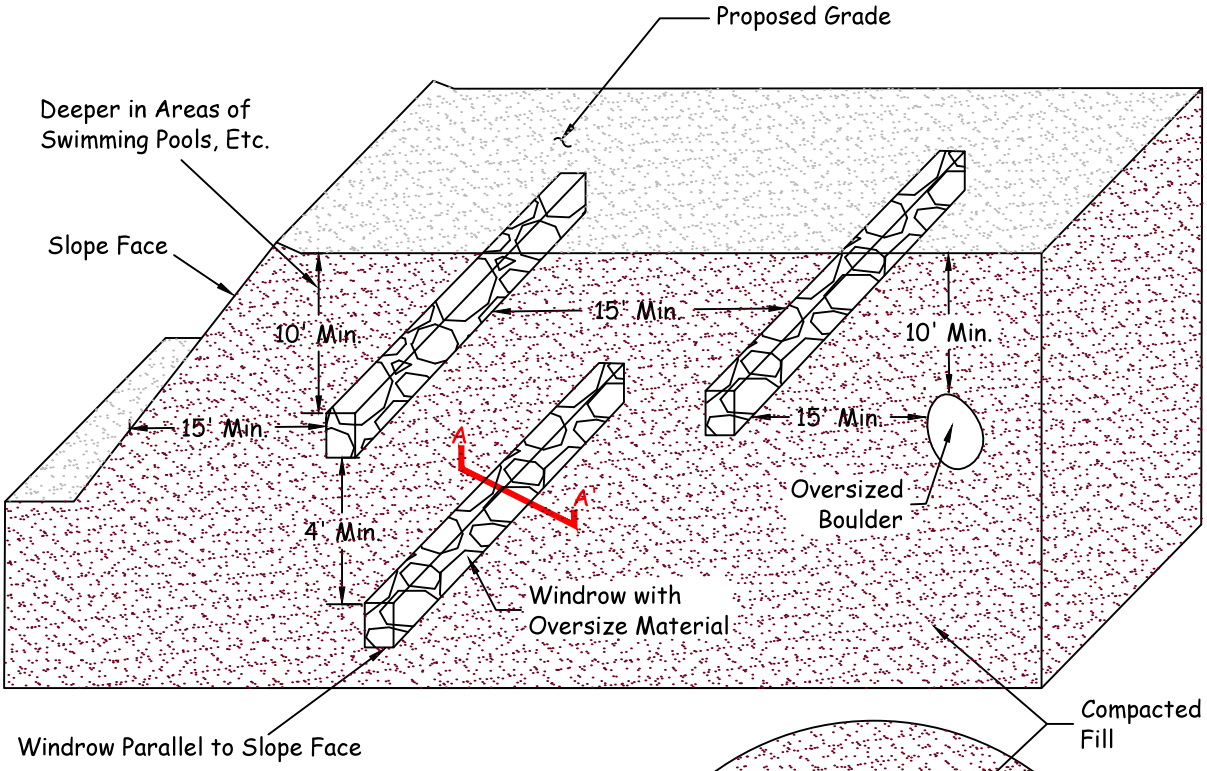


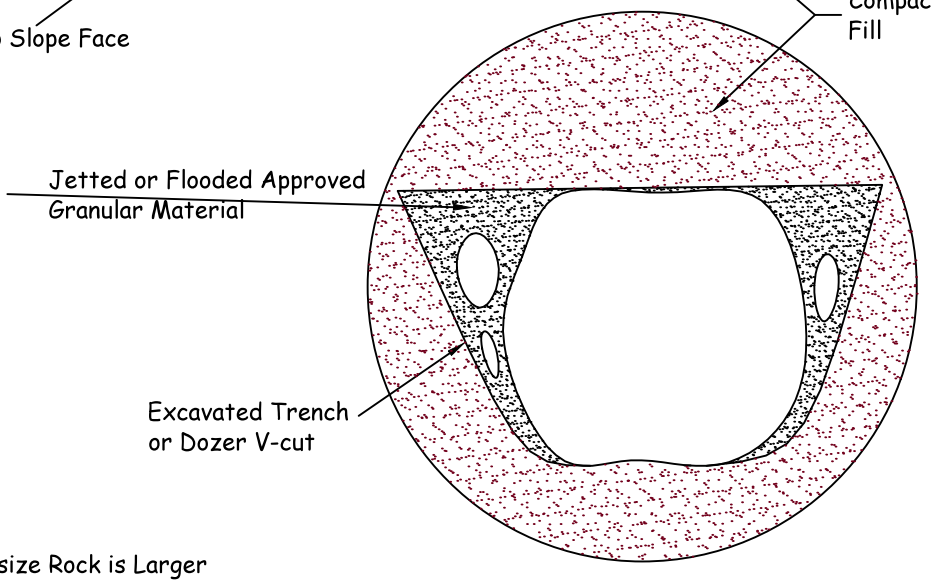
Note: Natural Slopes Steeper Than 5:1 (H:V) Must Be Benched.

MATRIX

KEYING AND BENCHING

July 1, 2012





Note: Oversize Rock is Larger than 8" in Maximum Dimension.

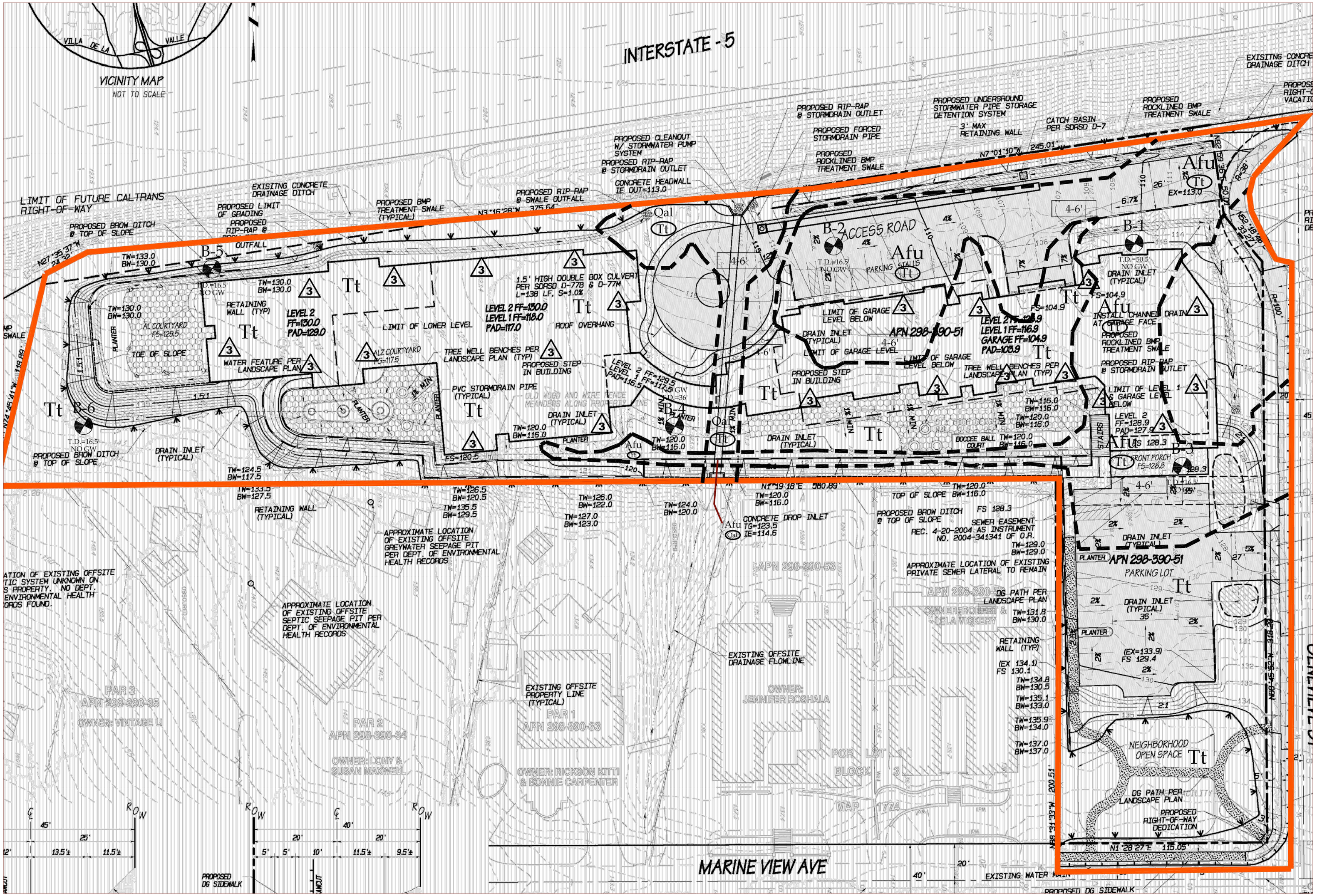
Section A-A'

MATRIX

OVERSIZE ROCK DISPOSAL DETAIL

July 1, 2012

Pacific Sound Investors
M1109-001 MAY 2014



LEGEND
(Locations are Approximate)

Earth Units

- Afu - Undocumented Fill
- Qal - Alluvium (circled where buried)
- Tt - Tertiary Torrey Sandstone (circled where buried)

Symbols

- Limits of Report
- Geologic Contact (dotted where buried)
- 3 - Removal Depth Below Bottom of Footing
- B-8 (T.D. = 51.5' NO GW) - Geotechnical Bore Location (by others, 2011)
- 4-6' - Indicates Removal Depth (in feet)

MATRIX

MATRIX GEOTECHNICAL CONSULTING
41769 ENTERPRISE CIRCLE NORTH, SUITE 107
TEMECULA, CALIFORNIA 92590
OFFICE: (951) 200-4747 FACSIMILE: (760) 692-1411

Michael Bracher	John P. Nielsen
Associate Geologist	Associate Engineer

GEOTECHNICAL MAP
APN: 298-390-51
CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, CALIFORNIA

Name:	RESIDENTIAL CARE FACILITY
Project No.	M1109-001
Client:	PACIFIC SOUND INVESTORS
Scale:	1" = 30'
Date:	MAY 2014
Sheet No.	1 OF 1
Plate No.	1

Date: January 06, 2016

Project No. M1109-001

Client: **PACIFIC SOUND INVESTORS, LLC**
1855 Freda Lane
Cardiff, California 92007

Attention: Mr. John DeWald

Subject: Geotechnical Response to Comments for the Proposed Residential Care Facility, Located at 959 Genevieve Street, APN: 298-350-51, City of Solana beach, County of San Diego, California

Reference: Matrix Geotechnical Consulting, Inc., 2014, Preliminary Geotechnical Investigation for the Proposed Residential Care Facility, Located at 959 Genevieve Street, APN: 298-390-51, City of Solana Beach, County of San Diego, California, Project No. M1109-001, Dated May 22.

PlaceWorks, 2015, CEQA Adequacy Review of the Preliminary Geotechnical Investigation for the Residential Care Facility, 929 Genevieve Street, Project No. SOLB-02, Dated September 2.

Matrix Geotechnical Consulting (MATRIX) is pleased to submit herewith our geotechnical response to Placeworks comments for the proposed Residential Care Facility, located at 959 Genevieve Street, APN: 298-390-51-00, City of Solana Beach, County of San Diego, California. Each comment listed by Placeworks is followed by a response.

Comment No. 1 The Matrix report identifies the lack of existing landslides on or adjacent to the site, but fails to make a determination on the susceptibility of the site or adjoining properties to future landslides…there is insufficient information in the report for determining the potential future impacts from landslides.

Response: The property is bordered on the west by a fill slope that supports I-5. Matrix does not have access to that property. However, Matrix personnel has observed the slope along its entirety and did not observe any evidence of slope instabilities, localized sloughing or erosional features. It is our opinion that the slope has the appearance of being stable. Furthermore, it is our opinion that the grading proposed for the site should not negatively impact the I-5 fill slope.

On the south the property is bounded by existing slopes having gradients of 3:1 or flatter covered with grasses and exposing bedrock. We did not observe any evidence of slope instabilities on those exposures. On the site itself, the proposed grading indicates the ground gently sloping from south to north. It is anticipated that such grading will not produce other than minor pad grade slope changes

Comment No. 2 In addition, lateral spreading susceptibility, subsidence susceptibility, and erosion/loss of topsoil potential were not adequately discussed. Lateral spreading is closely related to liquefaction, and since the liquefaction potential at the site was determined to be "nil", it is expected that there is no susceptibility for lateral spreading. However, the Matrix report failed to discuss lateral spreading at all.

Response: Acknowledged. The likelihood of the effects of lateral spreading to occur on the site is very low to not likely. Based upon our review of the site, the boundary of the site does not border on any open channels, streams or water edges and shallow groundwater is not present within the upper 50 feet of the site. Also, the in-situ density of the formational Torrey Sandstone and the presence of future compacted fill, identify the restraining onsite soil conditions limiting the effects of lateral displacement. Erosion/loss of topsoil is not the purview of the geotechnical engineer and should be addressed by the civil engineer and landscape architect.

Comment No. 3 The development is most likely not going to utilize septic tanks, but the capability of the soils on the site to adequately support the use of septic tanks or alternative water disposal systems was not discussed in the Matrix report.

Response: Acknowledged. The onsite soil is not recommended for the use of adequately supporting septic tanks or alternative water disposal systems.

This opportunity to be of service is sincerely appreciated. Please call if you have any questions pertaining to this response letter.

Respectfully submitted,

MATRIX GEOTECHNICAL CONSULTANTS

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APPENDIX A

REFERENCES

APPENDIX A

References

Campbell K.W., 1997 "Empirical Near-Source Attenuation Relationships for Horizontal and Vertical Components of Peak Ground Acceleration, Peak Ground Velocity and Pseudo-Absolute Acceleration Response Spectra," Seismological Research Letters, Vol. 68, No. 1, pp. 154-179.

_____, 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada, Prepared by California Division of Mines and Geology.

CGS, Tsunami Inundation Map for Emergency Planning, State of California, County of San Diego, Del Mar Quadrangle, dated June 1, 2009.

USGS, 2005, Geologic Map of the San Diego 30'x60' Quadrangle, Southern California, Version 1.0

Aerial Photograph Interpretation Table

SOURCE	FLIGHT	FRAME (S)	FLIGHT DATE	SCALE
Continental	107-5	11, 12	4/16/72	1"=5,000'
Continental	210 17B	39, 40	10/23/78	1"=1,250'
Continental	FC SD 11	21, 22	4/8/80	1"=4,000'
Continental	SD 3	15, 16	1/14/88	1"=2,500'
Continental	C98-5	104, 105	10/30/93	1"=2,200'
Continental	C-123-5	56, 57	8/12/98	1"=2,000'
Google Earth	N/A	N/A	11/1/2010	N/A

Appendix 5.6-1 Global Climate Change Analysis

Appendices

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GLOBAL CLIMATE CHANGE ANALYSIS

RESIDENTIAL CARE FACILITY
929 Genevieve Street
SOLANA BEACH CA

Project Proponent:

Pacific Sound Invertors, LLC.
1855 Freda Lane
Cardiff, CA 92007

Prepared by:

Ldn Consulting
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Murrieta, CA 92562
760-473-1253

August 7, 2017

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LIST OF ACRONYMS

Assembly Bill 32 (AB32)

Business as Usual (BAU)

California Air Pollution Control Officers Association's (CAPCOA)

California Air Resource Board (CARB)

California Climate Action Registry General Reporting Protocol Version 3.1 (CCARGRPV3.1)

California Energy Commission (CEC)

California Environmental Quality Act (CEQA)

Carbon Dioxide (CO2)

Cubic Yards (CY)

Environmental Protection Agency (EPA)

Greenhouse Gas (GHG)

International Residential Code (IRC)

Low Carbon Fuel Standard (LCFS)

Methane (CH4)

Nitrous Oxide (N2O)

San Diego Air Basin (SDAB)

San Diego Air Pollution Control District (SDAPCD)

Senate Bill 97 (SB97)

Vehicle Miles Traveled (VMT)

EXECUTIVE SUMMARY

This analysis has been completed in order to quantify Greenhouse Gas (GHG) emissions from the project site and was prepared according to guidelines established within the California Global Warming Solutions Act of 2006 – Assembly Bill 32 (AB32), Senate Bill 97 (SB97), California Environmental Quality Act (CEQA), which is acceptable in the City of Solana Beach. Greenhouse Gases analyzed in this study are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). To simplify greenhouse gas calculations, both CH_4 and N_2O are converted to equivalent amounts of CO_2 and are identified as CO_2e. In other words CO_2e is an equivalent volume or mass of CO_2 converted from global warming potentials of other gases that may cause equivalent warming.

The proposed project seeks to develop 99 assisted living units. The building is expected to have approximately 83,000 SF combined usable space for the tenants and workers. It is expected that the entire project will be built within 12 months of the initial groundbreaking.

The proposed project will emit GHGs directly throughout the burning of carbon-based fuels such as gasoline and natural gas as well as indirectly through the usage of electricity and water and from the anaerobic bacterial breakdown of organic solid waste disposed into landfills. The Proposed project would generate approximately 658.80 Metric Tons of CO_2e each year without construction and 682.54 Metric Tons including the amortized construction GHG emissions. Given this, the project would not exceed the California Air Pollution Control Officers Association's (CAPCOA) 900 Metric Ton per year screening thresholds and would therefore not be considered a significant source of GHGs within the City of Solana Beach or the State of California.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this Greenhouse Gas Assessment (GHG) is to show conformance to the California Global Warming Solutions Act of 2006 – Assembly Bill 32 (AB32) and Senate Bill 97 (SB97). AB32 requires that by 2020 the state's greenhouse gas emissions be reduced to 1990 levels and SB97 a "companion" bill directed amendments to the California Environmental Quality Act (CEQA) statute to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis. Should impacts be determined, the intent of this study would be to recommend suitable design measures to bring the project to a level considered less than significant.

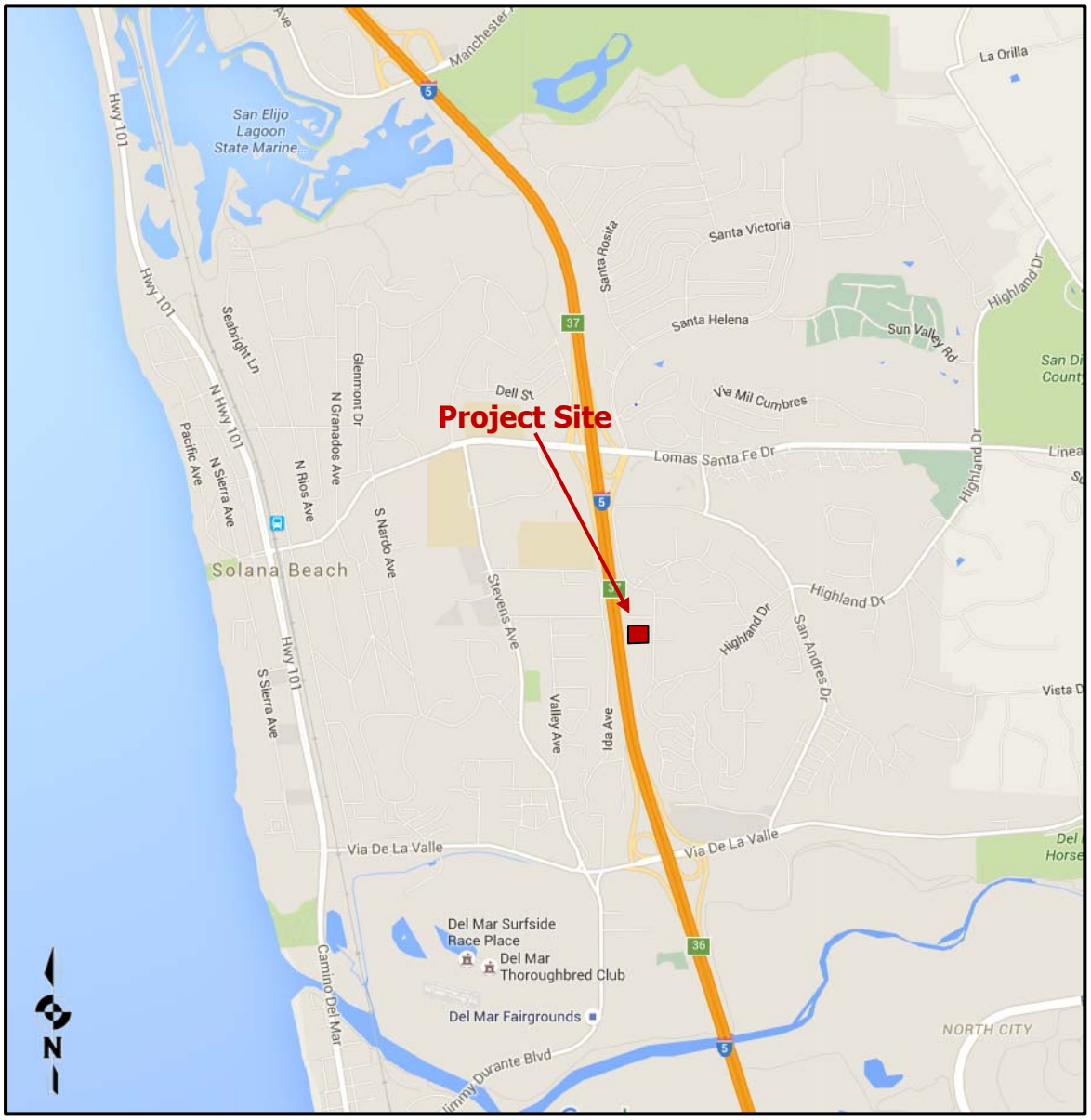
1.2 Project Location

The proposed development is located in the City of Solana Beach at 929 Genevieve Street. Access to the Project is proposed from a single driveway on Genevieve Street. To reach Genevieve Street, project traffic will be required to use Marine View Avenue. Overall travel to and from the project site is anticipated from Lomas Santa Fe Drive via San Andres Drive and Marine View Avenue. Interstate 5 to the west provides regional access to the Project site. A general project vicinity map is shown in Figure 1–A on the following page.

1.3 Project Description

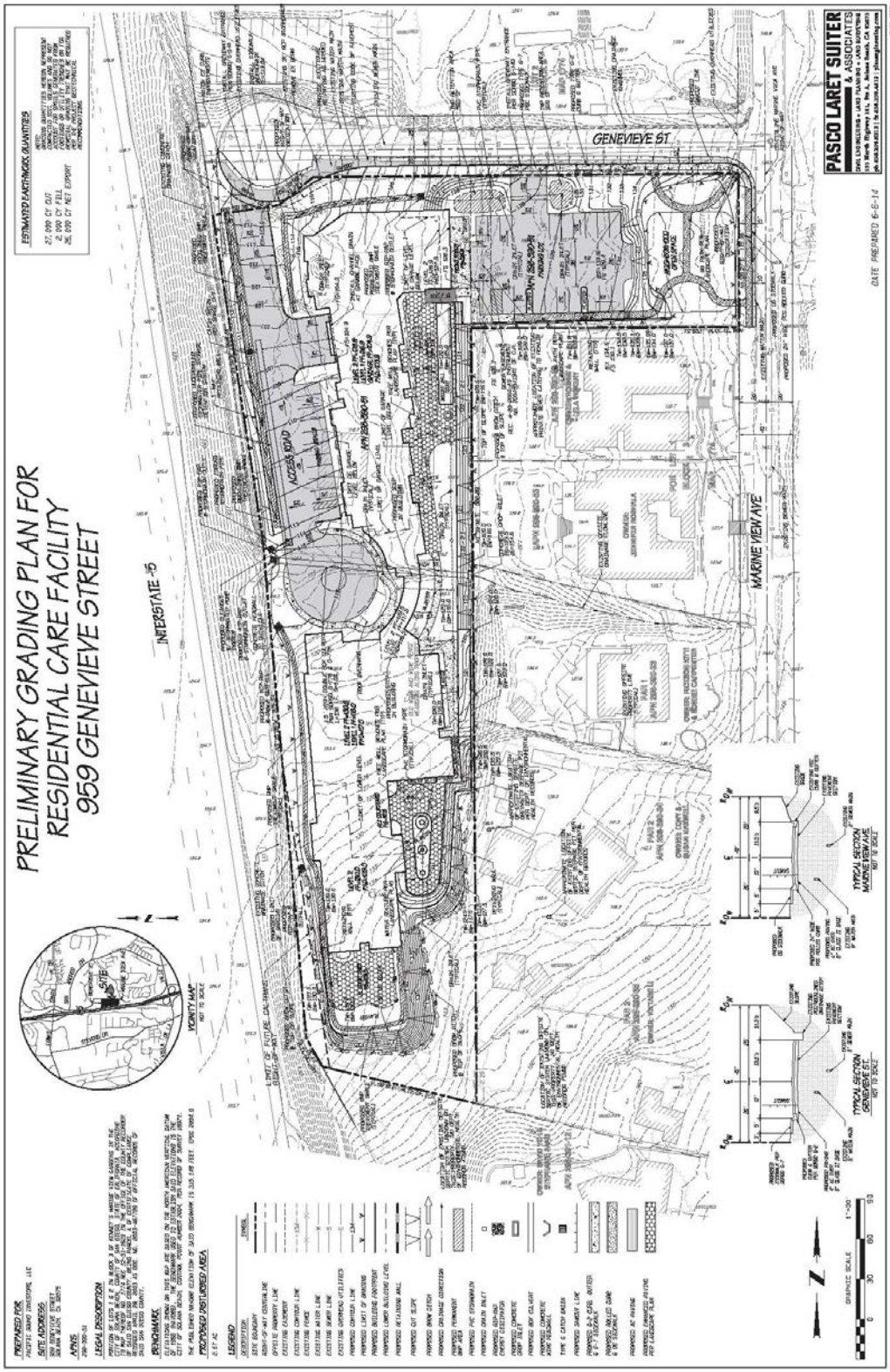
The Project proposes building 99 senior housing units and an open space park on approximately 2.9 acres within the City of Solana Beach. The project would need to demolish an existing structure and all ancillary storage sheds as grub and grade the entire site. It is expected that the project would begin work in 2018 and be completed within a one year window. Full operations will occur prior to 2020. The proposed site development plan is shown on Figure 1–B on Page 3 below.

Figure 1-A: Project Vicinity Map



Source: (Google, 2016)

Figure 1-B: Proposed Project Site Plan



Source: (Pasco Laret Suiter & Associates, 2016)

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Understanding Greenhouse Gases

Greenhouse gases such as water vapor and carbon dioxide are abundant in the earth's atmosphere. These gases are called "Greenhouse Gases" because they absorb and emit thermal infrared radiation which acts like an insulator to the planet. Without these gases, the earth ambient temperature would either be extremely hot during the day or blistering cold at night. However, because these gases can both absorb and emit heat, the earth's temperature does not sway too far in either direction.

Over the years as human activities require the use of burning fossil fuels stored carbon is released into the air in the form of CO_2 and to a much lesser extent CO. Additionally, over the years scientist have measured this rise in Carbon Dioxide and fear that it may be heating the planet too. Additionally, it is thought that other greenhouse gases such as Methane and Nitrous Oxide are to blame.

Greenhouse Gases of concern as analyzed in this study are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). To simply greenhouse gas calculations, both CH_4 and N_2O can be converted to an equivalent amount of CO_2 or CO_2e. CO_2e is calculated by multiplying the calculated levels of CH_4 and N_2O by a Global Warming Potential (GWP). The U.S. Environmental Protection Agency publishes GWPs for various GHGs and reports that the GWP for CH_4 and N_2O is 21 and 310, respectively.

2.2 Existing Setting

The Project site lies in the western portion of San Diego County in the City of Solana Beach and is generally disturbed and is mostly surrounded by commercial and residential uses. The site is currently being used as a single family residential development. Site topography onsite generally slopes with elevations ranging from 111 to 135 feet above mean sea level (AMSL).

2.3 Climate and Meteorology

Climate within the San Diego Air Basin (SDAB) area varies dramatically over short geographical distances due to size and topography. Most of southern California is dominated by high-pressure systems for much of the year, which keeps the high desert mostly sunny and warm. Meteorological trends within the City of Solana Beach are typically cooler given the close vicinity to the ocean. Median temperatures range from approximately 55ºF in the winter to approximately 72ºF in the summer (City-Data, 2016).

3.0 CLIMATE CHANGE REGULATORY ENVIRONMENT

3.1 Regulatory Standards (Assembly Bill 32)

The Global Warming Solutions Act of 2006 (AB 32), requires that by 2020 the state's greenhouse gas emissions be reduced to 1990 levels or roughly a 28.3% reduction. Significance thresholds have not been adopted but are currently being discussed. AB 32 is specific as to when thresholds shall be defined. The pertinent Sections are referenced within Part 4 of AB 32 Titled *Greenhouse Gas Emissions Reductions* are shown below:

Section 38560.5 (b) states:

On or before January 1, 2010, the state board shall adopt regulations to implement the measures identified on the list published pursuant to subdivision (a).

Section 38562 states:

(A) On or before January 1, 2011, the state board shall adopt greenhouse gas emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving the statewide greenhouse gas emissions limit, to become operative beginning on January 1, 2012.

(B) In adopting regulations pursuant to this Section and Part 5 (commencing with Section (38570), to the extent feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall do all of the following:

1. *Design the regulations, including distribution of emissions allowances where appropriate, in a manner that is equitable, seeks to minimize costs and maximize the total benefits to California, and encourages early action to reduce greenhouse gas emissions.*
2. *Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income communities.*
3. *Ensure that entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this Section receive appropriate credit for early voluntary reductions.*
4. *Ensure that activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminant emissions.*
5. *Consider cost-effectiveness of these regulations.*
6. *Consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health.*
7. *Minimize the administrative burden of implementing and complying with these regulations.*
8. *Minimize leakage.*

9. *Consider the significance of the contribution of each source or category of sources to statewide emissions of greenhouse gases.*

(C) In furtherance of achieving the statewide greenhouse gas emissions limit, by January 1, 2011, the state board may adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit greenhouse gas emissions, applicable from January 1, 2012, to December 31, 2020, inclusive, that the state board determines will achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions, in the aggregate, from those sources or categories of sources.

(D) Any regulation adopted by the state board pursuant to this part or Part 5 (commencing with Section 38570) shall ensure all of the following:

1. *The greenhouse gas emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board.*
2. *For regulations pursuant to Part 5 (commencing with Section 38570), the reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.*
3. *If applicable, the greenhouse gas emission reduction occurs over the same time period and is equivalent in amount to any direct emission reduction required pursuant to this division.*

3.2 Regulatory Standards (Assembly Bill 341)

This bill makes a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and would require the California Department of Resources Recycling and Recovery (CalRecycle), by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations.

This bill will increase diversion requirements by an additional 25% over Business as Usual as was defined under AB 939 and SB 1322 which were signed into law as the Integrated Waste Management Act of 1989, which as of the year 2000 only required 50 percent diversion.

3.3 Regulatory Standards (Senate Bill 97)

SB 97 requires the Office of Planning and Research (OPR) to prepare and transmit to the Resources Agency, guidelines and directed amendments to the CEQA statute specifically for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.

3.4 AB 1493 (Pavley Standards)

AB 1493 regulations are similar to CAFE Standards however are expected to produce a Greenhouse Gas Benefit greater to that of the CAFE Standard and would be expected to double the amount of GHGs saved under CAFE. The Pavley rules or also referred to as California Standards are designed to regulate GHG emissions while the federal standards are aimed at reducing the nation's fuel consumption.

Under Pavley starting with vehicles produced in 2009, manufactures have the flexibility in meeting California standards through a combination of reducing tailpipe emissions of Carbon Dioxide, Nitrous Oxide, Methane and hydrofluorocarbons from vehicle air conditions systems. Furthermore, the California standards are estimated to increase fuel efficiency to 35.7 miles per gallon by (California Air Resourrce Board, 2013).

3.5 Advanced Clean Car Program

Pavley II along with other low-Emission Vehicle (LEV) regulations including new approaches to increase zero emission vehicles and hybrids have since been combined into a single effort program termed Advanced Clean Cars (California Air Resource Board, 2014). The new effort uses a number of emission control programs to control smog, soot and global warming and would be in effect from 2017 to 2025. This program is estimated to reduce GHGs by 4.0 Million or roughly 2.4% beyond that of Pavley I (California Air Resource Board, 2011). It should be noted that the 2.4% reductions would only be applied to the passenger cars and light duty trucks which account for roughly 78% of the vehicles used onsite. Given this, the expected reduction would be only 1.87%.

3.6 Vehicle Efficiency Measures

Additional vehicle efficiency measures within the Scoping Plan include Low Friction Oil, Tire Pressure Regulation, Tire Tread Program, and Solar Reflective Automotive Paint and specialized window glazing and according to the scooping plan will reduce GHGs by 4.5 MMTCO2e in 2020. To date however, some of the reduction measures under Vehicle Efficacy are still under review with the exception of the Tire Pressure Regulations which estimate to remove 0.6 MMTCO2e by 2020.

3.7 Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (P.L. 110-140, H.R. 6) is an energy policy law adopted by congress which consists mainly of provisions designed to increase energy efficiency and the availability of renewable energy. The law will require automakers

to boost fleet wide gas mileage averages from the current 25 miles per gallon (mpg) to 35 mpg by 2020. The rule was updated in 2010 which required fleet-wide fuel economy standard to be set at 34.1 mpg by 2016 and affect cars built in 2012 through 2016. Also, in October 2012, the rules were further changed to 54.5 mpg for cars and light-duty trucks by Model Year 2025. This fleet wide average is known as the Corporate Average Fuel Economy (CAFE) standard.

3.8 Executive Order S-3-05

Executive Order S-3-05 was signed by Governor Arnold Schwarzenegger in June 2005. That the following greenhouse gas emission reduction targets are hereby established for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels.

3.9 Executive Order S-01-07

Executive Order S-01-07 was signed by Governor Arnold Schwarzenegger in January 2007 and is effectively known as the Low Carbon Fuel Standard or LCFS. The executive order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10% by 2020. The LCFS will require fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold.

3.10 Executive Order B-30-15

Executive Order B-30-15 established a statewide emissions reduction target of 40% below 1990 levels by 2030. This interim measure was identified by the Governor as one way to keep the State on a trajectory needed to meet the 2050 goal of reducing GHG emissions to 80% below 1990 levels by 2050 pursuant to Executive Order S-3-05. The 2030 and 2050 goals described in both these Executive Orders are an expression of executive policy and have not been adopted through legislative or regulatory action as of this writing. (Office of Governor Edmund G. Brown Jr., 2015).

3.11 Executive Order S-14-08

Executive Order S-14-08 was signed by Governor Arnold Schwarzenegger and is effectively known as the Renewable Portfolio Standard (RPS). According to S-14-08, the RPS will require that all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020. State government agencies are hereby directed to take all appropriate

actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines.

It should be noted that Governor Jerry Brown is committed to increasing this regulation such that the renewable portfolio in 2030 would be at least 50%. This commitment was entered into agreement with multiple international states signed on May 19, 2015 by California. (Subnational Global Climate Leadership Memorandum of Understanding, 2015). For purposes of the post-2020 analysis, the emission reduction benefits of achieving a 50 percent RPS by 2030 has been quantified as a 17 percent increase over RPS in 2020 or 30 percent over the 20% which has already been achieved in the baseline year.

3.12 Title 24 Standards

The California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods (California Energy Code, 2015)

The Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards for some of the following reasons and would reduce both Natural Gas and Electrical demand:

1. *To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.*
2. *To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020.*
3. *To pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.*
4. *To act on the findings of California's Integrated Energy Policy Report (IEPR) that Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.*
5. *To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.*
6. *To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.*

Title 24 2008 has been found reduce electrical emissions by 22.7% when comparing prototype buildings built to the minimum standards in 2005 and then comparing the prototypes within duplicate models built to standards in 2008. (Architectural Energy Corporation for California Energy Commission, November 7, 2007)

Title 24 2010 incorporated Cal Green standards and added a voluntary tiered approach which compared efficiency over Title 24 2008. (California Building Standards Commission, June 2010).

The latest standards are Title 24 2013 and are effective as of July 1, 2014. Looking at the entire construction outlook for low-rise single-family detached homes, electricity use is reduced by 36.4 percent and 23.3 percent for multi-family uses and natural gas consumption is reduced by 6.5 percent for single family developments and 3.8% for multi-family structures (Architectural Energy Corporation (AEC), 2013). Nonresidential Newly Constructed Buildings would have a reduction from the 2008 Standards of 21.8 percent for electricity and 16.8 percent for natural gas. It should be noted that these reductions would be for Title 24 energy sources such as heating, cooling and lighting.

In addition, the CEC currently anticipates adopting the 2016 Title 24 standards in 2015, and assigning those standards with an effective date of January 1, 2017 Further, both the CEC and CPUC remain committed to their goal that all new residential construction in California achieves zero net energy standards by 2020 It is likely that a subsequent, more rigorous iteration of the Title 24 standards will apply to the project at the time of building permit issuance. The GHG emission and energy savings associated with those standards have not been quantified at this time because the savings are unknown. Furthermore, it should be noted that energy the CEC indicated that Title 24 reductions would include lighting as well.

3.13 California Environmental Quality Act (CEQA) Requirements

As directed by SB 97, the Natural Resources Agency adopted Amendments to Title 14 Division 6 Chapter 3 CEQA Guidelines for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010. The pertinent Sections are shown below:

Section 15064.4 - Determining the Significance of Impacts from Greenhouse Gas

(A) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and

factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

1. *Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or*
2. *Rely on a qualitative analysis or performance-based standards.*

(B) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1. *The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
2. *Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*
3. *The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*

General Questions recommended within the environmental checklist are:

(a) Will the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

(b) Will the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

3.14 ARB Scoping Plan Measures

In response to AB 32, California Air Resource Board (ARB) developed the Climate Change Scoping Plan. In that plan, the Board developed GHG emission reduction strategies which expanded energy efficiency programs, increased utility renewable energy requirements, developed clean car and Low Carbon Fuel Standards (LCFS), developed the cap-and-trade program and identified adopted discretionary measures to assist the state in meeting the 2020 limits established by AB 32.

In May 2014, the ARB adopted the first update to the original scoping plan which was necessary to help establish long-term GHG policies to make deep GHG emission reductions to put the state on a trajectory to help achieve goals established in S-3-05. The update includes key recommendations for six key economic sectors (energy, transportation, agriculture, water, waste management, and natural and working lands) as well as short-lived climate pollutants, green buildings, and the Cap-and-Trade Program. The findings largely affect regulatory measures that will indirectly reduce GHG emissions and generate a need to update local policies.

3.15 City of Solana Beach Guidelines

The City of Solana Beach recommends using screening thresholds published by the California Air Pollution Control Officers Association (CAPCOA) for determining the need for additional analysis and mitigation for GHG-related impacts under CEQA. The CAPCOA white paper recommends a 900 MT CO_2e/year screening level to determine the size of projects that would be likely to have a less than considerable contribution to the cumulative impact of climate change. Project exceeding this would require further analysis and mitigation, as necessary (California Air Pollution Control Officers Association, 2008).

When projects exceed this screening threshold, it is assumed that the project would cumulatively impact the City's ability to meet the guidelines of AB 32. Therefore, projects which exceed the 900 MT thresholds are required to show an emissions reduction over a Business as Usual calculation from the 2005 baseline year (BAU) by the year 2020.

4.0 METHODOLOGY

4.1 Construction CO_2e Emissions Calculation Methodology

The Project construction dates were estimated based a hypothetical construction kickoff in early 2018 with demo of the existing residential unit onsite, grading and paving expected to last about two months. Once building Construction begins, it's expected that the project would be completed roughly 10 months later for a total construction duration of one year. Operations would be expected to begin 2019. It should be noted that the project would be export roughly 26,200 CY of soil and all demolition debris from removing the onsite structures. Table 4.1 below shows the expected timeframes for the construction processes for all the project infrastructure, facilities, improvements and commercial structures at the proposed project location as well as the expected number of pieces of equipment.

Table 4.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Demolition	1/1/2018	1/7/2018	
Concrete/Industrial Saws			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Site Preparation	1/8/2018	1/12/2018	
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			1
Grading	1/16/2018	2/20/2018	
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			2
Paving	2/21/2018	2/28/2018	
Cement and Mortar Mixers			1
Pavers			1
Paving Equipment			1
Rollers			2
Tractors/Loaders/Backhoes			1
Building Construction	3/1/2018	12/31/2018	
Forklifts			2
Generator Sets			1
Tractors/Loaders/Backhoes			1
Welders			3
Building Construction Crane	6/1/2018	6/21/2018	
Forklifts			2
Architectural Coating	5/1/2018	12/31/2018	

This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions provided by the project applicant.

4.2 Operational Vehicular Emissions Calculation Methodology

Once construction is completed the proposed project would generate air pollutant and GHG emissions from daily operations which would include sources such as Area, Energy, Mobile, Solid waste and Water uses, which are calculated within the latest CalEEMod 2016.3.1 emissions model. Area Sources include usage of fireplaces, consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas. Solid waste generated in the form of trash is also considered as decomposition of organic material breaks down to form GHGs. GHGs from water are also indirectly generated through the conveyance of the resource via pumping throughout the state and as necessary for wastewater treatment. Finally, the project would also generate air emissions and GHGs through the use of carbon fuel burning vehicles for transportation. The annual CalEEMod inputs are shown in ***Attachments A*** at the end of this report.

4.3 CalEEMod Mobile Calculations

CalEEMod calculates the emissions associated with on-road mobile sources. These are associated with residents, workers, customers, and delivery vehicles visiting the land use types in the project. The emissions associated with on-road mobile sources includes running and starting exhaust emissions, evaporative emissions, brake and tire wear, and fugitive dust from paved and unpaved roads. Starting and evaporative emissions are associated with the number of starts or time between vehicle uses and the assumptions used in determining these values are described below. All of the other emissions are dependent on vehicle miles traveled (VMT) which are calculated within CalEEMod for a 99 bed congregate care facility.

4.4 CalEEMod Area Calculations

The area source module is used to calculate direct sources of air emissions located at the project site. This includes hearths, consumer product use, architectural coatings, and landscape maintenance equipment. This does not include the emissions associated with natural gas usage in space heating, water heating, and stoves as these are calculated in the building energy use module (CAPCOA, 2013). For this analysis, a 99 bed congregate care facility was assumed.

4.5 CalEEMod Energy Calculations

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. Combustion of any type of fuel emits criteria pollutants and GHGs directly into the atmosphere. Electricity generation typically takes place offsite at the

power plant therefore the GHG emissions will be calculated from electricity generation from the Utility provider or San Diego Gas and Electric. CalEEMod utilizes input sources recommended for the prosed uses for both Natural Gas and Electricity.

4.6 CalEEMod Sold Waste Usage Calculations

Municipal solid waste (MSW) is the amount of material that is disposed of by land filling, recycling, or composting. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. For purposes of analysis, the project was assumed to generate 289 tons of waste per year which was derived based on a 16 lb per day per bed assumption. CalEEMod was updated to reflect these changes.

4.7 Water Use Emission Calculation Methodology

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. It will often be the case that the water treatment and wastewater treatment occur outside of the project area. In this case, it is still important to quantify the energy and associated GHG emissions attributable to the water use. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both methane and nitrous oxide. These emissions are calculated within the model. For purposes of analysis, the project was assumed to generate 75 gallons per day per bed and that 75% of that water was used within the indoor setting and 25% was used within the outdoor setting. CalEEMod was updated to reflect these changes.

5.0 FINDINGS

5.1 Project Related Construction Emissions

Utilizing the CALEEMOD 2016.3.1 inputs for the model as shown in Table 4.1 above, we find that grading and construction of the project will produce approximately 474.86 metric tons of CO_2e over the construction life of the project for an average of 23.74 MT. The CALEEMOD model outputs are provided as ***Attachment A*** to this report. Given the fact that the total emissions will ultimately contribute to 2020 cumulative levels, it is acceptable to average the total construction emission over a 20-year period. A summary of the construction emissions is shown in Table 5.1 below.

Table 5.1: Expected Annual Construction CO_2e Emissions Summary

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT)
2018	0.00	473.29	473.29	0.06	0.00	474.86
Total	**0.00**	**473.29**	**473.29**	**0.06**	**0.00**	**474.86**
Yearly Average Construction Emissions (Metric Tons/year over 20 years)						**23.74**
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 4.1 above.						

5.2 Project Related Operational Emissions/Conclusions

As previously discussed, emissions generated from Area, Energy, Mobile, Solid Waste and Water uses is also calculated within CalEEMod. Statewide averages for utility emissions were utilized for the calculations throughout the model. The calculated operational emissions would be 658.80 MT CO_2e and are identified in Table 5.2 on the following page.

Finally, adding both annual construction emissions and the expected operational emissions, the project would generate emissions of 682.54 MT CO_2e. Given this, the project would not exceed the recommended 900 MT screening threshold and would therefore not be considered a significant impact under CEQA and would not require further analysis or mitigation to move forward.

Table 5.2: Expected Unmitigated Operational Emissions Summary MT/Year

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT/Yr)
Area	0.00	1.20	1.20	0.00	0.00	1.23
Energy	0.00	184.85	184.85	0.01	0.00	185.61
Mobile	0.00	308.80	308.80	0.02	0.00	309.22
Waste	58.66	0.00	58.66	3.47	0.00	145.34
Water	0.81	13.89	14.69	0.08	0.00	17.39
Total (MT/Yr)						**658.80**
Amortized Construction Emissions (Table 5.1 above)						23.74
Total Operations (MT/Year)						**682.54**
Data is presented in decimal format and may have rounding errors.						

6.0 References

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7.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the projected CO_2e emissions from the proposed project development based upon the best available information at the time of preparation. The report was prepared by Jeremy Louden; a County approved CEQA Consultant for Air Quality and Greenhouse Gas.

DRAFT

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Date August 7, 2017

ATTACHMENT A

CALEEMOD 2016.3.1 - Annual

Solana Beach Senior Housing 2020

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	99.00	Dwelling Unit	2.90	83,001.00	283

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Proposed Project

Off-road Equipment -

Construction Phase - cs

Off-road Equipment - ce

Off-road Equipment - ce

Off-road Equipment - ce

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Architectural Coating - Rule 67 Paint

Woodstoves - No FP

Area Coating - Rule 67 Paint

Water And Wastewater - Water 75 gallons per day per bed and 75 percent of potable water use for indoor water

Solid Waste - IS states 289 Tons/year

Grading - 26200 CY Export

Construction Off-road Equipment Mitigation - Project will utilize Tier 4 equipment

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	175.00
tblConstructionPhase	NumDays	220.00	218.00
tblConstructionPhase	NumDays	220.00	15.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	6.00	26.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	NumDays	3.00	5.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	54.45	0.00
tblFireplaces	NumberNoFireplace	9.90	99.00
tblFireplaces	NumberWood	34.65	0.00
tblGrading	MaterialExported	0.00	23,200.00
tblGrading	MaterialExported	0.00	3,000.00
tblLandUse	BuildingSpaceSquareFeet	99,000.00	83,001.00
tblLandUse	LandUseSquareFeet	99,000.00	83,001.00
tblLandUse	LotAcreage	6.19	2.90
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	90.34	289.00
tblWater	IndoorWaterUseRate	6,450,248.54	2,540,674.00
tblWater	OutdoorWaterUseRate	4,066,461.03	846,891.00
tblWoodstoves	NumberCatalytic	4.95	0.00
tblWoodstoves	NumberNoncatalytic	4.95	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	1.1678	2.9109	2.3021	5.2800e-003	0.2167	0.1461	0.3628	0.0825	0.1409	0.2234	0.0000	473.2913	473.2913	0.0628	0.0000	474.8615
Maximum	**1.1678**	**2.9109**	**2.3021**	**5.2800e-003**	**0.2167**	**0.1461**	**0.3628**	**0.0825**	**0.1409**	**0.2234**	**0.0000**	**473.2913**	**473.2913**	**0.0628**	**0.0000**	**474.8615**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.8785	1.1606	2.2145	5.2800e-003	0.2167	4.5600e-003	0.2213	0.0825	4.3700e-003	0.0868	0.0000	473.2910	473.2910	0.0628	0.0000	474.8612
Maximum	**0.8785**	**1.1606**	**2.2145**	**5.2800e-003**	**0.2167**	**4.5600e-003**	**0.2213**	**0.0825**	**4.3700e-003**	**0.0868**	**0.0000**	**473.2910**	**473.2910**	**0.0628**	**0.0000**	**474.8612**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**24.77**	**60.13**	**3.80**	**0.00**	**0.00**	**96.88**	**39.01**	**0.00**	**96.90**	**61.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2018**	**3-31-2018**	1.2829	0.6402
2	**4-1-2018**	**6-30-2018**	1.1738	0.4837
3	**7-1-2018**	**9-30-2018**	1.2459	0.5705
		Highest	1.2829	0.6402

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4245	8.5300e-003	0.7375	4.0000e-005		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	1.2008	1.2008	1.1700e-003	0.0000	1.2300
Energy	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	184.8534	184.8534	6.4500e-003	2.0100e-003	185.6132
Mobile	0.0856	0.3839	1.0299	3.3500e-003	0.2791	3.3700e-003	0.2825	0.0748	3.1700e-003	0.0779	0.0000	308.8027	308.8027	0.0168	0.0000	309.2226
Waste						0.0000	0.0000		0.0000	0.0000	58.6644	0.0000	58.6644	3.4670	0.0000	145.3385
Water						0.0000	0.0000		0.0000	0.0000	0.8060	13.8865	14.6925	0.0834	2.0700e-003	17.3932
Total	**0.5148**	**0.4329**	**1.7846**	**3.6500e-003**	**0.2791**	**0.0107**	**0.2898**	**0.0748**	**0.0105**	**0.0853**	**59.4704**	**508.7433**	**568.2138**	**3.5747**	**4.0800e-003**	**658.7975**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4245	8.5300e-003	0.7375	4.0000e-005		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	1.2008	1.2008	1.1700e-003	0.0000	1.2300
Energy	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	184.8534	184.8534	6.4500e-003	2.0100e-003	185.6132
Mobile	0.0856	0.3839	1.0299	3.3500e-003	0.2791	3.3700e-003	0.2825	0.0748	3.1700e-003	0.0779	0.0000	308.8027	308.8027	0.0168	0.0000	309.2226
Waste						0.0000	0.0000		0.0000	0.0000	58.6644	0.0000	58.6644	3.4670	0.0000	145.3385
Water						0.0000	0.0000		0.0000	0.0000	0.8060	13.8865	14.6925	0.0834	2.0700e-003	17.3932
Total	**0.5148**	**0.4329**	**1.7846**	**3.6500e-003**	**0.2791**	**0.0107**	**0.2898**	**0.0748**	**0.0105**	**0.0853**	**59.4704**	**508.7433**	**568.2138**	**3.5747**	**4.0800e-003**	**658.7975**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	1/7/2018	5	5	
2	Site Preparation	Site Preparation	1/8/2018	1/12/2018	5	5	
3	Grading	Grading	1/16/2018	2/20/2018	5	26	
4	Paving	Paving	2/21/2018	2/28/2018	5	6	
5	Building Construction	Building Construction	3/1/2018	12/31/2018	5	218	
6	Architectural Coating	Architectural Coating	5/1/2018	12/31/2018	5	175	
7	Building Construction Crane Usage	Building Construction	6/1/2018	6/21/2018	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 13

Acres of Paving: 0

Residential Indoor: 168,077; Residential Outdoor: 56,026; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Solana Beach Senior Housing 2020 - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction Crane Usage	Cranes	1	7.00	226	0.29

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,900.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Crane Usage	1	71.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8800e-003	0.0478	0.0261	4.0000e-005		2.6600e-003	2.6600e-003		2.5000e-003	2.5000e-003	0.0000	4.0044	4.0044	9.3000e-004	0.0000	4.0277
Total	**4.8800e-003**	**0.0478**	**0.0261**	**4.0000e-005**	**1.9900e-003**	**2.6600e-003**	**4.6500e-003**	**3.0000e-004**	**2.5000e-003**	**2.8000e-003**	**0.0000**	**4.0044**	**4.0044**	**9.3000e-004**	**0.0000**	**4.0277**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.9200e-003	6.1000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7092	0.7092	6.0000e-005	0.0000	0.7108
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	6.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1544	0.1544	1.0000e-005	0.0000	0.1545
Total	**1.7000e-004**	**2.9900e-003**	**1.2600e-003**	**1.0000e-005**	**3.1000e-004**	**1.0000e-005**	**3.3000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.8636**	**0.8636**	**7.0000e-005**	**0.0000**	**0.8653**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	2.2200e-003	0.0251	4.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0043	4.0043	9.3000e-004	0.0000	4.0277
Total	**5.1000e-004**	**2.2200e-003**	**0.0251**	**4.0000e-005**	**1.9900e-003**	**1.0000e-005**	**2.0000e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**4.0043**	**4.0043**	**9.3000e-004**	**0.0000**	**4.0277**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.9200e-003	6.1000e-004	1.0000e-005	1.5000e-004	1.0000e-005	1.7000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7092	0.7092	6.0000e-005	0.0000	0.7108
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	7.0000e-005	6.5000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1544	0.1544	1.0000e-005	0.0000	0.1545
Total	**1.7000e-004**	**2.9900e-003**	**1.2600e-003**	**1.0000e-005**	**3.1000e-004**	**1.0000e-005**	**3.3000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.8636**	**0.8636**	**7.0000e-005**	**0.0000**	**0.8653**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0134	0.0000	0.0134	7.2700e-003	0.0000	7.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1300e-003	0.0332	0.0147	3.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	2.3277	2.3277	7.2000e-004	0.0000	2.3458
Total	**3.1300e-003**	**0.0332**	**0.0147**	**3.0000e-005**	**0.0134**	**1.7400e-003**	**0.0151**	**7.2700e-003**	**1.6000e-003**	**8.8700e-003**	**0.0000**	**2.3277**	**2.3277**	**7.2000e-004**	**0.0000**	**2.3458**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7400e-003	0.0609	0.0127	1.5000e-004	3.2100e-003	2.4000e-004	3.4500e-003	8.8000e-004	2.3000e-004	1.1100e-003	0.0000	14.7756	14.7756	1.3300e-003	0.0000	14.8090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**1.7900e-003**	**0.0609**	**0.0131**	**1.5000e-004**	**3.3100e-003**	**2.4000e-004**	**3.5500e-003**	**9.1000e-004**	**2.3000e-004**	**1.1400e-003**	**0.0000**	**14.8721**	**14.8721**	**1.3300e-003**	**0.0000**	**14.9055**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0134	0.0000	0.0134	7.2700e-003	0.0000	7.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	1.3500e-003	0.0135	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.3277	2.3277	7.2000e-004	0.0000	2.3458
Total	**3.1000e-004**	**1.3500e-003**	**0.0135**	**3.0000e-005**	**0.0134**	**1.0000e-005**	**0.0134**	**7.2700e-003**	**1.0000e-005**	**7.2800e-003**	**0.0000**	**2.3277**	**2.3277**	**7.2000e-004**	**0.0000**	**2.3458**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7400e-003	0.0609	0.0127	1.5000e-004	3.2100e-003	2.4000e-004	3.4500e-003	8.8000e-004	2.3000e-004	1.1100e-003	0.0000	14.7756	14.7756	1.3300e-003	0.0000	14.8090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0965	0.0965	0.0000	0.0000	0.0966
Total	**1.7900e-003**	**0.0609**	**0.0131**	**1.5000e-004**	**3.3100e-003**	**2.4000e-004**	**3.5500e-003**	**9.1000e-004**	**2.3000e-004**	**1.1400e-003**	**0.0000**	**14.8721**	**14.8721**	**1.3300e-003**	**0.0000**	**14.9055**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0868	0.0000	0.0868	0.0440	0.0000	0.0440	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0280	0.3158	0.1350	2.7000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	24.5004	24.5004	7.6300e-003	0.0000	24.6911
Total	**0.0280**	**0.3158**	**0.1350**	**2.7000e-004**	**0.0868**	**0.0152**	**0.1020**	**0.0440**	**0.0140**	**0.0580**	**0.0000**	**24.5004**	**24.5004**	**7.6300e-003**	**0.0000**	**24.6911**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.4707	0.0982	1.1600e-003	0.0248	1.8300e-003	0.0266	6.8200e-003	1.7500e-003	8.5700e-003	0.0000	114.2648	114.2648	0.0103	0.0000	114.5226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.4000e-004	4.2200e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	1.0033	1.0033	3.0000e-005	0.0000	1.0042
Total	**0.0140**	**0.4712**	**0.1024**	**1.1700e-003**	**0.0259**	**1.8400e-003**	**0.0277**	**7.1000e-003**	**1.7600e-003**	**8.8500e-003**	**0.0000**	**115.2681**	**115.2681**	**0.0103**	**0.0000**	**115.5267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0868	0.0000	0.0868	0.0440	0.0000	0.0440	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2800e-003	0.0142	0.1418	2.7000e-004		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	24.5004	24.5004	7.6300e-003	0.0000	24.6911
Total	**3.2800e-003**	**0.0142**	**0.1418**	**2.7000e-004**	**0.0868**	**7.0000e-005**	**0.0869**	**0.0440**	**7.0000e-005**	**0.0441**	**0.0000**	**24.5004**	**24.5004**	**7.6300e-003**	**0.0000**	**24.6911**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0134	0.4707	0.0982	1.1600e-003	0.0248	1.8300e-003	0.0266	6.8200e-003	1.7500e-003	8.5700e-003	0.0000	114.2648	114.2648	0.0103	0.0000	114.5226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.4000e-004	4.2200e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	1.0033	1.0033	3.0000e-005	0.0000	1.0042
Total	**0.0140**	**0.4712**	**0.1024**	**1.1700e-003**	**0.0259**	**1.8400e-003**	**0.0277**	**7.1000e-003**	**1.7600e-003**	**8.8500e-003**	**0.0000**	**115.2681**	**115.2681**	**0.0103**	**0.0000**	**115.5267**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2100e-003	0.0428	0.0359	5.0000e-005		2.5500e-003	2.5500e-003		2.3500e-003	2.3500e-003	0.0000	4.8287	4.8287	1.4700e-003	0.0000	4.8656
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2100e-003**	**0.0428**	**0.0359**	**5.0000e-005**		**2.5500e-003**	**2.5500e-003**		**2.3500e-003**	**2.3500e-003**	**0.0000**	**4.8287**	**4.8287**	**1.4700e-003**	**0.0000**	**4.8656**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.4600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3473	0.3473	1.0000e-005	0.0000	0.3476
Total	**1.9000e-004**	**1.5000e-004**	**1.4600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3473**	**0.3473**	**1.0000e-005**	**0.0000**	**0.3476**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-004	2.7300e-003	0.0389	5.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.8287	4.8287	1.4700e-003	0.0000	4.8656
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3000e-004**	**2.7300e-003**	**0.0389**	**5.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.8287**	**4.8287**	**1.4700e-003**	**0.0000**	**4.8656**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.4600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3473	0.3473	1.0000e-005	0.0000	0.3476
Total	**1.9000e-004**	**1.5000e-004**	**1.4600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3473**	**0.3473**	**1.0000e-005**	**0.0000**	**0.3476**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2553	1.5137	1.4384	2.1000e-003		0.1049	0.1049		0.1018	0.1018	0.0000	172.9642	172.9642	0.0318	0.0000	173.7581
Total	**0.2553**	**1.5137**	**1.4384**	**2.1000e-003**		**0.1049**	**0.1049**		**0.1018**	**0.1018**	**0.0000**	**172.9642**	**172.9642**	**0.0318**	**0.0000**	**173.7581**

3.6 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2900e-003	0.1601	0.0440	3.3000e-004	7.9600e-003	1.2400e-003	9.2000e-003	2.3000e-003	1.1900e-003	3.4900e-003	0.0000	32.0923	32.0923	2.6400e-003	0.0000	32.1584
Worker	0.0331	0.0262	0.2512	6.6000e-004	0.0621	4.6000e-004	0.0625	0.0165	4.2000e-004	0.0169	0.0000	59.7277	59.7277	2.0600e-003	0.0000	59.7792
Total	**0.0394**	**0.1862**	**0.2952**	**9.9000e-004**	**0.0700**	**1.7000e-003**	**0.0717**	**0.0188**	**1.6100e-003**	**0.0204**	**0.0000**	**91.8200**	**91.8200**	**4.7000e-003**	**0.0000**	**91.9376**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.3884	1.3447	2.1000e-003		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	172.9640	172.9640	0.0318	0.0000	173.7579
Total	**0.0282**	**0.3884**	**1.3447**	**2.1000e-003**		**4.2000e-004**	**4.2000e-004**		**4.2000e-004**	**4.2000e-004**	**0.0000**	**172.9640**	**172.9640**	**0.0318**	**0.0000**	**173.7579**

3.6 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2900e-003	0.1601	0.0440	3.3000e-004	7.9600e-003	1.2400e-003	9.2000e-003	2.3000e-003	1.1900e-003	3.4900e-003	0.0000	32.0923	32.0923	2.6400e-003	0.0000	32.1584
Worker	0.0331	0.0262	0.2512	6.6000e-004	0.0621	4.6000e-004	0.0625	0.0165	4.2000e-004	0.0169	0.0000	59.7277	59.7277	2.0600e-003	0.0000	59.7792
Total	**0.0394**	**0.1862**	**0.2952**	**9.9000e-004**	**0.0700**	**1.7000e-003**	**0.0717**	**0.0188**	**1.6100e-003**	**0.0204**	**0.0000**	**91.8200**	**91.8200**	**4.7000e-003**	**0.0000**	**91.9376**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0261	0.1755	0.1622	2.6000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	22.3410	22.3410	2.1200e-003	0.0000	22.3941
Total	**0.8052**	**0.1755**	**0.1622**	**2.6000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**22.3410**	**22.3410**	**2.1200e-003**	**0.0000**	**22.3941**

3.7 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2400e-003	4.1500e-003	0.0398	1.0000e-004	9.8200e-003	7.0000e-005	9.9000e-003	2.6100e-003	7.0000e-005	2.6800e-003	0.0000	9.4543	9.4543	3.3000e-004	0.0000	9.4624
Total	**5.2400e-003**	**4.1500e-003**	**0.0398**	**1.0000e-004**	**9.8200e-003**	**7.0000e-005**	**9.9000e-003**	**2.6100e-003**	**7.0000e-005**	**2.6800e-003**	**0.0000**	**9.4543**	**9.4543**	**3.3000e-004**	**0.0000**	**9.4624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7790					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6000e-003	0.0113	0.1603	2.6000e-004		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	22.3410	22.3410	2.1200e-003	0.0000	22.3941
Total	**0.7816**	**0.0113**	**0.1603**	**2.6000e-004**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**22.3410**	**22.3410**	**2.1200e-003**	**0.0000**	**22.3941**

3.7 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2400e-003	4.1500e-003	0.0398	1.0000e-004	9.8200e-003	7.0000e-005	9.9000e-003	2.6100e-003	7.0000e-005	2.6800e-003	0.0000	9.4543	9.4543	3.3000e-004	0.0000	9.4624
Total	**5.2400e-003**	**4.1500e-003**	**0.0398**	**1.0000e-004**	**9.8200e-003**	**7.0000e-005**	**9.9000e-003**	**2.6100e-003**	**7.0000e-005**	**2.6800e-003**	**0.0000**	**9.4543**	**9.4543**	**3.3000e-004**	**0.0000**	**9.4624**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6600e-003	0.0438	0.0162	4.0000e-005		1.9000e-003	1.9000e-003		1.7400e-003	1.7400e-003	0.0000	3.3817	3.3817	1.0500e-003	0.0000	3.4080
Total	**3.6600e-003**	**0.0438**	**0.0162**	**4.0000e-005**		**1.9000e-003**	**1.9000e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**3.3817**	**3.3817**	**1.0500e-003**	**0.0000**	**3.4080**

3.8 Building Construction Crane Usage - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0110	3.0300e-003	2.0000e-005	5.5000e-004	9.0000e-005	6.3000e-004	1.6000e-004	8.0000e-005	2.4000e-004	0.0000	2.2082	2.2082	1.8000e-004	0.0000	2.2127
Worker	2.2800e-003	1.8000e-003	0.0173	5.0000e-005	4.2700e-003	3.0000e-005	4.3000e-003	1.1300e-003	3.0000e-005	1.1600e-003	0.0000	4.1097	4.1097	1.4000e-004	0.0000	4.1133
Total	**2.7100e-003**	**0.0128**	**0.0203**	**7.0000e-005**	**4.8200e-003**	**1.2000e-004**	**4.9300e-003**	**1.2900e-003**	**1.1000e-004**	**1.4000e-003**	**0.0000**	**6.3179**	**6.3179**	**3.2000e-004**	**0.0000**	**6.3260**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6000e-004	1.9700e-003	0.0167	4.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3817	3.3817	1.0500e-003	0.0000	3.4080
Total	**4.6000e-004**	**1.9700e-003**	**0.0167**	**4.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.3817**	**3.3817**	**1.0500e-003**	**0.0000**	**3.4080**

3.8 Building Construction Crane Usage - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3000e-004	0.0110	3.0300e-003	2.0000e-005	5.5000e-004	9.0000e-005	6.3000e-004	1.6000e-004	8.0000e-005	2.4000e-004	0.0000	2.2082	2.2082	1.8000e-004	0.0000	2.2127
Worker	2.2800e-003	1.8000e-003	0.0173	5.0000e-005	4.2700e-003	3.0000e-005	4.3000e-003	1.1300e-003	3.0000e-005	1.1600e-003	0.0000	4.1097	4.1097	1.4000e-004	0.0000	4.1133
Total	**2.7100e-003**	**0.0128**	**0.0203**	**7.0000e-005**	**4.8200e-003**	**1.2000e-004**	**4.9300e-003**	**1.2900e-003**	**1.1000e-004**	**1.4000e-003**	**0.0000**	**6.3179**	**6.3179**	**3.2000e-004**	**0.0000**	**6.3260**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0856	0.3839	1.0299	3.3500e-003	0.2791	3.3700e-003	0.2825	0.0748	3.1700e-003	0.0779	0.0000	308.8027	308.8027	0.0168	0.0000	309.2226
Unmitigated	0.0856	0.3839	1.0299	3.3500e-003	0.2791	3.3700e-003	0.2825	0.0748	3.1700e-003	0.0779	0.0000	308.8027	308.8027	0.0168	0.0000	309.2226

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	271.26	217.80	241.56	740,609	740,609
Total	271.26	217.80	241.56	740,609	740,609

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.0040	138.0040	5.5500e-003	1.1500e-003	138.4854
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	138.0040	138.0040	5.5500e-003	1.1500e-003	138.4854
NaturalGas Mitigated	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278
NaturalGas Unmitigated	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	877925	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278
Total		**4.7300e-003**	**0.0405**	**0.0172**	**2.6000e-004**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**	**0.0000**	**46.8494**	**46.8494**	**9.0000e-004**	**8.6000e-004**	**47.1278**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	877925	4.7300e-003	0.0405	0.0172	2.6000e-004		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	46.8494	46.8494	9.0000e-004	8.6000e-004	47.1278
Total		**4.7300e-003**	**0.0405**	**0.0172**	**2.6000e-004**		**3.2700e-003**	**3.2700e-003**		**3.2700e-003**	**3.2700e-003**	**0.0000**	**46.8494**	**46.8494**	**9.0000e-004**	**8.6000e-004**	**47.1278**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	422278	138.0040	5.5500e-003	1.1500e-003	138.4854
Total		**138.0040**	**5.5500e-003**	**1.1500e-003**	**138.4854**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	422278	138.0040	5.5500e-003	1.1500e-003	138.4854
Total		**138.0040**	**5.5500e-003**	**1.1500e-003**	**138.4854**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4245	8.5300e-003	0.7375	4.0000e-005		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	1.2008	1.2008	1.1700e-003	0.0000	1.2300
Unmitigated	0.4245	8.5300e-003	0.7375	4.0000e-005		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	1.2008	1.2008	1.1700e-003	0.0000	1.2300

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3242					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0225	8.5300e-003	0.7375	4.0000e-005		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	1.2008	1.2008	1.1700e-003	0.0000	1.2300
Total	**0.4245**	**8.5300e-003**	**0.7375**	**4.0000e-005**		**4.0600e-003**	**4.0600e-003**		**4.0600e-003**	**4.0600e-003**	**0.0000**	**1.2008**	**1.2008**	**1.1700e-003**	**0.0000**	**1.2300**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3242					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0225	8.5300e-003	0.7375	4.0000e-005		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	1.2008	1.2008	1.1700e-003	0.0000	1.2300
Total	**0.4245**	**8.5300e-003**	**0.7375**	**4.0000e-005**		**4.0600e-003**	**4.0600e-003**		**4.0600e-003**	**4.0600e-003**	**0.0000**	**1.2008**	**1.2008**	**1.1700e-003**	**0.0000**	**1.2300**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.6925	0.0834	2.0700e-003	17.3932
Unmitigated	14.6925	0.0834	2.0700e-003	17.3932

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	2.54067 / 0.846891	14.6925	0.0834	2.0700e-003	17.3932
Total		**14.6925**	**0.0834**	**2.0700e-003**	**17.3932**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	2.54067 / 0.846891	14.6925	0.0834	2.0700e-003	17.3932
Total		**14.6925**	**0.0834**	**2.0700e-003**	**17.3932**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	58.6644	3.4670	0.0000	145.3385
Unmitigated	58.6644	3.4670	0.0000	145.3385

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	289	58.6644	3.4670	0.0000	145.3385
Total		**58.6644**	**3.4670**	**0.0000**	**145.3385**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	289	58.6644	3.4670	0.0000	145.3385
Total		**58.6644**	**3.4670**	**0.0000**	**145.3385**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix 5.7-1 Phase I Environmental Site Assessment

Appendices

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PHASE I
ENVIRONMENTAL SITE ASSESSMENT
PROPOSED SOLANA BEACH SENIOR
959 GENEVIEVE STREET
SOLANA BEACH, CALIFORNIA

D3G PROJECT NUMBER:
2015-0536

REPORT ISSUE DATE:
JANUARY 29, 2016

INSPECTION DATE:
APRIL 18, 2015

PREPARED FOR:
DK DEVELOPMENT/PACIFIC SOUND INVESTMENTS
1855 FREDA LANE
CARDIFF, CALIFORNIA 92007

Jesse R. Cottrell
Site Assessor/Project Manager

Signature

Ashley J. Miller
Environmental Professional

Signature

EXECUTIVE PROPERTY DESCRIPTION

Property: Proposed Solana Beach Senior
959 Genevieve Street
Solana Beach, San Diego County, California

Site Description: The subject property consists of a single-story residential structure constructed prior to 1953 that is situated on 2.913 acres of undeveloped land. In addition, a small shed and a greenhouse are located at the subject property. The subject property is bounded to the north by Genevieve Street, an office building, and a plant nursery; to the south by single-family residential properties; to the east by Marine View Avenue and single-family residential properties; and to the west by I-5. The on-site residential structure will be demolished and the subject property is the proposed location of a three-story, 89-unit assisted living facility structure. Utilities were observed in the vicinity of the subject property.

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1.0 EXECUTIVE SUMMARY

The following table summarizes the conclusions and opinions representing Dominion Due Diligence Group's (D3G's) best professional judgment based on information accessed during the course of this investigation. D3G performed a Phase I Environmental Site Assessment that included subject property observations of Proposed Solana Beach Senior on April 18, 2015 located at 959 Genevieve Street in Solana Beach, San Diego County, California (subject property).

OBSERVED CONDITIONS	SECTION REFERENCE	ACCEPTABLE	RECOMMENDED RESPONSE ACTION
STANDARD ENVIRONMENTAL RECORDS REVIEW	5.1	√	
UNREGULATED UNDERGROUND STORAGE TANK(S) (UST)	6.3	√	
PAST INDUSTRIAL/DETRIMENTAL OPERATIONS	5.4 5.5	√	
VAPOR ENCROACHMENT CONDITION	5.6	√	
STORED HAZARDOUS MATERIALS	6.3 6.4	√	
POLYCHLORINATED BIPHENYLS (PCBS)	6.3 6.4	√	
ABOVEGROUND STORAGE TANK(S) (AST)	6.3 6.4	√	
DUMPING, LANDFILLS	6.3	√	
HAZARDOUS RUN-OFF	6.3	√	
ASBESTOS-CONTAINING MATERIALS	8.1		(1)
LEAD-BASED PAINT	8.2		(2)
FLOOD ZONE	8.4	√	
OTHER: CONSTRUCTION CONSIDERATIONS	5.4.4		(3)

(√) = there are no environmental concerns associated with the observed condition

(1) California state regulations require notifications prior to the removal of ACM. A California certified supervisor shall be onsite during all asbestos removal activities and all asbestos removal work shall be conducted by California certified asbestos workers. All asbestos shall be removed according to applicable California regulations and in accordance with any additional local and federal regulations.

The U.S. Environmental Protection Agency (USEPA) regulations do not require removal of asbestos-containing materials that are in good condition. However, personnel who may be involved with building renovations will need to be advised of the presence of asbestos and appropriate measures may be warranted in order to assure the identified asbestos-containing materials are not disturbed during renovation activities. If the asbestos-containing materials left in place are disturbed during renovation activities, the materials must be handled and disposed of in accordance with applicable State and Federal regulations.

(2) Removal or disturbance of material with any detectable amount of lead must be handled in accordance with the Cal/OSHA lead, Title 8, California Code of Regulations (CCR), Section 1532.1 (8 CCR 1532.1). Therefore, "negative" XRF readings i.e. those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2 or 0.5%) **DO NOT** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard (29 CFR 1926.62) and should not be interpreted as lead is not present.

Building materials with intact lead containing paint must be characterized for lead and other potentially hazardous materials before transportation off site. Testing may include, but not limited to, Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) criteria. Paint chips and debris must be disposed of as lead containing hazardous waste.

(3) California state regulations require notifications prior to the removal of ACM. A California certified supervisor shall be onsite during all asbestos removal activities and all asbestos removal work shall be conducted by California certified asbestos workers. All asbestos shall be removed according to applicable California regulations and in accordance with any additional local and federal regulations.

2.0 INTRODUCTION

2.1 Purpose

DK Development/Pacific Sound Investments contracted Dominion Due Diligence Group (D3G) to perform a Phase I Environmental Site Assessment (ESA) of the Proposed Solana Beach Senior located at 959 Genevieve Street in Solana Beach, San Diego County, California (subject property). As such, DK Development/Pacific Sound Investments is considered the "User" of this report as defined under ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process Designation: E 1527-13 (ASTM E 1527 13).

The purpose of the Phase I ESA is to provide appropriate inquiry into the previous ownership and uses of the subject property and to identify recognized environmental conditions (RECs), which are the presence or likely presence of any hazardous substances or petroleum products at the subject property under conditions that indicate an existing release, a past release, or a material threat of a release into structures, the ground, groundwater or surface water of the subject property. In addition, this report assesses non-scope considerations as directed by the client. Factual information regarding on-site business operations, conditions, and historical data provided to D3G is assumed to be correct and complete.

This investigation was conducted in accordance with ASTM E 1527-13 published guidelines, 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries: Final Rule, and accepted Phase I ESA industry standards.

2.2 Detailed Scope of Services

The ASTM E 1527-13 scope of work for this Phase I ESA consisted of the following:

- site reconnaissance of the subject property and a visual survey of the adjacent properties to evaluate the potential for RECs;
- review of applicable and reasonably ascertainable information about the subject property, including aerial photography, USGS topographic map, state and federal databases, Sanborn maps, property assessment information and other governmental sources that are publically available, practically reviewable, and obtainable within reasonable time and cost constraints;
- interviews with selected individuals knowledgeable about the subject property and vicinity properties; and
- if provided, a review of existing environmental reports documenting previous assessment and remediation efforts completed at the subject property.

D3G also evaluated the following ASTM Non-Scope Considerations such as Tier 1 Vapor Encroachment Screening in general compliance with ASTM Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions Designation: E 2600-10, asbestos-containing materials, lead-based paint, floodplain hazards, and wetlands.

This Phase I ESA did not include the collection or analysis of soil or groundwater samples.

2.3 Significant Assumptions

Factual information regarding on-site business operations, conditions, and historical data provided to D3G is assumed to be correct and complete. D3G assumes no responsibility for hidden or latent conditions or misrepresentation by the property owner, its representatives, public information officials or any authority consulted in connection with the compilation of this report.

D3G assumes that all information provided by Environmental Risk Information Service (ERIS) regarding the regulatory status of facilities within the approximate minimum search distance is complete, accurate and current.

2.4 Limitations and Exceptions

D3G encountered the following limitations, exceptions, and/or data gaps during the performance of this Phase I ESA:

- Our on-site observations pertain only to specific locations at specific times on specific dates. This report and conclusions herein are based upon data collection between March 30, 2015 and April 29, 2015. Our observations and conclusions do not reflect variations in conditions that may exist, in unexplored areas of the site, or at times other than those represented by our observations.
- In order for the prospective purchaser to claim protection from CERCLA liability as an innocent landowner, bona fide prospective purchaser, or contiguous property owner, the acquisition of the subject property should be completed within 180 days after the subject property inspection date.
- According to 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries: Final Rule, CERCLA liability rests with the owner or operator of a property and not with an environmental professional hired by the prospective landowner and who is not involved with the ownership or operation of the property.
- This report meets the requirements set forth in 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries: Final Rule. However, in order to qualify for certain landowner liability protections under CERCLA, Bona Fide Prospective Purchasers, Contiguous Property Owners, and/or Innocent Landowners must meet additional requirements in 101(35)(B) of CERCLA (42 U.S.C. 9601(35)) of the Federal Register.

- No significant data gaps in historical information were identified that would impact D3G's ability to identify RECs. Collectively the sources considered and consulted during the course of this assessment allowed D3G to adequately determine the subject property history. Therefore, these data gaps are not considered to be significant.
- In regards to the Tier 1 Vapor Encroachment Screening, D3G has reduced the approximate minimum search distance for up-gradient and cross-gradient off-site contaminated properties based on actual plume data collected for dry cleaners, state hazardous waste sites, and evaluation of actual gas station LUST data as outlined in the article, *A Smaller Intrusion,* by Anthony J. Buonicore, P.E. published in the May 2009 Issue of Pollution Engineering magazine.
- During the subject property reconnaissance, the subject property was covered with dense vegetation. Therefore, D3G was unable to identify items including, but not limited to, stained areas, stressed vegetation, monitoring wells, vent pipes, fill ports, or manhole covers. However, based on a review of historical aerial photographs, a records review of state and federally-regulated facilities provided by Environmental Risk Information Service (ERIS), interviews with the Current Landowner Representative, D3G believes that this limitation is not significant and does not represent a REC to the subject property.
- Historical information was not reasonably ascertainable to the subject property's first developed use. D3G obtained historical information to 1947 at which time the subject property was developed with two (2) residential structures and a tree grove. Due to the residential nature of the subject property and surrounding area in 1947, this limitation is not significant.

2.5 Special Terms and Conditions

This investigation was conducted in accordance with ASTM E 1527-13 published guidelines and 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries: Final Rule.

2.6 User Reliance

This report has been prepared for, and can be relied upon by the Client, DK Development/Pacific Sound Investments. This report is not to be relied upon or reproduced, either in whole or in part, without written consent from D3G.

3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Location and Legal Description

The subject property is located at 959 Genevieve Street in Solana Beach, San Diego County, California and contains a total of 2.913 acres of land. The subject property is situated at an elevation of approximately 110-140 feet above mean sea level and is located at Latitude, 32.988541 and Longitude, -117.254679.

SUBJECT PROPERTY MUNICIPAL IDENTIFICATION	
PARCEL NUMBER	298-390-51-00
SOURCE - San Diego County assessment documents	

A copy of the tax card and a map illustrating the legal property boundary is included in Appendix A of this report.

3.2 Site and Vicinity General Characteristics

The subject property is located in an area of residential and office development.

3.3 Current Use of the Subject Property

The subject property currently consists of a single-story residential structure and undeveloped land.

3.4 Description of Structures, Roads, and Other Improvements

The following section describes general conditions and features as noted during D3G's inspection:

GENERAL SITE DESCRIPTION AND IMPROVEMENTS	
SUBJECT PROPERTY ACREAGE	2.913 acres
BUILDING(S) DESCRIPTION	One (1) single-story residential structure
ADJOINING ROADS	Genevieve Street, Marine View Avenue, and I-5
CONSTRUCTION DATE(S)	Prior to 1947
EXTERIOR IMPROVEMENTS	A small shed and a greenhouse
UNIMPROVED AREAS	The southern and eastern portions of the property consist of undeveloped land

D3G was provided with an ALTA/ACSM Land Title Survey by Pasco Laret Suitor and Associates dated April 28, 2011. The ALTA/ACSM Land Title Survey depicts the subject property boundaries, current site structures, adjacent properties, and topography. A copy of the ALTA/ACSM Land Title Survey is included in Appendix B.

D3G was provided with a Draft Copy of Topographic Survey by Pasco Laret Suitor and Associates dated April, 2011. The Draft Copy of Topographic Survey depicts the subject property boundaries, current site structures, adjacent properties and adjacent structures, and topography. A copy of the Draft Copy of Topographic Survey is included in Appendix B.

D3G was provided with an undated proposed Site Plans by Douglas Pancake Architects. The proposed Site Plans depict the subject property boundaries, topography, and proposed development as well as structures and notable features on adjacent parcels. A copy of the proposed Site Plans is included in Appendix B.

3.4.1 Subject Property Utilities

SUBJECT PROPERTY UTILITIES	
ELECTRICITY	San Diego Electric and Gas
NATURAL GAS	NA
WATER	Solana Beach Sanitation District
SANITARY SEWER	Solana Beach Sanitation District
INDUSTRIAL WASTEWATER	NA
SOLID WASTE	NA (Will be privately contracted upon redevelopment)

HEATING SOURCE	AGE
Electricity	Prior to 1947 - current

COOLING SOURCE	AGE
Electricity	Prior to 1947 - current

3.5 Current Uses of Adjoining Properties

DIRECTION	LAND USAGE
NORTH	Genevieve Street, an office building (The Timbers), and a plant nursery
SOUTH	Single-family residential properties
EAST	Marine View Avenue and single-family residential properties
WEST	I-5

See Appendix B for a copy of the Site Plan, which identifies the subject property boundaries and general vicinity characteristics.

4.0 USER PROVIDED INFORMATION

4.1 Title Records

OWNER	PURCHASE DATE	DEED BOOK/PAGE
Pacific Sound Investors LLC	10/5/06	Unknown
SOURCE - San Diego County and City of Solana Beach assessment documents		

Due to the nature of the tax assessment documents and deed records, a thorough chain-of-title was not reasonably ascertainable.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

It is the User's responsibility to provide D3G with information pertaining to environmental liens or AULs. According to information provided in the completed User Questionnaire, there are no environmental liens or AULs associated with the subject property. A copy of the completed Property Questionnaire is included in Appendix F.

4.3 Specialized Knowledge

According to the completed User Questionnaire, the Current Landowner Representative did not indicate to D3G that they were aware of any specialized knowledge or experience that is material to recognized environmental conditions in connection with the subject property. The Current Landowner Representative was unaware of any environmental liens or activity use limitations (AULs) encumbering the property or in connection with the subject property.

4.4 Commonly Known or Reasonably Ascertainable Information

The Current Landowner Representative did not indicate to D3G, in the completed User Questionnaire, that they were aware of commonly known or reasonably ascertainable information within the local community about the property that is material to recognized environmental conditions in connection with the property.

4.5 Valuation Reduction for Environmental Issues

D3G has not been provided any knowledge of valuation reduction for environmental issues pertaining to the subject property by the User or Current Landowner Representative.

4.6 Owner, Property Manager, and Occupant Information

The subject property is currently owned by Pacific Sound Investments LLC and the Current Landowner questionnaire is discussed further in Section 7.2. The subject property consists of undeveloped land and a vacant residential structure, therefore, Property Management and occupant information is not required.

4.7 Reason for Performing Phase I ESA

The user informed D3G that the Phase I ESA is being performed because the subject property is being developed into a three-story, 89-unit assisted living facility structure.

4.8 Previous Environmental Reports

D3G was not provided additional information from the User.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

5.1.1 State Regulatory Records

DATABASE	FINDINGS	
STATE AND TRIBAL LEAKING UNDERGROUND STORAGE TANK DATA (LUST)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
STATE AND TRIBAL UNDERGROUND STORAGE TANK DATA (UST)	On-Site: Adjacent: 0.25 Mile Radius:	None None None
STATE AND TRIBAL VOLUNTARY CLEANUP PROGRAM SITES (VCP)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
STATE AND TRIBAL BROWNFIELD SITES (BROWNFIELDS)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
STATE AND TRIBAL HAZARDOUS WASTE SITES (SHWS)	On-Site: Adjacent: 1.00 Mile Radius:	None None One (1)
STATE AND TRIBAL INSTITUTIONAL/ENGINEERING CONTROLS (IC/EC)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
STATE AND TRIBAL REGISTERED SOLID WASTE LANDFILLS (SWL)	On-Site: Adjacent: 1.00 Mile Radius:	None None None
Source - State of California governmental records accessed by Environmental Risk Information Service (ERIS)		

The state-regulated facilities are not located on-site or adjacent and are not of environmental concern to the subject property. The closest facility is located approximately 0.38 miles west-northwest of and topographically down-gradient from the subject property. Based on the listed distances, topographic relationships, and/or current regulatory statuses, the vicinity state-regulated facilities are not suspected to present environmental concerns to the subject property. A copy of the ERIS Report is included in Appendix E of this report.

5.1.2 Federal Regulatory Records

DATABASE	FINDINGS	
EPA NATIONAL PRIORITIES LISTING (NPL – SUPERFUND)	On-Site: Adjacent: 1.00 Mile Radius:	None None None
EPA NATIONAL PRIORITIES LISTING (NPL – DELISTED SITES)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLIS)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLIS) NO FURTHER REMEDIAL ACTION PLANNED (NFRAP)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
EPA RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)	On-Site: Adjacent: 0.25 Mile Radius:	None None None
EPA RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) TREATMENT, STORAGE, AND DISPOSAL (TSD)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
FEDERAL INSTITUTIONAL/ENGINEERING CONTROLS (IC/EC)	On-Site: Adjacent: 0.50 Mile Radius:	None None None
EPA EMERGENCY RESPONSE NOTIFICATION-SITES (ERNS)	On-Site: Adjacent: 0.15 Mile Radius:	None None None
EPA RCRA CORRECTIVE ACTION REPORT (CORRACTS)	On-Site: Adjacent: 1.00 Mile Radius:	None None None
SOURCE – Environmental Protection Agency records accessed by Environmental Risk Information Service (ERIS)		

No federally-regulated facilities were identified in the ERIS Report. A copy of the ERIS Report is included in Appendix E of this report.

5.1.3 Database Orphan Sites

In addition, five (5) orphan sites were listed in the ERIS Report. After reviewing the five (5) orphan sites, it was determined that they are not located on-site or adjacent to the subject property and are therefore not suspected to present environmental concerns to the subject property.

5.2 Additional Environmental Record Sources

Forty-six (46) additional environmental records were identified in the ERIS Report. The additional environmental records were not located on-site or adjacent and are not of environmental concern to the subject property. Based on the listed distances, topographic relationships, and/or current regulatory statuses, the vicinity additional environmental records are not suspected to present environmental concerns to the subject property.

5.3 Physical Setting Sources

5.3.1 Topography and Regional Surface Water

TOPOGRAPHY AND REGIONAL SURFACE WATER	
ELEVATION (feet above mean sea level)	110-140
SLOPE	Northwest
APPROXIMATE GROUNDWATER FLOW	Northwest
REGIONAL SURFACE WATER	The Pacific Ocean is located approximately one (1) mile to the west of the subject property.
SOURCE - USGS Topographic Quadrangle – *Del Mar OE W, California* 2015	

Located in Appendix A is a topographic map depicting subject property elevations and drainage patterns. Depth to groundwater fluctuates depending on hydrological and weather conditions.

On-site drainage at the subject property is suspected to consist of surface percolation and flow along the natural topography.

5.3.2 Soil Characteristics

SOIL CHARACTERISTICS	
SOIL TYPES	*Carlsbad gravelly loamy sand (CbD):* This map unit consists of moderately well-drained soils on hillslopes. Available water is very low and water movement is high. Shrink-swell potential is low. This soil is not flooded or ponded. This soil does not meet hydric criteria.
	Corralitos loamy sand (CsD): This map unit consists of somewhat excessively drained soils on valleys and alluvial fans. Available water is low and water movement is high. Shrink-swell potential is low. This soil is not flooded or ponded. This soil does not meet hydric criteria.
SOURCE - Web Soil Survey accessed at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx	

A copy of the Web Soil Survey is included in Appendix A of this report.

5.4 Historical Use Information on the Subject Property

5.4.1 Review of Aerial Photographs

YEAR	SUBJECT PROPERTY
1947	One (1) residential structure, silvicultural land, and undeveloped land
1953*	Two (2) residential structure, silvicultural land, and undeveloped land
1967	Same as 1953
1972	Same as 1953
1980	Same as 1953
1994	Same as 1953
2005	Current residential structure and silvicultural land
2014	Current residential structure and undeveloped land
SOURCE - www.historicaerials.com and ERIS	

**The 1953 aerial was reviewed at www.historicaerials.com; however, a copy is not included in this report.*

A copy of the aerial photography is included in Appendix D of this report. A review of the photography is included in Section 5.4.4.

5.4.2 Fire Insurance Maps

Sanborn Maps generally cover areas of urban and industrial development from the 1800s to the 1990s. According to the Fire Insurance Map Research prepared by ERIS, the subject property and surrounding properties are not included in Sanborn Map coverage. A copy of the Certified Sanborn Map Report is included in Appendix D.

5.4.3 Other Historical Sources

No additional historical sources were reasonably ascertainable.

5.4.4 Summary of Subject Property History

According to the reviewed subject property historical information, the subject property consisted of a residential structures and silvicultural land (crops and nursery activity) since at least 1947 until approximately 2009, when the remaining trees were removed from the property. In addition, a trail system for getting around the property appears from 1972 through 2005. The residential structure located on the eastern portion of the subject property along Marine View Avenue was demolished between 1994 and 2003. The use of pesticides and fertilizers are often associated with silvicultural activities. The former silvicultural land use may also have produced surface run-off of farm wastes high in nitrates and other nutrients. Subject property observations did not indicate that previous agricultural activities have negatively impacted the environmental condition of the subject property.

No soil staining was observed during D3G's site reconnaissance. If stained soils are discovered during site construction operations at the subject property, they should be tested; and, if necessary, removed according to federal, state and local guidelines.

None of the accessed data depicts underground storage tanks (USTs) at the former structure; however, there exists the possibility that the former structure utilized underground or aboveground storage tanks (USTs/ASTs). No visual evidence of USTs (fill ports/vent pipes) or ASTs was observed during the site inspection. If ASTs or USTs were formerly located at the subject property, they should have been removed during the demolition of the structure. If USTs or ASTs are discovered during site construction operations at the subject property, they should be tested; and, if necessary, removed according to federal, state and local guidelines.

No evidence of septic systems was identified at the subject property. None of the accessed data depicts a septic systems at the former structures; however, there exists the possibility that the former structures utilized septic systems. If septic systems were formerly located at the subject property, they should have been removed during the demolition of the structures. If septic systems are discovered during site construction operations at the subject property, they should be tested; and, if necessary, removed according to federal, state and local guidelines.

5.5 Historical Use Information on Adjoining Properties

5.5.1 Review of Aerial Photographs

YEAR	NORTH	SOUTH	EAST	WEST
1947	Undeveloped and agricultural land	Undeveloped land	Agricultural and silvicultural land	Residential structures, silvicultural land, and undeveloped land
1953*	Same as 1947	Same as 1947	Same as 1947	Same as 1947
1967	Undeveloped land	Undeveloped land	Residential structures, silvicultural land, and cleared land	Interstate
1972	Same as 1967	Same as 1967	Same as 1967	Same as 1967
1980	Undeveloped and silvicultural land	Same as 1967	Same as 1967	Same as 1967
1994	Office building and silvicultural land	Residential structures	Residential structures	Same as 1967
2005	Same as 1994	Same as 1994	Same as 1994	Same as 1967
2014	Same as 1994	Same as 1994	Same as 1994	Same as 1967
SOURCE - www.historicaerials.com and ERIS				

**The 1953 aerial was reviewed at www.historicaerials.com; however, a copy is not included in this report.*

A copy of the aerial photography is included in Appendix D of this report.

5.5.2 Fire Insurance Maps

Sanborn Maps generally cover areas of urban and industrial development from the 1800s to the 1990s. According to the Fire Insurance Map Research prepared by ERIS, the subject property and surrounding properties are not included in Sanborn Map coverage. A copy of the Certified Sanborn Map Report is included in Appendix D.

5.5.3 Other Historical Sources

No additional historical sources were reasonably ascertainable.

5.6 Tier 1 Vapor Encroachment Screening

D3G performed a Tier 1 Vapor Encroachment Screening in compliance with ASTM E 2600-10 "ASTM Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" as amended. The purpose of the Tier 1 Vapor Encroachment Screening is to conduct an initial screen to determine if a Vapor Encroachment Condition (VEC) exists in connection with the subject property. A VEC is defined as the presence or likely presence of chemical of concern (COC) vapors in the subsurface of the subject property caused by the release of vapors from contaminated soil or groundwater either on or near the subject property.

D3G reviewed standard environmental record sources to identify if there are known or suspected sources of contamination within the area of concern (AOC). According to ASTM E 2600-10, the area of concern is defined by the approximate minimum search distance which is based upon the chemical of concern (i.e. petroleum hydrocarbons vs. non-petroleum hydrocarbons) and the location of a known or suspected source of contamination with respect to the subject property.

According to ASTM E 2600-10 8.2.1 *"The area of concern is one third of a mile around the subject property, unless the use of a shorter distance is appropriate."* In addition, according to ASTM E 2600-10 8.3.1, *"The approximate minimum search distance may be expanded or reduced in the up-gradient, down-gradient, and/or cross-gradient directions by the environmental professional conducting the Vapor Encroachment Screening based upon experience in the local area."* Therefore, D3G has reduced the approximate minimum search distance for up-gradient and cross-gradient contaminated properties based on actual plume data collected for dry cleaners, state hazardous waste sites, and evaluation of actual gas station LUST data as outlined in the article, *A Smaller Intrusion,* by Anthony J. Buonicore, P.E. published in the May 2009 Issue of Pollution Engineering magazine. A copy of the article is provided in Appendix E. The revised approximate minimum search distances are provided in the table below. Unless otherwise stated, groundwater flow/gradient is approximated based on surface topography.

D3G was not provided information from the User, Current Landowner, or Key Site Manager, regarding specialized knowledge or experience or commonly known or reasonably ascertainable information within the local community about the subject property that is material to the assessment of a VEC in connection with the subject property.

<u>Subject Property</u>

Based on a review of the ERIS Report, the subject property is not identified in the State Records Search or in the Federal Records Search. In addition, according to a review of subject property historical use information that is reasonably ascertainable, there are no known or suspect potentially contaminated sources having chemicals of concern (petroleum hydrocarbons or non-petroleum hydrocarbons) associated with the subject property. Therefore, a Vapor Encroachment Condition (VEC) does not exist or is not likely to exist at the subject property.

Contaminated Properties within the Area of Concern

The following table identifies contaminated properties within the revised approximate minimum search distances, based on a review of the ERIS Report and a review of adjacent historical use information that is reasonably ascertainable.

	UP-GRADIENT SOURCES: NUMBER OF IDENTIFIED RECORDS		DOWN-GRADIENT SOURCES: NUMBER OF IDENTIFIED RECORDS		CROSS-GRADIENT SOURCES: NUMBER OF IDENTIFIED RECORDS	
Search Distance	**COC : 1/3 mile**	**Petroleum: 1/10 mile**	**COC : 0.02 mile (100 ft)**	**Petroleum: 0.02 mile (100 ft)**	**COC: 0.07 mile (365 ft)**	**Petroleum: 0.03 mile (165 ft)**
State Standard Environmental Record Sources						
LUST	--	--	--	--	--	--
VCP	--	--	--	--	--	--
BROWNFIELDS	--	--	--	--	--	--
SHWS	--	--	--	--	--	--
SWL	--	--	--	--	--	--
Federal Standard Environmental Record Sources						
NPL	--	--	--	--	--	--
CERCLIS	--	--	--	--	--	--
RCRA CORRACTS	--	--	--	--	--	--
RCRA TSD	--	--	--	--	--	--

Based on the reviewed information, there are no records identified within the area of concern. Therefore, a Vapor Encroachment Condition (VEC) does not exist or is not likely to exist at the subject property from an off-site source.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

D3G's site inspection consisted of visual observations along boundaries and various transects throughout the subject property. The adjacent properties were observed from the subject property and the boundaries of the subject property and public right-of-ways. Refer to Site Inspection Photos in Appendix C.

6.2 General Site Setting

The subject property consists of a single-story residential structure constructed prior to 1953 that is situated on 2.913 acres of undeveloped land. In addition, a small shed and a greenhouse are located at the subject property. The subject property is bounded to the north by Genevieve Street, an office building, and a plant nursery; to the south by single-family residential properties; to the east by Marine View Avenue and single-family residential properties; and to the west by I-5. The on-site residential structure will be demolished and the subject property is the proposed location of a three-story, 89-unit assisted living facility structure. Utilities were observed in the vicinity of the subject property.

6.3 Exterior Observations

EXTERIOR OBSERVATIONS	OBSERVED	NOT OBSERVED
HAZARDOUS MATERIALS AND PETROLEUM PRODUCTS		√
POLYCHLORINATED BIPHENYLS (PCBS)	(1)	
SUBJECT PROPERTY DUMPED MATERIALS/LANDFILLS	(2)	
SOLID WASTE DISPOSAL		√
SPILLS/STAINED SOILS/STAINED PAVEMENT/STRESSED VEGETATION		√
STORAGE TANKS NOT PREVIOUSLY LISTED		√
WELLS NOT PREVIOUSLY LISTED		√
HAZARDOUS RUNOFF		√
PITS, PONDS, OR LAGOONS*		√
ODORS		√

*Excludes stormwater drainage features

(1) Located at an exterior location of the property is one (1) pole-mounted electrical transformer, which is owned and maintained by San Diego Electric and Gas. The on-site electrical transformer was not affixed with a "Non-PCB" sticker and is therefore assumed to contain regulated levels of PCBs. However, leakage was not visually observed on or around the transformer and in its current physical condition it is not believed to present environmental concerns to the subject property.

(2) Various dumped debris (tires, construction debris, cut trees, household trash, etc.) was observed throughout the subject property during the site inspection. The dumped debris was observed in *de minimis* amounts and is considered non-hazardous in nature. Based on the non-hazardous nature and *de minimis* amounts, the on-site dumped debris is not suspected to present an environmental concern to the environmental integrity of the subject property. However, the dumped debris should be properly disposed of in accordance with local, state, and federal regulations prior to site development.

No evidence of landfills was identified at the subject property. No evidence of septic systems was identified at the subject property.

6.4 Interior Observations

INTERIOR OBSERVATIONS	OBSERVED	NOT OBSERVED
HAZARDOUS MATERIALS AND PETROLEUM PRODUCTS	(1)	
POLYCHLORINATED BIPHENYLS (PCBS)		√
STORAGE TANKS NOT PREVIOUSLY LISTED		√
ODORS		√
DRAINS AND/OR SUMPS		√
POOLS OF LIQUID		√

(1) No bulk storage of hazardous materials or petroleum products was identified at the subject property. However, paints and cleaning products are stored in the garage and on-site shed. None of the stored materials were observed to be leaking or to have had signs of major spillage. No floor drains or other potential receptors for the release of hazardous materials were observed within the areas of material storage. The on-site chemicals are commercially available, stored in limited quantities, and are not believed to present an environmental concern to the subject property.

7.0 INTERVIEWS

7.1 Prospective Landowner/User Questionnaire

A Property Questionnaire was completed by Mr. John DeWald, Manager for DR Development, LLC and the Current Landowner Representative, and returned to D3G. Mr. DeWald indicated that he has specialized knowledge or experience related to the subject property or nearby properties; that he knows the past uses of the property; and that a title search has been performed. A copy of the title was not provided to D3G. A copy of the completed Property Questionnaire is included in Appendix F.

7.2 Current Landowner Questionnaire

A User Property Questionnaire was completed by Mr. John DeWald, Manager for DR Development, LLC and the Current Landowner Representative; therefore, an additional questionnaire is not warranted.

7.3 Previous Landowner Questionnaire

The current landowner has owned the property for more than two (2) years; therefore, a previous landowner questionnaire is not required.

7.4 Key Site Manager Questionnaire

The subject property consists of undeveloped land and a vacant residential structure and does not have any business operations requiring a key site manager; therefore, a Key Site Manager Questionnaire is not necessary for this investigation.

7.5 Occupant Questionnaire

The subject property is currently utilized for residential purposes; therefore, an Occupant Questionnaire is not necessary for this investigation pursuant to ASTM E 1527 13 Section 10.5.2.1.

7.6 Local Agencies Contacted

D3G contacted the City of Solana Beach Fire Department on April 20, 2015 for a review of their environmental records (i.e. USTs, hazardous materials storage, and spills) for the subject property. According to Ms. Anita Pupping, Fire Marshal, no records were available for former or current underground storage tanks or spills at the subject property. A copy of the correspondence is located in Appendix F of this report.

the San Diego County of Environmental – Land and Water Quality Division (858-565-5173) on April 24, 2015 sAs of the date of this report, D3G has not received a response to this inquiry. Upon receipt of the agency response, D3G will forward this information as an addendum to this report. If no response is received or no material information is identified, our report will not be modifie

the San Diego County Department of Environmental Health – Public Records Department on April 24, 2015 and site-specific ,USTs, hazardous materials storage, and spillsAs of the date of this report, D3G has not received a response to this inquiry. Upon receipt of the agency response, D3G will forward this information as an addendum to this report. If no response is received or no material information is identified, our report will not be modified. A copy of the correspondence is located in Appendix F of this report.

7.7 Additional Persons Interviewed

7.7 Additional Persons Interviewed

No additional persons were interviewed.

8.0 INVESTIGATION FOR NON-SCOPE CONSIDERATIONS

8.1 Asbestos-Containing Materials

The existing residential structure was constructed prior to 1947, during a time of asbestos-containing material (ACM) usage. D3G contracted RiskNomics, LLC to conduct a pre-demolition asbestos inspection of the main residence, shed, greenhouse, former boat, and former recreational vehicles located on the property. The objective of the survey was to provide documentation to the developer consisting of a listing of the findings and approximate quantities of asbestos-containing materials that may impact future demolition activities. Inspection activities were performed on October 10, 2011 by John Castorini, a State of California Site Surveillance Technician (CSST) (license #033349).

Inspection, sampling and analytical procedures were performed in general accordance with the Environmental Protection Agency's (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) EPA 40 CFR 61 Subpart M, the EPA Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763, the Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 guidelines, and California Occupational Safety and Health Administration (Cal/OSHA) requirements.

Federal OSHA, Cal/OSHA, and NESHAP define an asbestos-containing material (ACM) as any material containing more than one percent (>1.0%) asbestos. Both agencies have certain classifications for ACM types as well as requirements that apply when ACM is removed and disposed. Additionally, Cal/OSHA includes the term asbestos-containing construction material (ACCM); which is any manufactured construction material containing >0.1% asbestos. The ACCM designation has been established by Cal/OSHA as a criterion for the registration and certification of contractors and consultants who provide services that involve such materials. Friable materials are defined as materials which are able to be crumbled, pulverized or reduced to powder by hand pressure.

Sampled materials included wall materials, wall textures, linoleum, spray-on acoustic ceiling, exterior stucco, window putty and roofing materials on the residence. Roofing materials were also sampled on the shed. All identified suspect asbestos-containing materials were sampled. There were no suspect asbestos-containing materials identified within the greenhouse, boat and recreational vehicles. The following table summarizes the sampled materials and their respective asbestos contents:

SAMPLE #	MATERIAL	FRIABLE/NON-FRIABLE	% ASBESTOS	NESHAP CATEGORY
RESIDENCE				
DW-01 – 03	Wall plaster – skim and scratch coats	NF	None detected	N/A
L-01 – 02	White linoleum – 7x7 print	NF	None detected	N/A
SAC-01 – 03	Spray acoustic ceiling	F	None detected	N/A
ST-01 – 02	Exterior stucco – skim and scratch coats	NF	0.5 – 0.7% chrysotile* (skim coat)	N/A
WP-01 – 02	Window putty	NF	None detected	N/A
RS-01 – 02	Roof shingles	NF	None detected	N/A
PM-01 – 02	**Roof penetration mastic**	**NF**	**10% chrysotile**	**Category I NF**
SHED				
RR-01 – 02	Roof shingles	NF	None detected	N/A

NF = non-friable; F - friable
* = analyzed via point count method
N/A = not applicalbe

The identified ACMs are denoted in bold type. The roof penetration mastic is a Category I non-friable material. In addition, the exterior stucco was identified as an ACCM. Any sample indicating a concentration of <1.0% can be subjected to the more stringent Point Count Method of analysis to more precisely determine the actual asbestos content. If this material is found to contain less than 1% asbestos by point counting, then it may be disposed of as non-hazardous waste, as was the case with the exterior stucco. However, Cal/OSHA rules still apply, and the contractor performing removal or demolition must comply with the worker protection, training, and medical surveillance portions of the asbestos standard.

The identified ACMs and ACCMs were observed to be in generally good physical condition at the time of the site inspection. Materials uncovered during demolition activities that are not addressed in this inspection report must be sampled by an accredited asbestos inspector prior to any disturbance.

A copy of the RiskNomics, LLC report is included in Appendix J.

Recommendations are listed in Section 11.0.

8.2 Lead-Based Paint

The existing residential structure was constructed prior to 1947, prior to the 1978 ban on lead-based paint (LBP). D3G contracted RiskNomics, LLC to conduct a Lead-Based Paint inspection of the main residence, shed, greenhouse, former boat, and former recreational vehicles located on the property. The objective of the survey was to provide documentation to the developer consisting of a listing of the findings of lead bearing components that may impact future demolition activities. Inspection activities were performed on October 10, 2011 by John Castorini, a State of California Lead Risk Assessor (license #13642).

Representative painted and/or finished components were tested in general accordance with the protocols for LBP testing in the United States Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and any applicable Federal, State, and Local regulations. The LBP inspection was conducting using a Keymaster MAP/4-M lead paint analyzer, which is an X-ray fluorescence (XRF) analyzing device.

Federal and California Department of Health Services (DHS) regulations define LBP as any surface coating that contains lead at or above 1.0 milligrams per square centimeter (mg/cm^2) or 0.5% by weight. The only substrate identified to contain lead at a concentration at or above 1.0 mg/cm^2 was the ceramic tile identified in the bathroom of the residence. The tile was observed to be intact at the time of the inspection. Painted surfaces were not identified on the remaining structures; therefore, these structures were not tested.

A copy of the RiskNomics, LLC report is included in Appendix J.

Recommendations are listed in Section 11.0.

8.3 Radon Gas

U.S. EPA RADON DATA	
ZONE	3
ZONE DEFINITION	Average reading less than 2 picocuries/liter (pCi/L)
SOURCE - U.S. EPA Radon Map	

The property does not contain subgrade living areas, which reduces the potential for radon gas.

8.4 Flood Zone

According to FEMA Flood Insurance Rate Map (FIRM) #06073C-1307G, dated May 16, 2012, the subject property is located in Zone X, designated as an area outside the 100 and 500-year flood zones and the flood potential for the subject property is minimal.

8.5 Wetlands

A wetland delineation/determination has not been performed at the subject property; however, according to the USFWS National Wetlands Inventory map accessed at http://www.fws.gov/wetlands/Data/Mapper.html and visual observations, there are not suspected to be any wetland areas on the subject property.

9.0 FINDINGS

This Phase I ESA was prepared in accordance with ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process Designation: E 1527-13, 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries: Final Rule, and accepted Phase I ESA industry standards. This assessment has revealed the following findings based on the subject property inspection, interviews, and review of available records:

OBSERVED CONDITIONS	ON-SITE	ADJACENT
STANDARD ENVIRONMENTAL RECORDS REVIEW	No	No
UNREGULATED UNDERGROUND STORAGE TANK(S) (UST)	No	No
PAST INDUSTRIAL/DETRIMENTAL OPERATIONS	No	No
VAPOR ENCROACHMENT CONDITION	No	No
STORED HAZARDOUS MATERIALS	Yes	NA
POLYCHLORINATED BIPHENYLS (PCBS)	Yes	NA
ABOVEGROUND STORAGE TANK(S) (AST)	No	No
DUMPING, LANDFILLS	Yes	No
HAZARDOUS RUN-OFF	No	No
ASBESTOS-CONTAINING MATERIALS	Yes	NA
LEAD-BASED PAINT	Yes	NA
FLOOD ZONE	No	NA

NA = Not Applicable

10.0 OPINION

Based on the findings of this Phase I ESA, the following environmental concerns were identified in connection with the subject property:

- Construction Considerations
  No soil staining was observed during D3G's site reconnaissance. If stained soils are discovered during site construction operations at the subject property, they should be tested; and, if necessary, removed according to federal, state and local guidelines.

  None of the accessed data depicts underground storage tanks (USTs) at the former structure; however, there exists the possibility that the former structure utilized underground or aboveground storage tanks (USTs/ASTs). No visual evidence of USTs (fill ports/vent pipes) or ASTs was observed during the site inspection. If ASTs or USTs were formerly located at the subject property, they should have been removed during the demolition of the structure.

  No evidence of septic systems was identified at the subject property. None of the accessed data depicts a septic systems at the former structures; however, there exists the possibility that the former structures utilized septic systems. If septic systems were formerly located at the subject property, they should have been removed during the demolition of the structure.

- Asbestos-Containing Materials (ACMs)
  The existing residential structure was constructed prior to 1947, during a time of asbestos-containing material (ACM) usage. D3G contracted RiskNomics, LLC to conduct a pre-demolition asbestos inspection of the main residence, shed, greenhouse, boat, and recreation vehicles located on the property. The objective of the survey was to provide documentation to the developer consisting of a listing of the findings and approximate quantities of asbestos-containing materials that may impact future demolition activities. Inspection activities were performed on October 10, 2011 by John Castorini, a State of California Site Surveillance Technician (CSST) (license #033349). ACMs and ACCMs were identified and the results of the inspection are detailed in Section 8.1.

- Lead-Based Paint (LBP)
  The existing residential structure was constructed prior to 1947, prior to the 1978 ban on lead-based paint (LBP). D3G contracted RiskNomics, LLC to conduct a Lead-Based Paint inspection of the main residence, shed, greenhouse, boat, and recreation vehicles located on the property. The objective of the survey was to provide documentation to the developer consisting of a listing of the findings of lead bearing components that may impact future demolition activities. Inspection activities were performed on October 10, 2011 by John Castorini, a State of California Lead Risk Assessor (license #13642). Lead coatings were identified on the ceramic tiles in the residential structure. The results of the inspection are further discussed in Section 8.2.

Based on the findings of this Phase I ESA, the following observed conditions are not considered a REC or an environmental concern to the subject property:

- Stored Hazardous Materials
  No bulk storage of hazardous materials or petroleum products was identified at the subject property. However, paints and cleaning products are stored in the garage and on-site shed. None of the stored materials were observed to be leaking or to have had signs of major spillage. No floor drains or other potential receptors for the release of hazardous materials were observed within the areas of material storage. The on-site chemicals are commercially available, stored in limited quantities, and are not believed to present an environmental concern to the subject property.

- PCBs
  Located at an exterior location of the property is one (1) pole-mounted electrical transformer, which is owned and maintained by San Diego Electric and Gas. The on-site electrical transformer was not affixed with a "Non-PCB" sticker and is therefore assumed to contain regulated levels of PCBs. However, leakage was not visually observed on or around the transformer and in its current physical condition it is not believed to present environmental concerns to the subject property.

- Dumped Debris
  Various dumped debris (tires, construction debris, cut trees, household trash, etc.) was observed throughout the subject property during the site inspection. The dumped debris was observed in *de minimis* amounts and is considered non-hazardous in nature. Based on the non-hazardous nature and *de minimis* amounts, the on-site dumped debris is not suspected to present an environmental concern to the environmental integrity of the subject property. However, the dumped debris should be properly disposed of in accordance with local, state, and federal regulations prior to site development.

  No evidence of landfills was identified at the subject property.

11.0 CONCLUSIONS

Dominion Due Diligence Group performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Proposed Solana Beach Senior located at 959 Genevieve Street in Solana Beach, San Diego County, California (subject property). Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the subject property.

D3G has performed a Phase I ESA at the subject property. Based on the identified environmental concerns discussed in Section 10.0, D3G recommends the following:

- Construction Considerations
  If stained soils, USTS/ASTs, or septic systems are discovered during site construction operations at the subject property, they should be tested; and, if necessary, removed according to federal, state and local guidelines.

- Asbestos Containing Materials (ACMs)
  California state regulations require notifications prior to the removal of ACM. A California certified supervisor shall be onsite during all asbestos removal activities and all asbestos removal work shall be conducted by California certified asbestos workers. All asbestos shall be removed according to applicable California regulations and in accordance with any additional local and federal regulations.

  The U.S. Environmental Protection Agency (USEPA) regulations do not require removal of asbestos-containing materials that are in good condition. However, personnel who may be involved with building renovations will need to be advised of the presence of asbestos and appropriate measures may be warranted in order to assure the identified asbestos-containing materials are not disturbed during renovation activities. If the asbestos-containing materials left in place are disturbed during renovation activities, the materials must be handled and disposed of in accordance with applicable State and Federal regulations.

- Lead-Based Paint (LBP)
  Removal or disturbance of material with any detectable amount of lead must be handled in accordance with the Cal/OSHA lead, Title 8, California Code of Regulations (CCR), Section 1532.1 (8 CCR 1532.1). Therefore, "negative" XRF readings i.e. those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2 or 0.5%) **DO NOT** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard (29 CFR 1926.62) and should not be interpreted as lead is not present.

Building materials with intact lead containing paint must be characterized for lead and other potentially hazardous materials before transportation off site. Testing may include, but not limited to, Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) criteria. Paint chips and debris must be disposed of as lead containing hazardous waste.

12.0 DEVIATIONS

There are no deviations from the ASTM standard Phase I ESA except for those outlined in Section 2.4 of this report.

13.0 ADDITIONAL SERVICES

No additional services were contracted between the User and D3G.

14.0 REFERENCE MATERIALS

- City of Solana Beach Fire Department
- San Diego County Assessor
- Web Soil Survey accessed at http://websoilsurvey.nrcs.usda.gov/app/
- USGS Topographic Quadrangle – *Del Mar OE W, California* 2014
- Environmental Risk Information Service (ERIS) Report, dated April 20, 2015
- FEMA Flood Insurance Rate Map (FIRM) #06073C-1307G, dated May 16, 2012
- USFWS National Wetlands Inventory map accessed at http://www.fws.gov/wetlands/Data/Mapper.html
- Delorme Street Atlas USA® 2014
- ERIS and www.historicaerials.com – aerial photographs
- EPA Radon Map
- Fire Insurance Map Research prepared by ERIS
- *A Smaller Intrusion,* by Anthony J. Buonicore, P.E. published in the May 2009 Issue of Pollution Engineering magazine
- ALTA/ACSM Land Title Survey by Pasco Laret Suitor and Associates dated April 28, 2011
- Draft Copy of Topographic Survey by Pasco Laret Suitor and Associates dated April, 2011
- Site Plans by Douglas Pancake Architects

15.0 SIGNATURE OF ENVIRONMENTAL PERSONNEL

Data presented in this report is factual to the best of our knowledge. Available sources of data were comprehensively researched to provide a complete Phase I ESA of the subject property. The Phase I ESA was prepared in accordance with ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Designation E 1527-13), 40 CFR Part 312 Standards and Practices for All Appropriate Inquiry: Final Rule, and accepted Phase I ESA industry standards.

D3G has no financial interest or family relationship with the officers, directors, stockholders or partners of the Borrower, the general contractor, any subcontractors, the buyer or seller of the proposed property or engage in any business that might present a conflict of interest.

D3G is employed under contract for this specific assignment and has no other side deals, agreements, or financial considerations with the Lender or others in connection with this transaction.

Jesse R. Cottrell
Site Assessor/Project Manager — Signature

Ashley J. Miller
Environmental Professional — Signature

16.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

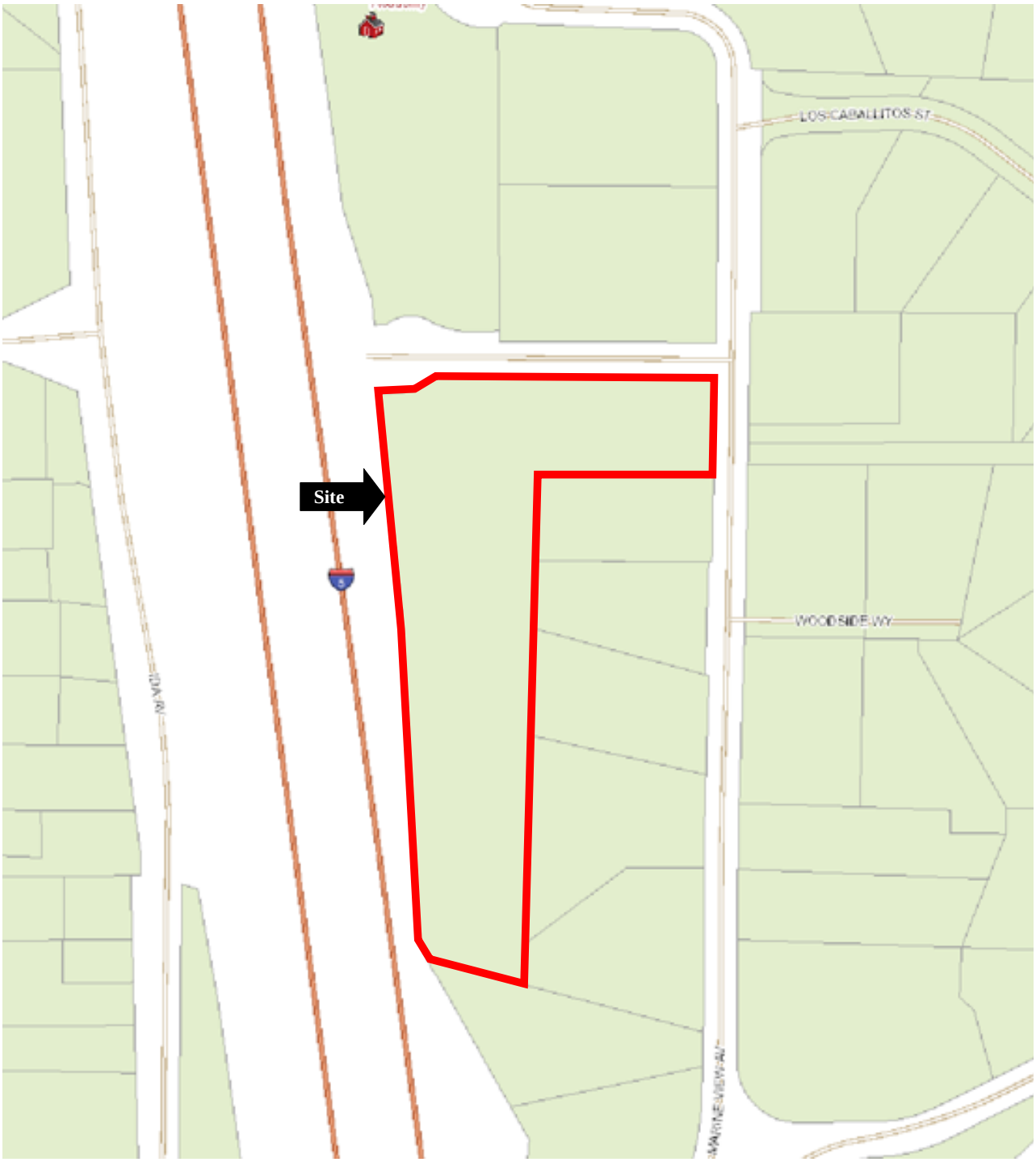
Ashley J. Miller qualifies as an **Environmental Professional** as defined in 40 CFR Part 312.10(b). Mrs. Miller has numerous years of extensive training and experience with regards to environmental issues. She received an undergraduate B.S. degree in Environmental Science from Virginia Commonwealth University and has inspected, managed and designed numerous environmental projects throughout the United States. Mrs. Miller also has extensive knowledge of the ASTM E 1527 Phase I Environmental Site Assessment regulations as well as the EPA 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries regulations. Mrs. Miller qualifies as an Environmental Professional as defined under ASTM E 1527 Section 4.3 and Appendix X2 with over five (5) years of experience performing investigations of surface and subsurface environmental conditions. Mrs. Miller's duties as an Associate Team Leader for Dominion Due Diligence Group include overseeing staff and reviewing Phase I Environmental Site Assessments (HUD, Freddie Mac, Fannie Mae, VHDA, and ASTM E 1527) throughout the United States. Mrs. Miller has additionally performed numerous HUD 8-Step Processes and HUD noise assessments throughout the United States.

17.0 APPENDICES

Appendix A:	Site (Vicinity) Maps
Appendix B:	Site Plan
Appendix C:	Site Photographs
Appendix D:	Historical Research Documents
Appendix E:	Regulatory Records Documentation
Appendix F:	Interview Documentation
Appendix G:	Special Contractual Conditions Between User and Environmental Professional
Appendix H:	Qualifications of the Environmental Professionals
Appendix I:	Certificate of Liability Insurance
Appendix J:	Asbestos Inspection and Lead-Based Paint Screen Report – RiskNomics, LLC, dated October 20, 2011

Appendix A

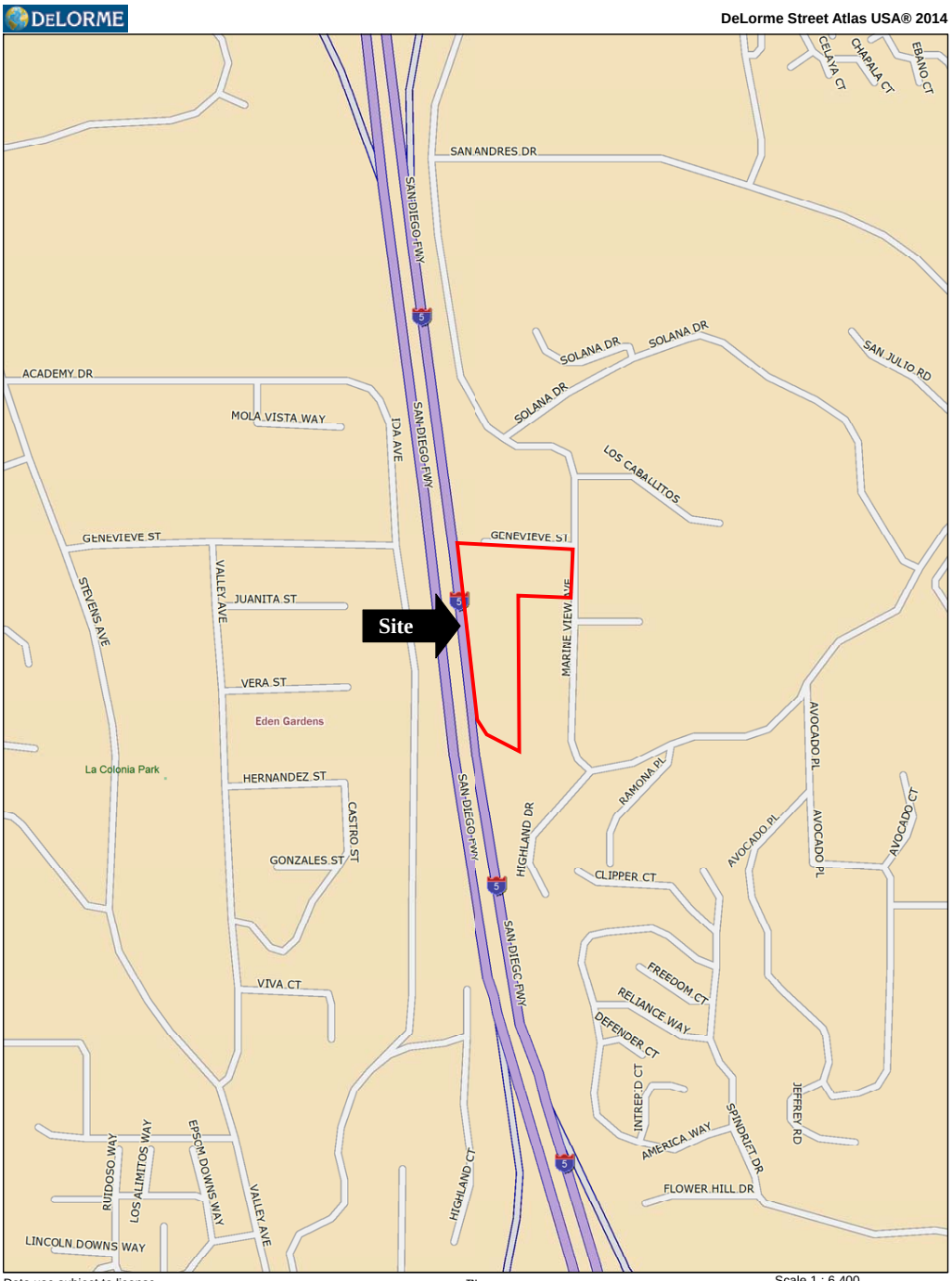
Site Maps



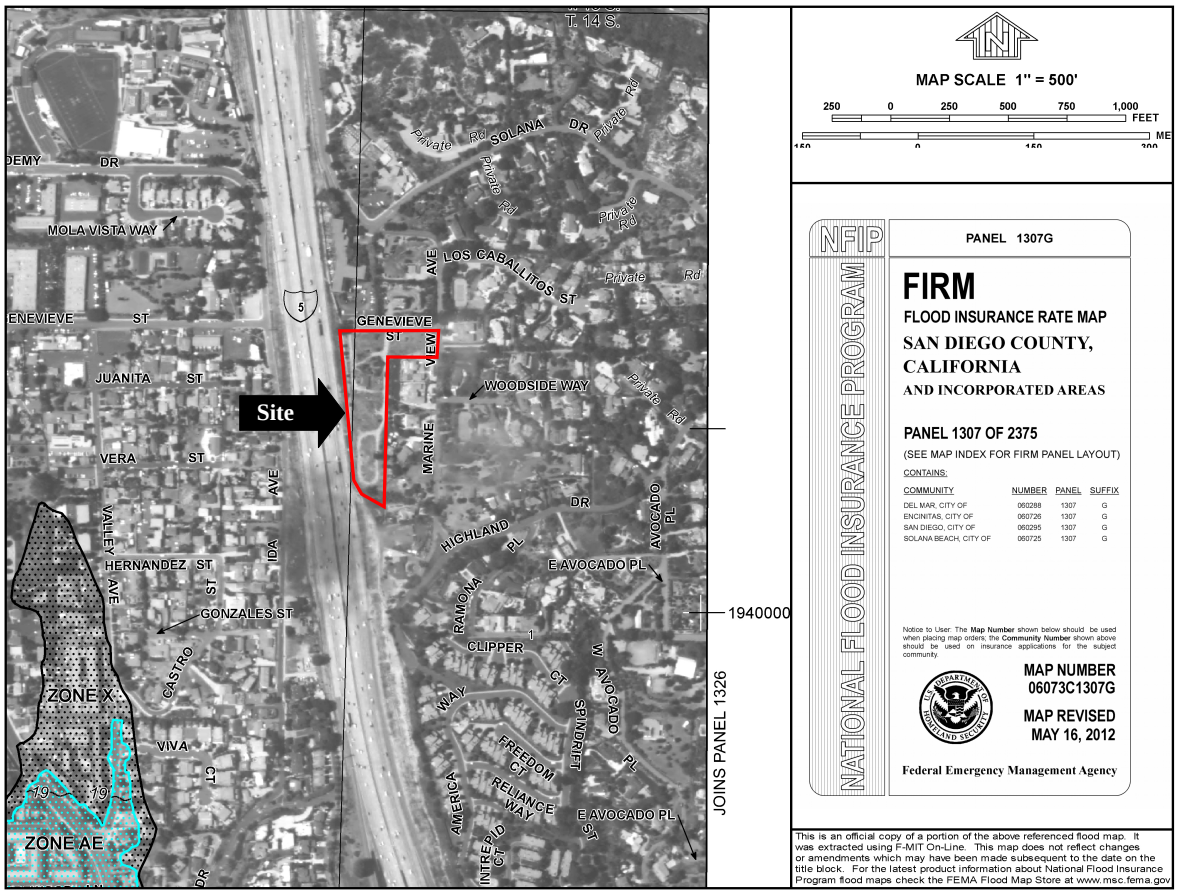
Appendix A Tax Map	↑ **N**	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Parcel #2983905100*	**DOMINION DUE DILIGENCE GROUP**

```
 AS01P002                    Parcel Detail Screen 1-  2016        04/24/15 10:20:11
PN: 298-390-51-00  TRA:  18107  RCC:     OC Trans: 11-09-06  CD: O    Tax St: T
Ctl Doc #: R 2006 709590 ED: 10-05-06 DD: 10-05-06 DT: 001 AD/Src: 09-23-09  OR
FI: 1   CONS PACIFIC SOUND INVESTORS L L C

 1131 ROCKINGHAM DR #129 RICHARDSON TX 75080-4366
-------------------------------- Property Data --------------------------------
Situs: 959 GENEVIEVE ST DEL MAR CA 92014-3910
Legal: BLK 3*LOTS 1&2*PAR A OF DOC03-487729 IN
Map: 001774      SD Acrg/Dt: 2.91     / 11-21-03 Units: 2    LUC: 10130 Typ:
-------------------- Values and Exemptions --------------------    HCY:
      1,284,000 Land                    Fix                    Ex     Ex Cd
         16,000 Imps                    BPP                    Ex     Ex Cd
      1,300,000 L+I                     OPP                    Ex     Ex Cd
      1,300,000 Total          1,300,000 Net  Ex Trans Dt:
----------------------------------- Codes -----------------------------------
Appl Area: 04  VCC: W  VCD: 01-09-15  SSN1:             S/RC:   Def Tx Yr:
Appr Id  : 596 VAC: 0  VAD: 10-05-06  SSN2:             S/RY:
---------------------------------- Cut Data ----------------------------------
                    PPN: 298-390-45-00     PTRA: 018006
Cut#/Yr/Typ: 001572 / 2004 / CF TRA#/Yr: 005041 / 1988 Rep#/Yr:        /

<F2> T/S <F8> SCRN2 <F9> XREF <ENTER> MENU AYR _ NEXT __________
```

Appendix A Site Topographic Map	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Topographic Quadrangle* *Del Mar OE W, California 2015*	**DOMINION** **DUE DILIGENCE** **GROUP**



Appendix A Site Locator Map	↑ **N**	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California	**DOMINION DUE DILIGENCE GROUP**



Appendix A FEMA Flood Insurance Rate Map	↑ **N**	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Community Panel #06073C-1307G* *dated May 16, 2012*	**DOMINION DUE DILIGENCE GROUP**

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

4/22/2015
Page 1 of 3

Appendix A Site Soils Map	↑ **N**	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *http://websoilsurvey.nrcs.usda.gov/app/*	**DOMINION DUE DILIGENCE GROUP**

U.S. Fish and Wildlife Service

National Wetlands Inventory

Apr 22, 2015

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

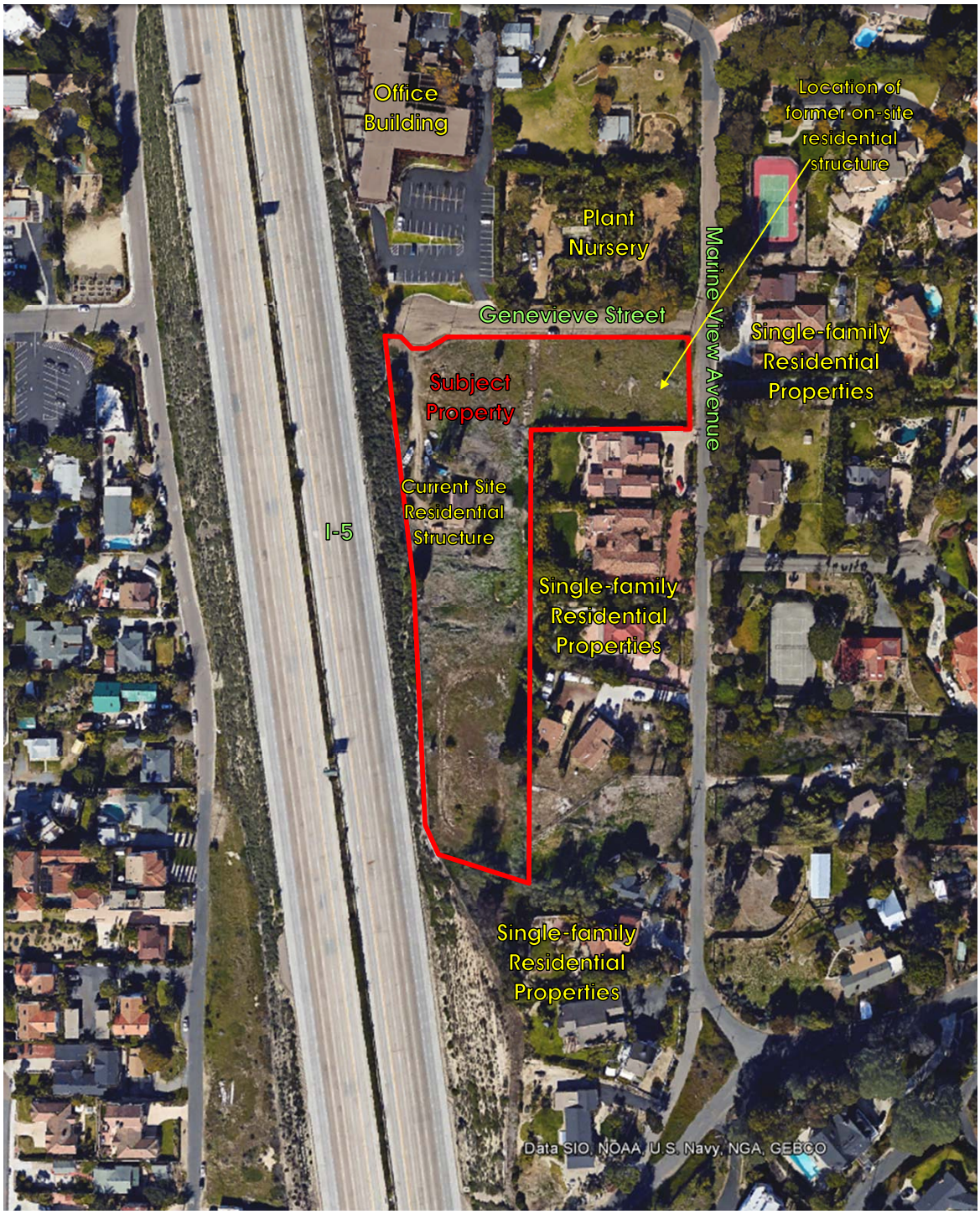
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Appendix A National Wetland Inventory Map	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *USFWS National Wetlands Inventory*	**DOMINION DUE DILIGENCE GROUP**

Appendix B

Site Plan



Appendix B Site Plan	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California	**DOMINION DUE DILIGENCE GROUP**

ALTA/ACSM TABLE A ITEMS

1) MONUMENTS

2) ADDRESS

3) FLOOD ZONE

4) GROSS AREA

6a) CURRENT ZONING

6b) CURRENT ZONING

7a) BUILDING DIMENSIONS

8) SUBSTANTIAL FEATURES

9) STRIPING

10a) PARTY WALLS

11b) UTILITIES

12) SURVEY RELATED REQUIREMENTS

13) ADJACENT OWNERS

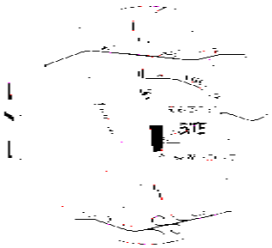
16) EVIDENCE OF CONSTRUCTION

17) PROPOSED ST ROFW CHANGES

18) SUMP LANDFILL

19) WETLANDS

20a) OFFSITE IMPROVEMENTS



VICINITY MAP

ALTA/ACSM LAND TITLE SURVEY

LEGAL DESCRIPTION

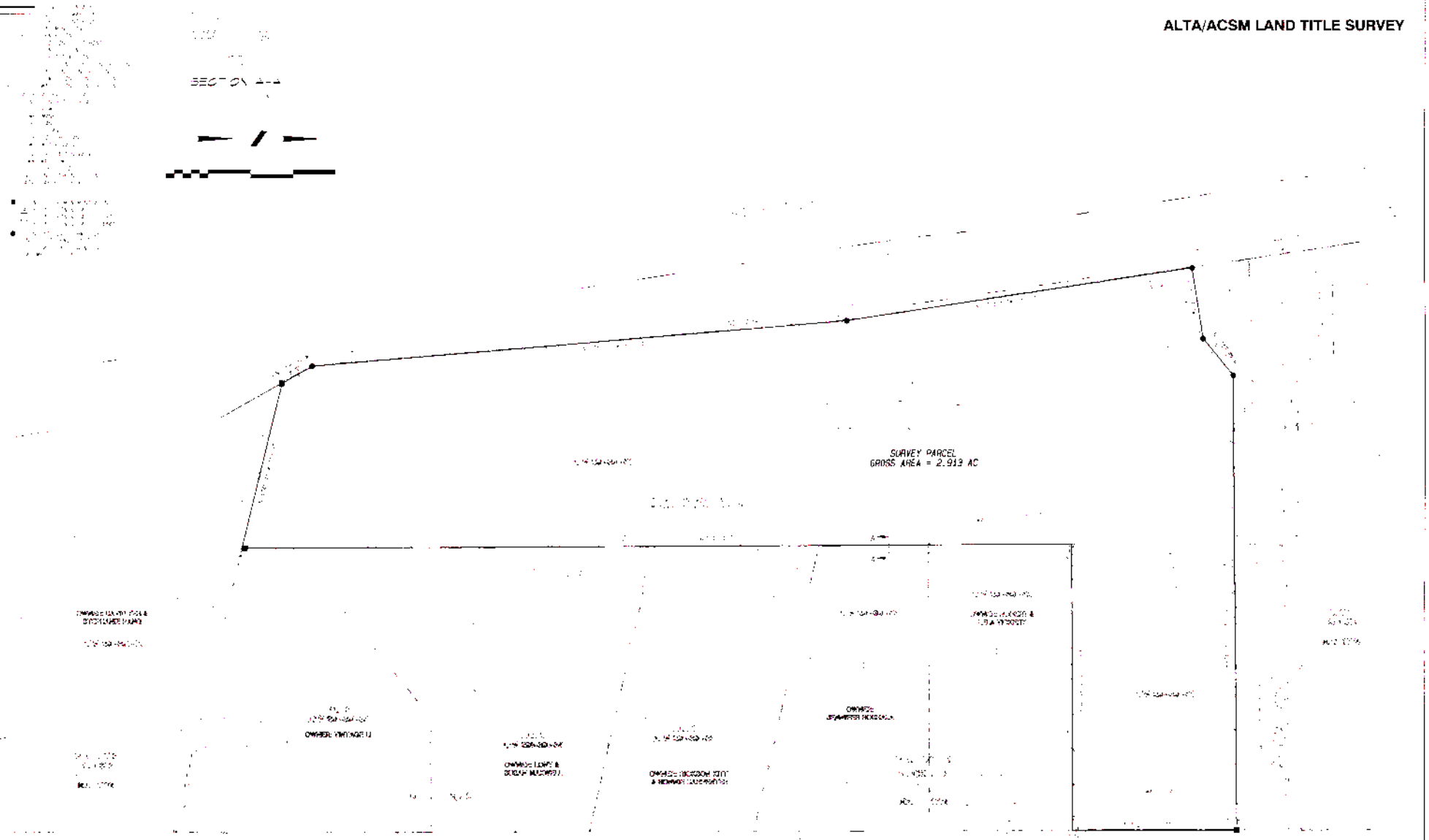
BENCHMARK

EASEMENTS

PASCO LARET SUITER

ALTA/ACSM LAND TITLE SURVEY

LEGEND



DRAFT COPY OF TOPOGRAPHIC SURVEY FOR PACIFIC SOUND INVESTORS

PREPARED FOR

PACIFIC SOUND INVESTORS

PREPARED IN APRIL 2011

SITE ADDRESS

959 GENEVIEVE ST
SOLANA BEACH, CA 92075

APN

298-390-51

LEGAL DESCRIPTION

PORTIONS OF LOTS 1 AND 2 IN BLOCK 3 OF KENNEYS MARINE VIEW GARDENS IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY, DECEMBER 31, 1923

BENCHMARK

CITY OF SOLANA BEACH CONTROL POINT
NO. 2004 PER RECORD OF SURVEY 18971

IE 315.15 NAVD 88 CCS 83 2004.0

LEGEND

PROPERTY BOUNDARY
EXISTING BUILDING
EXISTING CONTOUR
EXISTING CROWN LINE
EXISTING FENCE
EXISTING WALL
EXISTING SEWER MANHOLE
EXISTING WATER METER
EXISTING WATER VALVE
EXISTING FIRE HYDRANT
EXISTING POWER POLE
EXISTING OVERHEAD UTILITIES
EXISTING TREE

EASEMENT NOTE

CHICAGO TITLE REPORT #930022099-U50
DATED MARCH 21, 2011

SCHEDULE "B" ITEMS

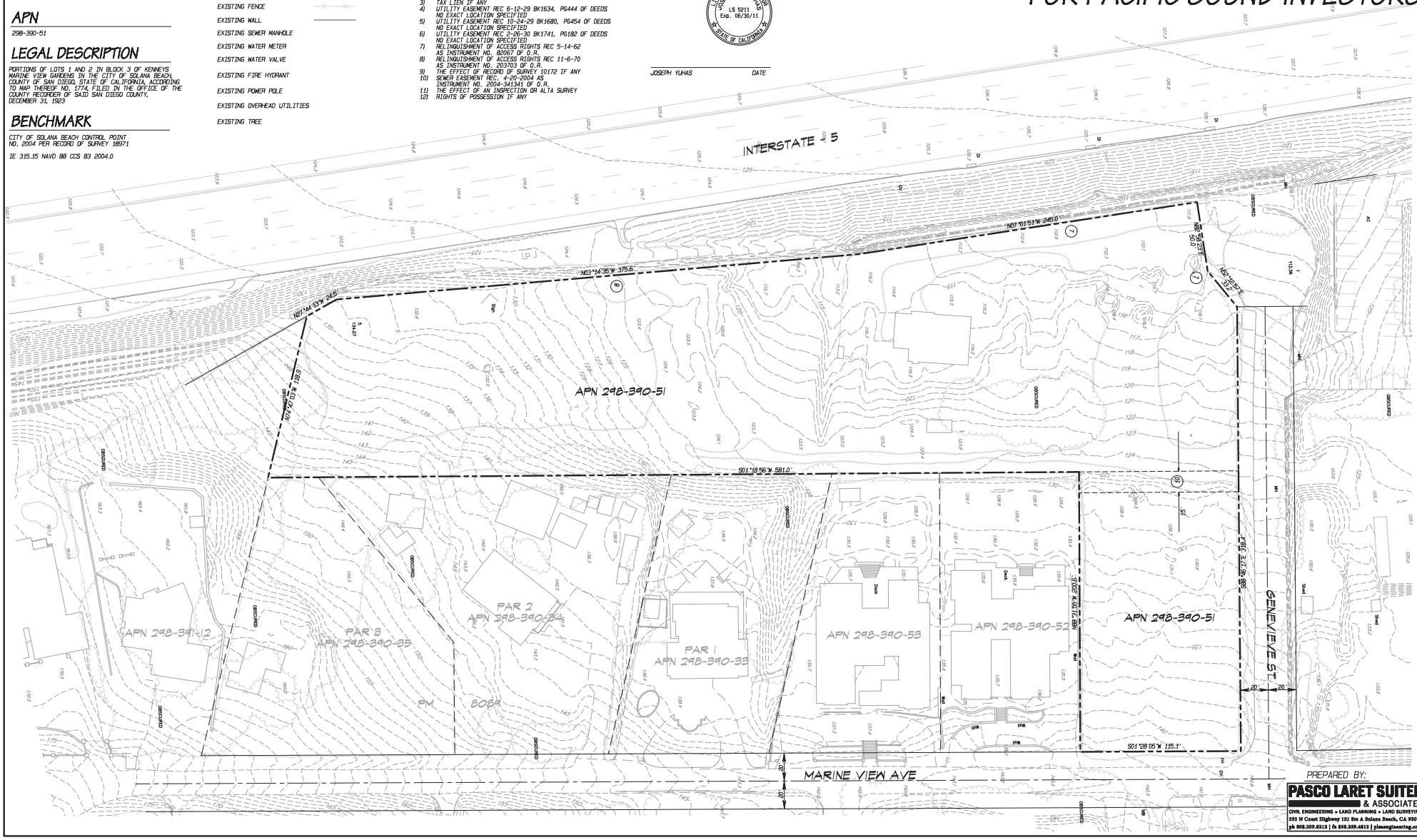
1) PROPERTY TAXES
2) PROPERTY TAXES
3) TAX LIEN IF ANY
4) UTILITY EASEMENT REC 6-12-29 BK1634, PG444 OF DEEDS NO EXACT LOCATION SPECIFIED
5) UTILITY EASEMENT REC 10-24-29 BK1680, PG454 OF DEEDS NO EXACT LOCATION SPECIFIED
6) UTILITY EASEMENT REC 2-26-30 BK1741, PG182 OF DEEDS NO EXACT LOCATION SPECIFIED
7) RELINQUISHMENT OF ACCESS RIGHTS REC 5-14-62 AS INSTRUMENT NO. 82067 OF O.R.
8) RELINQUISHMENT OF ACCESS RIGHTS REC 11-6-70 AS INSTRUMENT NO. 203703 OF O.R.
9) THE EFFECT OF RECORD OF SURVEY 10172 IF ANY
10) SEWER EASEMENT REC. 4-20-2004 AS INSTRUMENT NO. 2004-341341 OF O.R.
11) THE EFFECT OF AN INSPECTION OR ALTA SURVEY
12) RIGHTS OF POSSESSION IF ANY

NOTE

BEARINGS & DISTANCES SHOWN HEREON ARE DERIVED FROM REC. INFO & NOT THE RESULT OF A PRECISE BOUNDARY SURVEY.

LICENSED LAND SURVEYOR
JOSEPH C. YUHAS
LS 5211
Exp. 06/30/11
STATE OF CALIFORNIA

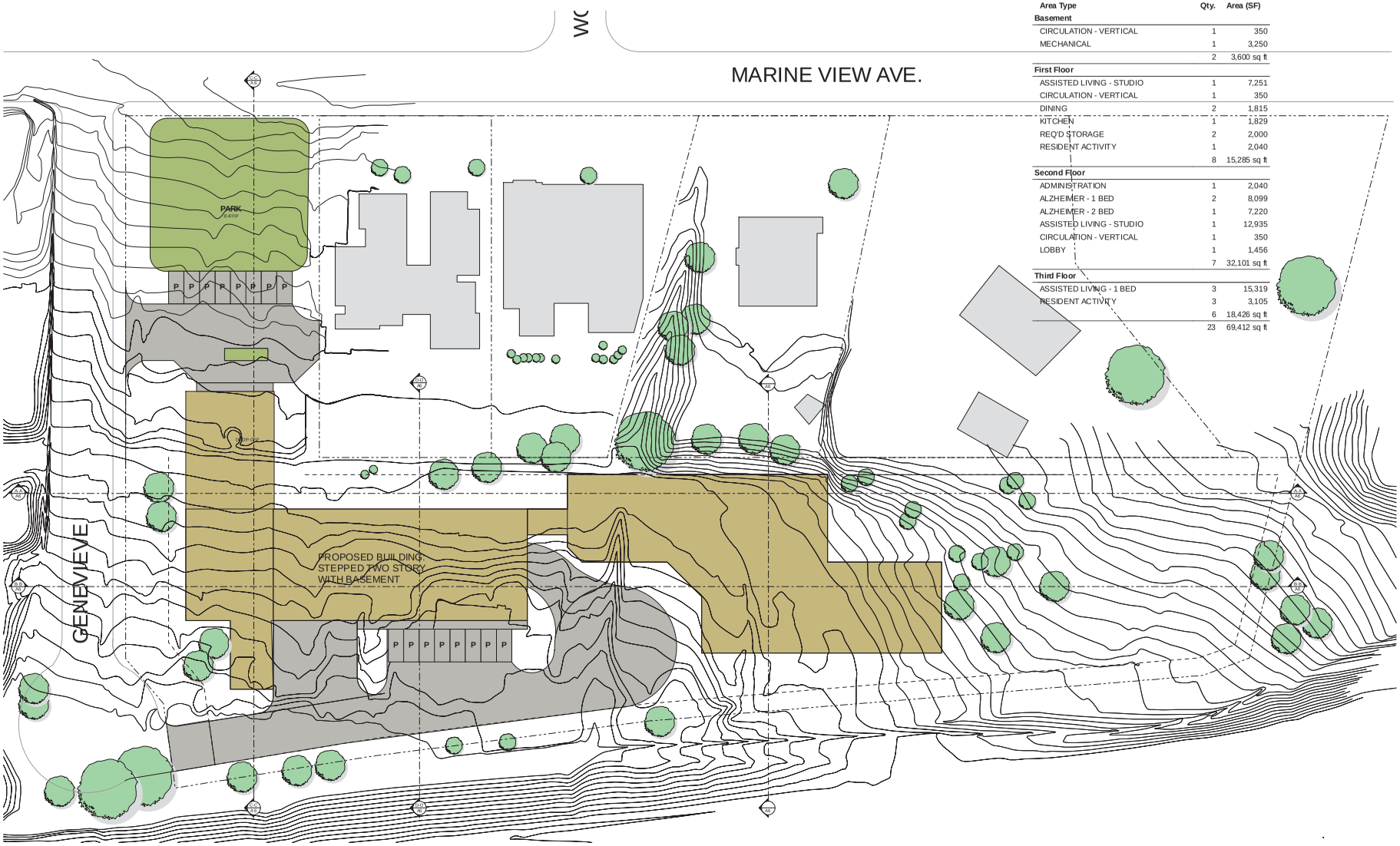
JOSEPH YUHAS DATE



PREPARED BY:

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
535 N Coast Highway 101 Ste A Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

PLSA 1890



Building Area Calculations by Floor

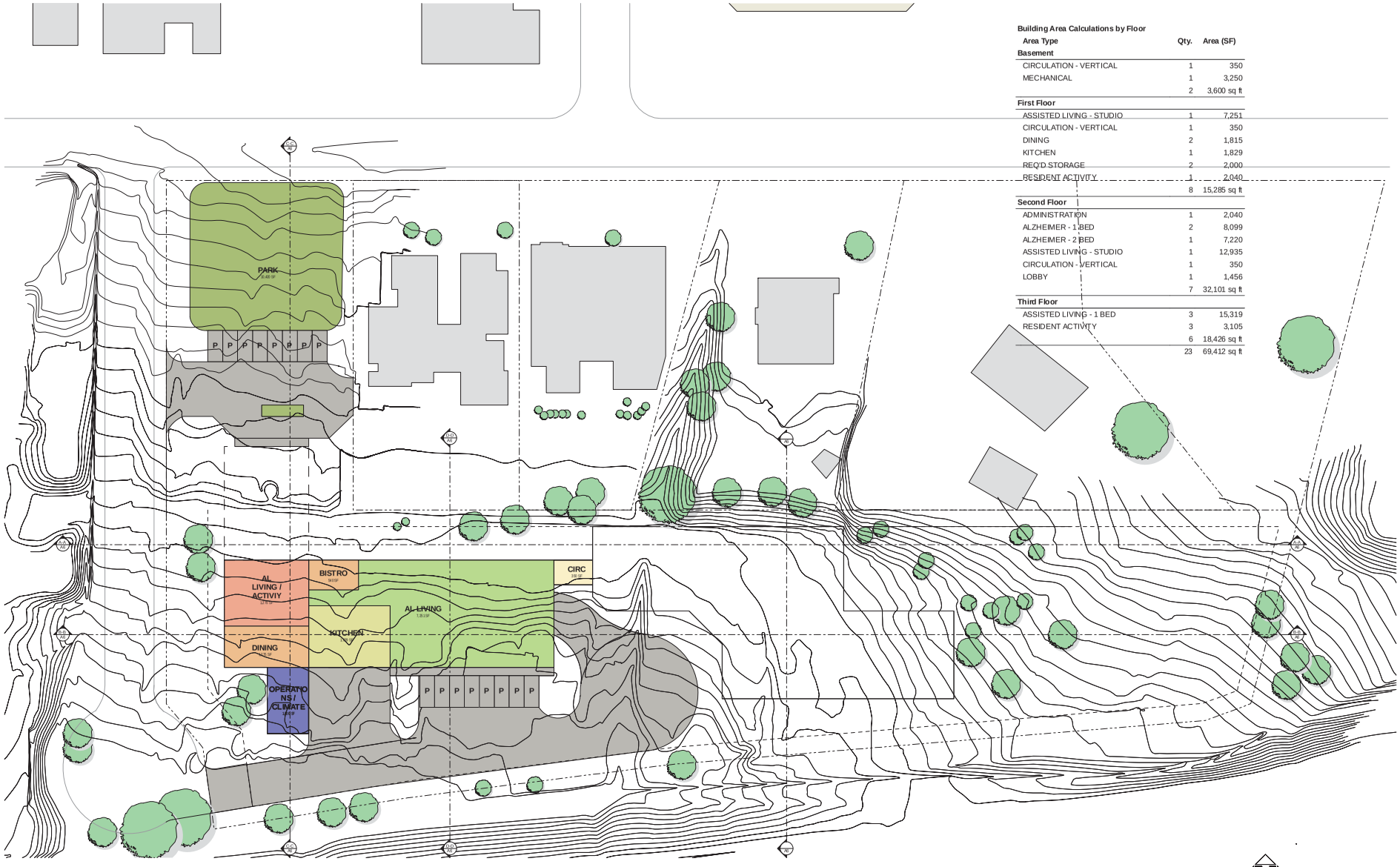
Area Type	Qty.	Area (SF)
Basement		
CIRCULATION - VERTICAL	1	350
MECHANICAL	1	3,250
	2	3,600 sq ft
First Floor		
ASSISTED LIVING - STUDIO	1	7,251
CIRCULATION - VERTICAL	1	350
DINING	2	1,815
KITCHEN	1	1,829
REQ'D STORAGE	2	2,000
RESIDENT ACTIVITY	1	2,040
	8	15,285 sq ft
Second Floor		
ADMINISTRATION	1	2,040
ALZHEIMER - 1 BED	2	8,099
ALZHEIMER - 2 BED	1	7,220
ASSISTED LIVING - STUDIO	1	12,935
CIRCULATION - VERTICAL	1	350
LOBBY	1	1,456
	7	32,101 sq ft
Third Floor		
ASSISTED LIVING - 1 BED	3	15,319
RESIDENT ACTIVITY	3	3,105
	6	18,426 sq ft
	23	69,412 sq ft

Douglas Pancake ARCHITECTS
1470 JAMBOREE ROAD, SECOND FLOOR, NEWPORT BEACH, CALIFORNIA 92660
T: 949.720.0850 ♦ F: 949.720.3849 ♦ W: WWW.PANCAKEARCHITECTS.COM

Assisted Living Concept
PACIFIC SOUND INV.

Site Plan
A2

PROJECT NO: 11013.00
PLOT DATE: ##/##/####



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T: 949.720.0850 ♦ F: 949.720.3843 ♦ W: WWW.PANCAKEARCHITECTS.COM

Assisted Living Concept
PACIFIC SOUND INV.

First Floor Plan
A3

PROJECT NO: 11013.00
PLOT DATE: mm/dd/yyyy

Appendix C

Site Photographs

PHOTO #1

View of the subject property residential structure

PHOTO #2

View of the subject property residential structure

PHOTO #3

View of the interior of the residential structure

PHOTO #4

View of the interior of the residential structure

PHOTO #5

View of the greenhouse at the subject property

PHOTO #6

View of the interior of the greenhouse

PHOTO #7

View of the undeveloped portion of the subject property

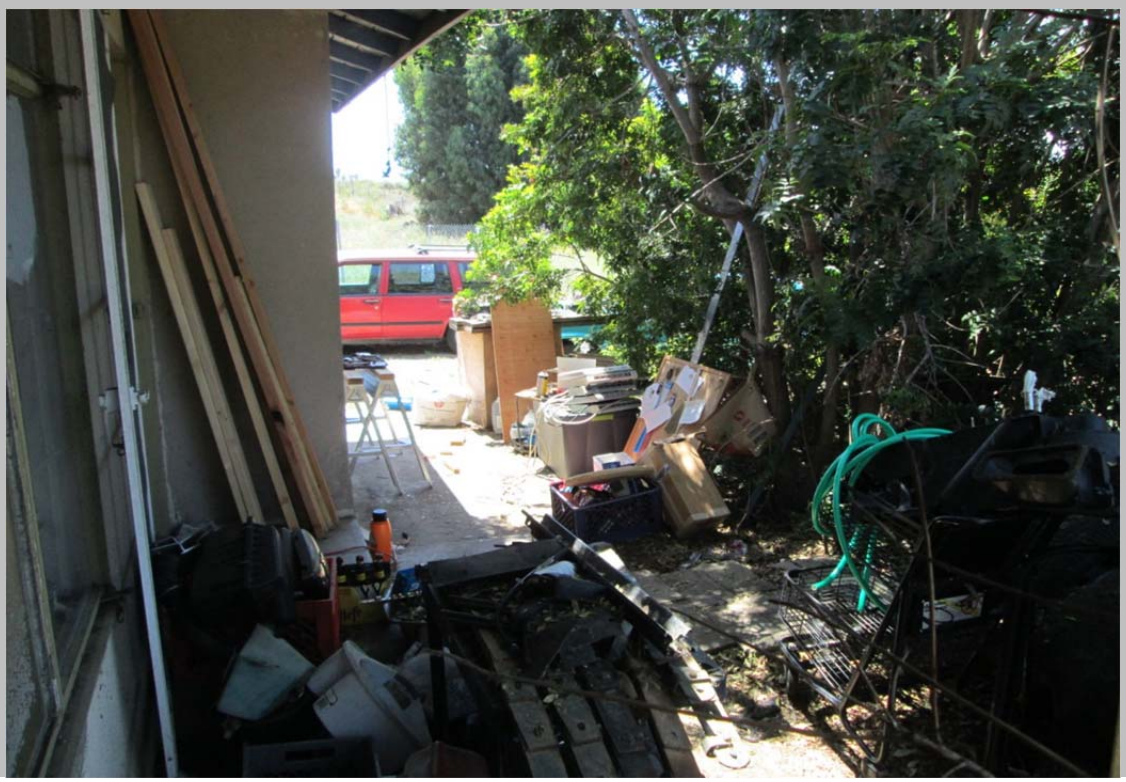
PHOTO #8

View of the undeveloped portion of the subject property

PHOTO #9

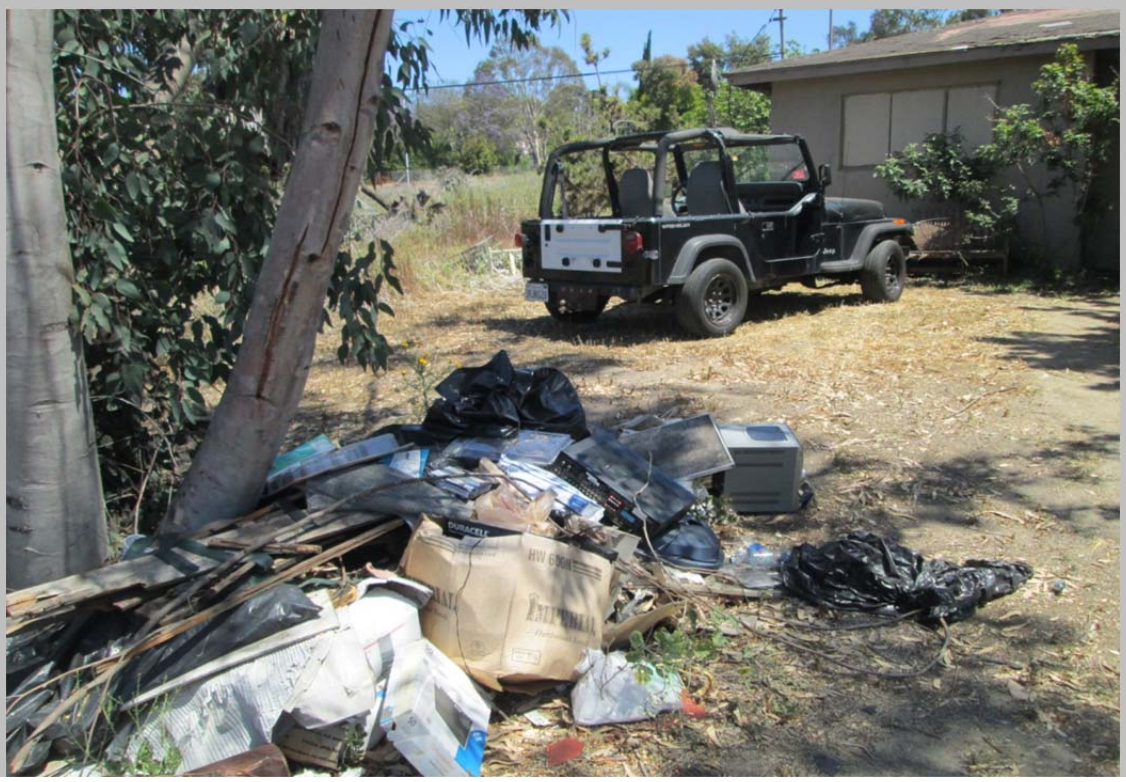
View of the undeveloped portion of the subject property

PHOTO #10



View of dumped debris at the subject property

PHOTO #11



View of dumped debris at the subject property

PHOTO #12

View of the on-site pole-mounted electrical transformer

PHOTO #13

View of the northern adjacent Genevieve Street and office building

PHOTO #14

View of the southern adjacent single-family residential properties

PHOTO #15

View of an eastern adjacent single-family residential property

PHOTO #16

View of the western adjacent I-5

Appendix D

Historical Research Documents

FIRE INSURANCE MAP RESEARCH RESULTS

Date: 2015-04-20

Order Number:20150417095

959 Genevieve Street, Solana Beach, CA

ERIS has searched our in-house collection of close to 1 million Fire Insurance Maps for the address at 959 Genevieve Street, Solana Beach, CA.

Please note that no information was found for your site or adjacent properties.

If you have any questions regarding the enclosed information, please do not hesitate to contact us.

Individual Fire Insurance Maps for the subject property and/or adjacent sites are included with the ERIS environmental database report to be used for research purposes only and cannot be resold for any other commercial uses other than for use in a Phase I environmental assessment.

Address: 38 Lesmill Road Unit 2, Toronto, ON M3B 2T5
Phone: 416-510-5204 Fax: 416-510-5133
info@erisinfo.com www.erisinfo.com

Date:	Scale:	Source:	ERIS Order No.
1947	1"=700'	ASCS	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			ADJACENT FRAME NOT AVAILABLE

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 1947*	**DOMINION DUE DILIGENCE GROUP**

Date:	Scale:	Source:	ERIS Order No.
1967	1"=700'	USGS	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			

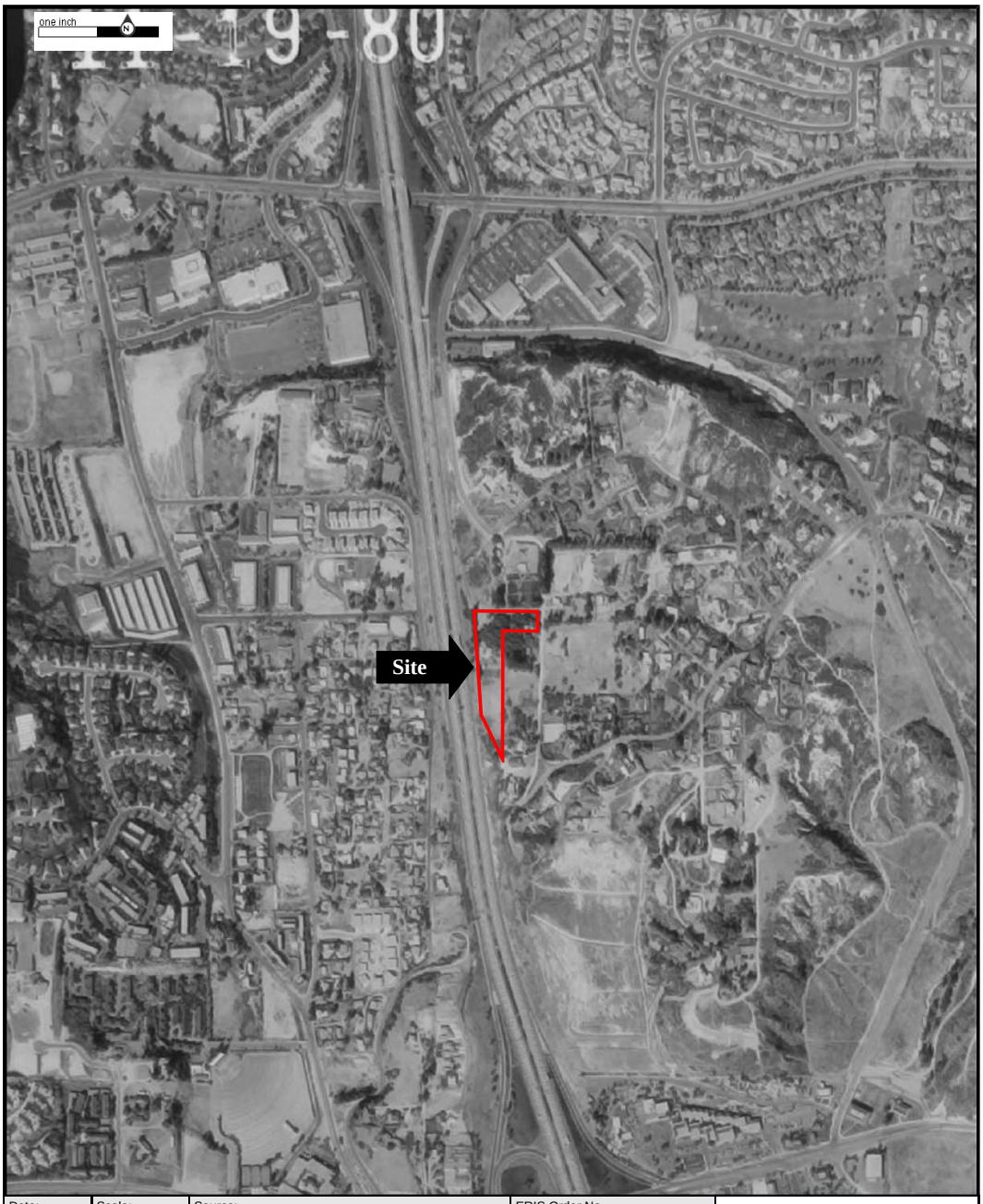
ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 1967*	**DOMINION DUE DILIGENCE GROUP**

Date:	Scale:	Source:	ERIS Order No.
1972	1"=700'	USGS	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			BEST COPY AVAILABLE

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 1972*	**DOMINION DUE DILIGENCE GROUP**



Date:	Scale:	Source:	ERIS Order No.
1980	1"=700'	USGS	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			

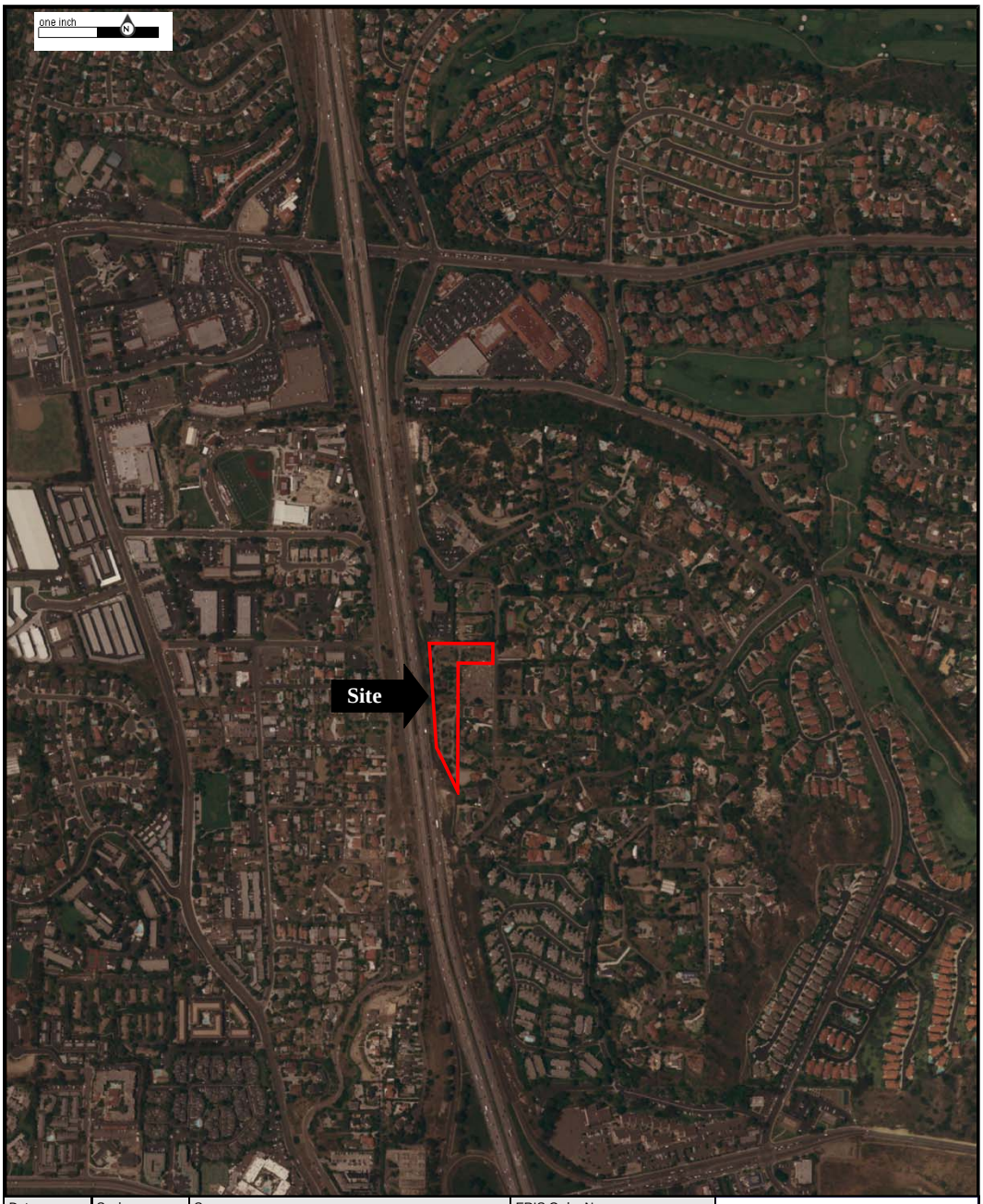
ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 1980*	**DOMINION DUE DILIGENCE GROUP**

Date:	Scale:	Source:	ERIS Order No.
1994	1"=700'	USGS	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

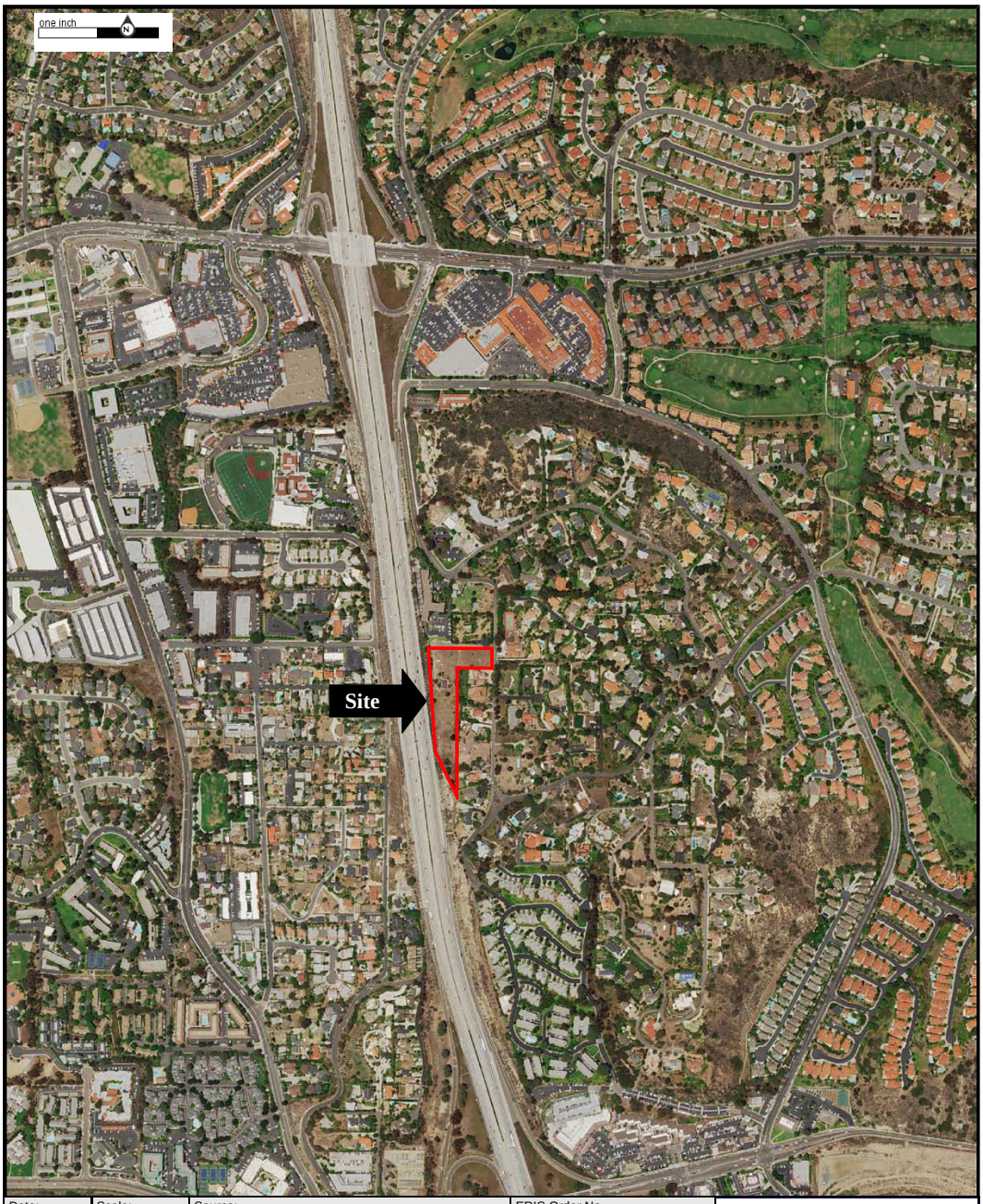
Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 1994*	**DOMINION DUE DILIGENCE GROUP**



Date:	Scale:	Source:	ERIS Order No.
2005	1"=700'	NAIP	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 2005*	**DOMINION DUE DILIGENCE GROUP**



Date:	Scale:	Source:	ERIS Order No.
2014	1"=700'	NAIP	20150417095
Site Location:			Comment:
959 GENEVIEVE STREET SOLANA BEACH,CA			

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Appendix D Aerial Photograph	↑ N	Proposed Solana Beach Senior 959 Genevieve Street Solana Beach, California *Date: 2014*	**DOMINION DUE DILIGENCE GROUP**

Appendix E

Regulatory Records Documentation

ENVIRONMENTAL RISK INFORMATION SERVICE

DATABASE REPORT

Project Property:	*Proposed Solana Beach Senior* *959 Genevieve Street* *Solana Beach CA*
P.O. Number:	*2015-0536 T3*
Report Type:	*Database Report + FIMs*
Order #:	*20150417095*
Requested by:	*Dominion Due Diligence Group (D3G)*
Date:	*April 20, 2015*

Ecolog ERIS Ltd.
Environmental Risk Information Service Ltd. (ERIS)
A division of Glacier Media Inc.
P: 1.866.517.5204
E: info@erisinfo.com

www.erisinfo.com

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Executive Summary

Property Information:

Project Property:	*Proposed Solana Beach Senior* *959 Genevieve Street Solana Beach CA*
P.O. Number:	*2015-0536 T3*

Coordinates:

Latitude:	*32.988541*
Longitude:	*-117.254679*
UTM Northing:	*3,650,045.38*
UTM Easting:	*476,205.84*
UTM Zone:	*UTM Zone 11S*

Elevation: *135 FT*

Order Information:

Order No.:	*20150417095*
Date Requested:	*21/04/2015*
Requested by:	*Dominion Due Diligence Group (D3G)*
Report Type:	*Database Report + FIMs*

Ancillary Products:

Aerial Photographs	*4-5 Historical Aerials*
Fire Insurance Maps	*US Fire Insurance Maps*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1.00	0	0	0	0	0	0
PROPOSED NPL	Y	1.00	0	0	0	0	0	0
DELISTED NPL	Y	0.50	0	0	0	0	-	0
CERCLIS	Y	0.50	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.50	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1.00	0	0	0	0	0	0
RCRA TSD	Y	0.50	0	0	0	0	-	0
RCRA GEN	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	0	-	-	0
FED ENG	Y	0.50	0	0	0	0	-	0
FED INST	Y	0.50	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.50	0	0	0	0	-	0
State								
RESPONSE	Y	1.00	0	0	0	0	0	0
ENVIROSTOR	Y	1.00	0	0	0	0	1	1
SWF/LF	Y	1.00	0	0	0	0	0	0
HWP	Y	1.00	0	0	0	0	0	0
LDS	Y	0.50	0	0	0	0	-	0
LUST	Y	0.50	0	0	0	0	-	0
UST	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	0	0	-	-	0
LUR	Y	0.50	0	0	0	0	-	0
DEED	Y	0.50	0	0	0	0	-	0
HLUR	Y	0.50	0	0	0	0	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
VCP	Y	1.00	0	0	0	0	0	0
CLEANUP SITES	Y	0.50	0	0	0	2	-	2
Tribal								
INDIAN LUST	Y	0.50	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
County								
ALAMEDA LOP	Y	0.50	0	0	0	0	-	0
ALAMEDA UST	Y	0.25	0	0	0	-	-	0
AMADOR CUPA	Y	0.25	0	0	0	-	-	0
BUTTE CUPA	Y	0.25	0	0	0	-	-	0
CALAVERAS CUPA	Y	0.25	0	0	0	-	-	0
CALAVERAS LF	Y	0.50	0	0	0	0	-	0
CALAVERAS LUST	Y	0.50	0	0	0	0	-	0
COLUSA CUPA	Y	0.25	0	0	0	-	-	0
CONTRACO CUPA	Y	0.25	0	0	0	-	-	0
DELNORTE CUPA	Y	0.25	0	0	0	-	-	0
ELDORADO CUPA	Y	0.25	0	0	0	-	-	0
FRESNO CUPA	Y	0.25	0	0	0	-	-	0
HUMBOLDT CUPA	Y	0.25	0	0	0	-	-	0
IMPERIAL CUPA	Y	0.25	0	0	0	-	-	0
INYO CUPA	Y	0.25	0	0	0	-	-	0
KERN CUPA	Y	0.25	0	0	0	-	-	0
KERN UST	Y	0.25	0	0	0	-	-	0
KINGS CUPA	Y	0.25	0	0	0	-	-	0
LAKE CUPA	Y	0.25	0	0	0	-	-	0
ELSEGUNDO UST	Y	0.25	0	0	0	-	-	0
TORRANCE UST	Y	0.25	0	0	0	-	-	0
LA HMS	Y	0.25	0	0	0	-	-	0
LA LONGB UST	Y	0.25	0	0	0	-	-	0
LA SWF	Y	1.00	0	0	0	0	0	0
MADERA CUPA	Y	0.25	0	0	0	-	-	0
MARIN CUPA	Y	0.25	0	0	0	-	-	0
MERCED CUPA	Y	0.25	0	0	0	-	-	0
MONO CUPA	Y	0.25	0	0	0	-	-	0
MONTEREY CUPA	Y	0.25	0	0	0	-	-	0
NAPA UST	Y	0.25	0	0	0	-	-	0
NEVADA CUPA	Y	0.25	0	0	0	-	-	0
ORANGE AST	Y	0.25	0	0	0	-	-	0
ORANGE UST	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
PLACER CUPA	Y	0.25	0	0	0	-	-	0
RIVERSIDE LOP	Y	0.50	0	0	0	0	-	0
RIVERSIDE UST	Y	0.25	0	0	0	-	-	0
SACRAMENTO HAZ	Y	0.50	0	0	0	0	-	0
SACRAMENTO TOX	Y	0.50	0	0	0	0	-	0
SANBERN CUPA	Y	0.25	0	0	0	-	-	0
SANDIEGO HAZ	Y	0.50	0	0	7	36	-	43
SANDIEGO SAM	Y	0.50	0	0	0	1	-	1
SANDIEGO SWF	Y	1.00	0	0	0	0	0	0
SANFRAN AST	Y	0.25	0	0	0	-	-	0
SANFRAN CUPA	Y	0.25	0	0	0	-	-	0
SANFRAN LOP	Y	0.50	0	0	0	0	-	0
SANFRAN UST	Y	0.25	0	0	0	-	-	0
SANJOAQUIN AST	Y	0.25	0	0	0	-	-	0
SANJOAQUIN UST	Y	0.25	0	0	0	-	-	0
SANJOAQUIN HW	Y	0.50	0	0	0	0	-	0
SANMATEO CUPA	Y	0.25	0	0	0	-	-	0
SANMATEO LOP	Y	0.50	0	0	0	0	-	0
SANTACLARA CUPA	Y	0.25	0	0	0	-	-	0
SANTACLARA LO	Y	0.50	0	0	0	0	-	0
SANTACRUZ CUPA	Y	0.25	0	0	0	-	-	0
SANLUISOB CUPA	Y	0.25	0	0	0	-	-	0
SHASTA CUPA	Y	0.25	0	0	0	-	-	0
SOLANO CUPA	Y	0.25	0	0	0	-	-	0
SOLANO LOP	Y	0.50	0	0	0	0	-	0
SOLANO UST	Y	0.25	0	0	0	-	-	0
SONOMA CUPA	Y	0.25	0	0	0	-	-	0
SONOMA LOP	Y	0.50	0	0	0	0	-	0
SONOMA PETAL	Y	0.25	0	0	0	-	-	0
SUTTER CUPA	Y	0.25	0	0	0	-	-	0
TUOLUMNE CUPA	Y	0.25	0	0	0	-	-	0
VENTURA CUPA	Y	0.25	0	0	0	-	-	0
OXNARD CUPA	Y	0.25	0	0	0	-	-	0
VENTURA INUST	Y	0.25	0	0	0	-	-	0
VENTURA HLUFT	Y	0.50	0	0	0	0	-	0
YOLO UST	Y	0.25	0	0	0	-	-	0
YUBA CUPA	Y	0.25	0	0	0	-	-	0

Additional Environmental Records

Federal

FINDS/FRS	Y	PO	0	-	-	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.12mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
TRIS	Y	PO	0	-	-	-	-	0
HMIRS	Y	0.12	0	0	-	-	-	0
NCDL	Y	PO	0	-	-	-	-	0
ODI	Y	0.50	0	0	0	0	-	0
IODI	Y	0.50	0	0	0	0	-	0
State								
INSP COMP ENF	Y	1.00	0	0	0	0	0	0
CDL	Y	0.12	0	0	-	-	-	0
SCH	Y	1.00	0	0	0	0	0	0
CHMIRS	Y	PO	0	-	-	-	-	0
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
LA SML	Y	0.50	0	0	0	0	-	0
RIVERSIDE HZH	Y	0.12	0	0	-	-	-	0
RIVERSIDE HWG	Y	0.12	0	0	-	-	-	0
SANJOAQUIN HM	Y	0.12	0	0	-	-	-	0
	Total:		0	0	7	39	1	47

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist mi	Elev diff ft	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist mi	Elev Diff ft	Page Number
1	SANDIEGO HAZ	DANIEL MORGAN'S AUTOMOTIVE	637 VALLEY AV C, SOLANA BEACH, 92075-2428 CA	W/0.20	-94	22
2	SANDIEGO HAZ	COOL AS NEW, INC.	742 GENEVIEVE ST #Q, SOLANA BEACH, 92075- CA	WNW/0.21	-80	22
3	SANDIEGO HAZ	AT&T WIRELESS SERVICES	200 MARINE VIEW AV #D, SOLANA BEACH, 92014- CA	N/0.20	44	22
4	SANDIEGO HAZ	VERIZON WIRELESS - SOLANA BEACH	838 ACADEMY DR, SOLANA BEACH, 92075- CA	NW/0.22	-18	22
5	SANDIEGO HAZ	MERTSOC TOOL & ENERG CO INC	722 GENEVIEVE ST R, SOLANA BEACH, 92075-2061 CA	WNW/0.26	-88	22
6	SANDIEGO HAZ	AT&T Mobility - LOMAS SANTA FE (14182)	200 MARINE VIEW AVE CA	N/0.24	49	23
6	SANDIEGO HAZ	VERIZON WIRELESS - SOLANA BEACH RELO	200 MARINE VIEW AVE CA	N/0.24	49	23
6	SANDIEGO HAZ	CRICKET WIRELESS	200 MARINE VIEW AVE CA	N/0.24	49	23
7	SANDIEGO HAZ	BARROWS WEIGHT LOSS CENTERS	140 MARINE VIEW #202, SOLANA BEACH, 92075-2122 CA	N/0.26	38	23
7	SANDIEGO HAZ	BARROWS MEDICAL GROUP	140 MARINE VIEW AV #202, SOLANA BEACH, 92075-2122 CA	N/0.26	38	23
8	SANDIEGO HAZ	SHEPPARD SPINE & SPORTS CLINIC	634 STEVENS AVE, SOLANA BEACH CA 92075 CA	W/0.29	-84	24

Map Key	DB	Company/Site Name	Address	Dir/Dist mi	Elev Diff ft	Page Number
9	SANDIEGO HAZ	THE INSTITUTE OF AESTHETIC MEDICINE	616 STEVENS AVE, SOLANA BEACH CA 92075 CA	W/0.30	-90	24
9	SANDIEGO HAZ	RAZSADIN CHIROPRACTIC	616 STEVENS AV #D, SOLANA BEACH, 92075- CA	W/0.30	-90	24
9	SANDIEGO HAZ	ACTIVE FAMILY & SPORTS CHIROPRACTIC	616 STEVENS AVE, SOLANA BEACH CA 92075 CA	W/0.30	-90	24
10	SANDIEGO HAZ	ROBERT A RANDOLPH DDS	781 ACADEMY DR, SOLANA BEACH CA 92075 CA	WNW/0.30	-53	24
10	SANDIEGO HAZ	GEORGE A RANDOLPH DDS	781 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	WNW/0.30	-53	25
11	SANDIEGO HAZ	PAUL SLOWIK DPM	779 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	WNW/0.30	-53	25
12	SANDIEGO HAZ	CHARLES E. GRAHAM MD	765 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	WNW/0.31	-57	25
13	CLEANUP SITES	KAYPRO INC	533 STEVENS AV SOLANA BEACH CA 920752043	WNW/0.38	-74	25
13	SANDIEGO HAZ	KAYPRO INC	533 STEVENS AV, SOLANA BEACH, 92075-2043 CA	WNW/0.38	-74	26
14	SANDIEGO HAZ	EAST WEST HEALTH SERVICES	718 S NARDO AVE, SOLANA BEACH CA 92075 CA	WSW/0.40	-33	26
15	SANDIEGO HAZ	SOLANA BEACH DENTAL GROUP	665 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	NNW/0.40	-54	26
15	SANDIEGO HAZ	DAVID C. JAMES D.D.S.	665 SAN RODOLFO DR #117, SOLANA BEACH, 92075- CA	NNW/0.40	-54	26

Map Key	DB	Company/Site Name	Address	Dir/Dist mi	Elev Diff ft	Page Number
15	SANDIEGO HAZ	SOLANA BEACH DENTAL GROUP	665 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	NNW/0.40	-54	27
16	SANDIEGO HAZ	FRAZEE PAINT AND WALLCOVERING #115	667 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	NW/0.41	-53	27
17	SANDIEGO HAZ	THE LOMAS SANTA FE COMPANIES	685 SAN RODOLFO DR, SOLANA BEACH, 92075-2001 CA	NW/0.43	-50	27
18	SANDIEGO HAZ	VONS #2327	931 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	N/0.44	6	27
19	CLEANUP SITES	LOMAS SANTA FE CLEANERS	917 LOMAS SANTA FE DR SOLANA BEACH CA 920751502	NNE/0.43	27	27
19	SANDIEGO SAM	LOMAS SANTA FE CLEANERS	917 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	NNE/0.43	27	29
20	SANDIEGO HAZ	RAYMOND C MUELLER DDS	943 LOMAS SANTA FE DR #A, SOLANA BEACH, 92075-1502 CA	NNE/0.43	32	29
21	SANDIEGO HAZ	MOTO PHOTO	953 LOMAS SANTA FE DR, SOLANA BEACH, 92075- CA	NNE/0.43	35	29
22	SANDIEGO HAZ	THE FAMILY DENTIST	957 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	NNE/0.43	36	29
22	SANDIEGO HAZ	RAYMOND C. MUELLER, DDS	957 LOMAS SANTA FE DR, SOLANA BEACH, 92075- CA	NNE/0.43	36	29
23	SANDIEGO HAZ	RANCHO SANTA FE VETERINARY HOSPITAL	971 LOMAS SANTA FE, SUITE A, SOLANA BEACH CA 92075 CA	NNE/0.44	40	30
24	SANDIEGO HAZ	TOTAL PHOTO	168 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW/0.44	-36	30

Map Key	DB	Company/Site Name	Address	Dir/Dist mi	Elev Diff ft	Page Number
25	SANDIEGO HAZ	NEW LIFE CHIROPRACTIC CLINIC	983 LOMAS SANTA FE DR #G, SOLANA BEACH, 92075- CA	NNE/0.44	45	30
25	SANDIEGO HAZ	SOLANA BEACH DENTAL X-RAY	983 LOMAS SANTA FE DR #D, SOLANA BEACH, 92075- CA	NNE/0.44	45	30
25	SANDIEGO HAZ	ABOUT YOU DAY SPA AND SALON	983 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	NNE/0.44	45	30
26	SANDIEGO HAZ	LOMAS SANTA FE CHIROPRACTIC	991 LOMAS SANTA FE DR #A, SOLANA BEACH, 92075- CA	NNE/0.44	49	30
27	SANDIEGO HAZ	PREMIERE CLEANERS	154 SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW/0.46	-31	31
27	SANDIEGO HAZ	PREMIERE CLEANERS	154 SOLANA HILLS DR, SOLANA BEACH, 92075-2003 CA	NNW/0.46	-31	31
28	SANDIEGO HAZ	JOHN MAROON DDS, INC	130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW/0.48	-20	31
28	SANDIEGO HAZ	AARON K KUBICEK, DMD	130 S SOLANA HILLS DR, SOLANA BEACH, 92075-2003 CA	NNW/0.48	-20	31
28	SANDIEGO HAZ	ABLANTIS DENTAL	130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW/0.48	-20	31
28	SANDIEGO HAZ	JOHN MAROON DDS, INC	130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW/0.48	-20	32
29	SANDIEGO HAZ	TOTAL PHOTO	118 S SOLANA HILLS DR, SOLANA BEACH, 92075- CA	NNW/0.49	-15	32
30	ENVIROSTOR	SOLANA BEACH PLAZA	124 LOMAS SANTA FE DR. SOLANA BEACH CA	WNW/0.88	-51	32

Map Key	DB	Company/Site Name	Address	Dir/Dist mi	Elev Diff ft	Page Number

Executive Summary: Summary by Data Source

Standard

County

SANDIEGO HAZ - San Diego County Hazardous Materials Management Division Database

A search of the SANDIEGO HAZ database, dated Sep 8, 2014 has found that there are 43 SANDIEGO HAZ site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key
AT&T WIRELESS SERVICES	200 MARINE VIEW AV #D, SOLANA BEACH, 92014- CA	N	0.20	3
AT&T Mobility - LOMAS SANTA FE (14182)	200 MARINE VIEW AVE CA	N	0.24	6
VERIZON WIRELESS - SOLANA BEACH RELO	200 MARINE VIEW AVE CA	N	0.24	6
CRICKET WIRELESS	200 MARINE VIEW AVE CA	N	0.24	6
BARROWS WEIGHT LOSS CENTERS	140 MARINE VIEW #202, SOLANA BEACH, 92075-2122 CA	N	0.26	7
BARROWS MEDICAL GROUP	140 MARINE VIEW AV #202, SOLANA BEACH, 92075-2122 CA	N	0.26	7
VONS #2327	931 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	N	0.44	18
RAYMOND C MUELLER DDS	943 LOMAS SANTA FE DR #A, SOLANA BEACH, 92075-1502 CA	NNE	0.43	20
MOTO PHOTO	953 LOMAS SANTA FE DR, SOLANA BEACH, 92075- CA	NNE	0.43	21

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key
THE FAMILY DENTIST	957 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	NNE	0.43	22
RAYMOND C. MUELLER, DDS	957 LOMAS SANTA FE DR, SOLANA BEACH, 92075- CA	NNE	0.43	22
RANCHO SANTA FE VETERINARY HOSPITAL	971 LOMAS SANTA FE, SUITE A, SOLANA BEACH CA 92075 CA	NNE	0.44	23
NEW LIFE CHIROPRACTIC CLINIC	983 LOMAS SANTA FE DR #G, SOLANA BEACH, 92075- CA	NNE	0.44	25
SOLANA BEACH DENTAL X-RAY	983 LOMAS SANTA FE DR #D, SOLANA BEACH, 92075- CA	NNE	0.44	25
ABOUT YOU DAY SPA AND SALON	983 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	NNE	0.44	25
LOMAS SANTA FE CHIROPRACTIC	991 LOMAS SANTA FE DR #A, SOLANA BEACH, 92075- CA	NNE	0.44	26

Lower Elevation	Address	Direction	Distance mi	Map Key
DANIEL MORGAN'S AUTOMOTIVE	637 VALLEY AV C, SOLANA BEACH, 92075-2428 CA	W	0.20	1
COOL AS NEW, INC.	742 GENEVIEVE ST #Q, SOLANA BEACH, 92075- CA	WNW	0.21	2
VERIZON WIRELESS - SOLANA BEACH	838 ACADEMY DR, SOLANA BEACH, 92075- CA	NW	0.22	4
MERTSOC TOOL & ENERG CO INC	722 GENEVIEVE ST R, SOLANA BEACH, 92075-2061 CA	WNW	0.26	5
SHEPPARD SPINE & SPORTS CLINIC	634 STEVENS AVE, SOLANA BEACH CA 92075 CA	W	0.29	8

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key
THE INSTITUTE OF AESTHETIC MEDICINE	616 STEVENS AVE, SOLANA BEACH CA 92075 CA	W	0.30	9
RAZSADIN CHIROPRACTIC	616 STEVENS AV #D, SOLANA BEACH, 92075- CA	W	0.30	9
ACTIVE FAMILY & SPORTS CHIROPRACTIC	616 STEVENS AVE, SOLANA BEACH CA 92075 CA	W	0.30	9
ROBERT A RANDOLPH DDS	781 ACADEMY DR, SOLANA BEACH CA 92075 CA	WNW	0.30	10
GEORGE A RANDOLPH DDS	781 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	WNW	0.30	10
PAUL SLOWIK DPM	779 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	WNW	0.30	11
CHARLES E. GRAHAM MD	765 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	WNW	0.31	12
KAYPRO INC	533 STEVENS AV, SOLANA BEACH, 92075-2043 CA	WNW	0.38	13
EAST WEST HEALTH SERVICES	718 S NARDO AVE, SOLANA BEACH CA 92075 CA	WSW	0.40	14
SOLANA BEACH DENTAL GROUP	665 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	NNW	0.40	15
DAVID C. JAMES D.D.S.	665 SAN RODOLFO DR #117, SOLANA BEACH, 92075- CA	NNW	0.40	15
SOLANA BEACH DENTAL GROUP	665 SAN RODOLFO DR, SOLANA BEACH CA 92075	NNW	0.40	15

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key
	CA			
FRAZEE PAINT AND WALLCOVERING #115	667 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	NW	0.41	16
THE LOMAS SANTA FE COMPANIES	685 SAN RODOLFO DR, SOLANA BEACH, 92075-2001 CA	NW	0.43	17
TOTAL PHOTO	168 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW	0.44	24
PREMIERE CLEANERS	154 SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW	0.46	27
PREMIERE CLEANERS	154 SOLANA HILLS DR, SOLANA BEACH, 92075-2003 CA	NNW	0.46	27
JOHN MAROON DDS, INC	130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW	0.48	28
AARON K KUBICEK, DMD	130 S SOLANA HILLS DR, SOLANA BEACH, 92075-2003 CA	NNW	0.48	28
ABLANTIS DENTAL	130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW	0.48	28
JOHN MAROON DDS, INC	130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	NNW	0.48	28
TOTAL PHOTO	118 S SOLANA HILLS DR, SOLANA BEACH, 92075- CA	NNW	0.49	29

SANDIEGO SAM - San Diego County Site Assessment and Mitigation Investigation Sites

A search of the SANDIEGO SAM database, dated Jul 14, 2014 has found that there are 1 SANDIEGO SAM

site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key
LOMAS SANTA FE CLEANERS	917 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	NNE	0.43	19

Lower Elevation	Address	Direction	Distance mi	Map Key

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Aug 14, 2014 has found that there are 1 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key

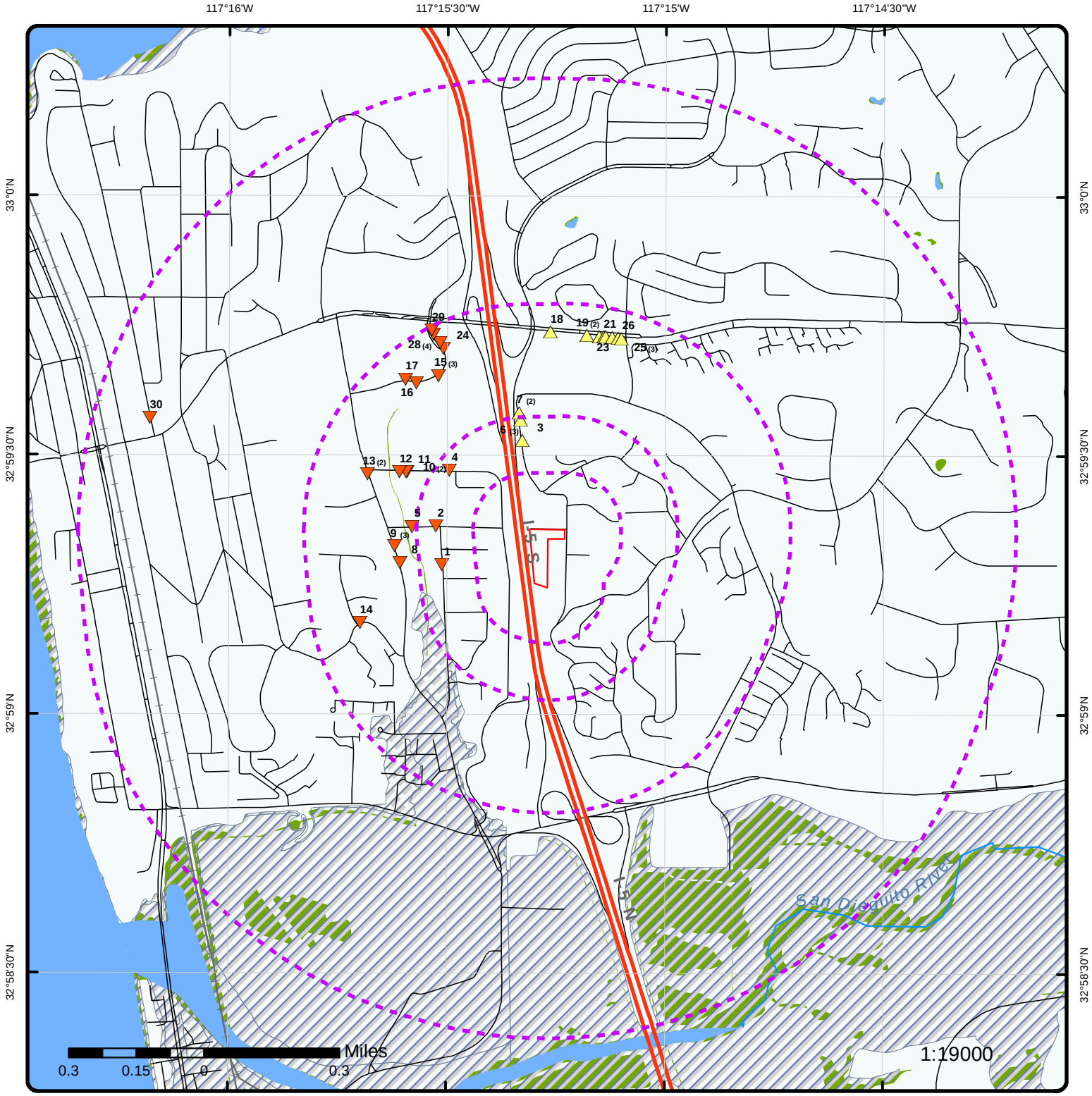
Lower Elevation	Address	Direction	Distance mi	Map Key
SOLANA BEACH PLAZA	124 LOMAS SANTA FE DR. SOLANA BEACH CA	WNW	0.88	30

CLEANUP SITES - GeoTracker Cleanup Sites Data

A search of the CLEANUP SITES database, dated Sep 17, 2014 has found that there are 2 CLEANUP SITES site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance mi	Map Key
LOMAS SANTA FE CLEANERS	917 LOMAS SANTA FE DR SOLANA BEACH CA 920751502	NNE	0.43	19

Lower Elevation	Address	Direction	Distance mi	Map Key
KAYPRO INC	533 STEVENS AV SOLANA BEACH CA 920752043	WNW	0.38	13



Map : 1 Mile Radius

Order No: 20150417095

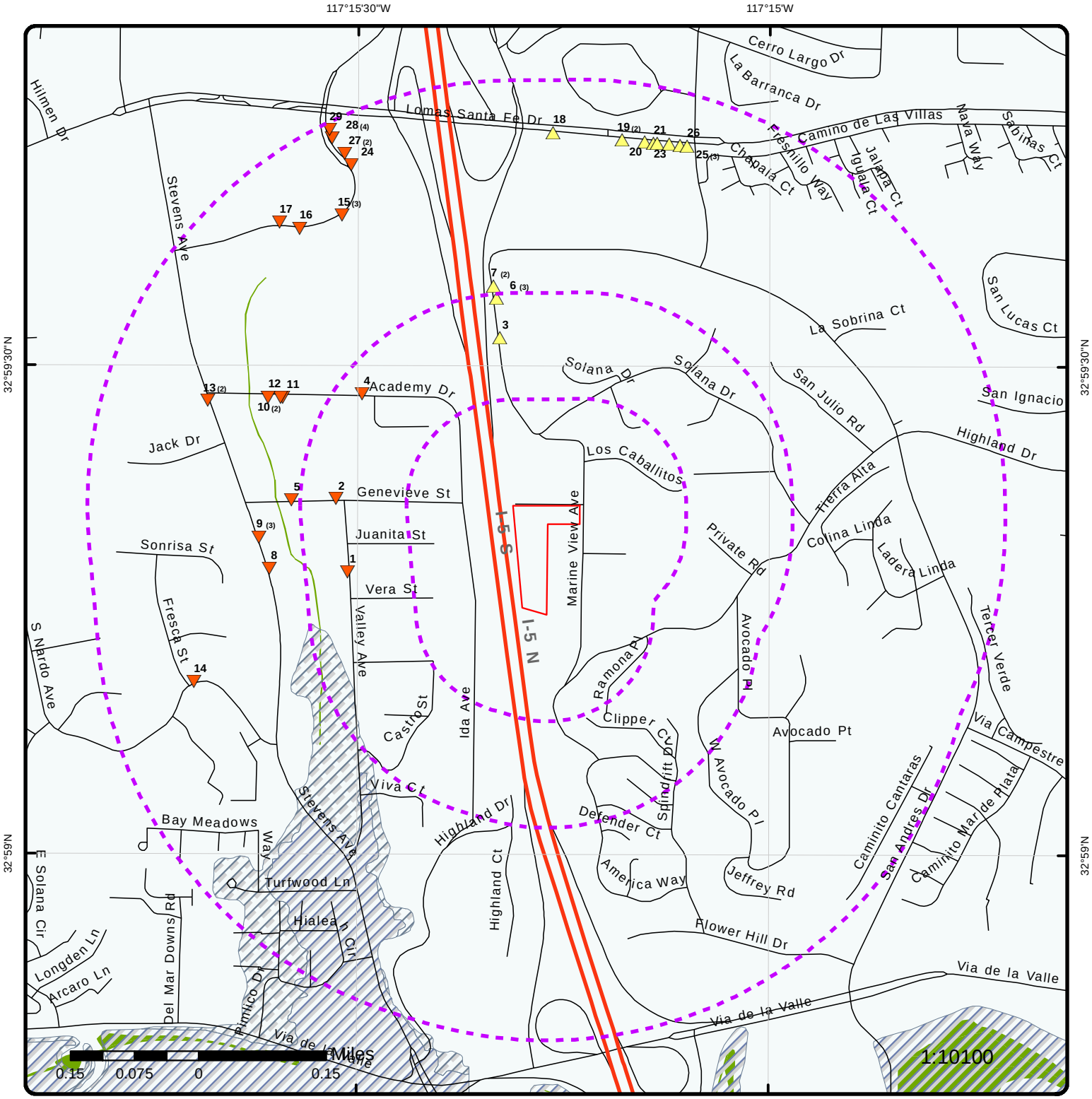
Address: 959 Genevieve Street, Solana Beach, CA

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICE

Project Property	Major Highways	County Boundary	Indian Reserve Land
Buffer Outline	Major Highways Ramps	State Boundary	Historic Fill
Eris Sites with Higher Elevation	Major Roads	500 Year Flood Zone	State Brownfield Sites
Eris Sites with Same Elevation	Major Roads Ramps	100 Year Flood Zone	State Brownfield Areas
Eris Sites with Lower Elevation	Secondary Roads	National Priority List Sites	State Superfund Areas:Dept. of Defense
Eris Sites with Unknown Elevation	Secondary Roads Ramps	National Wetland	State Superfund Areas:NPL
Rails	Local Roads and Ramps	FWS Special Designation Areas	WQARF Areas

Source: © 2012 ESRI

© Ecolog ERIS Ltd



Map : 0.5 Mile Radius

Order No: 20150417095

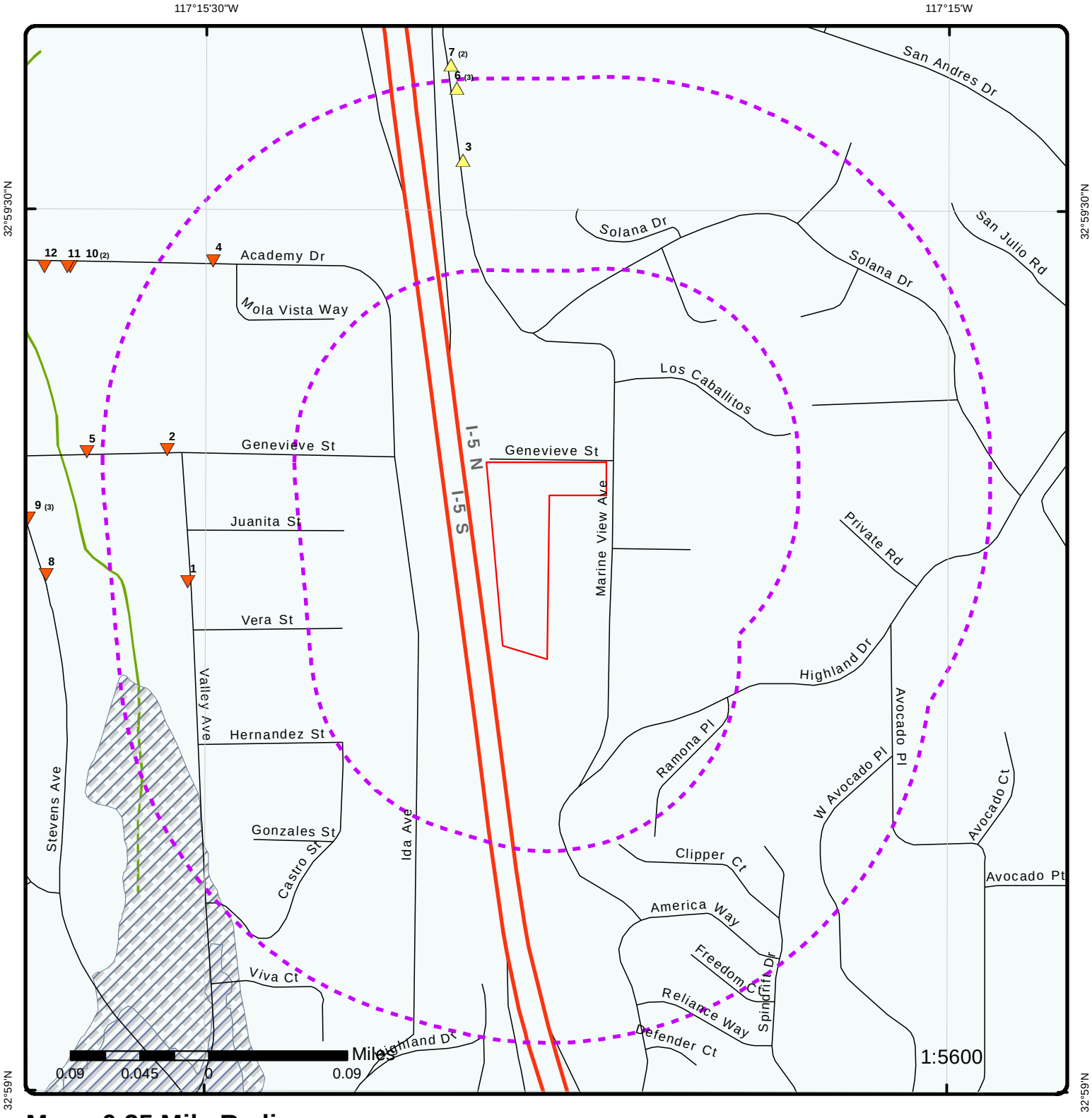
Address: 959 Genevieve Street, Solana Beach, CA

ENVIRONMENTAL RISK INFORMATION SERVICE

Project Property	Major Highways	County Boundary	Indian Reserve Land
Buffer Outline	Major Highways Ramps	State Boundary	Historic Fill
Eris Sites with Higher Elevation	Major Roads	500 Year Flood Zone	State Brownfield Sites
Eris Sites with Same Elevation	Major Roads Ramps	100 Year Flood Zone	State Brownfield Areas
Eris Sites with Lower Elevation	Secondary Roads	National Priority List Sites	State Superfund Areas:Dept. of Defense
Eris Sites with Unknown Elevation	Secondary Roads Ramps	National Wetland	State Superfund Areas:NPL
Rails	Local Roads and Ramps	FWS Special Designation Areas	WQARF Areas

Source: © 2012 ESRI

© Ecolog ERIS Ltd



Map : 0.25 Mile Radius

Order No: 20150417095

Address: 959 Genevieve Street, Solana Beach, CA

Project Property	Major Highways	County Boundary	Indian Reserve Land
Buffer Outline	Major Highways Ramps	State Boundary	Historic Fill
Eris Sites with Higher Elevation	Major Roads	500 Year Flood Zone	State Brownfield Sites
Eris Sites with Same Elevation	Major Roads Ramps	100 Year Flood Zone	State Brownfield Areas
Eris Sites with Lower Elevation	Secondary Roads	National Priority List Sites	State Superfund Areas:Dept. of Defense
Eris Sites with Unknown Elevation	Secondary Roads Ramps	National Wetland	State Superfund Areas:NPL
Rails	Local Roads and Ramps	FWS Special Designation Areas	WQARF Areas

Source: © 2012 ESRI

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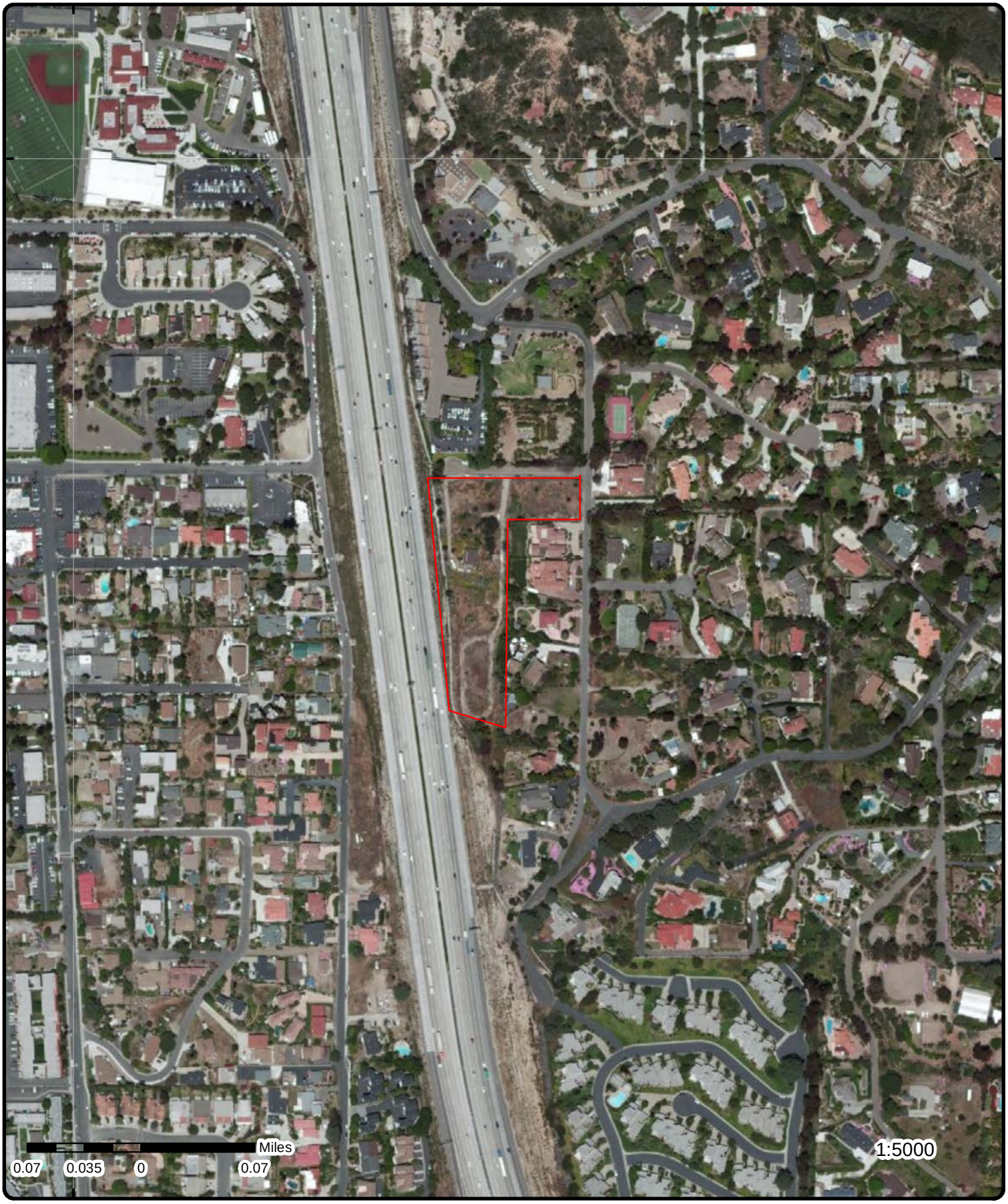
117°15'30"W

32°59'30"N



32°59'30"N

Aerial

Order No: 20150417095

Address: 959 Genevieve Street, Solana Beach, CA

Source: ESRI World Imagery, Updated October 2014

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Detail Report

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
1	1 of 1	W/0.20	40.25	DANIEL MORGAN'S AUTOMOTIVE 637 VALLEY AV C, SOLANA BEACH, 92075-2428 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-127340
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

2	1 of 1	WNW/0.21	54.59	COOL AS NEW, INC. 742 GENEVIEVE ST #Q, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-136115
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

3	1 of 1	N/0.20	178.22	AT&T WIRELESS SERVICES 200 MARINE VIEW AV #D, SOLANA BEACH, 92014- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-136971
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

4	1 of 1	NW/0.22	116.61	VERIZON WIRELESS - SOLANA BEACH 838 ACADEMY DR, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-134467
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

5	1 of 1	WNW/0.26	46.60	MERTSOC TOOL & ENERG CO INC 722 GENEVIEVE ST R, SOLANA BEACH, 92075-2061 CA	SANDIEGO HAZ

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
Record ID:		DEH2002-HUPFP-109452			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		05/04/2002			
6	1 of 3	N/0.24	183.61	AT&T Mobility - LOMAS SANTA FE (14182) 200 MARINE VIEW AVE CA	SANDIEGO HAZ
Record ID:		DEH2005-HUPFP-204962			
Status:		Permit Renewed			
Record Type:		Unified Program Facility Permit			
Date:		2/28/2005			
6	2 of 3	N/0.24	183.61	VERIZON WIRELESS - SOLANA BEACH RELO 200 MARINE VIEW AVE CA	SANDIEGO HAZ
Record ID:		DEH2009-HUPFP-210869			
Status:		Application In-Review			
Record Type:		Unified Program Facility Permit			
Date:		06/10/2009			
6	3 of 3	N/0.24	183.61	CRICKET WIRELESS 200 MARINE VIEW AVE CA	SANDIEGO HAZ
Record ID:		DEH2011-HUPFP-214716			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		05/12/2011			
7	1 of 2	N/0.26	172.98	BARROWS WEIGHT LOSS CENTERS 140 MARINE VIEW #202, SOLANA BEACH, 92075-2122 CA	SANDIEGO HAZ
Record ID:		DEH2002-HUPFP-153126			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		05/04/2002			
7	2 of 2	N/0.26	172.98	BARROWS MEDICAL GROUP 140 MARINE VIEW AV #202, SOLANA BEACH, 92075-2122 CA	SANDIEGO HAZ
Record ID:		DEH2002-HUPFP-151743			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		05/04/2002			

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
8	1 of 1	W/0.29	50.22	SHEPPARD SPINE & SPORTS CLINIC 634 STEVENS AVE, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2011-HUPFP-213634
Status: Completed
Record Type: Unified Program Facility Permit
Date: 1/24/2011

9	1 of 3	W/0.30	44.70	THE INSTITUTE OF AESTHETIC MEDICINE 616 STEVENS AVE, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2009-HUPFP-210988
Status: Completed
Record Type: Unified Program Facility Permit
Date: 07/08/2009

9	2 of 3	W/0.30	44.70	RAZSADIN CHIROPRACTIC 616 STEVENS AV #D, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-132177
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

9	3 of 3	W/0.30	44.70	ACTIVE FAMILY & SPORTS CHIROPRACTIC 616 STEVENS AVE, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2007-HUPFP-207765
Status: Completed
Record Type: Unified Program Facility Permit
Date: 2/23/2007

10	1 of 2	WNW/0.30	82.16	ROBERT A RANDOLPH DDS 781 ACADEMY DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2006-HUPFP-206754
Status: Completed
Record Type: Unified Program Facility Permit
Date: 5/18/2006

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
10	2 of 2	WNW/0.30	82.16	GEORGE A RANDOLPH DDS 781 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-150522
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

11	1 of 1	WNW/0.30	81.61	PAUL SLOWIK DPM 779 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-151573
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

12	1 of 1	WNW/0.31	77.30	CHARLES E. GRAHAM MD 765 ACADEMY DR, SOLANA BEACH, 92075-2031 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-151317
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

13	1 of 2	WNW/0.38	60.49	KAYPRO INC 533 STEVENS AV SOLANA BEACH CA 920752043	CLEANUP SITES

Global ID: T0608186917
Case Type: Cleanup Program Site
Status: Completed - Case Closed
RB Case Number:
Status Date: 26/03/1992 0:00
Loc Case Number: H09184-001
CUF Case: NO
County: San Diego
Latitude: 32.991136
Longitude: -117.263407
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker:
Local Agency:
File Location: Local Agency
Potential Cntm of Concrn:
Potential Media Affected: Soil

Status History

Status: Completed - Case Closed

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB

Status Date: 26/03/1992 0:00

Status: Open - Case Begin Date
Status Date: 11/03/1991 0:00

Activities

Action Type: Other
Date: 11/03/1991 0:00
Action: Leak Began

Action Type: Other
Date: 11/03/1991 0:00
Action: Leak Discovery

Action Type: Other
Date: 11/03/1991 0:00
Action: Leak Stopped

Action Type: Other
Date: 11/03/1991 0:00
Action: Leak Reported

13	2 of 2	WNW/0.38	60.49	KAYPRO INC 533 STEVENS AV, SOLANA BEACH, 92075-2043 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-109184
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

14	1 of 1	WSW/0.40	101.36	EAST WEST HEALTH SERVICES 718 S NARDO AVE, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2003-HUPFP-201995
Status: Permit Renewed
Record Type: Unified Program Facility Permit
Date: 6/16/2003

15	1 of 3	NNW/0.40	80.25	SOLANA BEACH DENTAL GROUP 665 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2005-HUPFP-204993
Status: Completed
Record Type: Unified Program Facility Permit
Date: 03/04/2005

15	2 of 3	NNW/0.40	80.25	DAVID C. JAMES D.D.S.	SANDIEGO HAZ

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
				665 SAN RODOLFO DR #117, SOLANA BEACH, 92075- CA	
Record ID:		DEH2002-HUPFP-153637			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		05/04/2002			
15	3 of 3	NNW/0.40	80.25	SOLANA BEACH DENTAL GROUP 665 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ
Record ID:		DEH2003-HUPFP-201282			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		1/24/2003			
16	1 of 1	NW/0.41	81.51	FRAZEE PAINT AND WALLCOVERING #115 667 SAN RODOLFO DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ
Record ID:		DEH2006-HUPFP-207332			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		10/11/2006			
17	1 of 1	NW/0.43	84.98	THE LOMAS SANTA FE COMPANIES 685 SAN RODOLFO DR, SOLANA BEACH, 92075-2001 CA	SANDIEGO HAZ
Record ID:		DEH2002-HUPFP-129220			
Status:		Completed			
Record Type:		Unified Program Facility Permit			
Date:		05/04/2002			
18	1 of 1	N/0.44	140.51	VONS #2327 931 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ
Record ID:		DEH2011-HUPFP-215298			
Status:		Permit Renewed			
Record Type:		Unified Program Facility Permit			
Date:		7/18/2011			
19	1 of 2	NNE/0.43	161.36	LOMAS SANTA FE CLEANERS 917 LOMAS SANTA FE DR SOLANA BEACH CA 920751502	CLEANUP SITES

Global ID:	T0608141035
Case Type:	Cleanup Program Site
Status:	Open - Remediation
RB Case Number:	
Status Date:	01/02/2002 0:00
Loc Case Number:	H11043-001
CUF Case:	NO
County:	San Diego
Latitude:	32.995753
Longitude:	-117.254756
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	EM
Local Agency:	SAN DIEGO COUNTY LOP
File Location:	Local Agency
Potential Cntm of Concrn:	* Chlorinated Hydrocarbons
Potential Media Affected:	Soil

Status History

Status:	Open - Case Begin Date
Status Date:	03/04/1998 0:00
Status:	Open - Remediation
Status Date:	01/02/2002 0:00

Activities

Action Type:	ENFORCEMENT
Date:	30/11/2009 0:00
Action:	Letter - Notice
Action Type:	ENFORCEMENT
Date:	02/11/2011 0:00
Action:	Letter - Notice
Action Type:	Other
Date:	03/04/1998 0:00
Action:	Leak Began
Action Type:	Other
Date:	03/04/1998 0:00
Action:	Leak Discovery
Action Type:	Other
Date:	03/04/1998 0:00
Action:	Leak Stopped
Action Type:	Other
Date:	03/04/1998 0:00
Action:	Leak Reported

Contact Information

Contact Type:	Local Agency Caseworker
Contact Name:	EWAN MOFFAT
Organization Name:	SAN DIEGO COUNTY LOP
Address:	P.O. Box 129261
City:	San Diego
Email:	ewan.moffat@sdcounty.ca.gov
Phone Number:	

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
19	2 of 2	NNE/0.43	161.36	LOMAS SANTA FE CLEANERS 917 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	SANDIEGO SAM

Status: Open
Record ID: DEH1998-LSAM-H11043-001
Record Type: SAM Investigation
Date: 4/3/1998

20	1 of 1	NNE/0.43	167.19	RAYMOND C MUELLER DDS 943 LOMAS SANTA FE DR #A, SOLANA BEACH, 92075-1502 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-151657
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

21	1 of 1	NNE/0.43	169.89	MOTO PHOTO 953 LOMAS SANTA FE DR, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-134003
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

22	1 of 2	NNE/0.43	171.03	THE FAMILY DENTIST 957 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-200974
Status: Permit Renewed
Record Type: Unified Program Facility Permit
Date: 11/06/2002

22	2 of 2	NNE/0.43	171.03	RAYMOND C. MUELLER, DDS 957 LOMAS SANTA FE DR, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-153948
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
23	1 of 1	NNE/0.44	175.16	RANCHO SANTA FE VETERINARY HOSPITAL 971 LOMAS SANTA FE, SUITE A, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2011-HUPFP-215321
Status: Pending Inspection
Record Type: Unified Program Facility Permit
Date: 7/21/2011

24	1 of 1	NNW/0.44	98.68	TOTAL PHOTO 168 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2006-HUPFP-206278
Status: Permit Renewed
Record Type: Unified Program Facility Permit
Date: 1/25/2006

25	1 of 3	NNE/0.44	179.72	NEW LIFE CHIROPRACTIC CLINIC 983 LOMAS SANTA FE DR #G, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-137830
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

25	2 of 3	NNE/0.44	179.72	SOLANA BEACH DENTAL X-RAY 983 LOMAS SANTA FE DR #D, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-132962
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

25	3 of 3	NNE/0.44	179.72	ABOUT YOU DAY SPA AND SALON 983 LOMAS SANTA FE DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2011-HUPFP-213889
Status: Completed
Record Type: Unified Program Facility Permit
Date: 2/16/2011

26	1 of 1	NNE/0.44	183.61	LOMAS SANTA FE CHIROPRACTIC 991 LOMAS SANTA FE DR #A,	SANDIEGO HAZ

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB
				SOLANA BEACH, 92075- CA	

Record ID: DEH2002-HUPFP-134002
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

27	1 of 2	NNW/0.46	103.46	PREMIERE CLEANERS 154 SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2007-HUPFP-208320
Status: Permit Renewed
Record Type: Unified Program Facility Permit
Date: 7/16/2007

27	2 of 2	NNW/0.46	103.46	PREMIERE CLEANERS 154 SOLANA HILLS DR, SOLANA BEACH, 92075-2003 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-114707
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

28	1 of 4	NNW/0.48	114.88	JOHN MAROON DDS, INC 130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2004-HUPFP-203736
Status: Completed
Record Type: Unified Program Facility Permit
Date: 07/07/2004

28	2 of 4	NNW/0.48	114.88	AARON K KUBICEK, DMD 130 S SOLANA HILLS DR, SOLANA BEACH, 92075-2003 CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-150712
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

28	3 of 4	NNW/0.48	114.88	ABLANTIS DENTAL 130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB

Record ID: DEH2005-HUPFP-205687
Status: Permit Suspended
Record Type: Unified Program Facility Permit
Date: 08/11/2005

28	4 of 4	NNW/0.48	114.88	JOHN MAROON DDS, INC 130 S SOLANA HILLS DR, SOLANA BEACH CA 92075 CA	SANDIEGO HAZ

Record ID: DEH2004-HUPFP-203737
Status: Completed
Record Type: Unified Program Facility Permit
Date: 07/07/2004

29	1 of 1	NNW/0.49	120.07	TOTAL PHOTO 118 S SOLANA HILLS DR, SOLANA BEACH, 92075- CA	SANDIEGO HAZ

Record ID: DEH2002-HUPFP-129635
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

30	1 of 1	WNW/0.88	83.97	SOLANA BEACH PLAZA 124 LOMAS SANTA FE DR. SOLANA BEACH CA	ENVIROSTOR

Estor/EPA ID: 37720034
Site Code:
Cleanup Status: REFER: 1248 LOCAL AGENCY AS OF 11/6/2001
Site Type: EVALUATION
Potential Media Affected: NONE SPECIFIED
Past Uses Caused Contam: NONE SPECIFIED
APN: NONE SPECIFIED
National Priorities List: NO
Cleab up Oversight Agenci: NONE SPECIFIED
Special Program: EPA - PASI
Funding: EPA GRANT
Acres: 0.06 ACRES
School District:
Assembly District: 78
Senate District: 39
Zip: 92075

Facility Information

Program Type: EVALUATION
Status: REFER: 1248 LOCAL AGENCY
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=37720034

Completed Activities

Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=37720034&doc_id=6014758

Map Key	Number of Records	Direction/ Distance mi	Elevation ft	Site	DB

Area Name:	
Sub Area:	
Document Type:	Site Screening
Date Completed:	6/6/2007
Comments:	EPA approved report.
Activity Type:	Completed Activities

Unplottable Summary

DB	Company Name/Site Name	Address	City	Zip
ENVIROSTOR	PACIFIC HIGHLANDS RANCH ELEMENTARY	PACIFIC HIGHLAND RANCH PARKWAYS	SOLANO BEACH CA	
SANDIEGO HAZ	PARAGON RACING, INC	722 GENEVIEVE ST S &, SOLANA BEACH, 92075-2061	CA	
SANDIEGO HAZ	MARINE REVIEW COMMITTEE	533 STEVENS AV, ENCINITAS, 92075-2043	CA	
SANDIEGO SAM	KAYPRO INC		CA	
SWF/LF	Solana Beach Burnsite	Sun Valley Rd.	Solana Beach CA	

Unplottable Report

Site: ***PACIFIC HIGHLANDS RANCH ELEMENTARY***
PACIFIC HIGHLAND RANCH PARKWAYS SOLANO BEACH CA

Database: ENVIROSTOR

Estor/EPA ID:	70000053
Site Code:	404647
Cleanup Status:	CERTIFIED AS OF 5/17/2011
Site Type:	SCHOOL
Potential Media Affected:	SOIL, SOIL VAPOR
Past Uses Caused Contam:	AGRICULTURAL - ROW CROPS, LAND DISPOSAL / FILL
APN:	305-163-01
National Priorities List:	NO
Cleab up Oversight Agenci:	DTSC - SITE CLEANUP PROGRAM - LEAD
Special Program:	
Funding:	SCHOOL DISTRICT
Acres:	11.7 ACRES
School District:	SOLANA BEACH ELEMENTARY SCHOOL DISTRICT
Assembly District:	78
Senate District:	39
Zip:	92130

Facility Information

--	--
Program Type:	SCHOOL CLEANUP
Status:	CERTIFIED
Summary Link:	http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=70000053
--	--

Completed Activities

--	--
Doc Link:	http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&enforcement_id=60265520
Area Name:	
Sub Area:	
Document Type:	Certification
Date Completed:	5/17/2011
Comments:	DTSC prepared project close out Cost Recovery Unit Memorandum.
Activity Type:	Completed Activities
--	--
Doc Link:	http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6015901
Area Name:	
Sub Area:	
Document Type:	Community Profile
Date Completed:	10/24/2010
Comments:	The RAW implementation is underway
Activity Type:	Completed Activities
--	--
Doc Link:	http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6015898
Area Name:	
Sub Area:	
Document Type:	Fact Sheets
Date Completed:	9/7/2010
Comments:	Final Fact Sheet uploaded. Comment period from September 7, 2010 to October 6, 2010.
Activity Type:	Completed Activities

-- --
Doc Link:
Area Name:
Sub Area:
Document Type: Fieldwork
Date Completed: 11/19/2007
Comments: Converse consultants conducted a one time monitoring event at the site on 11/19/2007. Readings were collected from the semi-permanent probes onsite. Per Converse, the concentrations monitored were consistent with previous monitoring wells.
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6015260
Area Name:
Sub Area:
Document Type: Supplemental Site Investigation Tech Memo
Date Completed: 4/30/2007
Comments: Import Fill Screening Evaluation Memo approved 04/30/07.
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6014573
Area Name:
Sub Area:
Document Type: Supplemental Site Investigation Technical Memorandum
Date Completed: 2/2/2007
Comments: Tech Memo SSI conditionally approved provided that the District addresses enclosed comments during the investigation.
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6008324
Area Name:
Sub Area:
Document Type: Preliminary Endangerment Assessment Workplan
Date Completed: 12/5/2005
Comments: approved pea wp. field work scheduled 12/19-12/21
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6010193
Area Name:
Sub Area:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 11/21/2006
Comments: PEA approval letter submitted 11/21/06. Further action required due to methane issue. SSI to continue.
Activity Type: Completed Activities
-- --
Doc Link:
Area Name:
Sub Area:
Document Type: Supplemental Site Investigation Workplan
Date Completed: 7/26/2006
Comments: Conditional Approval of SSI Workplan. 07/25/06
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=60259653
Area Name:
Sub Area:
Document Type: Remedial Action Completion Report
Date Completed: 3/9/2011
Comments: DTSC approved the Removal Action Completion Report with a No Further Action

determination
Activity Type: Completed Activities
-- --
Doc Link:
Area Name:
Sub Area:
Document Type: Sampling Management Plan
Date Completed: 6/29/2010
Comments: Approved Sampling Management Plan
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&enforcement_id=6010851
Area Name:
Sub Area:
Document Type: CEQA - Responsible Agency Review
Date Completed: 10/25/2010
Comments: Final version of NOE sent to OPEA for filing with OPR
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6021199
Area Name:
Sub Area:
Document Type: Supplemental Site Investigation Tech Memo
Date Completed: 1/21/2010
Comments: DTSC approved Supplemental Site Investigation sampling strategy Technical Memorandum
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6015897
Area Name:
Sub Area:
Document Type: Public Notice
Date Completed: 12/17/2010
Comments: Comment period from September 7, 2010 to October 6, 2010
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6015041
Area Name:
Sub Area:
Document Type: Final Supplemental Site Investigation Technical Memorandum
Date Completed: 3/29/2007
Comments: Final TM SSI approved 03/29/07.
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6013899
Area Name:
Sub Area:
Document Type: Supplemental Site Investigation Report
Date Completed: 12/21/2006
Comments: SSI Approval letter requesting further action due to methane in fill material throughout site.
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=60189971
Area Name:
Sub Area:
Document Type: Removal Action Workplan
Date Completed: 10/20/2010
Comments: DTSC approved the Removal Action Workplan for implementation.

Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&doc_id=6029451
Area Name:
Sub Area:
Document Type: Supplemental Site Investigation Report
Date Completed: 3/18/2010
Comments: DTSC approved the SSI report with a Further Action determination
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&enforcement_id=6010423
Area Name:
Sub Area:
Document Type: Voluntary Cleanup Agreement
Date Completed: 1/23/2007
Comments:
Activity Type: Completed Activities
-- --
Doc Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=70000053&enforcement_id=6007621
Area Name:
Sub Area:
Document Type: Environmental Oversight Agreement
Date Completed: 9/7/2005
Comments:
Activity Type: Completed Activities
-- --
Doc Link:
Area Name:
Sub Area:
Document Type: Preliminary Endangerment Assessment Workplan
Date Completed: 4/10/2006
Comments: PEA Tech Memo approved. Sampling scheduled for 04/12/06.
Activity Type: Completed Activities
-- --

Site: ***PARAGON RACING, INC***
722 GENEVIEVE ST S &, SOLANA BEACH, 92075-2061 CA

Database: SANDIEGO HAZ

Record ID: DEH2002-HUPFP-127341
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

Site: ***MARINE REVIEW COMMITTEE***
533 STEVENS AV, ENCINITAS, 92075-2043 CA

Database: SANDIEGO HAZ

Record ID: DEH2002-HUPFP-111664
Status: Completed
Record Type: Unified Program Facility Permit
Date: 05/04/2002

Site: ***KAYPRO INC***
CA

Database: SANDIEGO SAM

Status: Completed
Record ID: DEH1991-LSAM-H09184-001

Record Type:	SAM Investigation
Date:	3/11/1991

Site: ***Solana Beach Burnsite***
Sun Valley Rd. Solana Beach CA

Database: SWF/LF

SWIS NO:	37-CR-0076	***Operator Phone:***	
Permit Status:		***Operator Addr 1:***	
Permit Date:		***Operator Addr 2:***	
Landuse Name:	Residential,Open Space - Irrigated	***Operator City:***	
County:	San Diego	***Operator State:***	
Latitude:	33.00319	***Operator Zip:***	
Longitude:	-117.24678	***Operator:***	
GIS Source:	Map		

Owner	
--	--
Owner:	Price D G
Phone:	
Address1:	
Address2:	1633 26th St
City:	Santa Monica
State:	
Zip:	
Owner	
--	--
Owner:	San Elijo Hills Unit II POA
Phone:	6199947142
Address1:	Mr. Bob Hargis
Address2:	P. O. Box 224
City:	Solana Beach
State:	CA
Zip:	92075
Owner	
--	--
Owner:	San Diego Gas and Electric (SDGE)
Phone:	8585473330
Address1:	Ms. Barbara Montgomery
Address2:	6875 Consolidated Way
City:	San Diego
State:	CA
Zip:	92101
Owner	
--	--
Owner:	Loma Santa Fe Executive Golf Course
Phone:	
Address1:	
Address2:	2941 -28th Street Suite 3000
City:	Santa Monica
State:	CA
Zip:	90405
Unit	
--	--
Category:	Disposal
Unit No.:	01
Activity:	Solid Waste Disposal Site
Regulatory Status:	Pre-regulations

Operational Status:	Closed
Inspection Frequency:	Quarterly
Accepted Waste:	
Program Type:	
Closure Date:	12/31/1966
Closure Type:	Estimated
Thorough Put:	0
Thorough Put Units:	
Capacity:	0
Acreage:	0.00
Disposal Acreage:	0.00
Remaining Capacity:	0
WDRNO:	

Appendix: Database Descriptions

Ecolog Environmental Risk Information Services Ltd (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

National Priorities List (Superfund)-NPL: EPA's (United States Environmental Protection Agency) list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action.

Government Publication Date: Oct 25, 2013

National Priority List - Proposed: PROPOSED NPL

Includes sites proposed (by the EPA, the state, or concerned citizens) for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

Government Publication Date: Oct 25, 2013

Delisted NPL: DELISTED NPL

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Government Publication Date: Oct 25, 2013

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Mar 2013

RCRA CORRACTS- Corrective Action: RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Mar 10, 2015

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Mar 10, 2015

RCRA Generator List: RCRA GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10).

Government Publication Date: Mar 10, 2015

RCRA Non-Generators: RCRA NON GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Mar 10, 2015

Federal Engineering Controls-ECs: FED ENG

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jul 30, 2014

Federal Institutional Controls- ICs: FED INST

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Jul 30, 2014

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the The National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the The National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports controlled by the The National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jul 9, 2014

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jul 16, 2014

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Government Publication Date: Jul 30, 2014

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes School Cleanup sites, Corrective Action sites, Tiered Permit sites, and Evaluation/Investigation sites.

Government Publication Date: Aug 14, 2014

Solid Waste Information System (SWIS): SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: May 21, 2014

EnviroStor Hazardous Waste Facilities: HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Aug 26, 2014

Land Disposal Sites: LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Jul 22, 2014

Leaking Underground Fuel Tank Reports: LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Government Publication Date: Jul 4, 2014

Permitted Underground Storage Tank (UST) in GeoTracker: UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Jul 4, 2014

Aboveground Storage Tanks: AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Aug 6, 2014

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Jul 23, 2014

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Government Publication Date: Jul 9, 2014

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Aug 11, 2014

GeoTracker Cleanup Sites Data: CLEANUP SITES

A list of cleanup sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Sep 17, 2014

Tribal

Leaking Underground Storage Tanks (LUSTs) on Indian Lands: INDIAN LUST
LUSTs on Tribal/Indian Lands in Region 9, which includes California.
Government Publication Date: Aug 28, 2014

Underground Storage Tanks (USTs) on Indian Lands: INDIAN UST
USTs on Tribal/Indian Lands in Region 9, which includes California.
Government Publication Date: Aug 28, 2014

County

Alameda County LOP Sites List: ALAMEDA LOP
A list of Leaking Underground Storage Tanks (LUST) facilities in Alameda County. This list is made available by Alameda County Department of Environmental Health (ACEH). ACEH implements a Local Oversight Program (LOP) under contract with the State Water Resources Control Board to provide regulatory oversight of the investigation and cleanup of soil and groundwater contamination from leaking petroleum USTs.
Government Publication Date: Aug 12, 2014

Alameda County UST List: ALAMEDA UST
A list of all registered Underground Storage Tanks (USTs) in the County of Alameda. The list is made available by Alameda County Department of Environmental Health.
Government Publication Date: Aug 12, 2014

Amador County CUPA List: AMADOR CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Amador County. This list is made available by Amador County Environmental Health Department which is the CUPA for Amador County and administers a consolidated hazardous materials program.
Government Publication Date: Jul 24, 2014

Butte County CUPA List: BUTTE CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Butte County. This list is made available by Butte County Public Health Department, Environmental Health Division which was certified by the California Environmental Protection Agency as the CUPA for Butte County.
Government Publication Date: Aug 29, 2014

Calaveras County CUPA Facilities List: CALAVERAS CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Calaveras. This list is made available by Calaveras County Environmental Health Department which has been certified by CalEPA to implement the Unified program as a CUPA.
Government Publication Date: Jul 22, 2014

Calaveras County Landfills List: CALAVERAS LF
A list of landfills in Calaveras County. This list is made available by Calaveras County Environmental Health Department which has been designated as the CUPA for the County.
Government Publication Date: Jul 21, 2014

Calaveras County UST Remediation Sites: CALAVERAS LUST

A list of Leaking Underground Storage Tank (LUST) facilities in Calaveras County. This list is made available by Calaveras County Environmental Health Department. Local Implementing Agency (LIA) provides oversight of site remediation with soil contamination while CalEPA - California Regional Water Quality Control Board - Central Valley Region oversees remediation of sites with groundwater contamination.

Government Publication Date: Aug 13, 2014

Colusa County CUPA List: COLUSA CUPA

A list of facilities associated with Business Plan and Hazardous Generator programs in the County of Colusa. This list is made available by Colusa County Environmental Health which was certified by the California Environmental Protection Agency as Certified Unified Program Agency for Colusa County.

Government Publication Date: Sep 12, 2014

Contra Costa County CUPA List: CONTRACO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Contra Costa. This list is made available by Contra Costa County which has been certified by CalEPA to implement the Unified program as a CUPA.

Government Publication Date: Jul 28, 2014

Del Norte County CUPA Facility List: DELNORTE CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Del Norte County. This list is made available by Del Norte County Environmental Health Division which is the designated CUPA for the county.

Government Publication Date: Jul 15, 2014

El Dorado County CUPA Facility List: ELDORADO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in El Dorado County. This list is made available by El Dorado County Department of Environmental Management - Hazardous Waste Division which is approved by CalEPA as CUPA for El Dorado County.

Government Publication Date: Aug 20, 2014

Fresno County CUPA/Solid Waste Programs Resource List: FRESNO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Fresno County. This list is made available by Fresno County Department of Environmental Health Division which is approved by Cal-EPA as CUPA for the County.

Government Publication Date: Jul 14, 2014

Humboldt County CUPA Facility List: HUMBOLDT CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Humboldt County. This list is made available by Humboldt County Division of Environmental Health which is approved by the State Secretary for Environmental Protection as CUPA for the County.

Government Publication Date: Jul 16, 2014

Imperial County CUPA Facility List: IMPERIAL CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Imperial County. This list is made available by the California Department of Toxic Substances Control (DTSC) which is appointed as CUPA for Imperial County.

Government Publication Date: Jul 14, 2014

Inyo County CUPA Facility List: INYO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Inyo. This list is made available by the Inyo County Environmental Health Services Department which has been certified by CalEPA to implement the Unified program as a CUPA.

Government Publication Date: Jul 16, 2014

Kern County CUPA List: KERN CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Kern. This list is made available by Kern County Environmental Health Services Department which has been certified by CalEPA to implement the Unified program as a CUPA for Kern County.

Government Publication Date: Jul 21, 2014

Kern County UST List: KERN UST

A list of all registered Underground Storage Tanks in the County of Kern. The list is made available by Kern County Environmental Health Division.

Government Publication Date: Jul 7, 2014

Kings County CUPA Facility List: KINGS CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Kings County. This list is made available by Kings County Department of Public Health which is appointed as CUPA for the county.

Government Publication Date: Aug 20, 2014

Lake County CUPA Facility List: LAKE CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Lake County. This list is made available by Lake County Division of Environmental Health which is CUPA for the entire county.

Government Publication Date: Jul 15, 2014

Los Angeles County - El Segundo City Underground Storage Tanks List: ELSEGUNDO UST

A list of all registered Underground Storage Tanks (USTs) in the City of El Segundo of Los Angeles County. The list is made available by El Segundo City Fire Department.

Government Publication Date: Jul 24, 2014

Los Angeles County - Torrance City Underground Storage Tanks: TORRANCE UST

A list of registered Underground Storage Tank (UST) sites in Torrance City of Los Angeles County. This list is made available by Torrance City Office of Clerk.

Government Publication Date: Jan 13, 2014

Los Angeles County HMS List: LA HMS

This list contains sites that have or had permits for Industrial Waste, Underground Storage Tanks, or Strom water in the County of Los Angeles. This list is made available by the County of Los Angeles Department of Public Works.

Government Publication Date: Aug 28, 2014

Los Angeles County Long Beach UST List: LA LONGB UST

A list of all registered active Underground Storage Tanks in the City of Long Beach of Los Angeles County. The list is made available by Long Beach Certified Unified Program Agency.

Government Publication Date: Sep 8, 2014

Los Angeles County Solid Waste Sites: LA SWF

List of permitted solid waste facilities, closed landfills, historical dumpsites and other solid waste sites in Los Angeles County, made available by the Department of Public Works in Los Angeles County.

Government Publication Date: Jul 14, 2014

Madera County CUPA Facility List: MADERA CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Madera County. This list is made available by Madera County Environmental Health Department which is CUPA for the entire county.

Government Publication Date: Aug 1, 2014

Marin County CUPA List: MARIN CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Marin. This list is made available by Marin County which has been certified by CalEPA to implement the Unified program as a CUPA.

Government Publication Date: Jul 21, 2014

Merced County CUPA Facilities List: MERCED CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Merced. This list is made available by Merced County which has been certified by CalEPA to implement the Unified program as a CUPA for the entire county.

Government Publication Date: Jul 14, 2014

Mono County CUPA Facility List: MONO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Mono County. This list is made available by Mono County Environmental Health Department which has been certified by CalEPA to implement the Unified program as a CUPA for the entire county.

Government Publication Date: Jul 15, 2014

Monterey County CUPA Facility List: MONTEREY CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Monterey County. This list is made available by Monterey County Hazardous Materials Management Services which is designated as the CUPA in Monterey County.

Government Publication Date: Aug 25, 2014

Napa County UST List: NAPA UST

A list of all registered active Underground Storage Tanks (USTs) in the County of Napa. This list is made available by Napa County Environmental Health Division.

Government Publication Date: Jul 16, 2014

Nevada County CUPA Facility List: NEVADA CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Nevada County. This list is made available by Nevada County Department of Environmental Health which is the CUPA for all cities and unincorporated areas within Nevada County.

Government Publication Date: Jul 17, 2014

Orange County Aboveground Petroleum Storage Tank Listing: ORANGE AST

A list of Aboveground Petroleum Storage Tank (APST) facilities inspected by Orange County Certified Unified Program Agency (CUPA) Under the Aboveground Petroleum Storage Act (APSA). This list is made available by the Environmental Health Division of Orange County Health Care Agency.

Government Publication Date: Jul 1, 2014

Orange County Underground Storage Tanks Listing: ORANGE UST

A list of registered Underground Storage Tank (UST) sites in Orange County. This list is made available by Orange County Health Care Agency (OCHCA), Environmental Health Division which oversees the underground storage tank inspection program in most of the cities of Orange County, with the exception of Anaheim, Fullerton, and Orange.

Government Publication Date: Jul 1, 2014

Placer County CUPA Facilities List: PLACER CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Placer County. This list is made available by Placer County Environmental Health which is designated CUPA for all areas of the county except for the City of Roseville.

Government Publication Date: Aug 7, 2014

Riverside County Local Oversight Program List: RIVERSIDE LOP

A list of Leaking Underground Storage Tank (LUST) facilities in Riverside County. This list is made available by Riverside County Department of Environmental Health. Environmental Cleanup Program provides oversight of assessments and cleanups at properties that have been, or may have been, contaminated with hazardous substances from LUSTs or releases associated with other commercial/industrial use.

Government Publication Date: Jul 8, 2014

Riverside County Underground Storage Tanks List: RIVERSIDE UST

A list of registered Underground Storage Tank (UST) sites in Riverside County. This list is made available by Riverside County Department of Environmental Health. The Hazardous Materials Management Branch (HMMB) regulates and oversees the inspections of constructions, repairs, upgrades, system operation and removal of UST systems.

Government Publication Date: Jul 8, 2014

Sacramento County Master Hazardous Materials Facility List: SACRAMENTO HAZ

A list of Hazardous Materials Facilities in Sacramento County. This list is made available by Sacramento County Environmental Management Department which has been designated as the Certified Unified Program Agency (CUPA) for the County.

Government Publication Date: Jun 2, 2014

Sacramento Toxic Site Cleanup List: SACRAMENTO TOX

Sacramento County Environmental Management Department (EMD)'s Toxic Site Cleanup List includes sites where unauthorized releases of potentially hazardous materials have occurred. The EMD's Site Assessment & Mitigation Program, also referred to as Toxic Site Cleanup Program, provides mandated regulatory oversight of the assessment and remediation of properties on which there has been a release of hazardous materials to soil and/or groundwater.

Government Publication Date: Feb 6, 2014

San Bernardino County CUPA List: SANBERN CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in San Bernardino County. This list is made available by San Bernardino County Fire Department which is the CUPA for all areas of the County except the city of Victorville.

Government Publication Date: Jul 28, 2014

San Diego County Hazardous Materials Management Division Database: SANDIEGO HAZ

A list of facilities with Unified Program Facility Permit in San Diego County. This list has been made available by County of San Diego Environmental Health.

Government Publication Date: Sep 8, 2014

San Diego County Site Assessment and Mitigation Investigation Sites: SANDIEGO SAM

List of sites which have undergone a Site Assessment and Mitigation investigation. This list is made available by the County of San Diego Department of Environmental Health.

Government Publication Date: Jul 14, 2014

San Diego County Solid Waste Facility List: SANDIEGO SWF

A list of open and closed Solid Waste Facilities in the County of San Diego. The list is made available by San Diego County Department of Environmental Health.

Government Publication Date: Jul 17, 2104

San Francisco County Aboveground Storage Tanks List: SANFRAN AST

A list of Aboveground Storage Tanks (ASTs) facilities inspected by San Francisco Department of Public Health's (SFDPH) Hazardous Materials and Waste Program. Aboveground storage containers or tanks include oil-filled equipment (such as hydraulic systems/reservoirs and heat transfer systems) which have a petroleum storage capacity of 55 gallons or greater.

Government Publication Date: Aug 12, 2014

San Francisco County CUPA Facilities List: SANFRAN CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in San Francisco County. This list is made available by San Francisco County Hazardous Materials and Waste Program which is the CUPA for all areas of the County.

Government Publication Date: Aug 8, 2014

San Francisco County LOP Sites: SANFRAN LOP

A list of Underground Storage Tank (UST) release sites in the County of San Francisco. This list is made available by San Francisco County Department of Public Health Environmental Health Protection Branch.

Government Publication Date: Aug 12, 2014

San Francisco County UST List: SANFRAN UST

A list of all registered Underground Storage Tanks (USTs) in the County of San Francisco. This ist is made available by San Francisco County Environmental Health Division. The Hazardous Materials and Waste Program provides regulatory oversight for the construction, operation, repair and removal of USTs in San Francisco.

Government Publication Date: Aug 12, 2014

San Joaquin County Aboveground Tank List: SANJOAQUIN AST

A list of Aboveground Storage Tanks (ASTs) inspected by San Joaquin County Environmental Health Department (SJCEHD) under Aboveground Petroleum Storage Act (APSA).

Government Publication Date: Aug 14, 2014

San Joaquin County UST List: SANJOAQUIN UST

A list of all registered Underground Storage Tanks in the County of San Joaquin. The list is made available by San Joaquin County Environmental Health Division.

Government Publication Date: Aug 14, 2014

San Joaquin Hazardous Waste Facilities: SANJOAQUIN HW

A list of Hazardous Waste Facilities in San Joaquin County. This list is made available by San Joaquin County Environmental Health Department which has been designated as the CUPA for the County.

Government Publication Date: Aug 14, 2014

San Mateo County CUPA Facilities List: SANMATEO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in San Mateo County. This list is made available by San Mateo County Environmental Health Department which has been designated as the CUPA for the County.

Government Publication Date: Jul 15, 2014

San Mateo County LOP List: SANMATEO LOP

A list of Leaking Underground Storage Tank (LUST) facilities in San Mateo County. This list is made available by San Mateo County Environmental Health Services Division.

Government Publication Date: Jul 15, 2014

Santa Clara County CUPA Facilities List: SANTACLARA CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Santa Clara County. This list is made available by Santa Clara County Department of Environmental health (DEH). DEH's Hazardous Materials Compliance Division (HMCD) is CUPA for the county with jurisdiction within the Cities of Los Altos Hills, Monte Sereno, and Saratoga; and in all unincorporated areas of Santa Clara County, including Moffett Field, San Martin, and Stanford.

Government Publication Date: Aug 1, 2014

Santa Clara Local Oversight Program Listing: SANTACLARA LO

A list of Leaking Underground Storage Tanks (LUST) facilities in Santa Clara County Provided by Santa Clara Department of Environmental Health (DEH). Since July 1, 2004 the DEH has served as the oversight agency for investigations and clean-up of petroleum releases from underground storage tanks through implementation of the Local Oversight Program (LOP) contract with the State Water Resources Control Board.

Government Publication Date: Jul 22, 2014

Santa Cruz County CUPA Facility List: SANTACRUZ CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Santa Cruz County. This list is made available by Santa Cruz County Environmental Health Services (EHS) Division which has been designated as the CUPA for the County.

Government Publication Date: Jul 24, 2014

San Luis Obispo County CUPA Facilities List: SANLUISOB CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in San Luis Obispo County. This list is made available by County of San Luis Obispo Environmental Health Services Division which has been designated as the CUPA for the County.

Government Publication Date: Aug 7, 2014

Shasta County CUPA Facility List: SHASTA CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Shasta County. This list is made available by Shasta County Environmental Health Division which has been designated as the CUPA for Shasta County by CalEPA.

Government Publication Date: Jul 30, 2014

Solano County CUPA List: SOLANO CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Solano. This list is made available by Solano County Environmental Health Division which has been certified by CalEPA to implement the Unified program as a CUPA.

Government Publication Date: Aug 5, 2014

Solano County Local Oversight Program List: SOLANO LOP

A list of Leaking Underground Storage Tank (LUST) facilities in the Solano County. This list is made available by the Solano County Environmental Health Services. Since April 1993, the State Water Resources Control Board has contracted with the County of Solano to provide regulatory oversight for the cleanup of LUSTs under Local Oversight Program (LOP) contract.

Government Publication Date: Jun 19, 2014

Solano County Underground Storage Tanks List: SOLANO UST

A list of all registered Underground Storage Tanks (USTs) in the County of Solano. The list is made available by Solano County Environmental Health Services Division. There are an estimated 190 facilities throughout the county that are subject to the regulatory requirements of the UST program.

Government Publication Date: Aug 5, 2014

Sonoma County CUPA Facilities List: SONOMA CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Sonoma County. This list is made available by Sonoma County Hazardous Materials (HazMat) Division which has been designated as the CUPA for the County.

Government Publication Date: Jun 25, 2014

Sonoma County LOP Site List: SONOMA LOP

A list of Leaking Underground Storage Tank (LUST) facilities in Sonoma County. This list is made available by Sonoma County Department of Health Services. Sonoma County Local Oversight Program (LOP) oversees the investigation and cleanup of fuel releases from underground storage tanks in all areas of the County with the exception of the Cities of Santa Rosa and Healdsburg.

Government Publication Date: Jul 1, 2014

Sonoma County Petaluma City CUPA Facilities: SONOMA PETAL

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Petaluma City. This list is made available by Petaluma Fire Prevention Bureau which is the CUPA for Petaluma City in Sonoma County.

Government Publication Date: May 15, 2014

Sutter County CUPA List: SUTTER CUPA

A list of facilities associated with Aboveground Petroleum Storage Tank (APSA) regulation, Hazardous Materials Business Plan (HMBP) Program and Underground Storage Tank (UST) regulation of Certified Unified Program Agency (CUPA) programs in Sutter County. This list is made available by Sutter County Enviornmental Health Division which has been designated as the CUPA for the County.

Government Publication Date: Jun 23, 2014

Tuolumne County CUPA Facility List: TUOLUMNE CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Tuolumne County. This list is made available by Tuolumne County Environmental Health which is the CUPA for all areas of the County.
Government Publication Date: Aug 13, 2014

Ventura County CUPA Facilities List: VENTURA CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Ventura County. This list is made available by Ventura County Environmental health Division.
Government Publication Date: Jul 28, 2014

Ventura County City of Oxnard CUPA Facility List: OXNARD CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Oxnard City. This list is made available by Oxnard City Fire Department which is the CUPA for Oxnard City in Ventura County.
Government Publication Date: Jul 24, 2014

Ventura County Inactive Underground Storage Tanks Sites: VENTURA INUST
A list of inactive Underground Storage Tank (UST) sites in Ventura County. This list is made available by Ventura County Environmental Health Division.
Government Publication Date: Jul 28, 2014

Ventura County Leaking Underground Fuel Tanks - Historic: VENTURA HLUFT
A historical list of cleanup oversight of the Leaking Underground Fuel Tank (LUFT) program provided by Ventura County Environmental Health Division. All new and existing underground fuel storage tank releases are now referred to the Los Angeles Regional Water Quality Control Board.
Government Publication Date: May 31, 2008

Yolo County UST List: YOLO UST
A list of registered Underground Storage Tank (UST) sites in Yolo County. This list is made available by Yolo County Environmental Health Department which regulates the construction, operation, repair and removal of USTs throughout Yolo County.
Government Publication Date: Jul 24, 2014

Yuba County CUPA Facilities List: YUBA CUPA
A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in Yuba County. This list is made available by Yuba County Environmental Health Division which is the CUPA for all areas of the County.
Government Publication Date: Aug 5, 2014

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index: FINDS/FRS
The US Environmental Protection Agency (EPA)'s Facility Registry System (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel.
Government Publication Date: Aug 16, 2014

Toxics Release Inventory (TRI) Program: TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: 1987-2013

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Feb 24, 2015

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Feb 4, 2014

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA of the Act) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified ongressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

State

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked in the Department of Toxic Substance Control (DTSC) EnviroStor.

Government Publication Date: Jul 14, 2014

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Feb 27, 2015

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Aug 8, 2014

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Aug 18, 2014

Tribal

No Tribal additional environmental record sources available for this State.

County

Los Angeles County Site Mitigation List: LA SML

A Site Mitigation List in the County of Los Angeles. The list is made available by Los Angeles County Fire Department. Site mitigation is handled by the Site Mitigation Unit (SMU) which facilitates completion of site clean-up projects of contaminated sites in an expeditious manner in all cities of the Los Angeles County except El Segundo, Glendale, Long Beach, Santa Fe Springs, and Vernon.

Government Publication Date: Jan 7, 2014

Riverside County Disclosure Facility List: RIVERSIDE HZH

A list of facilities disclosed to Riverside County Department of Environmental Health (DEH). This list is made available by Riverside County DEH which has been designated as the CUPA for the County. A business is required to establish and submit a Business Plan if the facility handles hazardous material equal to or greater than 55 gallons, 500 pounds or 200 cubic feet at any time during the year.

Government Publication Date: Jul 8, 2014

Riverside County Hazardous Waste Generator Sites List: RIVERSIDE HWG

A list of Hazardous Waste Generator Sites in the County of Riverside. This list is made available by Riverside County Department of Environmental Health which has been designated as the CUPA for the County.

Government Publication Date: Jul 8, 2014

San Joaquin County Hazardous Materials Facilities List: SANJOAQUIN HM

A list of Hazardous Materials Facilities in San Joaquin County. This list is made available by San Joaquin County Environmental Health Department which has been designated as the CUPA for the County.

Government Publication Date: Aug 14, 2014

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries". All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and were included as reference.

A Smaller Intrusion

by Anthony J. Buonicore, P.E.

Posted: May 1, 2009

Reducing the area of concern in the ASTM vapor intrusion standard could make the screening process much more efficient.

A former industrial site located near a residential area which caused a vapor intrusion issue.

Based upon feedback from the marketplace since the ASTM E 2600-08 vapor intrusion standard was published in March 2008,[1] the standard is currently undergoing revision. There are two proposed technical revisions that will enable the area of concern (AOC) for vapor intrusion screening in real estate transactions to be significantly reduced and save considerable time.

The first technical revision is directed at differentiating in Tier 1 between what steps to take when groundwater flow direction cannot be estimated (in the Phase I investigation) and when it can. The second revision would eliminate the secondary area of concern (AOC) in Tier 1 as field experience to-date has shown it not to be necessary. Moreover, it can waste valuable time and money investigating sites a considerable distance from the target property (TP) that are highly unlikely to result in a vapor intrusion problem.

Starting with the basics

An old waste dump area located near a residential area that created a vapor intrusion issue.

These proposed revisions in the standard have the potential to significantly reduce the AOC, and thus the time and cost of investigations. The existing standard identifies a primary and secondary AOC in the Tier 1 search distance test, distinguished by whether the record search is done within the area completely around a target property (primary AOC), or whether the up-gradient direction beyond the primary AOC (secondary AOC) is included as well.

Also, the search distances are different for sites contaminated with volatile and semi-volatile chemicals of concern (COC) – such as many chlorinated solvents – versus sites contaminated with petroleum hydrocarbon COC – such as BTEX. The search distances are shorter for petroleum hydrocarbons because they are known to undergo significant bio-degradation in the presence of oxygen. The primary AOC search distances were determined based upon conservative consideration of both plume length and

the distance vapors might travel along a path of least resistance from a source (such as contaminated groundwater) through the vadose zone directly to a structure on a TP. The secondary AOC was included to keep the search distances in the E 2600-08 standard consistent with those in the E 1527-05 Phase I standard.[2]

There is sound technical basis for establishing the primary AOC. Plume length research was conducted for both volatile chemical plumes (such as chlorinated solvent plumes from dry cleaners) and volatile petroleum hydrocarbon plumes from leaking underground storage tank sites. In order to be conservative, the plume length selected to determine the primary AOC was based upon the 90th percentile distance.[3-6] For (non-petroleum hydrocarbon) COC plumes – such as may be associated with dry cleaners – 90 percent of the time the plume length was less than approximately 1,590 feet. For volatile petroleum hydrocarbon COC plumes, 90 percent of the time it was less than approximately 390 feet.

Using experience from vapor intrusion sites in the U.S. on the distances vapors may migrate through the vadose zone, and adding them to the 90th percentile plume length, the primary AOC search radii were determined, i.e., 1/3 mile (1,760 feet) for non-petroleum hydrocarbon COC, and 1/10 mile (520 feet) for petroleum hydrocarbon COC.

Under the proposed technical revisions, if it is not possible to estimate groundwater flow direction in the Phase I investigation, then the Tier 1 screen must consider all known or suspect COC-contaminated property surrounding the TP within the search radii of the primary AOC, as defined in the existing standard. However, if it is possible to estimate groundwater flow direction (and assuming four quadrants can be distinguished around a TP: an up-gradient, two cross-gradient, and a down-gradient), then the AOC can be further reduced. This is important because each known or suspect contaminated property within the AOC may need to be investigated further, and may even require a file review at state regulatory offices (in accordance with Tier 2 of the standard). The key consideration is where the known or suspected contaminated property is located with respect to the TP.

Contaminated sources located up-gradient of the TP

For contaminated sources – such as a drycleaner with a PERC release or a gas station with a release from a leaking underground storage tank – located up-gradient of the TP, the focus would continue to be those contaminated properties within the primary AOC distances (i.e., 1,760 feet for COC sources and 520 feet for petroleum hydrocarbon COC sources).

For contaminated sources located cross-gradient of the TP

A former gas station site.

When a contaminated property (such as a drycleaner with a PERC release or a gas station with a release from a leaking underground storage tank) is located cross gradient from the TP, the length of the plume associated with the cross-gradient source is not really relevant. However, its width is relevant. According to the E 2600-08 standard, what matters for cross-gradient sources is whether the nearest edge of the contaminated plume is within the critical distance from the nearest structure on the TP. The critical distance as defined in E 2600-08 effectively is the maximum distance a vapor can reasonably be expected to migrate in relatively permeable soil, assuming the path of least resistance is directly from the nearest edge of the contaminated media (such as groundwater) to the nearest structure on the TP. The distance of concern from the structure on the TP to the property that created the contamination (e.g., a dry cleaner), would be the critical distance plus a distance to account for the plume width at that point. While the critical distance numbers are specifically identified in E 2600-08 for petroleum hydrocarbon and non-petroleum hydrocarbon contamination, nothing prescriptive is mentioned in the standard about how to deal with plume width if such information is not available. A suggested approach is described later.

For contaminant sources located down-gradient of the TP

For contaminated sites – such as a dry cleaner with a PERC release or a gas station with a release from a leaking underground storage tank – located down-gradient of the TP, plume length and width matter little and the focus would only be on the critical distance. Hence, the AOC can be reduced from 1,760 feet to 100 feet for COC contamination, except for petroleum hydrocarbon COC contamination where the AOC can be reduced from 520 feet to either 100 feet (when LNAPL or free product is presumed to be present), or 30 feet (when only dissolved petroleum hydrocarbons are presumed to be present in the groundwater).

Suggested methodology for dealing with plume width at cross-gradient sources

A former drycleaners. Such sites present high potential risk in any vapor intrusion

For contaminated properties located cross-gradient from the TP, plume width must be taken into consideration in selecting an appropriate distance of concern ($D_{concern}$). The question is, what would be a reasonably conservative estimate for plume width (a default value) to use in the screening process assuming no actual plume information is available?

One approach is to base the default plume width on 1/3rd of the plume length[7,8] and, to be conservative, use the 90th percentile plume length (PL90) discussed previously, regardless of where the contaminated property is located in the cross-gradient quadrant. Plume width, for example, would matter little if the contaminated property is located close to the boundary separating the cross-gradient quadrant from the down-gradient quadrant. On the other hand, it would be of much greater concern if the contaminated property is located close to the boundary separating the cross-gradient quadrant from the up-gradient quadrant.

screen.

Assuming symmetry of the plume on both sides of the source, one-half of the plume width (PW) would be added to the critical distance ($D_{critical}$) to establish the distance of concern. This can be expressed as:

$$D_{concern} = D_{critical} + 1/2\ PW = D_{critical} + 1/2\ (PL90/3)$$

Comparing this approach for default plume width with actual plume data[3-6] suggests the approach is reasonable. For non-petroleum hydrocarbon COC contamination sources (such as a dry cleaner) located cross-gradient from the TP:

$$D_{critical} = 100\ ft.$$
$$PL90 = 1{,}590\ ft.$$

Therefore:

$$D_{concern} = 100 + 1/2\ (1{,}590/3) = 365\ feet$$

The default E 2600-08 search radius in the cross-gradient quadrant can then be reduced from 1,760 feet to 365 feet for non-petroleum hydrocarbon COC.

For LNAPL or free product petroleum hydrocarbon sources (such as a gas station with a release from a leaking underground storage tank) located cross gradient from the TP:

$$D_{critical} = 100\ ft.$$
$$PL90 = 390\ ft.$$

Therefore:

$$D_{concern} = 100 + 1/2\ (390/3) = 165\ ft.$$

Using this approach, the default E 2600-08 search radius in the cross-gradient quadrant could then be reduced from 520 feet to 165 feet for LNAPL petroleum hydrocarbon sources. If only dissolved petroleum hydrocarbons (in groundwater) are presumed to be present:

$$D_{critical} = 30\ ft.$$

$$PL90 = 390\ ft.$$

Therefore:

$$D_{concern} = 30 + 1/2\ (390/3) = 95\ ft.$$

Using this approach, the default E 2600-08 search radius in the cross-gradient quadrant could then be reduced from 520 feet to 95 feet for dissolved petroleum hydrocarbon sources.

Status of E 2600-08

Several changes are planned for the ASTM E 2600-08 standard that should improve its practicality, clarity and consistency. These changes were balloted in April 2009. After discussion of these changes and any further revisions, there will be another ballot in summer 2009. If all goes well, it is anticipated that the revised standard could be approved at the October 2009 ASTM meeting in Atlanta and published by the end of the year.

Furthermore, using reasonable assumptions, it may be possible to reduce significantly the default distances of concern, which could significantly reduce the investigation effort in many cases with minimal reduction to the protectiveness of the screening process. ***PE***

Anthony J. Buonicore, P.E.
ajb@edrnet.com
Anthony Buonicore is a consultant and chaired the ASTM task group responsible for developing the vapor intrusion assessment standard. He can be reached at (800) 238-1841, or ajb@edrnet.com.

Appendix F

Interview Documentation

USER QUESTIONNAIRE

SUBJECT PROPERTY NAME:	Solana Beach Seniors
SUBJECT PROPERTY ADDRESS:	Genevieve & Marine View - Solana Beach

QUESTION	YES	NO	UNK
1. Are you aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property?		X	
2. Are you aware of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property?		X	
3. Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?		X	
4. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?		X	
5. Are you aware of any activity use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?		X	
6. As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	X		
7. Are you aware of commonly known or reasonably ascertainable information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases?		X	
8. Do you know the past uses of the property?	X		
9. Do you know specific chemicals that are present or once were present at the property?		X	
10. Do you know of spills or other chemical releases that have taken place at the property?		X	
11. Do you know of environmental cleanups that have taken place at the property?		X	
12. As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?		X	
13. Is the property or has the property been used as a gasoline station, motor repair facility, commercial printing, dry cleaners, photo developing, landfill, industrial use, waste treatment or disposal facility?		X	
14. Are you aware of fill dirt that has been brought onto the subject property that originated from a contaminated site or that is of an unknown origin?		X	
15. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on the subject property?		X	
16. Are there monitoring wells at the subject property?		X	
17a. Does the purchase price being paid for this property reasonably reflect the fair market value of the property?			NA
17b. If there is a difference in the purchase price and fair market value of the property, is it because of known or suspected contamination?		X	
18. Has a title search been performed? If yes, please attach.	X		
19. What type of property transaction is being performed? i.e. sale, purchase, transfer, refinance?	NA		
20. If you are also the current landowner, in what year did you purchase the subject property?	Representative		

Please return to D3G: fax 804-358-3003 or mail to 4721 Cox Road, Suite 200, Glen Allen, VA 23060

John DeWald	manager	5/2/15
PRINT NAME/SIGNATURE	**TITLE**	**DATE**
DR Development, LLC		
COMPANY	**PROSPECTIVE OR CURRENT LANDOWNER?**	

Nicole Douglas

From: Anita Pupping <Apupping@encinitasca.gov>
Sent: Monday, April 20, 2015 1:22 PM
To: Nicole Douglas
Subject: RE: Request for Information

Hi Nicole,

This is a follow-up to our conversation this morning and the message I left you. We have not performed any inspections at 959 Genevieve Street, Solana Beach, Ca 92075 since it is a residence and does not have any State, County or City license.

Thank you,

Anita Pupping
Fire Marshal

apupping@encinitasca.gov
(760) 633-2821
(760) 331-7907 cell
(760) 943-2226 fax

Serving: City of Encinitas
City of Solana Beach
City of Del Mar

From: Nicole Douglas [mailto:n.douglas@d3g.com]
Sent: Monday, April 20, 2015 6:11 AM
To: Anita Pupping
Subject: RE: Request for Information

Do you know if any entity inspects the property for fire code violations?

From: Anita Pupping [mailto:Apupping@encinitasca.gov]
Sent: Thursday, April 16, 2015 9:21 PM
To: Nicole Douglas
Subject: RE: Request for Information

Hi Nicole,

My apologies if I was not clear. We do have that property within the City of Solana Beach but it is not a licensed facility.

Thank you,

Anita Pupping
Fire Marshal

apupping@encinitasca.gov
(760) 633-2821
(760) 331-7907 cell
(760) 943-2226 fax

Serving: City of Encinitas
City of Solana Beach
City of Del Mar

From: Nicole Douglas [mailto:n.douglas@d3g.com]
Sent: Thursday, April 16, 2015 10:00 AM
To: Anita Pupping
Subject: RE: Request for Information

I'm not sure but would the attached tax card and parcel map assist in locating the property? The tax card indicates that it is located in Solana Beach. Thank you.

From: Anita Pupping [mailto:Apupping@encinitasca.gov]
Sent: Wednesday, April 15, 2015 7:22 PM
To: Nicole Douglas
Cc: dsample@cosb.org
Subject: RE: Request for Information

Nicole,

I do not have a licensed facility located at 959 Genevieve Street, Solana Beach, CA 92075. Please let me know if you have any further questions.

Thank you,

Anita Pupping
Fire Marshal

apupping@encinitasca.gov
(760) 633-2821
(760) 331-7907 cell
(760) 943-2226 fax

Serving: City of Encinitas
City of Solana Beach
City of Del Mar

From: Nicole Douglas [mailto:n.douglas@d3g.com]
Sent: Wednesday, April 15, 2015 6:10 AM
To: amy uruburu
Subject: Request for Information
Importance: High

Good Morning,

I am writing in request of fire information that is needed for a re-financing loan report in regards to Solana Beach Senior, located at 959 Genevieve Street. I am requesting it on behalf of DK Development/Pacific Sound Investments. I have attached a brief form that can be filled out, signed and emailed or faxed back. Please let me know if more information is needed.

Thank you for your time,

Nicole Douglas – Research Analyst

Dominion Due Diligence Group (D3G)
4121 Cox Road, Suite 200 - Glen Allen, VA 23060
804.358.2020 (main) 804.665.2913 (direct)
www.d3g.com

Providing nationwide service to protect your investments. It's what we due.

OFFICE USE ONLY

Request # _____

County of San Diego

ELIZABETH POZZEBON
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6700 FAX (858) 505-6848
www.sdcdeh.org

AMY HARBERT
ASSISTANT DIRECTOR

PUBLIC RECORDS REQUEST FOR THE SITE ASSESSMENT AND MITIGATION (SAM) PROGRAM AND HAZARDOUS MATERIALS DIVISION (HMD)

Requestor Name: Jesse Cottrell **E-Mail:** j.cottrell@d3g.com

Phone: (303) 980-1800 **FAX:** (303) 980-1969

Company Name: Dominion Due Diligence Group

Mailing Address: 2009 Wadsworth Blvd #260, Lakewood, CO 80214

(You may attach a business card/overprint with business card if preferred)

Additional information may be accessed from the DEH website, www.sdcdeh.org. Fax or email your completed form to the Public Records Program at (858) 505-6848 or deh.publicrecords@sdcounty.ca.gov. The following information is required. Separate forms are needed for each address or parcel number.

959 Genevieve Street, Solana Beach, CA 92014 **or** 2983905100

Exact Address (Street, City and Zip Code) — Assessor's Parcel Number

Optional information (establishment permit number, business name, etc.):

Please indicate the purpose of your search by checking all that apply:

- [X] Contaminated Property Investigation(s) (SAM Cases)
- [X] SAM Closure Letter/Report
- [X] Hazardous Materials Permit & Underground Storage Tank Files (HMD/UST)
- [ ] Other:_____ (specify)

- [ ] Monitoring Well Files (select conditions that apply)
  - [ ] Government agency request
  - [ ] Consultant with related case
  - [ ] Written authorization from owner (attach letter)

OFFICE USE ONLY BELOW THIS LINE

Files reviewed by: _____ of _____ Date: ___/___/___

Files copied for: _____ of _____ Date: ___/___/___

Request cancelled by: _____ Date: ___/___/___

Photocopies _____ Cost _____ Picked up/mailed on _____ By _____

A search for DEH records checked above has been conducted and the following apply:

- [ ] SAM files for the permit number(s) listed below are available.

  # _____ # _____ # _____ # _____ # _____

- [ ] HMD/UST files for the permit number(s) listed below are available.

  # _____ # _____ # _____ # _____ # _____

- [ ] Original records were purged. Database-only records are available (at: http://sdcounty.ca.gov/deh/doing_business/hazmat_search.html) for the following permit number(s):

  # _____ # _____ # _____ # _____ # _____

- [ ] No SAM/HMD/UST records were found for the address/APN you requested.

_____ ___/___/___

Signature - DEH Representative — Date

DEH complies fully with the California Public Records Act and the Federal Freedom of Information Act. Please be advised that photocopy and/or scanned file fees may apply.

Appendix G

Special Contractual Conditions Between User and Environmental Professional

There are no special contractual conditions between the User and Environmental Professional:

D3G has no financial interest or family relationship with the officers, directors, stockholders or partners of the Borrower, the general contractor, any subcontractors, the buyer or seller of the proposed property or engage in any business that might present a conflict of interest.

D3G is employed under contract for this specific assignment and has no other side deals, agreements, or financial considerations with the Lender or others in connection with this transaction.

Appendix H

Qualifications for Environmental Professionals

JESSE R. COTTRELL

PROJECT MANAGER

EDUCATION
Middle Tennessee State University - B.S. Anthropology

CERTIFICATIONS/REGISTRATIONS/TRAINING
LPA-1 XRF Lead Paint Detection Device Operator Training/Radiation Safety Training
RMD LPA-1 Lead Paint Inspection System
ASTM Phase I and II Environmental Site Assessments for Commercial Real Estate
Screening for Potential Vapor Intrusion Problems under the ASTM E 2600 Standard – Presented by Anthony J. Buonicore, P.E., BCEE, QEP – November 2009

SUMMARY OF EXPERIENCE
Jesse Cottrell is an Environmental Project Manager for Dominion Due Diligence Group. Ms. Cottrell is directly responsible for coordinating, conducting and preparing Phase 1 Environmental Site Assessments (HUD, ASTM E 1527, and State Housing Tax Credit programs) throughout the United States. Additionally, Ms. Cottrell is responsible for performance and management of field projects, client contact and comprehensive report writing. The following sites are examples of projects in which Ms. Cottrell has participated:

HUD MAP 221 (d)(4) NC
- Proposed Chandler Place – Baton Rouge, LA
- Proposed The District at Park Center – Boise, ID
- Proposed Chandler Place – Bellevue, NE
- Proposed Winchester Court Apartments – Elko, NV
- Proposed Remington Apartments – Helena, MT

HUD MAP 221 (d)(4) SR
- Kewalo Apartments – Honolulu, HI
- Cherokee Terrace Apartments – Enid, OK
- Azusa Apartments – Azusa, CA
- Gabilan Plaza Apartments – Salinas, CA
- Superior Arboretum Apartments – Superior, AZ

HUD MAP 223(f)
- Vision 5 Apartments – Redmond, WA
- Sycamore Hills Apartments – De Soto, MO
- Fountains Garden Apartments – Fort Worth, TX
- Benning Park Apartments – Washington, DC
- Park Tower Apartments – Spokane, WA

HUD LEAN 232 NC
- Proposed South Main Senior Lifestyles – Milpitas, CA
- Proposed Legacy House of Orem – Orem, UT
- Proposed Mission Bay Memory Care Facility – San Diego, CA
- Proposed Solana Beach Senior Project – Solana Beach, CA
- Proposed Oakmont ALF – Rochester Hills, MI

HUD LEAN 232 SR
- The Gardens Assisted Living Facility – Rochester, MI
- Proposed Chapman Assisted Living Facility – Orange, CA
- Beshant Health Care – West Palm Beach, FL
- Bel Aire Health Care Center – Milwaukee, WI

JESSE R. COTTRELL

PROJECT MANAGER

HUD LEAN 232/223(f)
- Portage Trail Village – Cuyahoga Falls, OH
- The Cambridge – Quincy, WA
- Rego Park Health Care – Flushing, NY
- Arbor Ridge Assisted Living – Vancouver, WA
- Farmington Square of Gresham – Gresham, OR

ASTM/AAI COMPLIANT
- Country Club Apartments – Glen Burnie, MD
- Inteplast - Lolita – Lolita, TX
- Mission Pointe Apartment Homes – Orlando, FL
- Mayfair Flats, LLC – Denver, CO
- Washington Plaza – Piscataway, NJ
- Stockton Plant – Stockton, CA

HUD LEAN 241
- The Villas at La Canada – Tucson, AZ
- The Meadows at East Mountain – Rutland, VT
- Castle Rock Care Center – Castle Rock, CO

FANNIE MAE
- Esperanza of Conroe – Conroe, TX
- Esperanza of College Station – College Station, TX
- Southbrook Apartments – Topeka, KS
- Colonial Village Apartments – Manchester, NH

HUD MAP 220 NC
- 145 West Street LLC – Brooklyn, NY
- Proposed McHenry Row Apartments – Baltimore, MD
- Proposed West 25th Street Lofts – Cleveland, OH

HUD MAP 220 SR
- Proposed Affinity Apartments – Los Angeles, CA

HUD LEAN 242 SR
- Electra Hospital District – Electra, TX
- Moab Valley Healthcare – Moab, UT

HUD MAP 231 SR
- Villa Mayfair – Denver, CO

STATE HOUSING TAX CREDIT PROGRAMS
- Proposed Summit Parque, LLC – Dallas, TX (TDHCA)
- Prairie Village – El Campo, TX (TDHCA
- Proposed Venetucci Village – Colorado Springs, CO (CHFA)
- Wapakoneta Village – Wapakoneta, OH (OHFA)
- Benet House – Baltimore, MD (MD DHCD)
- The Village of Redford – Redford, MI (MSHDA)

ASHLEY MILLER, EP

ASSOCIATE TEAM LEADER

EDUCATION
Virginia Commonwealth University, B.S. Environmental Science

CERTIFICATIONS/REGISTRATIONS/TRAINING
RMD LPA-1 Lead Paint Inspection System
Virginia Lead Inspector License #3355-000692
AHERA Accredited & Virginia Asbestos Inspector Initial Certificate #7108090007
Screening for Potential Vapor Intrusion Problems under the ASTM E 2600 Standard – Presented by Anthony J. Buonicore, P.E., BCEE, QEP – November 2009
HUD Development Training: Compliance and Documenting Due Diligence in Environmental Review—NEPA and 24 CFR Part 58 Environmental Review Procedures For Entities Assuming HUD Environmental Responsibilities – March 2014

SUMMARY OF EXPERIENCE
Ashley Miller is an Associate Team Leader for Dominion Due Diligence Group. Mrs. Miller's duties include overseeing staff and reviewing Phase I Environmental Site Assessments (HUD, Freddie Mac, Fannie Mae, State Housing Tax Credit, and ASTM E 1527) throughout the United States. Prior to her work with D3G she gained environmental consulting experience as an intern at Marshall Miller & Associates. Mrs. Miller has extensive knowledge of the ASTM E 1527 Phase I Environmental Site Assessment regulations as well as the EPA 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries regulations. Mrs. Miller qualifies as an Environmental Professional as defined under ASTM E 1527 Section 4.3 and Appendix X2 with over 5 years of experience performing investigations of surface and subsurface environmental conditions.

The following sites are examples of projects in which Mrs. Miller has participated:

HUD MAP 221(d)(4) NC
- Proposed October Homes – Madison, TN
- Proposed Assisted Living Facility – Leesburg, VA
- Proposed Mill Run Apartments – Owings Mills, MD
- Proposed Eagle Harbor Phase II - Carrollton, VA

HUD MAP 221 (d)(4) SR
- Harbor Hill Apartments – Baltimore, MD
- Courtyard Apartments – Goldsboro, NC
- Harbor Hill Apartments – Baltimore, MA

HUD MAP 223(f)
- Hillsdale Apartments – Bowling Green, OH
- Monticello Square Apartments – Houston, TX
- Spring Valley Apartments – Columbia, SC
- Riley Towers – Indianapolis, IN
- Roxbury Highlands Apartments - Boston, MA
- Compton Court Apartments - Pasadena, TX
- Deerfield Run Apartments - Rock Hill, SC

HUD LEAN 232 NC
- Proposed Ashton Plantation – Luling, LA
- Proposed Whispering Lakes Assisted Living Facility – Destin, FL
- Proposed Allisonville Meadows – Fishers, IN

ASHLEY MILLER, EP

ASSOCIATE TEAM LEADER

HUD LEAN 232/223(f)
- Heritage Park Nursing Center – Rogers, AR
- Glen Meadows – Hamilton, OH
- Woburn Rehabilitation and Nursing Center – Woburn, MA
- The Brunswick Assisted Living at Attleboro – Langhorne, PA
- New Outlook of Taylorsville - Taylorsville, NC

HUD MAP 202/223(f)
- Lakeland Wesley Village II – Benton, KY
- Opportunity Apartments – Kendallville, IN
- Robert Sharp Towers I – Miami, FL
- Gandy Allmon Manor I – Greenville, SC

ASTM/AAI COMPLIANT
- Cabana West Apartments – Panama City, FL
- Twin Canal Village – Virginia Beach , VA
- Proposed Mixed-Use Facility – Yorktown, VA
- Randolph Hospital & Randolph House – Pulaski, VA
- Park and Shop Plaza - Fredericksburg, VA

OTHER
- 1382 Walls Bridge Road - Wakefield, VA (Lead-Based Paint Testing)
- 713 Briarfield Road - Newport News, VA (Lead-Based Paint Testing)
- Spicers Mill Apartments - Orange, VA (VHDA/USDA RD)
- Stephens Village - Stephens City, VA (VHDA/USDA RD)
- Chelyan Apartments - Cabin Creek, WV (WV Housing Development Fund)
- Pebble Creek II, III and IV - Roanoke, VA (Fannie Mae)
- Harborview Apartments - Jersey City, NJ (ASTM/NJHMFA)
- Woodlark Forest I and II - Indianapolis, IN (Greensfork Township State Bank)

Appendix I

Certificate of Liability Insurance

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/28/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Riggs, Counselman, Michaels & Downes
4200 Innslake Drive Suite 303
Glen Allen, VA 23060
(804) 237-5900

CONTACT NAME: Marianna Verbeck
PHONE (A/C, No, Ext): 804 2375914 FAX (A/C, No): (804) 237-5901
E-MAIL ADDRESS: MVerbeck@rcmd.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Continental Casualty Company	20443
INSURER B : Nautilus Insurance Company	17370
INSURER C : Continental Insurance Company	35289
INSURER D : Valley Forge Insurance Company	20508
INSURER E :	
INSURER F :	

INSURED
Dominion Environmental Group, Inc dba Dominion Due Diligence Group
4121 Cox Road, Suite 200

Glen Allen, VA 23060

COVERAGES **CERTIFICATE NUMBER:** 700275 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	**GENERAL LIABILITY**			ECPO152054114	9/1/2014	9/1/2015	EACH OCCURRENCE	$ 5,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 5,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$ 5,000,000
	POLICY PRO-JECT LOC							$
C	**AUTOMOBILE LIABILITY**			C5099549028	2/3/2015	9/1/2015	COMBINED SINGLE LIMIT (Ea accident)	$ 1,00,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
A	X **UMBRELLA LIAB** X OCCUR			C5099549031	2/3/2015	9/1/2015	EACH OCCURRENCE	$ 2,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 2,000,000
	DED RETENTION $							$
D	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N	N / A		WC5099549045	2/3/2015	9/1/2015	X WC STATU-TORY LIMITS / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
B	Professional Liability			ECPO152054114	9/1/2014	9/1/2015	$5,000,000 Each Claim Retroactive date 9/1/1994	
	Contractor's Pollution Liability			ECPO152054114	9/1/2014	9/1/2015	$5,000,000 Each Pollution Condition	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
General Proof of Insurance- General Liability Retention $10,000 - Coverage A & B Per Occurrence

CERTIFICATE HOLDER

Dominion Environmental Group, Inc.
4121 Cox Road, Suite 200

Glen Allen, VA 23060

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Client # 49109 Mst # 15-16 Umb, Auto WC 14-: Subject General Proof of Insurance

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Appendix J

Asbestos Inspection and Lead-Based Paint Screen Report – RiskNomics, LLC, dated October 20, 2011

ASBESTOS INSPECTION and LEAD BASED PAINT SCREEN REPORT

SOLANA BEACH SENIOR PROJECT

959 Genevieve Street
Solana Beach, California

Prepared for:

Dominion Due Diligence Group

4121 Cox Road, Suite 200
Glen Allen, Virginia 23060

Report Date: **October 20, 2011**

Prepared by:

Andrew J. Olcott
California Certified Asbestos Consultant (CAC) 04-3525
California DHS Risk Assessor LRA-15436

Project Number: 11RN1321

8777 E. Via de Ventura, Suite 385
Scottsdale, Arizona 85258
480-315-1100

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EXECUTIVE SUMMARY

RiskNomics, LLC has contracted with Dominion Due Diligence Group (Client) to conduct a pre-demolition asbestos inspection, and limited scope Lead-Based Paint inspection of the structures located at 959 Genevieve Street in Solana Beach, California. The inspection included the main residence, shed, greenhouse, boat, and recreation vehicles located on the property. The objective of the survey was to provide documentation to the Client consisting of a listing of the findings and approximate quantities of asbestos and lead bearing components that may impact future demolition activities.

Inspection activities were performed October 10, 2011 by John Castorini, a State of California Site Surveillance Technician (CSST) and Lead Risk Assessor. Copies of current Certifications can be found in Appendix B.

Inspection, sampling, material condition assessments, and analytical procedures for asbestos-containing building materials were performed in general accordance with the U.S. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) - EPA Title 40, Code of Federal Regulations (CFR), Part 61 Subpart M (40 CFR Part 61, Subpart M), the EPA AHERA regulation (40 CFR Part 763), the Federal Occupational Safety and Health Administration (OSHA) (29 CFR 1926.1101) guidelines, and local Air Pollution Control District Guidelines.

A total of twenty-seven (27) bulk samples were collected and analyzed by Polarized Light Microscopy (PLM) to complete the inspection.

Asbestos was identified within the following materials:

Solana Beach Senior Housing 959 Genevieve Street, Solana Beach, California					
Material	**Location**	**Percentage/ Type***	**Material Condition**	**Approx. Quantity**	**NESHAP Category**
Stucco	Main House – Exterior	0.5-0.7% Chrysotile	Intact	2,000 Sf	N/A
Penetration Mastic	Main House – Roof	10% Chrysotile	Intact	10 SF	CAT I

Asbestos containing material (ACM) as defined by the EPA and OSHA are materials with an asbestos concentration of greater than 1% (>1%) as analyzed by polarized light microscopy (PLM). In addition, ACM is designated as follows for NESHAP compliance:

Friable asbestos - material which can be crumbled, pulverized or reduced to powder by hand pressure, a.k.a. Regulated Asbestos Containing Materials (RACM)
Category I non-friable - includes resilient floor coverings, asphalt roofing products, gaskets and packings.

* Laboratory analytical data sheets should be reviewed for potential asbestos content within individual layers of a sample for each material. Analysis of an individual layer of a material may exceed 1% while the composite analysis of the material as a whole is below 1%. Laboratory analytical data sheets are presented within Appendix A.

Category II non-friable - any non-friable ACM that is not in Category I (i.e. transite siding material).

Subsurface (underground) electrical power line conduit and/or water supply/waste pipe were, historically constructed with materials that were of cement-asbestos (transite) composition. These materials may be present in and around the buildings below the surface and may be encountered during future site grading or excavation activities.

LEAD BASED PAINT FINDINGS

The LBP testing was conducted to determine the presence of LBP and lead-bearing building components on various interior and exterior components of the subject building. The LBP testing was performed through paint chip sampling in accordance with the United States Department of Housing and Urban Development's (HUD's) guidance document, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," 1997 Revision. This testing is for OSHA information purposes only and is not being performed to comply with California Title 17 for LBP.

Federal and California DHS regulations define LBP as any surface coating that contains lead at or above 1.0 milligrams per square centimeter (mg/cm^2) or 0.5% by weight. Therefore, paint and coatings that tested at or above 1.0 mg/cm^2 or 0.5% have been identified as lead-containing materials and components in this report. The test results indicated that some building components contain lead in concentrations above federal and DHS regulated concentrations within the inspected structures.

Building materials with intact lead containing paint must be characterized for lead and other potentially hazardous materials before transportation off site. Testing may include, but not limited to, Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) criteria. Paint chips and debris must be disposed of as lead containing hazardous waste.

Components showing lead concentrations at or above 1.0 mg/cm^2

Solana Beach Senior Housing 959 Genevieve Street, Solana Beach, California				
Component	**Location(s)**	**Color**	**Condition**	**Result (mg/cm^2)**
Ceramic Tile	Bathroom	White	Intact	13.85

Removal or disturbance of material with any detectable amount of lead paint must be handled in accordance with the California Occupational Safety and Health Administration (Cal/OSHA) lead, Title 8, California Code of Regulations (CCR), Section 1532.1 (8 CCR 1532.1). Therefore, "negative" XRF readings i.e. those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2 or 0.5%) **DO NOT** relieve contractors from performing exposure assessments (personal

air monitoring) on the their employees per the OSHA Lead Standard and should not be interpreted as lead is not present. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity. With reasonable work practices, components with “negative” XRF readings should not generate lead exposures over the OSHA action level.

ASBESTOS SURVEY

INTRODUCTION

A NESHAP based survey was completed for Dominion Due Diligence (Client) on October 10, 2011 at 959 Genevieve Street, in Solana Beach, California by RiskNomics. The inspection included interior and exterior building materials of the main residence, shed, greenhouse, boat, and recreation vehicles expected to be impacted during demolition of the structures.

The CSST representative for RiskNomics was Mr. John Castorini. Copies of valid training certificates and licenses are presented in Appendix B.

Inspection, sampling, material condition assessments, and analytical procedures for asbestos-containing building materials were performed in general accordance with the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) - EPA Title 40, Code of Federal Regulations (CFR), Part 61 Subpart M (40 CFR Part 61, Subpart M), the EPA AHERA regulation (40 CFR Part 763), and the Federal Occupational Safety and Health Administration (OSHA) (29 CFR 1926.1101) guidelines.

SAMPLED SUSPECT ASBESTOS CONTAINING MATERIALS - NEGATIVE

Samples of the following suspect materials were found to be Negative for asbestos:

Solana Beach Senior Housing 959 Genevieve Street, Solana Beach, California			
Sample #	**Material**	**Friable/ Non-Friable**	**Condition**
Main Residence			
DW-01 – 03	Drywall & Joint Compound	NF	ND
L-01 – 02	White Linoleum, 7x 7 Print	NF	ND
SAC-01 – 03	Spray Acoustic Ceiling	F	ND
WP-01 – 02	Window Putty	NF	ND
RS-01 – 02	Roof Shingles	NF	ND
PM-01 – 02	Roof Penetration Mastic	NF	ND
Shed			
RR-01 – 02	Roof Shingles	NF	ND
Greenhouse, Boat, & Recreational Vehicles			
There were no suspect materials identified with the Greenhouse, Boat, & Recreational Vehicles.			

SUSPECT ASBESTOS CONTAINING MATERIALS - ASSUMED

The following suspect asbestos containing materials were identified but not sampled to maintain the materials' integrity and aesthetics (assumed asbestos containing materials):

All identified suspect materials were sampled

SAMPLING AND ANALYTICAL PROCEDURES

Sampling Procedures

Representative bulk samples of suspect ACBMs were randomly collected from both inside and outside of the inspected building. Homogenous material determinations were assessed based on the following criteria:

- Similar physical characteristics (same color and texture, etc.);
- Application (sprayed-on, troweled-on, assembly into a system, etc.); and
- Material function (thermal insulation, floor tile, wall or ceiling system, etc.).

Following completion of the visual inspection and homogeneous material identification, bulk material samples were collected utilizing a modified AHERA random sampling format. The quantity of samples necessary to test suspect building materials were determined while on site and was performed according to AHERA, OSHA, and NESHAP regulations. The minimum number of samples RiskNomics collected was two (2) samples per suspect miscellaneous and thermal system insulation (TSI) material. Sampling of surfacing materials was based on the quantity of material present, and was performed as follows:

Sampling Requirements for Surfacing Materials	
Quantity of Surfacing Material Present	**Minimum # of Samples**
<1,000 Square Feet	3
Between 1,000 and <5,000 Square Feet	5
>5,000 Square Feet	7

Surfacing, TSI, and miscellaneous materials are defined as follows:

Surfacing - includes, but is not limited to, plaster; and painted, troweled on, or spray-applied textured material;
TSI - includes, but is not limited to, pipe and boiler insulation;
Miscellaneous - includes, but is not limited to, flooring, roofing, Mastics, gaskets, cementitious materials, caulkings, ceiling tiles, fire doors, wall boards, and flexible duct connections.

Once collected, all bulk samples were appropriately labeled and shipped to an accredited analytical laboratory for analysis. All sampled building materials were also characterized for condition and approximate quantity on-site during the inspection.

PLM Analysis Methodology

Laboratory services were provided by EMC Labs, Inc., located at 9830 S. 51st Street, Suite B-109 located in Phoenix, Arizona**,** a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory (NVLAP code #101926-0).

Each bulk sample was analyzed by polarized light microscopy (PLM) in accordance with the United State Environmental Protection Agency's (EPA's) Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/M4-82-020, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas. Additional treatment(s) and test(s) were performed as required to accurately define material composition (i.e. ashing, extraction, acetone treatment, point counting, and/or transmission electron microscopy [TEM]).

Analysis consisted of using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. All samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.), and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

FINDINGS

Interpretation of Asbestos Results

Federal OSHA, the California Occupational Safety and Health Administration (Cal/OSHA), and National Emission Standards for Hazardous Air Pollutants (NESHAP) define an asbestos-containing material (ACM) as any material containing more than one percent (>1.0%) asbestos. Both agencies have certain classifications for ACM types as well as requirements that apply when ACM is removed and disposed. Additionally, Cal/OSHA includes the term asbestos-containing construction material (ACCM); which is any manufactured construction material containing >0.1% asbestos. The ACCM designation has been established by Cal/OSHA as a criterion for the registration and certification of contractors and consultants respectively, who provide services that involve such materials.

Per United States EPA NESHAP regulations, "friable" materials with PLM results of less than ten percent (<10%) asbestos must be assumed ACM unless it is further analyzed using the EPA Point Count Method to more precisely determine the actual asbestos content. The lower limit of reliable detection for asbestos using the PLM analytical method is one percent (1.0%) by volume. When less than one percent (<1.0%) appears in this report, it should be interpreted as meaning that asbestos was present in the sample, but the exact percentage is unknown. Any sample indicating a concentration of <1.0% can be subjected to the more stringent Point Count Method of analysis to more precisely determine the actual asbestos content. If this material is found to contain less than 1% asbestos by point counting, then it may be disposed of as non-hazardous waste.

If asbestos was detected above 0.1% concentration following the point count analysis, Cal/OSHA rules would still apply, and the contractor performing removal or demolition must comply with the worker protection, training, and medical surveillance portions of the asbestos standard. Although a reading may indicate "<1%", airborne asbestos concentrations still may exceed the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

Cal/OSHA states that employers performing construction activities on materials containing any detectable asbestos must comply with all applicable provisions of Title 8, California Code of Regulations (CCR), Section 1529 (8 CCR 1529). Therefore, those materials which fall outside the NESHAP definition of an ACM are regulated by Cal/OSHA, and should be handled as ACCM by qualified personnel.

Note that the term "friable asbestos-containing material" means any ACM applied on ceilings, walls, structural members, piping, duct work, or any other part of a building which when dry may be crumbled, pulverized, or reduced to powder by hand pressure. The term includes non-friable ACM after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

The following materials contain Asbestos in concentrations exceeding 0.1% (ACCM)

Main Residence - Stucco

The following materials contain Asbestos in concentrations exceeding 1.0% (ACM)

Main Residence – Roof Penetration Mastic

CONCLUSIONS AND RECOMMENDATIONS

Results of bulk sample analysis confirmed that asbestos was identified in concentrations greater than 1.0% within some of the building materials sampled. The majority of the identified ACM (1.0% asbestos or greater) identified were found to be in relatively good condition at the time of this inspection. RiskNomics recommends, and Cal/OSHA requires, that if the asbestos materials are likely to become friable during demolition/renovation activities, these materials must be removed prior to their disturbance using Cal/OSHA 8 CCR 1529 Class I or Class II removal procedures. This would include all RACM and Category I and II materials.

Materials uncovered during demolition activities that are not addressed in this inspection report must be sampled by an accredited asbestos inspector prior to any disturbance.

California state regulations require notifications prior to the removal of ACM. A California certified supervisor shall be onsite during all asbestos removal activities and all asbestos removal work shall be conducted by California certified asbestos workers. All asbestos shall be removed according to applicable California regulations and in accordance with any additional local and federal regulations.

The U.S. Environmental Protection Agency (USEPA) regulations do not require removal of asbestos-containing materials that are in good condition. However, personnel who may be involved with building renovations will need to be advised of the presence of asbestos and appropriate measures may be warranted in order to assure the identified asbestos-containing materials are not disturbed during renovation activities. If the asbestos-containing materials

left in place are disturbed during renovation activities, the materials must be handled and disposed of in accordance with applicable State and Federal regulations.

Table Summarizing PLM Sample Results

Sample#	Sample Location	Layer#	Description	Asbestos Type	Asbestos%
DW-01	1-LIVING	1	LAYER 1 Drywall/ Plaster-Scratch Coat, Lt. Gray Note: Sample appears to be plaster		ND - None Detected
DW-01	1-LIVING	2	LAYER 2 Plaster-Finish Coat, Pink		ND
DW-02	2-BED	1	LAYER 1 Drywall/ Plaster-Scratch Coat, Lt. Gray Note: Sample appears to be plaster		ND
DW-02	2-BED	2	LAYER 2 Plaster-Finish Coat, Pink		ND
DW-03	4-BED	1	LAYER 1 Drywall/ Plaster-Scratch Coat, Lt. Gray Note: Sample appears to be plaster		ND
DW-03	4-BED	2	LAYER 2 Plaster-Finish Coat, Pink		ND
DW-03	4-BED	3	LAYER 3 Plaster Texture, White/ Off White		ND
L-01	6-KITCHEN	1	Linoleum, White/ Gray		ND
L-02	3-BED	1	Linoleum, White		ND
SAC-01	1-LIVING	1	Spray-On Acoustic Ceiling, Off White		ND
SAC-02	3-BED	1	Spray-On Acoustic Ceiling, Off White		ND
SAC-03	5-BED	1	Spray-On Acoustic Ceiling, Off White		ND
ST-01	B WALL	1	LAYER 1 Ext. Stucco-Scratch Coat, Gray		ND
ST-01	B WALL	2	LAYER 2 Ext. Stucco-Finish Coat, Lt. Green	Chrysotile	0.5%
ST-02	C WALL	1	LAYER 1 Ext. Stucco-Scratch Coat, Gray		ND
ST-02	C WALL	2	LAYER 2 Ext. Stucco-Finish Coat, Lt. Green	Chrysotile	0.7%
WP-01	B EXT. WINDOW	1	Window Putty, Brown/ Lt. Yellow		ND
WP-02	C EXT. WINDOW	1	Window Putty, White		ND
RS-01	ROOF 1	1	LAYER 1 Roof Shingle, Black/ Brown/ Gray		ND
RS-01	ROOF 1	2	LAYER 2 Roof Felt, Black		ND

Sample#	Sample Location	Layer#	Description	Asbestos Type	Asbestos%
RS-02	ROOF 1	1	LAYER 1 Roof Shingle, Black/ Brown/ Gray		ND
RS-02	ROOF 1	2	LAYER 2 Roof Shingle, Black/ Brown/ Gray		ND
RS-02	ROOF 1	3	LAYER 3 Roof Shingle, Black/ White		ND
RR-01	SHED ROOF	1	Rolled Roofing, Beige/ Brown/ Black		ND
RR-02	SHED ROOF	1	Rolled Roofing, Beige/ Brown/ Black		ND
PM-01	ROOF	1	Penetration Mastic, Black	Chrysotile	10%
PM-02	ROOF	1	Penetration Mastic, Black	Chrysotile	10%

LEAD-BASED PAINT SURVEY

INTRODUCTION

Mr. John Castorini, an EPA certified Lead Risk Assessor representing RiskNomics performed limited scope lead-based paint (LBP) testing at 959 Genevieve Street in Solana Beach, California. This testing is for Cal/OSHA information purposes only and is not being performed to comply with California Title 17 for LBP. Representative painted and/or finished components were tested in general accordance with the protocols for LBP testing in the United States Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and any applicable Federal, State, and Local regulations.

A listing of all tested components can be found in Appendix B of this report.

METHODOLOGIES

Visual Inspection

Accessible components likely to be impacted during renovation of the structure were visually inspected for the presence of paint. There was no demolition of components in order to access hidden painted materials, and not all areas of the buildings could be visually inspected for paint. RiskNomics makes no warranty as to the possible existence or absence of lead in inaccessible locations.

XRF Sampling

The LBP inspection was conducting using a Keymaster MAP/4-M lead paint analyzer. XRF is a common analytical technique used to quantitatively measure the concentration level of elements in solid materials. XRF used for lead detection is defined as exciting an atom with X-rays causing the excited atom to emit its characteristic X-rays. Keymaster MAP/4 implements the XRF technique by using a sealed radioactive source inside the instrument.

XRF testing was performed on random testing combinations, except for interior walls, where 1-4 readings were taken. A testing combination is characterized by the room equivalent, the component type, and the substrate. A room equivalent is an identifiable part of a residence or building (e.g., room, foyer, house exterior, etc.). The HUD and EPA standard for lead-based paint is 1.0 mg/cm^2.

Descriptions of the testing combinations and the XRF results were recorded in the field.

Calibration checks were performed in the field prior to the start of testing, and following the completion of testing in the unit. Calibration checks are performed by using a painted block or film of known lead content, as close to 1.0 mg/cm^2 as possible. 3 readings are taken on the paint film to determine if the machine is reading within the specified tolerances.

FINDINGS

Federal and California DHS regulations define LBP as any surface coating that contains lead at or above 1.0 milligrams per square centimeter (mg/cm^2) or 0.5% by weight. Therefore, paint and coatings that tested at or above 1.0 mg/cm^2 or 0.5% have been identified as lead-containing materials and components in this report. The test results indicated that some building components contain lead in concentrations above federal and DHS regulated concentrations within the inspected structures.

Components showing lead concentrations at or above 1.0 mg/cm^2

Solana Beach Senior Housing 959 Genevieve Street, Solana Beach, California				
Component	**Location(s)**	**Color**	**Condition**	**Result (mg/cm^2)**
Ceramic Tile	Bathroom	White	Intact	13.85

Removal or disturbance of material with any detectable amount of lead paint must be handled in accordance with the California Occupational Safety and Health Administration (Cal/OSHA) lead, Title 8, California Code of Regulations (CCR), Section 1532.1 (8 CCR 1532.1). Therefore, "negative" XRF readings i.e. those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2 or 0.5%) **DO NOT** relieve contractors from performing exposure assessments (personal air monitoring) on the their employees per the OSHA Lead Standard and should not be interpreted as lead is not present. Although a reading may indicate "negative", airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity. With reasonable work practices, components with "negative" XRF readings should not generate lead exposures over the OSHA action level.

Building materials with intact lead containing paint must be characterized for lead and other potentially hazardous materials before transportation off site. Testing may include, but not limited to, Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) criteria. Paint chips and debris must be disposed of as lead containing hazardous waste.

DISCLAIMER

The content presented in this report is based on data collected during the site inspection and survey, review of pertinent regulations, requirements, guidelines and commonly followed industry standards, and information provided by the Client, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. RiskNomics believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or

completeness of available documentation or possible withholding of information of other parties.

This hazardous materials survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos/lead abatement contractor in locating ACM or lead. This report is not intended for, and may not be utilized as a bidding document or as an abatement project specification document.

RiskNomics

Andrew J. Olcott
Vice President, Operations

APPENDIX A

LABORATORY ANALYTICAL DATA

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0105254

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	RISKNOMICS	Job# / P.O. #:	
Address:	8777 E. VIA DE VENTURA, SUITE 385 SCOTTSDALE, AZ 85258	Date Received:	10/11/2011
		Date Analyzed:	10/17/2011
Collected:	10/10/2011	Date Reported:	10/17/2011
Project Name/	959 GENEVIE ST	EPA Method:	EPA 600/M4-82-020
Address:	SOLANO BEACH, CA 92074	Submitted By:	ANDY OLCOTT
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0105254-001 DW-01	1-LIVING	LAYER 1 Drywall/ Plaster-Scratch Coat, Lt. Gray Note: Sample appears to be plaster	No		Cellulose Fiber	<1%
					Gypsum Quartz Carbonates Perlite	99%
		LAYER 2 Plaster-Finish Coat, Pink	No		Talc	1%
					Carbonates Quartz Gypsum Mica Binder/Filler	99%
0105254-002 DW-02	2-BED	LAYER 1 Drywall/ Plaster-Scratch Coat, Lt. Gray Note: Sample appears to be plaster	No		Cellulose Fiber	<1%
					Gypsum Quartz Carbonates Perlite	99%
		LAYER 2 Plaster-Finish Coat, Pink	No		Cellulose Fiber	<1%
					Carbonates Quartz Gypsum Mica Binder/Filler	99%
0105254-003 DW-03	4-BED	LAYER 1 Drywall/ Plaster-Scratch Coat, Lt. Gray Note: Sample appears to be plaster	No		Cellulose Fiber	<1%
					Gypsum Quartz Carbonates Perlite	99%
		LAYER 2 Plaster-Finish Coat, Pink	No		Cellulose Fiber	<1%
					Carbonates Quartz Gypsum Mica Binder/Filler	99%
		LAYER 3 Plaster Texture, White/ Off White	No		Cellulose Fiber	1%
					Carbonates Mica Perlite Binder/Filler	99%

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Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	RISKNOMICS	Job# / P.O. #:	
Address:	8777 E. VIA DE VENTURA, SUITE 385 SCOTTSDALE, AZ 85258	Date Received:	10/11/2011
		Date Analyzed:	10/17/2011
Collected:	10/10/2011	Date Reported:	10/17/2011
Project Name/	959 GENEVIE ST	EPA Method:	EPA 600/M4-82-020
Address:	SOLANO BEACH, CA 92074	Submitted By:	ANDY OLCOTT
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0105254-004 L-01	6-KITCHEN	Linoleum, White/ Gray	No			Cellulose Fiber Fibrous Glass Carbonates Binder/Filler	15% 3% 82%
0105254-005 L-02	3-BED	Linoleum, White	No			Cellulose Fiber Fibrous Glass Carbonates Binder/Filler	15% 5% 80%
0105254-006 SAC-01	1-LIVING	Spray-On Acoustic Ceiling, Off White	No			Carbonates Perlite Mica Binder/Filler	 100%
0105254-007 SAC-02	3-BED	Spray-On Acoustic Ceiling, Off White	No			Cellulose Fiber Carbonates Perlite Mica Binder/Filler	<1% 99%
0105254-008 SAC-03	5-BED	Spray-On Acoustic Ceiling, Off White	No			Carbonates Perlite Mica Binder/Filler	 100%
0105254-009 ST-01	B WALL	LAYER 1 Ext. Stucco-Scratch Coat, Gray	No			Cellulose Fiber Gypsum Quartz Carbonates Mica	<1% 99%
		LAYER 2 Ext. Stucco-Finish Coat, Lt. Green	Yes	Chrysotile	<1%	Carbonates Gypsum Quartz Binder/Filler	 99%

EMC LABS, INC.

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Laboratory Report
0105254

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	RISKNOMICS	Job# / P.O. #:	
Address:	8777 E. VIA DE VENTURA, SUITE 385 SCOTTSDALE, AZ 85258	Date Received:	10/11/2011
		Date Analyzed:	10/17/2011
Collected:	10/10/2011	Date Reported:	10/17/2011
Project Name/	959 GENEVIE ST	EPA Method:	EPA 600/M4-82-020
Address:	SOLANO BEACH, CA 92074	Submitted By:	ANDY OLCOTT
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0105254-010 ST-02	C WALL	LAYER 1 Ext. Stucco-Scratch Coat, Gray	No			Cellulose Fiber	<1%
						Gypsum	
						Quartz	
						Carbonates	
						Mica	99%
		LAYER 2 Ext. Stucco-Finish Coat, Lt. Green	Yes	Chrysotile	<1%		
						Carbonates	
						Gypsum	
						Quartz	
						Binder/Filler	99%
0105254-011 WP-01	B EXT. WINDOW	Window Putty, Brown/ Lt. Yellow	No				
						Carbonates	
						Quartz	
						Binder/Filler	100%
0105254-012 WP-02	C EXT. WINDOW	Window Putty, White	No				
						Carbonates	
						Quartz	
						Binder/Filler	100%
0105254-013 RS-01	ROOF 1	LAYER 1 Roof Shingle, Black/ Brown/ Gray	No			Fibrous Glass	15%
						Quartz	
						Carbonates	
						Binder/Filler	85%
		LAYER 2 Roof Felt, Black	No			Cellulose Fiber	40%
						Quartz	
						Binder/Filler	60%

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Laboratory Report
0105254

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	RISKNOMICS	Job# / P.O. #:	
Address:	8777 E. VIA DE VENTURA, SUITE 385 SCOTTSDALE, AZ 85258	Date Received:	10/11/2011
		Date Analyzed:	10/17/2011
Collected:	10/10/2011	Date Reported:	10/17/2011
Project Name/	959 GENEVIE ST	EPA Method:	EPA 600/M4-82-020
Address:	SOLANO BEACH, CA 92074	Submitted By:	ANDY OLCOTT
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0105254-014 RS-02	ROOF 1	LAYER 1 Roof Shingle, Black/ Brown/ Gray	No			Fibrous Glass	15%
						Quartz Carbonates Binder/Filler	85%
		LAYER 2 Roof Shingle, Black/ Brown/ Gray	No			Fibrous Glass	15%
						Quartz Carbonates Binder/Filler	85%
		LAYER 3 Roof Shingle, Black/ White	No			Fibrous Glass	15%
						Quartz Carbonates Binder/Filler	85%
0105254-015 RR-01	SHED ROOF	Rolled Roofing, Beige/ Brown/ Black	No			Fibrous Glass	15%
						Quartz Carbonates Binder/Filler	85%
0105254-016 RR-02	SHED ROOF	Rolled Roofing, Beige/ Brown/ Black	No			Fibrous Glass	15%
						Quartz Carbonates Binder/Filler	85%
0105254-017 PM-01	ROOF	Penetration Mastic, Black	Yes	Chrysotile	10%		
						Carbonates Binder/Filler	90%
0105254-018 PM-02	ROOF	Penetration Mastic, Black	Yes	Chrysotile	10%		
						Carbonates Binder/Filler	90%

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0105254

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	RISKNOMICS	Job# / P.O. #:	
Address:	8777 E. VIA DE VENTURA, SUITE 385 SCOTTSDALE, AZ 85258	Date Received:	10/11/2011
		Date Analyzed:	10/17/2011
Collected:	10/10/2011	Date Reported:	10/17/2011
Project Name/	959 GENEVIE ST	EPA Method:	EPA 600/M4-82-020
Address:	SOLANO BEACH, CA 92074	Submitted By:	ANDY OLCOTT
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents

Analyst - Johann Hofer

Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY

EMC Labs, Inc.
9830 S. 51st St., Ste B-109
Phoenix, AZ 85044
(800) 362-3373 Fax (480) 893-1726

LAB#: 105254
TAT: 4 days
Rec'd: OCT 11 P.M.
EMC USE ONLY

COMPANY NAME: RISKNOMICS
8777 E. Via de Ventura, Ste 385
Scottsdale, AZ 85258
CONTACT: Andy Olcott 602-881-9665
Phone/Fax: 480-315-1100 SCAN COC
Email: aolcott@risknomicsllc.com & EXCEL

BILL TO: (If Different Location)

Now Accepting: VISA – MASTERCARD

Price Quoted: $_____ / Sample $_____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day] Standard 4 Days

****Prior confirmation of turnaround time is required**
****Additional charges for rush analysis (please call marketing department for pricing details)**
****Laboratory analysis may be subject to delay if credit terms are not met**

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

(18)

4. Project Name: 959 Genevive St Solana Beach CA 92074

P.O. Number: _____ **Project Number:** _____

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS ON	OFF	FLOW RATE
1	DW-01	10/10/11	(1) Living / Drywall Mud	Y N			
2	02		(2) Bed / "	Y N			
3	03		(4) Bed / "	Y N			
4	L-01		(6) Kitchen / White Lacquer	Y N			
5	L-02		(3) Bed / " "	Y N			
6	SRC-01		(1) Living / Spray Acc Ceiling	Y N			
7	" -02		(2) Bed / "	Y N			
8	" -03		(5) Bed / "	Y N			
9	ST-01		B Wall / Grey Ext Stucco	Y N			
10	" -02		C " / "	Y N			
11	WP-01		B Ext Window / Window Putty	Y N			
12	WP-02		C " " / " "	Y N			
13	RS-01		Roof / Roof Shingles	Y N			
14	RS-02		" /	Y N			
				Y N			

SPECIAL INSTRUCTIONS: _____

Sample Collector: (Print) John Castorini (Signature) [signature]

Relinquished by: [signature] Date/Time: 10/10/11 3PM Received by: Diana Federico Date/Time: 10/11/11 915

Relinquished by: Diana Federico Date/Time: 10/11/11 1330 Received by: [signature] JDHofer Date/Time: 10-11-11 1330

Relinquished by: _____ Date/Time _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

Rev. 09/01/08

CHAIN OF CUSTODY

EMC Labs, Inc.
9830 S. 51st St., Ste B-109
Phoenix, AZ 85044
(800) 362-3373 Fax (480) 893-1726

LAB#:
TAT: 105254
Rec'd:
EMC USE ONLY

COMPANY NAME: RISKNOMICS
8777 E. Via de Ventura, Ste 385
Scottsdale, AZ 85258
CONTACT: Andy Olcott 602-881-9665
Phone/Fax: 480-315-1100 SCAN COC
Email: aolcott@risknomicsllc.com & EXCEL

BILL TO: (If Different Location)

Now Accepting: VISA – MASTERCARD Price Quoted: $_____ / Sample $____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day] 4 Day - Standard

****Prior confirmation of turnaround time is required
****Additional charges for rush analysis (please call marketing department for pricing details)
****Laboratory analysis may be subject to delay if credit terms are not met

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: 959 Genevieve St Solana Beach CA

P.O. Number: _____ **Project Number:** _____

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS ON	OFF	FLOW RATE
15	RR-01	10/10/11	Shingled Roof / Rolled Roofing	Y N			
16	S-02		" " / "	Y N			
17	PMM-01		Roof / Pour Mastic	Y N			
18	S-02		" / "	Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS: _____

Sample Collector: (Print) John Pastoori (Signature) [signature]

Relinquished by: [signature] Date/Time: 10/10/11 3pm Received by: Diana Federico Date/Time: 10/11/11 915

Relinquished by: Diana Federico Date/Time: 10/11/11 1330 Received by: [signature] JDHofer Date/Time: 10-11-11

Relinquished by: _____ Date/Time _____ Received by: _____ Date/Time: 1300

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

Rev. 09/01/08

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0105630

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	RISKNOMICS	Job# / P.O. #:	
Address:	8777 E. VIA DE VENTURA, SUITE 385 SCOTTSDALE, AZ 85258	Date Received:	10/20/2011
		Date Analyzed:	10/25/2011
Collected:	10/10/2011	Date Reported:	10/25/2011
Project Name/	959 GENEVIE ST-SOLANO BEACH	EPA Method:	EPA 600/M4-82-020
Address:	POINT COUNT VIA EMC LAB #105254	Submitted By:	ANDY OLCOTT
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0105630-001 ST-01	B WALL	Ext. Stucco-Finish Coat, Lt. Green/ Gray Note: POINT COUNT	Yes	Chrysotile	0.5%		
						Gypsum Carbonates Quartz Binder/Filler	99.5%
0105630-002 ST-02	C WALL	Ext. Stucco-Finish Coat, Lt. Green/ Gray Note: POINT COUNT	Yes	Chrysotile	0.7%	Cellulose Fiber	0.5%
						Gypsum Carbonates Quartz Binder/Filler	98.8%

Analyst - Kurt Kettler

Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Page ___ of ___

CHAIN OF CUSTODY

EMC Labs, Inc.
9830 S. 51st St., Ste B-109
Phoenix, AZ 85044
(800) 362-3373 Fax (480) 893-1726

LAB#: 105630
TAT: 3 day
Rec'd: OCT 20 P.M.
EMC USE ONLY

COMPANY NAME: RISKNOMICS
8777 E. Via de Ventura, Ste 385
Scottsdale, AZ 85258
CONTACT: Andy Olcott 602-881-9665
Phone/Fax: 480-315-1100 SCAN COC
Email: aolcott@risknomicsllc.com & EXCEL

BILL TO: (If Different Location)

Now Accepting: VISA – MASTERCARD

Price Quoted: $_____ / Sample $____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required
****Additional charges for rush analysis (please call marketing department for pricing details)
****Laboratory analysis may be subject to delay if credit terms are not met

EMC# 105254

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]

(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: 959 Genevie St - Solano Beach

P.O. Number: _____ **Project Number:** _____

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS ON	OFF	FLOW RATE
1	ST-01	10/10		(Y) N			
2	ST-02	1		(Y) N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
			400 pnt Count	Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS: _____

Sample Collector: (Print) _____ (Signature) _____

Relinquished by: _____ Date/Time: _____ Received by: Diana Federico Date/Time: 10/20/11

Relinquished by: Diana Federico Date/Time: 10/20/11 Received by: [signature] Date/Time: 10/20/11

Relinquished by: _____ Date/Time _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

Rev. 09/01/08

Diana Federico

105630

From: aolcott@risknomicsllc.com
Sent: Thursday, October 20, 2011 1:37 PM
To: storre@emclabs.com; emclab@emclabs.com; Diana Federico (dfederico@emclabs.com)
Subject: Point Counts

I need 400 PC on the following samples:

0105254 – 09 Layer 2
0105254 – 10 Layer 2

Standard 3 day TAT

Let me know if you have any questions

Andrew J. Olcott
Vice President, Operations

RiskNomics
Economically Managing Risk

8777 E. Via de Ventura, Suite 385
Scottsdale, AZ 85258
480-315-1100 (o)
602-881-9665 (c)
480-948-1674 (f)
aolcott@risknomicsllc.com

APPENDIX B

LBP TESTING RESULTS

DETAILED XRF TESTING RESULTS

959 Genevieve Street, Solana Beach, California 92074

Sample	Area	Room Equivalent	Side Tested	Component	Substrate	Color	Condition	Lead (mg/cm²)	Results	Quantities For Entire Area	Comments
1	Exterior	House	A	Wall	Stucco	Brown	Fair	0.20	Negative		
2	Exterior	House	B	Wall	Stucco	Brown	Fair	0.14	Negative		
3	Exterior	House	C	Wall	Stucco	Brown	Fair	0.17	Negative		
4	Exterior	House	D	Wall	Stucco	Brown	Fair	0.29	Negative		
5	Exterior	House	C	Overhang	Wood	Brown	Fair	0.18	Negative		
6	Exterior	House	C	Fascia	Wood	White	Fair	0.03	Negative		
7	Exterior	House	C	Rafter Tail	Wood	Brown	Fair	0.20	Negative		
8	Exterior	House	C	Door	Wood	White	Fair	0.11	Negative		
9	Exterior	House	A	Door Casing	Wood	Green	Fair	0.17	Negative		
10	Exterior	House	A	Door Jamb	Wood	Green	Fair	0.20	Negative		
11	Exterior	House	A	Door	Wood	Grey	Fair	0.13	Negative		
12	Exterior	House	C	Door Casing	Wood	Grey	Fair	0.19	Negative		
13	Exterior	House	C	Door Jamb	Wood	Grey	Fair	0.27	Negative		
14	Exterior	House	C	Window Sill	Wood	Grey	Fair	0.20	Negative		
15	Exterior	House	C	Window Sash	Wood	Grey	Fair	0.13	Negative		
16	Exterior	House	C	Window Casing	Wood	Grey	Fair	0.20	Negative		
17	Exterior	House	C	Garage Door	Wood	Brown	Fair	0.11	Negative		
18	Exterior	House	A	Garage Door Casing	Wood	Grey	Fair	0.17	Negative		
19	Exterior	House	A	Attached Shed Wall	Wood	Brown	Fair	0.20	Negative		
20	Exterior	House	A	Attached Shed Door	Wood	Brown	Fair	0.13	Negative		
21	Exterior	House	A	Porch Overhang	Wood	White	Fair	0.09	Negative		
22	Exterior	House	A	Porch Rafter	Wood	Blue	Fair	0.11	Negative		
23	Interior	Rm. 1-Living Room	A	Wall	Drywall	White	Intact	0.17	Negative		
24	Interior	Rm. 1-Living Room	B	Wall	Drywall	White	Intact	0.09	Negative		
25	Interior	Rm. 1-Living Room	C	Wall	Drywall	White	Intact	0.20	Negative		
26	Interior	Rm. 1-Living Room	D	Wall	Drywall	White	Intact	0.11	Negative		
27	Interior	Rm. 1-Living Room	D	Baseboard	Wood	Green	Intact	0.05	Negative		
28	Interior	Rm. 1-Living Room	A	Door	Wood	Grey	Intact	0.13	Negative		
29	Interior	Rm. 1-Living Room	A	Door Casing	Wood	Green	Intact	0.20	Negative		
30	Interior	Rm. 1-Living Room	A	Door Jamb	Wood	Green	Intact	0.11	Negative		
31	Interior	Rm. 1-Living Room	---	Ceiling	Acoustic	White	Intact	0.09	Negative		
32	Interior	Rm. 2-Bedroom	A	Wall	Drywall	White	Intact	0.11	Negative		
33	Interior	Rm. 2-Bedroom	B	Wall	Drywall	White	Intact	0.03	Negative		
34	Interior	Rm. 2-Bedroom	C	Wall	Drywall	White	Intact	0.20	Negative		
35	Interior	Rm. 2-Bedroom	D	Wall	Drywall	White	Intact	0.17	Negative		
36	Interior	Rm. 2-Bedroom	D	Baseboard	Wood	White	Intact	0.09	Negative		
37	Interior	Rm. 2-Bedroom	C	Door	Wood	White	Intact	0.14	Negative		
38	Interior	Rm. 2-Bedroom	C	Door Casing	Wood	White	Intact	0.20	Negative		
39	Interior	Rm. 2-Bedroom	C	Door Jamb	Wood	White	Intact	0.13	Negative		
40	Interior	Rm. 2-Bedroom	---	Ceiling	Acoustic	White	Intact	0.19	Negative		
41	Interior	Rm. 2-Bedroom	C	Closet Door Casing	Wood	White	Fair	0.08	Negative		
42	Interior	Rm. 2-Bedroom	C	Upper Cabinet	Wood	White	Intact	0.17	Negative		
43	Interior	Rm. 3-Bathroom	A	Wall	Drywall	White	Intact	0.13	Negative		

DETAILED XRF TESTING RESULTS

959 Genevieve Street, Solana Beach, California 92074

Sample	Area	Room Equivalent	Side Tested	Component	Substrate	Color	Condition	Lead (mg/cm²)	Results	Quantities For Entire Area	Comments
44	Interior	Rm. 3-Bathroom	B	Wall	Drywall	White	Intact	0.20	Negative		
45	Interior	Rm. 3-Bathroom	C	Wall	Drywall	White	Intact	0.11	Negative		
46	Interior	Rm. 3-Bathroom	D	Wall	Ceramic Tile	White	Intact	13.85	Positive	200 Ft²	Not a painted surface
47	Interior	Rm. 3-Bathroom	D	Door	Wood	Brown	Intact	0.17	Negative		
48	Interior	Rm. 3-Bathroom	D	Door Casing	Wood	Brown	Intact	0.19	Negative		
49	Interior	Rm. 3-Bathroom	D	Door Jamb	Wood	Brown	Intact	0.20	Negative		
50	Interior	Rm. 3-Bathroom	---	Ceiling	Drywall	White	Intact	0.18	Negative		
51	Interior	Rm. 3-Bathroom	A	Upper Cabinet	Wood	Black	Intact	0.11	Negative		
52	Interior	Rm. 3-Bathroom	A	Lower Cabinet	Wood	White	Fair	0.05	Negative		
53	Interior	Rm. 4-Bedroom	A	Wall	Drywall	White	Intact	0.11	Negative		
54	Interior	Rm. 4-Bedroom	B	Wall	Drywall	White	Intact	0.03	Negative		
55	Interior	Rm. 4-Bedroom	C	Wall	Drywall	White	Intact	0.29	Negative		
56	Interior	Rm. 4-Bedroom	D	Wall	Drywall	White	Intact	0.17	Negative		
57	Interior	Rm. 4-Bedroom	B	Baseboard	Wood	White	Intact	0.13	Negative		
58	Interior	Rm. 4-Bedroom	A	Door	Wood	White	Fair	0.14	Negative		
59	Interior	Rm. 4-Bedroom	A	Door Casing	Wood	White	Fair	0.03	Negative		
60	Interior	Rm. 4-Bedroom	A	Door Jamb	Wood	White	Fair	0.20	Negative		
61	Interior	Rm. 4-Bedroom	---	Ceiling	Acoustic	White	Intact	0.09	Negative		
62	Interior	Rm. 4-Bedroom	A	Closet Door Casing	Wood	White	Intact	0.11	Negative		
63	Interior	Rm. 4-Bedroom	A	Upper Cabinet	Wood	Green	Intact	0.07	Negative		
64	Interior	Rm. 5-Bedroom	A	Wall	Drywall	White	Fair	0.17	Negative		
65	Interior	Rm. 5-Bedroom	B	Wall	Drywall	White	Fair	0.14	Negative		
66	Interior	Rm. 5-Bedroom	C	Wall	Drywall	White	Fair	0.20	Negative		
67	Interior	Rm. 5-Bedroom	D	Wall	Drywall	White	Poor	0.13	Negative		
68	Interior	Rm. 5-Bedroom	B	Baseboard	Wood	White	Intact	0.05	Negative		
69	Interior	Rm. 5-Bedroom	B	Door	Wood	White	Intact	0.13	Negative		
70	Interior	Rm. 5-Bedroom	B	Door Casing	Wood	White	Intact	0.20	Negative		
71	Interior	Rm. 5-Bedroom	B	Door Jamb	Wood	White	Intact	0.11	Negative		
72	Interior	Rm. 5-Bedroom	---	Ceiling	Acoustic	White	Intact	0.03	Negative		
73	Interior	Rm. 5-Bedroom	A	Closet Door	Wood	White	Intact	0.11	Negative		
74	Interior	Rm. 5-Bedroom	A	Closet Door Casing	Wood	White	Intact	0.05	Negative		
75	Interior	Rm. 5-Bedroom	A	Upper Cabinet	Wood	White	Intact	0.11	Negative		
76	Interior	Rm. 6-Kitchen	A	Wall	Drywall	White	Intact	0.13	Negative		
77	Interior	Rm. 6-Kitchen	B	Wall	Drywall	White	Intact	0.29	Negative		
78	Interior	Rm. 6-Kitchen	C	Wall	Drywall	White	Intact	0.17	Negative		
79	Interior	Rm. 6-Kitchen	D	Wall	Drywall	White	Intact	0.23	Negative		
80	Interior	Rm. 6-Kitchen	C	Baseboard	Wood	White	Intact	0.05	Negative		
81	Interior	Rm. 6-Kitchen	C	Door	Wood	White	Fair	0.20	Negative		
82	Interior	Rm. 6-Kitchen	C	Door Casing	Wood	Green	Fair	0.14	Negative		
83	Interior	Rm. 6-Kitchen	C	Door Jamb	Wood	Green	Fair	0.20	Negative		
84	Interior	Rm. 6-Kitchen	D	Window Sill	Wood	White	Intact	0.20	Negative		
85	Interior	Rm. 6-Kitchen	---	Ceiling	Drywall	White	Intact	0.13	Negative		
86	Interior	Rm. 6-Kitchen	B	Shelf	Wood	White	Fair	0.20	Negative		

DETAILED XRF TESTING RESULTS

959 Genevieve Street, Solana Beach, California 92074

Sample	Area	Room Equivalent	Side Tested	Component	Substrate	Color	Condition	Lead (mg/cm²)	Results	Quantities For Entire Area	Comments
87	Interior	Rm. 6-Kitchen	D	Upper Cabinet	Wood	Green	Fair	0.17	Negative		
88	Interior	Rm. 6-Kitchen	D	Lower Cabinet	Wood	Green	Fair	0.19	Negative		
89	Interior	Rm. 7-Hall	A	Wall	Drywall	White	Intact	0.11	Negative		
90	Interior	Rm. 7-Hall	B	Wall	Drywall	White	Intact	0.08	Negative		
91	Interior	Rm. 7-Hall	C	Wall	Drywall	White	Intact	0.20	Negative		
92	Interior	Rm. 7-Hall	D	Wall	Drywall	White	Intact	0.11	Negative		
93	Interior	Rm. 7-Hall	A	Door	Wood	White	Poor	0.05	Negative		
94	Interior	Rm. 7-Hall	B	Door Casing	Wood	White	Poor	0.13	Negative		
95	Interior	Rm. 7-Hall	C	Door Jamb	Wood	White	Poor	0.20	Negative		
96	Interior	Rm. 7-Hall	---	Ceiling	Acoustic	White	Intact	0.11	Negative		
97	Interior	Rm. 7-Hall	D	Upper Cabinet	Wood	White	Intact	0.07	Negative		
98	Interior	Rm. 7-Hall	D	Lower Cabinet	Wood	White	Intact	0.19	Negative		

APPENDIX C

EMPLOYEE CREDENTIALS

State of California
Division of Occupational Safety and Health

Certified Site Surveillance Technician

John P Castorini

Name

Certification No. **03-3349**

Expires on **05/22/12**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

State of California Department of Public Health

Lead-Related -Construction Certificate

Certificate Type	Expiration Date
Inspector/Assessor	03/14/2012
Project Monitor	03/14/2012

John P. Castorini

ID #: 13642

State of California
Division of Occupational Safety and Health

Certified Asbestos Consultant

Andrew J Olcott

Name

Certification No. **04-3525**

Expires on **02/19/12**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

APPENDIX D

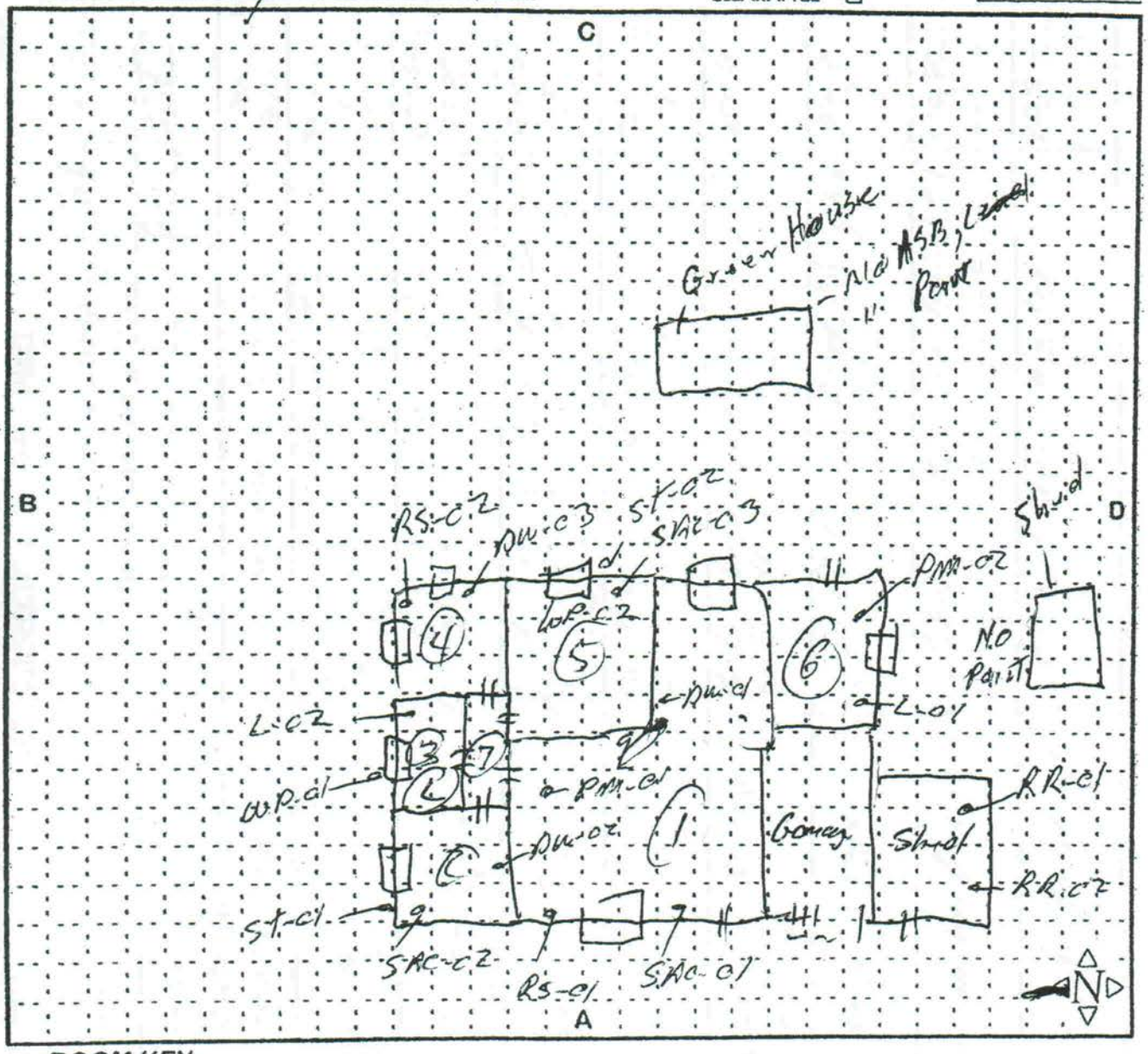
FLOOR PLAN

PROPERTY SKETCH

ADDRESS: 959 Greenview ST
Solana Beach CA 92071

DRAWN BY: JC

LEAD		ASBESTOS		JOB #
INSPECTION	☑	SURVEY	☑	PAGE 1 OF 1
INSP./RISK	☒	TESTING	☐	DATE 10/10/11
TESTING	☐	MOLD		
CLEARANCE	☐	INVESTIGATION	☐	
		SAMPLING	☐	OTHER ☐
		CLEARANCE	☐	



ROOM KEY:

1. Living	8.	15.
2. ~~Bath~~ Bed	9.	16.
3. Bath	10.	17.
4. Bed	11.	18.
5. Bed	12.	19.
6. Kitchen	13.	20.
7. Hall	14.	21.

Appendix 5.8-1 Preliminary Hydrology Study

Appendices

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PRELIMINARY HYDROLOGY STUDY
For

RESIDENTIAL CARE FACILITY
959 GENEVIEVE STREET

959 Genevieve Street
Solana Beach, CA 92075
APN 298-390-51

PREPARED FOR:
Pacific Sound Investors,
LLC
1855 Freda Lane
Cardiff, CA 92007

DATE:
September 21, 2017

10/2/17

WILLIAM G. MACK, RCE 73620 DATE

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

This Hydrology Study for the proposed residential care facility to be located at 959 Genevieve Street has been prepared to analyze the hydrologic and hydraulic characteristics of the existing and proposed project site and to address potential stormwater quality impacts of the proposed project. This report presents both the methodology and the calculations used for determining the stormwater runoff rate from the project site for both the pre-developed (existing) conditions and the post-developed (proposed) conditions produced by the 100 year 6 hour storm event. Preliminary stormwater retention requirements, stormdrain pipe sizing, and permanent BMP sizing calculations have been included as a part this report.

1.2 Existing Conditions

Site Description

The property is geographically located at N $32^0$59'19" W $117^0$15'17" within the City of Solana Beach. The site is bounded by Marine View Avenue and Residential Development to the east, Genevieve Street to the north, Interstate 5 to the west and residential development to the south. The property itself is "L" shaped and is approximately 2.91 acres in area. The existing site topography can be described as gently sloping terrain and generally slopes downward in the northerly direction toward Genevieve Street and to the west toward the Caltrans Interstate 5 Right-of-Way. The southerly end of the site is undeveloped however there is an existing single family home located approximately in the center of the site which has access from the North off of Genevieve Street. The total existing onsite impervious area has been estimated to be approximately 1,971 sf or 2.0% of total site area. Per the Soils Classification Map contained in the San Diego County Hydrology Manual June 2003 Revision, the general vicinity of the project site contains varying soils types which include Type A, Type B, and Type C soils. For the purposes of determining runoff coefficients for this study, soils type has been assumed to be Type C for all areas tributary to and including the project site. Based on the existing amount of impervious area, a runoff coefficient or "C Value" for the site has been calculated to be 0.45.

Existing Drainage Patterns

The onsite drainage is divided by an existing ridgeline that runs across the north end of the site parallel to Genevieve Street. The portion of the site located to the north of the ridgeline, which is approximately one quarter of the total site area, is located within the downstream end of a much larger offsite drainage basin, indicated as "Basin A" on the Pre Development Hydrology Map included in this report. "Basin A" drains to an existing stormdrain inlet located within the Caltrans Interstate 5 Right-of-Way between the existing Genevieve Street cul-de-sac and Interstate 5. Drainage from the portion of the project site located within "Basin A" sheet flows to Genevieve Street and it appears that all offsite runoff is contained in Genevieve Street and that no runoff from the offsite portion of "Basin A" enters the subject property. For all areas within "Basin A" that are

located outside of the project site, a runoff coefficient of 0.42 was assigned from Table 3-1 of the San Diego County Hydrology Manual June 2003 Revision, assuming Type C soils and residential development 2.0 DU/AC..

The portion of the site located to the south of the existing onsite ridgeline is located within the downstream end of a separate offsite drainage basin which is indicated as "Basin B" on the Pre Development Hydrology Map included in this report. Offsite runoff from "Basin B" has a concentrated flowline that runs through the southerly portion of the subject property in the east to west direction via an existing unimproved earth swale located to the south of the existing house. Runoff from "Basin B", including the southerly portion of the project site, flows to the west and enters the existing Caltrans Right-Of-Way for Interstate 5 freeway where it is collected by an existing concrete drainage channel before it enters the existing public stormdrain system. For all areas within "Basin B" that are located outside of the project site, a runoff coefficient of 0.45 was assigned from Table 3-1 of the San Diego County Hydrology Manual June 2003 Revision, assuming Type C soils and residential development 2.0 DU/AC..

See Section 1.4 for a summary of the peak flowrates for each drainage area for the pre development condition. A Pre Development Hydrology Map showing the delineation of the existing drainage areas has been included in the Appendix for reference.

1.3 Proposed Project

Project Description

The proposed project is classified as a Priority Stormwater Project as determined using the City of Solana Beach Stormwater Project Classification criteria since it proposes to create a new paved surface greater than 10,000 sf in area. The project involves site grading, utility installation, drainage improvements and street improvements associated with the construction of a new assisted living facility, access road, parking lot and underground garage. Perimeter slope grading, retaining walls, brow ditches, and a private onsite stormdrain system are proposed to create courtyard areas adjacent to the new building and to provide for proper site drainage. A new surface parking lot is proposed at the northeast end of the site adjacent to Genevieve Street and the proposed main building entry. A new onsite access road is proposed which will run in the north south direction along the westerly property line. This road will access directly off of the existing Genevieve Street cul-de-sac and will provide access to the underground garage and to the west building entry area. In the proposed condition, the site is estimated to have about 66,206 sf of impervious area which is approximately 52% of the total site. The project has been broken into 8 drainage management areas (DMAs) that are tributary to permanent storm water treatment and hydromodification control facilities before discharging from the site. Each DMA is tributary to a Biofiltration Basin with Partial Retention per Appendix E.17, PR-1 in the County BMP Design Manual. Each DMA calculates the runoff coefficient based on the percent of impervious area within the sub area and uses the corresponding "C Value" from table 3-1 assuming Type C soils.

Proposed Drainage Patterns

Runoff from the northerly portion of the site will discharge to Genevieve Street via a sidewalk underdrain after being treated by biofiltration basins 6, 7 & 8, and will remain within "Basin A" similarly to the existing condition. Runoff from the southerly portion of the site will be collected by a new onsite stormdrain system that is tributary to biofiltration basin's 1 through 5 and will discharge on the west side of the site where it will then sheet flow to the existing concrete drainage channel located to the west of the project site. Runoff from this portion of the site will remain within "Basin B" similarly to the existing condition.

The offsite runoff from "Basin B" that currently surface flows through the site will be collected by a new stormdrain inlet to be located adjacent to the easterly property line in line with the existing basin flowline run on point. Runoff collected by this inlet is to be conveyed across the site by a new box culvert which will run in the east to west direction under the breezeway of the proposed building and under the cul-de-sac of the proposed onsite access road. The new box culvert is to discharge at the west edge of the site via a new concrete headwall and rip rap energy dissipater before it flows into the existing concrete drainage channel located within the Caltrans Right-of-Way. The point of compliance is considered to be northern most location of the Cal-Trans drainage ditch where runoff from Basin A and Basin B are combined.

Stormwater Retention

An onsite underground stormwater retention system is proposed in DMA #4 in addition to the biofiltration basins to provide mitigation for the increase in peak runoff leaving the site as a result of the proposed development. This system is to be located underneath the proposed onsite access road along the westerly site boundary. The stormwater retention system has been sized to contain the increase in runoff volume from the site based upon the 100 year 6 hour storm event as determined by the rational method calculations contained in this report. The portion of the onsite runoff generated from the new onsite access road and a portion of the roof area will be collected by the pipe storage system and will be pumped to the surface along the west side of the site where is will sheet flow to the existing concrete drainage channel and be collected by the existing public stormdrain system. The intent of the stormwater retention system is to mimic the existing site runoff characteristics to ensure that the proposed development does not result in additional drainage impacts to downstream properties or to the existing drainage improvements that receive runoff from the site.

Low Impact Development

Permanent stormwater treatment facilities (BMP) areas including pervious pavers, landscaping and biofiltration areas have been incorporated into the site design and sized to meet the minimum Design Capture Volume (DCV) requirements for priority stormwater projects as defined by the San Diego County BMP Design Manual. Numeric Sizing Calculations for permanent BMP areas have been included in Section 4 of this report for reference.

Hydromodification

The project has been designed to incorporate Hydromodification Management Criteria to reduce the post project peak flow and duration to pre-developed conditions. Flow control is implemented on the outlet structures located in the BMPs. Continuous model simulation modeling in EPA-SWMM was used to determine the flow control structures. A detailed analysis of the SWMM analysis is provided in Attachment 2 of the Storm Water Quality Management Plan for the Residential Care Facility.

See Section 1.4 for a summary of the peak flowrates for each drainage area for the post development condition. A Post Development Hydrology Map showing the delineation of the ultimate drainage areas has been included in the Appendix for reference.

1.4 Summary of Results

AES Rational Method software was used to determine the post project peak flows. Upon performing hydrologic analysis of the project site in both the existing condition and the proposed developed the following results were produced. Refer to the Hydrology Maps located in the Appendix of this report for node locations and drainage basin delineation and the hydrology calculations located in section 3.0 of this report.

PREDEVELOPMENT SUMMARY

BASIN	AREA DESCRIPTION	NODE	TOTAL TRIBUTARY AREA	Q100	Tc
A	OFF-SITE	202	64.0 ACRES	85.7 CFS	15.8 MIN
A	ON-SITE	199	0.8 ACRES	1.64 CFS	8.9 MIN
B	OFF-SITE	104	29.3 ACRES	30.8 CFS	21.9 MIN
B	ON-SITE	155	2.1 ACRES	4.20 CFS	9.2 MIN

POST DEVELOPMENT SUMMARY

BASIN	AREA DESCRIPTION	NODE	TOTAL TRIBUTARY AREA	Q100	Tc
A	OFF-SITE	202	64.0 ACRES	85.7 CFS	15.8 MIN
A	ON-SITE	199	0.9 ACRES	1.86 CFS	19.5 MIN
B	OFF-SITE	104	29.8 ACRES	32.9 CFS	21.9 MIN
B	ON-SITE	155	2.1 ACRES	4.32 CFS	15.0 MIN

ON-SITE HYDROLOGY SUMMARY

NODE	AREA (ACRES)	PRE-PROJECT PEAK RUNOFF (CFS)	TC (MIN)	POST-PROJECT UN-DETAINED PEAK RUNOFF (CFS)	TC (MIN)	POST-PROJECT DETAINED PEAK RUNOFF (CFS)	TC (MIN)
199	2.9	5.8	9.2	9.2	9.3	5.75	15.0

1.5 Conclusions

Based upon the calculations included in this report, the design of the proposed project will not result in an increase in peak runoff leaving the site for the 100 year 6 hour storm event compared to that of the existing site condition. The existing drainage patterns of the site will not be significantly altered as a result of the proposed development and the existing site runoff points are to be maintained in the post developed site condition. Based upon the above information and calculated flow rates summarized in Section 1.4, it can be said that the proposed development mimics the pre development hydrology and drainage patterns for the site.

1.6 References

"San Diego County Hydrology Manual", revised June 2003, County of San Diego, Department of Public Works, Flood Control Section.

"San Diego County Drainage Design Manual", County of San Diego, May 2005

2.0 METHODOLOGY

2.1 Introduction

The hydrologic model used to perform the hydrologic analysis presented in this report utilizes the Rational Method (RM) equation, Q=CIA. The RM formula estimates the peak rate of runoff based on the variables of area, runoff coefficient, and rainfall intensity. The rainfall intensity (I) is equal to:

$$I = 7.44 \times P_6 \times D^{-0.645}$$

Where:

I = Intensity (in/hr)
P_6 = 6-hour precipitation (inches)
D = duration (minutes – use Tc)

Using the Time of Concentration (Tc), which is the time required for a given element of water that originates at the most remote point of the basin being analyzed to reach the point at which the runoff from the basin is being analyzed. The RM equation determines the storm water runoff rate (Q) for a given basin in terms of flow (typically in cubic feet per second (cfs) but sometimes as gallons per minute (gpm)). The RM equation is as follows:

$$Q = CIA$$

Where:

Q= flow (in cfs)
C = runoff coefficient, ratio of rainfall that produces storm water runoff (runoff vs. infiltration/evaporation/absorption/etc)
I = average rainfall intensity for a duration equal to the Tc for the area, in inches per hour.
A = drainage area contributing to the basin in acres.

The RM equation assumes that the storm event being analyzed delivers precipitation to the entire basin uniformly, and therefore the peak discharge rate will occur when a raindrop falls at the most remote portion of the basin arrives at the point of analysis. The RM also assumes that the fraction of rainfall that becomes runoff or the runoff coefficient C is not affected by the storm intensity, I, or the precipitation zone number.

In addition to the above Rational Method assumptions, the conservative assumption that all runoff coefficients utilized for this report are based on type “D” soils.

2.2 County of San Diego Criteria

As defined by the County Hydrology Manual dated June 2003, the rational method is the preferred equation for determining the hydrologic characteristics of basins up to approximately one square mile in size. The County of San Diego has developed its own tables, nomographs, and methodologies for analyzing storm water runoff for areas within

the county. The County has also developed precipitation isopluvial contour maps that show even lines of rainfall anticipated from a given storm event (i.e. 100-year, 6-hour storm).

One of the variables of the RM equation is the runoff coefficient, C. Runoff coefficients can be determined using one of two methods. In the first method, pervious and impervious surfaces are assigned a weighted value. For this project pervious surfaces were assigned a value of 0.35 and impervious areas assigned 0.90. The runoff coefficient is then determined by calculating the weighted average for the given surfaces present on site. The second method uses land use and soil types to determine a runoff coefficient. The County of San Diego has developed a table of Runoff Coefficients for Urban Areas to be applied to basins located within the County of San Diego. The table categorizes the land use, the associated development density (dwelling units per acre) and the percentage of impervious area. Each of the categories listed has an associated runoff coefficient, C, for each soil type class.

The County has also illustrated in detail the methodology for determining the time of concentration, in particular the initial time of concentration. The County has adopted the Federal Aviation Agency's (FAA) overland time of flow equation. This equation essentially limits the flow path length for the initial time of concentration to lengths of 100 feet or less, and is dependent on land use and slope.

2.3 Runoff Coefficient Determination

Runoff Coefficients used in this analysis contained in this report were taken from Table 3-1 of the County of San Diego Hydrology Manual, June 2003 Revision.

3.0 RATIONAL METHOD CALCULATIONS

3.1 PRE DEVELOPMENT HYDROLOGY CALCULATIONS

Rational Method Parameters

Runoff Coefficient C=0.9* for Impervious Area
Runoff Coefficient C=0.34* for Natural Area, Assumed Soil Type C
Runoff Coefficient C=0.42 for offsite areas LDR 2.0 DU/A or less
6 Hour Storm Precipitation (P_6)=2.5 in (see rainfall isopluvial*)
I= Intensity in/hr, $I=7.44xP_6xD^{-0.645}$*
A= Basin Area (acres)
Tc=Time of Concentration (min)
Q=Peak Runoff, Q=C*I*A (cfs)

*From San Diego County Hydrology Manual, June 2003 Revision

Basin "A"

Node 200 to 201

Flowlength=25 lf
Area=0.1 ac
ΔE=4.0 ft
C=0.42
CA= 0.42 x 0.1 ac=0.042
Ti=5.8 min per Table 3-2
$I=7.44x2.5x5.8^{-0.645}$=5.99 in/hr
Q_{PRE}= 0.042 * 5.99 in/hr
$Q_{200\ to\ 201}$=0.25 cfs

Node 201 to 202

Flowlength=2,920 lf
Area=31.7 ac
ΔE=212.5 ft
C=0.42
CA= 0.42 x 63.9 ac=26.83
∑CA=0.042 + 26.83 = 27.3
Tt=9.98 min per Figure 3-4
Tc= 5.8 min + 10.0 min = 15.8 min
$I=7.44x2.5x15.8^{-0.645}$=3.14 in/hr
Q_{PRE}= 27.3 * 3.14 in/hr
$Q_{101\ to\ 102}$=85.7 cfs

SUMMARY BASIN "A"

Total Area = 64.0 acres
Total Flowlength = 2,945 lf

$Q_{BASIN\ B}$=85.7 cfs
Tc=15.8 min

Basin "B"

Node 100 to 101

Flowlength=100 lf
Area=0.2 ac
ΔE=4.0 ft
C=0.42
CA= 0.42 x 0.2 ac=0.084
Ti=8.1 min per Table 3-2
$I=7.44xP_6xD^{-0.645}=7.44x2.5x8.1^{-0.645}$=4.57 in/hr
Q_{PRE}= 0.084 * 4.57 in/hr
$Q_{100\ to\ 101}$=0.4 cfs

Node 101 to 102

Flowlength=1,760 lf
Area=9.0 ac
ΔE=88 ft
C=0.42
CA= 0.42 x 9.0 ac=3.78
∑CA=0.084 + 3.78 = 3.86
Tt=7.81 min per Figure 3-4
Tc= 8.1 min + 7.81 min = 15.9 min
$I=7.44x2.5x15.9^{-0.645}$=3.12 in/hr
Q_{PRE}= 3.86 * 3.12 in/hr
$Q_{101\ to\ 102}$=12.0 cfs

Node 102 to 103

Flowlength=960 lf
Area=14.2 ac
ΔE=88 ft
C=0.42
CA= 0.42 x 14.2 ac=5.96
∑CA=3.86 + 5.96 = 9.82
Tt=3.88 min per Figure 3-4
Tc= 15.9 min + 3.9 min = 19.8 min
$I=7.44x2.5x19.8^{-0.645}$=2.71 in/hr
Q_{PRE}= 9.82 * 2.71 in/hr
$Q_{102\ to\ 103}$=26.6 cfs

Node 103 to 104

Flowlength=420 lf
Area=5.9 ac

ΔE=34.5 ft
C=0.40 (weighted C)
CA= 0.40 x 5.9 ac=2.36
$\sum$CA=9.82 + 2.36 = 12.18
Tt=2.14 min per Figure 3-4
Tc= 19.8 min + 2.1 min = 21.9 min
$I=7.44x2.5x21.9^{-0.645}$=2.54 in/hr
Q_{PRE}= 12.18 * 2.54 in/hr
$Q_{102\ to\ 103}$=30.8 cfs

<u>SUMMARY BASIN "B"</u>

Total Area = 29.3 acres
Total Flowlength = 3,230 lf
$Q_{BASIN\ B}$=30.8 cfs
Tc=21.9 min

3.2 POST DEVELOPMENT HYDROLOGY CALCULATIONS

Basin "A"

Node 200 to 201

Flowlength=25 lf
Area=0.1 ac
ΔE=4.0 ft
C=0.42
CA= 0.42 x 0.1 ac=0.042
Ti=5.8 min per Table 3-2
$I=7.44x2.5x5.8^{-0.645}$=5.99 in/hr
Q_{PRE}= 0.042 * 5.99 in/hr
$Q_{200\ to\ 201}$=0.25 cfs

Node 201 to 202

Flowlength=2,920 lf
Area=31.7 ac
ΔE=212.5 ft
Weighted C Calculation For Subareas A3 and A4
C= (0.8 ac/63.4) x 0.64 + (62.6 ac / 63.5) x .42 = 0.43
CA= 0.43 x 63.4 ac=27.26
$\sum$CA=0.042 + 27.26 = 27.3
Tt=9.98 min per Figure 3-4
Tc= 5.8 min + 10.0 min = 15.8 min
$I=7.44x2.5x15.8^{-0.645}$=3.14 in/hr
Q_{PRE}= 27.3 * 3.14 in/hr
$Q_{101\ to\ 102}$=85.7 cfs

SUMMARY BASIN "A"
Total Area = 63.5 acres
Total Flowlength = 2,945 lf
$Q_{BASIN\ B}$=85.7 cfs
Tc=15.8 min

Basin "B"

Node 100 to 101

Flowlength=25 lf
Area=0.2 ac
ΔE=4.0 ft
C=0.42
CA= 0.42 x 0.2 ac=0.084
Ti=8.1 min per Table 3-2
$I=7.44xP_6xD^{-0.645}=7.44x2.5x8.1^{-0.645}$=4.57 in/hr
Q_{PRE}= 0.084 * 4.57 in/hr
$Q_{100\ to\ 101}$=0.4 cfs

Node 101 to 102

Flowlength=1,760 lf
Area=9.0 ac
ΔE=88 ft
C=0.42
CA= 0.42 x 9.0 ac=3.78
$\sum$CA=0.084 + 3.78 = 3.86
Tt=7.81 min per Figure 3-4
Tc= 8.1 min + 7.81 min = 15.9 min
$I=7.44x2.5x15.9^{-0.645}$=3.12 in/hr
Q_{PRE}= 3.86 * 3.12 in/hr
$Q_{101\ to\ 102}$=12.0 cfs

Node 102 to 103

Flowlength=960 lf
Area=14.2 ac
ΔE=88 ft
C=0.42
CA= 0.42 x 14.2 ac=5.96
$\sum$CA=3.86 + 5.96 = 9.82
Tt=3.88 min per Figure 3-4
Tc= 15.9 min + 3.9 min = 19.8 min
$I=7.44x2.5x19.8^{-0.645}$=2.71 in/hr
Q_{PRE}= 9.82 * 2.71 in/hr
$Q_{102\ to\ 103}$=26.6 cfs

Node 103 to 104

Flowlength=420 lf
Area=5.9 ac
ΔE=34.5 ft
Weighted C Calculation for Subareas B4, B5 & B6
C= (2.1 ac/6.4 ac) x 0.64 + (4.3 ac / 6.4 ac) x .42 = 0.49
CA= 0.49 x 6.4 ac=3.14
$\sum$CA=9.82 + 3.14 = 12.96
Tt=2.14 min per Figure 3-4
Tc= 19.8 min + 2.1 min = 21.9 min
$I=7.44x2.5x21.9^{-0.645}$=2.54 in/hr
Q_{PRE}= 12.96 * 2.54 in/hr
$Q_{102\ to\ 103}$=32.8 cfs

SUMMARY BASIN "B"
Total Area = 29.3 acres
Total Flowlength = 3,230 lf
$Q_{BASIN\ B}$=32.9 cfs
Tc=21.9 min

```
******************************************************************************

            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                         2003,1985,1981 HYDROLOGY MANUAL
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             Ver. 23.0 Release Date: 07/01/2016  License ID 1452

                           Analysis prepared by:

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                       535 N. HIGHWAY 101, SUITE A
                          SOLANA BEACH, CA 92075
                               858.259.8212

 ************************** DESCRIPTION OF STUDY **************************
* RESIDENTIAL CARE FACILITY                                                *
* J-1890                                                                   *
* 100YR 6H PRE-PROJECT CONDITION                                           *
 ****************************************************************************

  FILE NAME: PRE00.RAT
  TIME/DATE OF STUDY: 15:50 09/19/2017
------------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
------------------------------------------------------------------------------
  2003 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.500
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.90
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

******************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    105.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    140.00
  DOWNSTREAM ELEVATION(FEET) =    133.00
  ELEVATION DIFFERENCE(FEET) =      7.00
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    6.117
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.784
```

```
  SUBAREA RUNOFF(CFS) =      0.36
  TOTAL AREA(ACRES) =      0.14   TOTAL RUNOFF(CFS) =      0.36

****************************************************************************
  FLOW PROCESS FROM NODE    105.00 TO NODE    199.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    133.00  DOWNSTREAM(FEET) =    106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   320.00   CHANNEL SLOPE =  0.0844
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =  12.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.558
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.05
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.95
  AVERAGE FLOW DEPTH(FEET) =   0.05   TRAVEL TIME(MIN.) =   2.73
  Tc(MIN.) =    8.85
  SUBAREA AREA(ACRES) =     0.66       SUBAREA RUNOFF(CFS) =    1.35
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.450
  TOTAL AREA(ACRES) =        0.8         PEAK FLOW RATE(CFS) =       1.64

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.07   FLOW VELOCITY(FEET/SEC.) =   2.31
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    199.00 =     420.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    199.00 TO NODE    199.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.85
  RAINFALL INTENSITY(INCH/HR) =   4.56
  TOTAL STREAM AREA(ACRES) =     0.80
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      1.64

****************************************************************************
  FLOW PROCESS FROM NODE    150.00 TO NODE    155.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   150.00
  UPSTREAM ELEVATION(FEET) =    148.00
  DOWNSTREAM ELEVATION(FEET) =    134.00
  ELEVATION DIFFERENCE(FEET) =     14.00
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    5.557
  WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN
           THE MAXIMUM OVERLAND FLOW LENGTH =   100.00
           (Reference: Table 3-1B of Hydrology Manual)
           THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.153
  SUBAREA RUNOFF(CFS) =      0.44
  TOTAL AREA(ACRES) =      0.16   TOTAL RUNOFF(CFS) =      0.44

****************************************************************************
```

```
  FLOW PROCESS FROM NODE    155.00 TO NODE    160.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    134.00  DOWNSTREAM(FEET) =    113.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   336.00   CHANNEL SLOPE =  0.0625
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =  12.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.777
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.68
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.10
  AVERAGE FLOW DEPTH(FEET) =   0.07   TRAVEL TIME(MIN.) =   2.67
  Tc(MIN.) =    8.23
  SUBAREA AREA(ACRES) =     1.13       SUBAREA RUNOFF(CFS) =    2.43
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.450
  TOTAL AREA(ACRES) =        1.3         PEAK FLOW RATE(CFS) =       2.77

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.10   FLOW VELOCITY(FEET/SEC.) =   2.42
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    160.00 =     486.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    160.00 TO NODE    199.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    113.00  DOWNSTREAM(FEET) =    106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   300.00   CHANNEL SLOPE =  0.0233
  CHANNEL BASE(FEET) =    2.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   4.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.442
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       3.58
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   5.09
  AVERAGE FLOW DEPTH(FEET) =   0.25   TRAVEL TIME(MIN.) =   0.98
  Tc(MIN.) =    9.21
  SUBAREA AREA(ACRES) =     0.81       SUBAREA RUNOFF(CFS) =    1.62
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.450
  TOTAL AREA(ACRES) =        2.1         PEAK FLOW RATE(CFS) =       4.20

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.28   FLOW VELOCITY(FEET/SEC.) =   5.34
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =     786.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    199.00 TO NODE    199.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.21
  RAINFALL INTENSITY(INCH/HR) =   4.44
  TOTAL STREAM AREA(ACRES) =     2.10
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      4.20
```

```
** CONFLUENCE DATA **
STREAM     RUNOFF       Tc      INTENSITY      AREA
NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
    1        1.64     8.85        4.558          0.80
    2        4.20     9.21        4.442          2.10

RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
CONFLUENCE FORMULA USED FOR  2 STREAMS.

** PEAK FLOW RATE TABLE **
STREAM     RUNOFF      Tc      INTENSITY
NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
    1        5.67     8.85       4.558
    2        5.80     9.21       4.442

COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
PEAK FLOW RATE(CFS) =       5.80   Tc(MIN.) =    9.21
TOTAL AREA(ACRES) =        2.9
LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =     786.00 FEET.
============================================================================
END OF STUDY SUMMARY:
TOTAL AREA(ACRES)     =        2.9  TC(MIN.) =      9.21
PEAK FLOW RATE(CFS)   =       5.80
============================================================================
============================================================================
END OF RATIONAL METHOD ANALYSIS
```

♀

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******************************************************************************

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                          2003,1985,1981 HYDROLOGY MANUAL
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             Ver. 23.0 Release Date: 07/01/2016  License ID 1452

                              Analysis prepared by:

                      PASCO LARET SUITER & ASSOCIATES
                        535 N. HIGHWAY 101, SUITE A
                           SOLANA BEACH, CA 92075
                                858.259.8212

 ************************** DESCRIPTION OF STUDY **************************
* RESIDENTIAL CARE FACILITY                                                *
* J-1890                                                                   *
* 100YR 6HR POST PROJECT UN-DETAINED                                       *
 ****************************************************************************

  FILE NAME: POST00.RAT
  TIME/DATE OF STUDY: 16:03 09/19/2017
------------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
------------------------------------------------------------------------------
  2003 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.500
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.90
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

******************************************************************************
  FLOW PROCESS FROM NODE    150.00 TO NODE    151.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .2500
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    144.00
  DOWNSTREAM ELEVATION(FEET) =    129.00
  ELEVATION DIFFERENCE(FEET) =     15.00
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    7.102
  WARNING: THE MAXIMUM OVERLAND FLOW SLOPE, 10.%, IS USED IN Tc CALCULATION!
```

```
 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.252
SUBAREA RUNOFF(CFS) =      0.13
TOTAL AREA(ACRES) =      0.10   TOTAL RUNOFF(CFS) =      0.13

****************************************************************************
FLOW PROCESS FROM NODE    151.00 TO NODE    152.00 IS CODE =  51
----------------------------------------------------------------------------
>>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
>>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
ELEVATION DATA: UPSTREAM(FEET) =    129.00  DOWNSTREAM(FEET) =    128.00
CHANNEL LENGTH THRU SUBAREA(FEET) =    46.00   CHANNEL SLOPE =  0.0217
CHANNEL BASE(FEET) =    2.00   "Z" FACTOR =   3.000
MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   2.00
 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.015
*USER SPECIFIED(SUBAREA):
USER-SPECIFIED RUNOFF COEFFICIENT = .4200
S.C.S. CURVE NUMBER (AMC II) =   0
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       0.34
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.45
AVERAGE FLOW DEPTH(FEET) =   0.10   TRAVEL TIME(MIN.) =   0.53
Tc(MIN.) =    7.63
SUBAREA AREA(ACRES) =     0.20       SUBAREA RUNOFF(CFS) =    0.42
AREA-AVERAGE RUNOFF COEFFICIENT =  0.363
TOTAL AREA(ACRES) =        0.3         PEAK FLOW RATE(CFS) =       0.55

END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) =  0.13   FLOW VELOCITY(FEET/SEC.) =   1.69
LONGEST FLOWPATH FROM NODE    150.00 TO NODE    152.00 =     146.00 FEET.

****************************************************************************
FLOW PROCESS FROM NODE    152.00 TO NODE    153.00 IS CODE =  31
----------------------------------------------------------------------------
>>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
>>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
ELEVATION DATA: UPSTREAM(FEET) =   125.00  DOWNSTREAM(FEET) =   113.20
FLOW LENGTH(FEET) =   255.00   MANNING'S N =  0.013
ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
DEPTH OF FLOW IN  12.0 INCH PIPE IS   2.2 INCHES
PIPE-FLOW VELOCITY(FEET/SEC.) =   5.47
ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
PIPE-FLOW(CFS) =       0.55
PIPE TRAVEL TIME(MIN.) =   0.78    Tc(MIN.) =    8.41
LONGEST FLOWPATH FROM NODE    150.00 TO NODE    153.00 =     401.00 FEET.

****************************************************************************
FLOW PROCESS FROM NODE    153.00 TO NODE    153.00 IS CODE =  81
----------------------------------------------------------------------------
>>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.711
*USER SPECIFIED(SUBAREA):
USER-SPECIFIED RUNOFF COEFFICIENT = .6000
S.C.S. CURVE NUMBER (AMC II) =   0
AREA-AVERAGE RUNOFF COEFFICIENT = 0.4855
SUBAREA AREA(ACRES) =    0.32   SUBAREA RUNOFF(CFS) =    0.90
TOTAL AREA(ACRES) =        0.6   TOTAL RUNOFF(CFS) =       1.42
TC(MIN.) =    8.41

****************************************************************************
FLOW PROCESS FROM NODE    153.00 TO NODE    155.00 IS CODE =  31
----------------------------------------------------------------------------
```

```
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   113.20  DOWNSTREAM(FEET) =   113.00
  FLOW LENGTH(FEET) =    70.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   8.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.55
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       1.42
  PIPE TRAVEL TIME(MIN.) =   0.46    Tc(MIN.) =    8.87
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    155.00 =     471.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    155.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
==============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.87
  RAINFALL INTENSITY(INCH/HR) =   4.55
  TOTAL STREAM AREA(ACRES) =     0.62
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      1.42

****************************************************************************
  FLOW PROCESS FROM NODE    156.00 TO NODE    157.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6000
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    144.00
  DOWNSTREAM ELEVATION(FEET) =    117.50
  ELEVATION DIFFERENCE(FEET) =     26.50
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    4.178
  WARNING: THE MAXIMUM OVERLAND FLOW SLOPE, 10.%, IS USED IN Tc CALCULATION!
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.587
  NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
  SUBAREA RUNOFF(CFS) =      0.51
  TOTAL AREA(ACRES) =      0.13   TOTAL RUNOFF(CFS) =      0.51

****************************************************************************
  FLOW PROCESS FROM NODE    157.00 TO NODE    158.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   114.50  DOWNSTREAM(FEET) =   113.50
  FLOW LENGTH(FEET) =   142.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   3.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.75
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.51
  PIPE TRAVEL TIME(MIN.) =   0.86    Tc(MIN.) =    5.04
  LONGEST FLOWPATH FROM NODE    156.00 TO NODE    158.00 =     242.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    158.00 TO NODE    158.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
```

```
==============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.554
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6000
  S.C.S. CURVE NUMBER (AMC II) =   0
  AREA-AVERAGE RUNOFF COEFFICIENT = 0.6000
  SUBAREA AREA(ACRES) =    0.35   SUBAREA RUNOFF(CFS) =    1.38
  TOTAL AREA(ACRES) =        0.5   TOTAL RUNOFF(CFS) =       1.89
  TC(MIN.) =    5.04

****************************************************************************
  FLOW PROCESS FROM NODE    159.00 TO NODE    158.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
==============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.554
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .5400
  S.C.S. CURVE NUMBER (AMC II) =   0
  AREA-AVERAGE RUNOFF COEFFICIENT = 0.5774
  SUBAREA AREA(ACRES) =    0.29   SUBAREA RUNOFF(CFS) =    1.03
  TOTAL AREA(ACRES) =        0.8   TOTAL RUNOFF(CFS) =       2.91
  TC(MIN.) =    5.04

****************************************************************************
  FLOW PROCESS FROM NODE    158.00 TO NODE    155.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   113.50  DOWNSTREAM(FEET) =   113.00
  FLOW LENGTH(FEET) =   136.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS  10.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.35
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       2.91
  PIPE TRAVEL TIME(MIN.) =   0.68    Tc(MIN.) =    5.71
  LONGEST FLOWPATH FROM NODE    156.00 TO NODE    155.00 =     378.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    155.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
==============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    5.71
  RAINFALL INTENSITY(INCH/HR) =   6.04
  TOTAL STREAM AREA(ACRES) =     0.77
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      2.91

****************************************************************************
  FLOW PROCESS FROM NODE    160.00 TO NODE    161.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7800
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    117.50
  DOWNSTREAM ELEVATION(FEET) =    115.50
  ELEVATION DIFFERENCE(FEET) =      2.00
```

```
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    3.959
  WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN
           THE MAXIMUM OVERLAND FLOW LENGTH =    75.00
           (Reference: Table 3-1B of Hydrology Manual)
           THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.587
  NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
  SUBAREA RUNOFF(CFS) =      1.49
  TOTAL AREA(ACRES) =      0.29   TOTAL RUNOFF(CFS) =      1.49

****************************************************************************
  FLOW PROCESS FROM NODE    161.00 TO NODE    162.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    115.50  DOWNSTREAM(FEET) =    109.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   155.00   CHANNEL SLOPE =  0.0419
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =  10.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   2.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.587
  NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7800
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       2.57
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   3.35
  AVERAGE FLOW DEPTH(FEET) =   0.07   TRAVEL TIME(MIN.) =   0.77
  Tc(MIN.) =    4.73
  SUBAREA AREA(ACRES) =     0.42       SUBAREA RUNOFF(CFS) =    2.16
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.780
  TOTAL AREA(ACRES) =        0.7         PEAK FLOW RATE(CFS) =       3.65

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.09   FLOW VELOCITY(FEET/SEC.) =   3.78
  LONGEST FLOWPATH FROM NODE    160.00 TO NODE    162.00 =     255.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    162.00 TO NODE    155.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   108.00  DOWNSTREAM(FEET) =   107.00
  FLOW LENGTH(FEET) =   150.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS   9.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.46
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       3.65
  PIPE TRAVEL TIME(MIN.) =   0.56    Tc(MIN.) =    5.29
  LONGEST FLOWPATH FROM NODE    160.00 TO NODE    155.00 =     405.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    155.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  3 ARE:
  TIME OF CONCENTRATION(MIN.) =    5.29
  RAINFALL INTENSITY(INCH/HR) =   6.35
  TOTAL STREAM AREA(ACRES) =     0.71
```

```
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      3.65

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        1.42     8.87        4.552          0.62
      2        2.91     5.71        6.043          0.77
      3        3.65     5.29        6.351          0.71

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  3 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        7.19     5.29       6.351
      2        7.30     5.71       6.043
      3        6.23     8.87       4.552

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       7.30   Tc(MIN.) =    5.71
  TOTAL AREA(ACRES) =        2.1
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    155.00 =     471.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    199.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    107.00  DOWNSTREAM(FEET) =    106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   315.00   CHANNEL SLOPE =  0.0032
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   2.00
  CHANNEL FLOW THRU SUBAREA(CFS) =       7.30
  FLOW VELOCITY(FEET/SEC.) =   1.47   FLOW DEPTH(FEET) =   0.44
  TRAVEL TIME(MIN.) =   3.56   Tc(MIN.) =    9.28
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =     786.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    199.00 TO NODE    199.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =    9.28
  RAINFALL INTENSITY(INCH/HR) =   4.42
  TOTAL STREAM AREA(ACRES) =     2.10
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      7.30

****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .3500
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    142.00
  DOWNSTREAM ELEVATION(FEET) =    135.00
  ELEVATION DIFFERENCE(FEET) =      7.00
```

```
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    6.951
  WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN
           THE MAXIMUM OVERLAND FLOW LENGTH =    97.00
           (Reference: Table 3-1B of Hydrology Manual)
           THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.326
  SUBAREA RUNOFF(CFS) =      0.30
  TOTAL AREA(ACRES) =      0.16   TOTAL RUNOFF(CFS) =      0.30

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    135.00  DOWNSTREAM(FEET) =    128.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =    82.00   CHANNEL SLOPE =  0.0854
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =  12.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   2.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.855
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       0.44
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.27
  AVERAGE FLOW DEPTH(FEET) =   0.03   TRAVEL TIME(MIN.) =   1.07
  Tc(MIN.) =    8.02
  SUBAREA AREA(ACRES) =     0.13       SUBAREA RUNOFF(CFS) =    0.28
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.395
  TOTAL AREA(ACRES) =        0.3         PEAK FLOW RATE(CFS) =       0.56

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.04   FLOW VELOCITY(FEET/SEC.) =   1.51
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =     182.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    104.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   125.00  DOWNSTREAM(FEET) =   124.00
  FLOW LENGTH(FEET) =    78.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   3.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.46
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.56
  PIPE TRAVEL TIME(MIN.) =   0.38    Tc(MIN.) =    8.40
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    104.00 =     260.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    104.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.713
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7000
  S.C.S. CURVE NUMBER (AMC II) =   0
  AREA-AVERAGE RUNOFF COEFFICIENT = 0.5525
  SUBAREA AREA(ACRES) =    0.31   SUBAREA RUNOFF(CFS) =    1.02
  TOTAL AREA(ACRES) =        0.6   TOTAL RUNOFF(CFS) =       1.56
```

```
  TC(MIN.) =    8.40

****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    106.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   124.00  DOWNSTREAM(FEET) =   114.00
  FLOW LENGTH(FEET) =    92.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   3.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  10.02
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       1.56
  PIPE TRAVEL TIME(MIN.) =   0.15    Tc(MIN.) =    8.55
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    106.00 =     352.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    106.00 TO NODE    106.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.659
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .4500
  S.C.S. CURVE NUMBER (AMC II) =   0
  AREA-AVERAGE RUNOFF COEFFICIENT = 0.5250
  SUBAREA AREA(ACRES) =    0.22   SUBAREA RUNOFF(CFS) =    0.46
  TOTAL AREA(ACRES) =        0.8   TOTAL RUNOFF(CFS) =       2.01
  TC(MIN.) =    8.55

****************************************************************************
  FLOW PROCESS FROM NODE    106.00 TO NODE    199.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    114.00  DOWNSTREAM(FEET) =    106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =     0.96   CHANNEL SLOPE =  8.3333
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   2.00
  CHANNEL FLOW THRU SUBAREA(CFS) =       2.01
  FLOW VELOCITY(FEET/SEC.) =  16.12   FLOW DEPTH(FEET) =   0.01
  TRAVEL TIME(MIN.) =   0.00   Tc(MIN.) =    8.55
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    199.00 =     352.96 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    199.00 TO NODE    199.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =    8.55
  RAINFALL INTENSITY(INCH/HR) =   4.66
  TOTAL STREAM AREA(ACRES) =     0.82
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      2.01

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
```

```
    1        7.30     9.28        4.421          2.10
    2        2.01     8.55        4.659          0.82

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
    1        8.93     8.55       4.659
    2        9.20     9.28       4.421

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       9.20   Tc(MIN.) =    9.28
  TOTAL AREA(ACRES) =        2.9
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =     786.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        2.9  TC(MIN.) =      9.28
  PEAK FLOW RATE(CFS)   =       9.20
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

♀

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****************************************************************************

            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                          2003,1985,1981 HYDROLOGY MANUAL
         (c) Copyright 1982-2016 Advanced Engineering Software (aes)
             Ver. 23.0 Release Date: 07/01/2016  License ID 1452

                              Analysis prepared by:

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 ************************** DESCRIPTION OF STUDY **************************
* RESIDENTIAL CARE FACILITY                                                *
* J-1890                                                                   *
* 100YR 6HR POST PROJECT DETAINED CONDITION                                *
 ***************************************************************************

  FILE NAME: DET00.RAT
  TIME/DATE OF STUDY: 13:40 09/21/2017
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  2003 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.500
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.90
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: USE MODIFIED RATIONAL METHOD PROCEDURES FOR CONFLUENCE ANALYSIS
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.50 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    150.00 TO NODE    151.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .2500
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    144.00
  DOWNSTREAM ELEVATION(FEET) =    129.00
  ELEVATION DIFFERENCE(FEET) =     15.00
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    7.102
  WARNING: THE MAXIMUM OVERLAND FLOW SLOPE, 10.%, IS USED IN Tc CALCULATION!
```

```
 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.252
SUBAREA RUNOFF(CFS) =      0.13
TOTAL AREA(ACRES) =      0.10   TOTAL RUNOFF(CFS) =      0.13

****************************************************************************
FLOW PROCESS FROM NODE    151.00 TO NODE    152.00 IS CODE =  51
----------------------------------------------------------------------------
>>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
>>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
ELEVATION DATA: UPSTREAM(FEET) =    129.00  DOWNSTREAM(FEET) =    128.00
CHANNEL LENGTH THRU SUBAREA(FEET) =    46.00   CHANNEL SLOPE =  0.0217
CHANNEL BASE(FEET) =    2.00   "Z" FACTOR =   3.000
MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   2.00
 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  5.015
*USER SPECIFIED(SUBAREA):
USER-SPECIFIED RUNOFF COEFFICIENT = .4200
S.C.S. CURVE NUMBER (AMC II) =   0
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       0.34
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.45
AVERAGE FLOW DEPTH(FEET) =   0.10   TRAVEL TIME(MIN.) =   0.53
Tc(MIN.) =    7.63
SUBAREA AREA(ACRES) =     0.20       SUBAREA RUNOFF(CFS) =    0.42
AREA-AVERAGE RUNOFF COEFFICIENT =  0.363
TOTAL AREA(ACRES) =        0.3         PEAK FLOW RATE(CFS) =       0.55

END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) =  0.13   FLOW VELOCITY(FEET/SEC.) =   1.69
LONGEST FLOWPATH FROM NODE    150.00 TO NODE    152.00 =     146.00 FEET.

****************************************************************************
FLOW PROCESS FROM NODE    152.00 TO NODE    152.00 IS CODE =   7
----------------------------------------------------------------------------
>>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
============================================================================
USER-SPECIFIED VALUES ARE AS FOLLOWS:
TC(MIN) =  32.00   RAIN INTENSITY(INCH/HOUR) =  1.99
TOTAL AREA(ACRES) =     0.30   TOTAL RUNOFF(CFS) =      0.13

****************************************************************************
FLOW PROCESS FROM NODE    152.00 TO NODE    153.00 IS CODE =  31
----------------------------------------------------------------------------
>>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
>>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
ELEVATION DATA: UPSTREAM(FEET) =   125.00  DOWNSTREAM(FEET) =   113.20
FLOW LENGTH(FEET) =   255.00   MANNING'S N =  0.013
ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
DEPTH OF FLOW IN  12.0 INCH PIPE IS   1.1 INCHES
PIPE-FLOW VELOCITY(FEET/SEC.) =   3.47
ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
PIPE-FLOW(CFS) =       0.13
PIPE TRAVEL TIME(MIN.) =   1.23    Tc(MIN.) =   33.23
LONGEST FLOWPATH FROM NODE    150.00 TO NODE    153.00 =     401.00 FEET.

****************************************************************************
FLOW PROCESS FROM NODE    153.00 TO NODE    153.00 IS CODE =   1
----------------------------------------------------------------------------
>>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
TOTAL NUMBER OF STREAMS =  2
CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
TIME OF CONCENTRATION(MIN.) =   33.23
```

```
  RAINFALL INTENSITY(INCH/HR) =   1.94
  TOTAL STREAM AREA(ACRES) =     0.30
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.13

****************************************************************************
  FLOW PROCESS FROM NODE    153.00 TO NODE    153.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =  16.00   RAIN INTENSITY(INCH/HOUR) =  3.11
  TOTAL AREA(ACRES) =     0.32   TOTAL RUNOFF(CFS) =      0.68

****************************************************************************
  FLOW PROCESS FROM NODE    153.00 TO NODE    153.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   16.00
  RAINFALL INTENSITY(INCH/HR) =   3.11
  TOTAL STREAM AREA(ACRES) =     0.32
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.68

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        0.13    33.23        1.942          0.30
      2        0.68    16.00        3.111          0.32

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        0.74    16.00       3.111
      2        0.55    33.23       1.942

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       0.74   Tc(MIN.) =   16.00
  TOTAL AREA(ACRES) =        0.6
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    153.00 =     401.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    153.00 TO NODE    155.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   113.20  DOWNSTREAM(FEET) =   113.00
  FLOW LENGTH(FEET) =    70.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   5.4 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.19
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.74
  PIPE TRAVEL TIME(MIN.) =   0.53    Tc(MIN.) =   16.53
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    155.00 =     471.00 FEET.

****************************************************************************
```

```
  FLOW PROCESS FROM NODE    155.00 TO NODE    155.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   16.53
  RAINFALL INTENSITY(INCH/HR) =   3.05
  TOTAL STREAM AREA(ACRES) =     0.62
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.74

****************************************************************************
  FLOW PROCESS FROM NODE    156.00 TO NODE    157.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6000
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    144.00
  DOWNSTREAM ELEVATION(FEET) =    117.50
  ELEVATION DIFFERENCE(FEET) =     26.50
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    4.178
  WARNING: THE MAXIMUM OVERLAND FLOW SLOPE, 10.%, IS USED IN Tc CALCULATION!
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.587
  NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
  SUBAREA RUNOFF(CFS) =      0.51
  TOTAL AREA(ACRES) =      0.13   TOTAL RUNOFF(CFS) =      0.51

****************************************************************************
  FLOW PROCESS FROM NODE    157.00 TO NODE    158.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   114.50  DOWNSTREAM(FEET) =   113.50
  FLOW LENGTH(FEET) =   142.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   3.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.75
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.51
  PIPE TRAVEL TIME(MIN.) =   0.86    Tc(MIN.) =    5.04
  LONGEST FLOWPATH FROM NODE    156.00 TO NODE    158.00 =     242.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    158.00 TO NODE    158.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.554
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .6000
  S.C.S. CURVE NUMBER (AMC II) =   0
  AREA-AVERAGE RUNOFF COEFFICIENT = 0.6000
  SUBAREA AREA(ACRES) =    0.35   SUBAREA RUNOFF(CFS) =    1.38
  TOTAL AREA(ACRES) =        0.5   TOTAL RUNOFF(CFS) =       1.89
  TC(MIN.) =    5.04

****************************************************************************
  FLOW PROCESS FROM NODE    159.00 TO NODE    158.00 IS CODE =  81
----------------------------------------------------------------------------
```

```
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
==============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.554
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .5400
  S.C.S. CURVE NUMBER (AMC II) =   0
  AREA-AVERAGE RUNOFF COEFFICIENT = 0.5774
  SUBAREA AREA(ACRES) =    0.29   SUBAREA RUNOFF(CFS) =    1.03
  TOTAL AREA(ACRES) =        0.8   TOTAL RUNOFF(CFS) =       2.91
  TC(MIN.) =    5.04

******************************************************************************
  FLOW PROCESS FROM NODE    158.00 TO NODE    158.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
==============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =  10.00   RAIN INTENSITY(INCH/HOUR) =  4.21
  TOTAL AREA(ACRES) =     0.77   TOTAL RUNOFF(CFS) =      2.52

******************************************************************************
  FLOW PROCESS FROM NODE    158.00 TO NODE    155.00 IS CODE =  31
------------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   113.50  DOWNSTREAM(FEET) =   113.00
  FLOW LENGTH(FEET) =   136.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  15.0 INCH PIPE IS   9.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.26
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       2.52
  PIPE TRAVEL TIME(MIN.) =   0.70    Tc(MIN.) =   10.70
  LONGEST FLOWPATH FROM NODE    156.00 TO NODE    155.00 =     378.00 FEET.

******************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    155.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
==============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   10.70
  RAINFALL INTENSITY(INCH/HR) =   4.03
  TOTAL STREAM AREA(ACRES) =     0.77
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      2.52

******************************************************************************
  FLOW PROCESS FROM NODE    160.00 TO NODE    161.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7800
  S.C.S. CURVE NUMBER (AMC II) =   0
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  UPSTREAM ELEVATION(FEET) =    117.50
  DOWNSTREAM ELEVATION(FEET) =    115.50
  ELEVATION DIFFERENCE(FEET) =      2.00
  SUBAREA OVERLAND TIME OF FLOW(MIN.) =    3.959
  WARNING: INITIAL SUBAREA FLOW PATH LENGTH IS GREATER THAN
           THE MAXIMUM OVERLAND FLOW LENGTH =    75.00
           (Reference: Table 3-1B of Hydrology Manual)
```

```
          THE MAXIMUM OVERLAND FLOW LENGTH IS USED IN Tc CALCULATION!
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.587
  NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
  SUBAREA RUNOFF(CFS) =      1.49
  TOTAL AREA(ACRES) =      0.29   TOTAL RUNOFF(CFS) =      1.49

****************************************************************************
  FLOW PROCESS FROM NODE    161.00 TO NODE    162.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    115.50  DOWNSTREAM(FEET) =    109.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   155.00   CHANNEL SLOPE =  0.0419
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =  10.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   2.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  6.587
  NOTE: RAINFALL INTENSITY IS BASED ON Tc = 5-MINUTE.
  *USER SPECIFIED(SUBAREA):
  USER-SPECIFIED RUNOFF COEFFICIENT = .7800
  S.C.S. CURVE NUMBER (AMC II) =   0
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       2.57
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   3.35
  AVERAGE FLOW DEPTH(FEET) =   0.07   TRAVEL TIME(MIN.) =   0.77
  Tc(MIN.) =    4.73
  SUBAREA AREA(ACRES) =     0.42       SUBAREA RUNOFF(CFS) =    2.16
  AREA-AVERAGE RUNOFF COEFFICIENT =  0.780
  TOTAL AREA(ACRES) =        0.7         PEAK FLOW RATE(CFS) =       3.65

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.09   FLOW VELOCITY(FEET/SEC.) =   3.78
  LONGEST FLOWPATH FROM NODE    160.00 TO NODE    162.00 =     255.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    162.00 TO NODE    162.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =  10.00   RAIN INTENSITY(INCH/HOUR) =  4.21
  TOTAL AREA(ACRES) =     0.71   TOTAL RUNOFF(CFS) =      1.24

****************************************************************************
  FLOW PROCESS FROM NODE    162.00 TO NODE    155.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   108.00  DOWNSTREAM(FEET) =   107.00
  FLOW LENGTH(FEET) =   150.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   5.6 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.43
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       1.24
  PIPE TRAVEL TIME(MIN.) =   0.73    Tc(MIN.) =   10.73
  LONGEST FLOWPATH FROM NODE    160.00 TO NODE    155.00 =     405.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    155.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
```

```
==============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  3 ARE:
  TIME OF CONCENTRATION(MIN.) =   10.73
  RAINFALL INTENSITY(INCH/HR) =   4.03
  TOTAL STREAM AREA(ACRES) =     0.71
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      1.24

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        0.74    16.53        3.046          0.62
      2        2.52    10.70        4.033          0.77
      3        1.24    10.73        4.025          0.71

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  3 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        4.32    10.70       4.033
      2        4.32    10.73       4.025
      3        3.58    16.53       3.046

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       4.32   Tc(MIN.) =   10.70
  TOTAL AREA(ACRES) =        2.1
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    155.00 =     471.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    199.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    107.00  DOWNSTREAM(FEET) =    106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   315.00   CHANNEL SLOPE =  0.0032
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   2.00
  CHANNEL FLOW THRU SUBAREA(CFS) =       4.32
  FLOW VELOCITY(FEET/SEC.) =   1.22   FLOW DEPTH(FEET) =   0.32
  TRAVEL TIME(MIN.) =   4.31   Tc(MIN.) =   15.01
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =     786.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    155.00 TO NODE    199.00 IS CODE =  10
----------------------------------------------------------------------------
  >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
==============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    102.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
==============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =  13.00   RAIN INTENSITY(INCH/HOUR) =  3.56
  TOTAL AREA(ACRES) =     0.29   TOTAL RUNOFF(CFS) =      0.50

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    104.00 IS CODE =  31
----------------------------------------------------------------------------
```

```
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   125.00  DOWNSTREAM(FEET) =   114.00
  FLOW LENGTH(FEET) =   266.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   2.2 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.07
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.50
  PIPE TRAVEL TIME(MIN.) =   0.87    Tc(MIN.) =   13.87
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    104.00 =    1052.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    104.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
==============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   13.87
  RAINFALL INTENSITY(INCH/HR) =   3.41
  TOTAL STREAM AREA(ACRES) =     0.29
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.50

****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    104.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
==============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =  19.00   RAIN INTENSITY(INCH/HOUR) =  2.78
  TOTAL AREA(ACRES) =     0.31   TOTAL RUNOFF(CFS) =      1.06

****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    106.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
==============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   124.00  DOWNSTREAM(FEET) =   114.00
  FLOW LENGTH(FEET) =   188.00   MANNING'S N =  0.013
  ESTIMATED PIPE DIAMETER(INCH) INCREASED TO 12.000
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   3.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   6.94
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       1.06
  PIPE TRAVEL TIME(MIN.) =   0.45    Tc(MIN.) =   19.45
  LONGEST FLOWPATH FROM NODE    156.00 TO NODE    106.00 =     566.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    104.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
==============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   19.45
  RAINFALL INTENSITY(INCH/HR) =   2.74
  TOTAL STREAM AREA(ACRES) =     0.31
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      1.06

****************************************************************************
```

```
  FLOW PROCESS FROM NODE    106.00 TO NODE    106.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>USER SPECIFIED HYDROLOGY INFORMATION AT NODE<<<<<
============================================================================
  USER-SPECIFIED VALUES ARE AS FOLLOWS:
  TC(MIN) =  25.00   RAIN INTENSITY(INCH/HOUR) =  2.33
  TOTAL AREA(ACRES) =     0.22   TOTAL RUNOFF(CFS) =      0.51

****************************************************************************
  FLOW PROCESS FROM NODE    106.00 TO NODE    106.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  3
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  3 ARE:
  TIME OF CONCENTRATION(MIN.) =   25.00
  RAINFALL INTENSITY(INCH/HR) =   2.33
  TOTAL STREAM AREA(ACRES) =     0.22
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      0.51

  ** CONFLUENCE DATA **
  STREAM     RUNOFF       Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
      1        0.50    13.87        3.410          0.29
      2        1.06    19.45        2.742          0.31
      3        0.51    25.00        2.333          0.22

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  3 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1        1.54    13.87       3.410
      2        1.86    19.45       2.742
      3        1.76    25.00       2.333

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       1.86   Tc(MIN.) =   19.45
  TOTAL AREA(ACRES) =        0.8
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    106.00 =    1052.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    106.00 TO NODE    199.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    114.00  DOWNSTREAM(FEET) =    106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =     0.96   CHANNEL SLOPE =  8.3333
  CHANNEL BASE(FEET) =   10.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   2.00
  CHANNEL FLOW THRU SUBAREA(CFS) =       1.86
  FLOW VELOCITY(FEET/SEC.) =  14.94   FLOW DEPTH(FEET) =   0.01
  TRAVEL TIME(MIN.) =   0.00   Tc(MIN.) =   19.45
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =    1052.96 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    199.00 TO NODE    199.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================
```

```
  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        1.86    19.45       2.742        0.82
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =    1052.96 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        4.32    15.01       3.242        2.10
  LONGEST FLOWPATH FROM NODE    150.00 TO NODE    199.00 =     786.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1       5.75      15.01        3.242
      2       5.51      19.45        2.742

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =       5.75   Tc(MIN.) =   15.01
  TOTAL AREA(ACRES) =        2.9

****************************************************************************
  FLOW PROCESS FROM NODE    199.00 TO NODE    199.00 IS CODE =  12
----------------------------------------------------------------------------
  >>>>>CLEAR MEMORY BANK # 1 <<<<<
============================================================================
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        2.9  TC(MIN.) =     15.01
  PEAK FLOW RATE(CFS)   =       5.75
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

♀

3.3 STORMWATER RETENTION VOLUME CALCULATIONS

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 8 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.3 ACRES
RUNOFF COEFFICIENT 0.42
PEAK DISCHARGE 0.55 CFS

TIME (MIN) = 0	DISCHARGE (CFS) = 0
TIME (MIN) = 8	DISCHARGE (CFS) = 0
TIME (MIN) = 16	DISCHARGE (CFS) = 0
TIME (MIN) = 24	DISCHARGE (CFS) = 0
TIME (MIN) = 32	DISCHARGE (CFS) = 0
TIME (MIN) = 40	DISCHARGE (CFS) = 0
TIME (MIN) = 48	DISCHARGE (CFS) = 0
TIME (MIN) = 56	DISCHARGE (CFS) = 0
TIME (MIN) = 64	DISCHARGE (CFS) = 0
TIME (MIN) = 72	DISCHARGE (CFS) = 0
TIME (MIN) = 80	DISCHARGE (CFS) = 0
TIME (MIN) = 88	DISCHARGE (CFS) = 0
TIME (MIN) = 96	DISCHARGE (CFS) = 0
TIME (MIN) = 104	DISCHARGE (CFS) = 0
TIME (MIN) = 112	DISCHARGE (CFS) = 0
TIME (MIN) = 120	DISCHARGE (CFS) = 0
TIME (MIN) = 128	DISCHARGE (CFS) = 0
TIME (MIN) = 136	DISCHARGE (CFS) = 0
TIME (MIN) = 144	DISCHARGE (CFS) = 0
TIME (MIN) = 152	DISCHARGE (CFS) = 0
TIME (MIN) = 160	DISCHARGE (CFS) = 0
TIME (MIN) = 168	DISCHARGE (CFS) = 0
TIME (MIN) = 176	DISCHARGE (CFS) = 0
TIME (MIN) = 184	DISCHARGE (CFS) = 0
TIME (MIN) = 192	DISCHARGE (CFS) = 0
TIME (MIN) = 200	DISCHARGE (CFS) = 0.1
TIME (MIN) = 208	DISCHARGE (CFS) = 0.1
TIME (MIN) = 216	DISCHARGE (CFS) = 0.1
TIME (MIN) = 224	DISCHARGE (CFS) = 0.1
TIME (MIN) = 232	DISCHARGE (CFS) = 0.1
TIME (MIN) = 240	DISCHARGE (CFS) = 0.2
TIME (MIN) = 248	DISCHARGE (CFS) = 0.55
TIME (MIN) = 256	DISCHARGE (CFS) = 0.1
TIME (MIN) = 264	DISCHARGE (CFS) = 0.1
TIME (MIN) = 272	DISCHARGE (CFS) = 0.1
TIME (MIN) = 280	DISCHARGE (CFS) = 0
TIME (MIN) = 288	DISCHARGE (CFS) = 0
TIME (MIN) = 296	DISCHARGE (CFS) = 0
TIME (MIN) = 304	DISCHARGE (CFS) = 0
TIME (MIN) = 312	DISCHARGE (CFS) = 0
TIME (MIN) = 320	DISCHARGE (CFS) = 0
TIME (MIN) = 328	DISCHARGE (CFS) = 0
TIME (MIN) = 336	DISCHARGE (CFS) = 0
TIME (MIN) = 344	DISCHARGE (CFS) = 0
TIME (MIN) = 352	DISCHARGE (CFS) = 0
TIME (MIN) = 360	DISCHARGE (CFS) = 0
TIME (MIN) = 368	DISCHARGE (CFS) = 0

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 8 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.32 ACRES
RUNOFF COEFFICIENT 0.6
PEAK DISCHARGE 0.9 CFS

TIME (MIN) = 0	DISCHARGE (CFS) = 0
TIME (MIN) = 8	DISCHARGE (CFS) = 0
TIME (MIN) = 16	DISCHARGE (CFS) = 0
TIME (MIN) = 24	DISCHARGE (CFS) = 0
TIME (MIN) = 32	DISCHARGE (CFS) = 0
TIME (MIN) = 40	DISCHARGE (CFS) = 0
TIME (MIN) = 48	DISCHARGE (CFS) = 0
TIME (MIN) = 56	DISCHARGE (CFS) = 0
TIME (MIN) = 64	DISCHARGE (CFS) = 0
TIME (MIN) = 72	DISCHARGE (CFS) = 0
TIME (MIN) = 80	DISCHARGE (CFS) = 0
TIME (MIN) = 88	DISCHARGE (CFS) = 0
TIME (MIN) = 96	DISCHARGE (CFS) = 0
TIME (MIN) = 104	DISCHARGE (CFS) = 0
TIME (MIN) = 112	DISCHARGE (CFS) = 0
TIME (MIN) = 120	DISCHARGE (CFS) = 0
TIME (MIN) = 128	DISCHARGE (CFS) = 0
TIME (MIN) = 136	DISCHARGE (CFS) = 0
TIME (MIN) = 144	DISCHARGE (CFS) = 0
TIME (MIN) = 152	DISCHARGE (CFS) = 0.1
TIME (MIN) = 160	DISCHARGE (CFS) = 0.1
TIME (MIN) = 168	DISCHARGE (CFS) = 0.1
TIME (MIN) = 176	DISCHARGE (CFS) = 0.1
TIME (MIN) = 184	DISCHARGE (CFS) = 0.1
TIME (MIN) = 192	DISCHARGE (CFS) = 0.1
TIME (MIN) = 200	DISCHARGE (CFS) = 0.1
TIME (MIN) = 208	DISCHARGE (CFS) = 0.1
TIME (MIN) = 216	DISCHARGE (CFS) = 0.1
TIME (MIN) = 224	DISCHARGE (CFS) = 0.1
TIME (MIN) = 232	DISCHARGE (CFS) = 0.2
TIME (MIN) = 240	DISCHARGE (CFS) = 0.3
TIME (MIN) = 248	DISCHARGE (CFS) = 0.9
TIME (MIN) = 256	DISCHARGE (CFS) = 0.1
TIME (MIN) = 264	DISCHARGE (CFS) = 0.1
TIME (MIN) = 272	DISCHARGE (CFS) = 0.1
TIME (MIN) = 280	DISCHARGE (CFS) = 0.1
TIME (MIN) = 288	DISCHARGE (CFS) = 0.1
TIME (MIN) = 296	DISCHARGE (CFS) = 0.1
TIME (MIN) = 304	DISCHARGE (CFS) = 0
TIME (MIN) = 312	DISCHARGE (CFS) = 0
TIME (MIN) = 320	DISCHARGE (CFS) = 0
TIME (MIN) = 328	DISCHARGE (CFS) = 0
TIME (MIN) = 336	DISCHARGE (CFS) = 0
TIME (MIN) = 344	DISCHARGE (CFS) = 0
TIME (MIN) = 352	DISCHARGE (CFS) = 0
TIME (MIN) = 360	DISCHARGE (CFS) = 0
TIME (MIN) = 368	DISCHARGE (CFS) = 0

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 5 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.48 ACRES
RUNOFF COEFFICIENT 0.6
PEAK DISCHARGE 1.89 CFS

TIME (MIN) = 0	DISCHARGE (CFS) = 0
TIME (MIN) = 5	DISCHARGE (CFS) = 0
TIME (MIN) = 10	DISCHARGE (CFS) = 0
TIME (MIN) = 15	DISCHARGE (CFS) = 0
TIME (MIN) = 20	DISCHARGE (CFS) = 0
TIME (MIN) = 25	DISCHARGE (CFS) = 0
TIME (MIN) = 30	DISCHARGE (CFS) = 0
TIME (MIN) = 35	DISCHARGE (CFS) = 0
TIME (MIN) = 40	DISCHARGE (CFS) = 0
TIME (MIN) = 45	DISCHARGE (CFS) = 0
TIME (MIN) = 50	DISCHARGE (CFS) = 0
TIME (MIN) = 55	DISCHARGE (CFS) = 0
TIME (MIN) = 60	DISCHARGE (CFS) = 0.1
TIME (MIN) = 65	DISCHARGE (CFS) = 0.1
TIME (MIN) = 70	DISCHARGE (CFS) = 0.1
TIME (MIN) = 75	DISCHARGE (CFS) = 0.1
TIME (MIN) = 80	DISCHARGE (CFS) = 0.1
TIME (MIN) = 85	DISCHARGE (CFS) = 0.1
TIME (MIN) = 90	DISCHARGE (CFS) = 0.1
TIME (MIN) = 95	DISCHARGE (CFS) = 0.1
TIME (MIN) = 100	DISCHARGE (CFS) = 0.1
TIME (MIN) = 105	DISCHARGE (CFS) = 0.1
TIME (MIN) = 110	DISCHARGE (CFS) = 0.1
TIME (MIN) = 115	DISCHARGE (CFS) = 0.1
TIME (MIN) = 120	DISCHARGE (CFS) = 0.1
TIME (MIN) = 125	DISCHARGE (CFS) = 0.1
TIME (MIN) = 130	DISCHARGE (CFS) = 0.1
TIME (MIN) = 135	DISCHARGE (CFS) = 0.1
TIME (MIN) = 140	DISCHARGE (CFS) = 0.1
TIME (MIN) = 145	DISCHARGE (CFS) = 0.1
TIME (MIN) = 150	DISCHARGE (CFS) = 0.1
TIME (MIN) = 155	DISCHARGE (CFS) = 0.1
TIME (MIN) = 160	DISCHARGE (CFS) = 0.1
TIME (MIN) = 165	DISCHARGE (CFS) = 0.1
TIME (MIN) = 170	DISCHARGE (CFS) = 0.1
TIME (MIN) = 175	DISCHARGE (CFS) = 0.1
TIME (MIN) = 180	DISCHARGE (CFS) = 0.1
TIME (MIN) = 185	DISCHARGE (CFS) = 0.1
TIME (MIN) = 190	DISCHARGE (CFS) = 0.1
TIME (MIN) = 195	DISCHARGE (CFS) = 0.1
TIME (MIN) = 200	DISCHARGE (CFS) = 0.1
TIME (MIN) = 205	DISCHARGE (CFS) = 0.1
TIME (MIN) = 210	DISCHARGE (CFS) = 0.1
TIME (MIN) = 215	DISCHARGE (CFS) = 0.2
TIME (MIN) = 220	DISCHARGE (CFS) = 0.2
TIME (MIN) = 225	DISCHARGE (CFS) = 0.2
TIME (MIN) = 230	DISCHARGE (CFS) = 0.3
TIME (MIN) = 235	DISCHARGE (CFS) = 0.4
TIME (MIN) = 240	DISCHARGE (CFS) = 0.5
TIME (MIN) = 245	DISCHARGE (CFS) = 1.89
TIME (MIN) = 250	DISCHARGE (CFS) = 0.3
TIME (MIN) = 255	DISCHARGE (CFS) = 0.2
TIME (MIN) = 260	DISCHARGE (CFS) = 0.2
TIME (MIN) = 265	DISCHARGE (CFS) = 0.1
TIME (MIN) = 270	DISCHARGE (CFS) = 0.1
TIME (MIN) = 275	DISCHARGE (CFS) = 0.1
TIME (MIN) = 280	DISCHARGE (CFS) = 0.1
TIME (MIN) = 285	DISCHARGE (CFS) = 0.1
TIME (MIN) = 290	DISCHARGE (CFS) = 0.1
TIME (MIN) = 295	DISCHARGE (CFS) = 0.1
TIME (MIN) = 300	DISCHARGE (CFS) = 0.1
TIME (MIN) = 305	DISCHARGE (CFS) = 0.1
TIME (MIN) = 310	DISCHARGE (CFS) = 0.1
TIME (MIN) = 315	DISCHARGE (CFS) = 0.1
TIME (MIN) = 320	DISCHARGE (CFS) = 0.1
TIME (MIN) = 325	DISCHARGE (CFS) = 0.1
TIME (MIN) = 330	DISCHARGE (CFS) = 0.1
TIME (MIN) = 335	DISCHARGE (CFS) = 0.1
TIME (MIN) = 340	DISCHARGE (CFS) = 0
TIME (MIN) = 345	DISCHARGE (CFS) = 0
TIME (MIN) = 350	DISCHARGE (CFS) = 0
TIME (MIN) = 355	DISCHARGE (CFS) = 0
TIME (MIN) = 360	DISCHARGE (CFS) = 0
TIME (MIN) = 365	DISCHARGE (CFS) = 0

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 5 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.71 ACRES
RUNOFF COEFFICIENT 0.78
PEAK DISCHARGE 3.65 CFS

TIME (MIN) = 0	DISCHARGE (CFS) = 0
TIME (MIN) = 5	DISCHARGE (CFS) = 0.1
TIME (MIN) = 10	DISCHARGE (CFS) = 0.1
TIME (MIN) = 15	DISCHARGE (CFS) = 0.1
TIME (MIN) = 20	DISCHARGE (CFS) = 0.1
TIME (MIN) = 25	DISCHARGE (CFS) = 0.1
TIME (MIN) = 30	DISCHARGE (CFS) = 0.1
TIME (MIN) = 35	DISCHARGE (CFS) = 0.1
TIME (MIN) = 40	DISCHARGE (CFS) = 0.1
TIME (MIN) = 45	DISCHARGE (CFS) = 0.1
TIME (MIN) = 50	DISCHARGE (CFS) = 0.1
TIME (MIN) = 55	DISCHARGE (CFS) = 0.1
TIME (MIN) = 60	DISCHARGE (CFS) = 0.1
TIME (MIN) = 65	DISCHARGE (CFS) = 0.1
TIME (MIN) = 70	DISCHARGE (CFS) = 0.1
TIME (MIN) = 75	DISCHARGE (CFS) = 0.1
TIME (MIN) = 80	DISCHARGE (CFS) = 0.1
TIME (MIN) = 85	DISCHARGE (CFS) = 0.1
TIME (MIN) = 90	DISCHARGE (CFS) = 0.1
TIME (MIN) = 95	DISCHARGE (CFS) = 0.1
TIME (MIN) = 100	DISCHARGE (CFS) = 0.1
TIME (MIN) = 105	DISCHARGE (CFS) = 0.1
TIME (MIN) = 110	DISCHARGE (CFS) = 0.1
TIME (MIN) = 115	DISCHARGE (CFS) = 0.1
TIME (MIN) = 120	DISCHARGE (CFS) = 0.1
TIME (MIN) = 125	DISCHARGE (CFS) = 0.1
TIME (MIN) = 130	DISCHARGE (CFS) = 0.1
TIME (MIN) = 135	DISCHARGE (CFS) = 0.1
TIME (MIN) = 140	DISCHARGE (CFS) = 0.1
TIME (MIN) = 145	DISCHARGE (CFS) = 0.1
TIME (MIN) = 150	DISCHARGE (CFS) = 0.1
TIME (MIN) = 155	DISCHARGE (CFS) = 0.2
TIME (MIN) = 160	DISCHARGE (CFS) = 0.2
TIME (MIN) = 165	DISCHARGE (CFS) = 0.2
TIME (MIN) = 170	DISCHARGE (CFS) = 0.2
TIME (MIN) = 175	DISCHARGE (CFS) = 0.2
TIME (MIN) = 180	DISCHARGE (CFS) = 0.2
TIME (MIN) = 185	DISCHARGE (CFS) = 0.2
TIME (MIN) = 190	DISCHARGE (CFS) = 0.2
TIME (MIN) = 195	DISCHARGE (CFS) = 0.2
TIME (MIN) = 200	DISCHARGE (CFS) = 0.2
TIME (MIN) = 205	DISCHARGE (CFS) = 0.3
TIME (MIN) = 210	DISCHARGE (CFS) = 0.3
TIME (MIN) = 215	DISCHARGE (CFS) = 0.3
TIME (MIN) = 220	DISCHARGE (CFS) = 0.4
TIME (MIN) = 225	DISCHARGE (CFS) = 0.4
TIME (MIN) = 230	DISCHARGE (CFS) = 0.5
TIME (MIN) = 235	DISCHARGE (CFS) = 0.7
TIME (MIN) = 240	DISCHARGE (CFS) = 1
TIME (MIN) = 245	DISCHARGE (CFS) = 3.65
TIME (MIN) = 250	DISCHARGE (CFS) = 0.6
TIME (MIN) = 255	DISCHARGE (CFS) = 0.4
TIME (MIN) = 260	DISCHARGE (CFS) = 0.3
TIME (MIN) = 265	DISCHARGE (CFS) = 0.3
TIME (MIN) = 270	DISCHARGE (CFS) = 0.2
TIME (MIN) = 275	DISCHARGE (CFS) = 0.2
TIME (MIN) = 280	DISCHARGE (CFS) = 0.2
TIME (MIN) = 285	DISCHARGE (CFS) = 0.2
TIME (MIN) = 290	DISCHARGE (CFS) = 0.2
TIME (MIN) = 295	DISCHARGE (CFS) = 0.1
TIME (MIN) = 300	DISCHARGE (CFS) = 0.1
TIME (MIN) = 305	DISCHARGE (CFS) = 0.1
TIME (MIN) = 310	DISCHARGE (CFS) = 0.1
TIME (MIN) = 315	DISCHARGE (CFS) = 0.1
TIME (MIN) = 320	DISCHARGE (CFS) = 0.1
TIME (MIN) = 325	DISCHARGE (CFS) = 0.1
TIME (MIN) = 330	DISCHARGE (CFS) = 0.1
TIME (MIN) = 335	DISCHARGE (CFS) = 0.1
TIME (MIN) = 340	DISCHARGE (CFS) = 0.1
TIME (MIN) = 345	DISCHARGE (CFS) = 0.1
TIME (MIN) = 350	DISCHARGE (CFS) = 0.1
TIME (MIN) = 355	DISCHARGE (CFS) = 0.1
TIME (MIN) = 360	DISCHARGE (CFS) = 0.1
TIME (MIN) = 365	DISCHARGE (CFS) = 0

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 5 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.29 ACRES
RUNOFF COEFFICIENT 0.54
PEAK DISCHARGE 1.03 CFS

TIME (MIN) = 0	DISCHARGE (CFS) = 0
TIME (MIN) = 5	DISCHARGE (CFS) = 0
TIME (MIN) = 10	DISCHARGE (CFS) = 0
TIME (MIN) = 15	DISCHARGE (CFS) = 0
TIME (MIN) = 20	DISCHARGE (CFS) = 0
TIME (MIN) = 25	DISCHARGE (CFS) = 0
TIME (MIN) = 30	DISCHARGE (CFS) = 0
TIME (MIN) = 35	DISCHARGE (CFS) = 0
TIME (MIN) = 40	DISCHARGE (CFS) = 0
TIME (MIN) = 45	DISCHARGE (CFS) = 0
TIME (MIN) = 50	DISCHARGE (CFS) = 0
TIME (MIN) = 55	DISCHARGE (CFS) = 0
TIME (MIN) = 60	DISCHARGE (CFS) = 0
TIME (MIN) = 65	DISCHARGE (CFS) = 0
TIME (MIN) = 70	DISCHARGE (CFS) = 0
TIME (MIN) = 75	DISCHARGE (CFS) = 0
TIME (MIN) = 80	DISCHARGE (CFS) = 0
TIME (MIN) = 85	DISCHARGE (CFS) = 0
TIME (MIN) = 90	DISCHARGE (CFS) = 0
TIME (MIN) = 95	DISCHARGE (CFS) = 0
TIME (MIN) = 100	DISCHARGE (CFS) = 0
TIME (MIN) = 105	DISCHARGE (CFS) = 0
TIME (MIN) = 110	DISCHARGE (CFS) = 0
TIME (MIN) = 115	DISCHARGE (CFS) = 0
TIME (MIN) = 120	DISCHARGE (CFS) = 0
TIME (MIN) = 125	DISCHARGE (CFS) = 0
TIME (MIN) = 130	DISCHARGE (CFS) = 0
TIME (MIN) = 135	DISCHARGE (CFS) = 0
TIME (MIN) = 140	DISCHARGE (CFS) = 0
TIME (MIN) = 145	DISCHARGE (CFS) = 0
TIME (MIN) = 150	DISCHARGE (CFS) = 0
TIME (MIN) = 155	DISCHARGE (CFS) = 0
TIME (MIN) = 160	DISCHARGE (CFS) = 0
TIME (MIN) = 165	DISCHARGE (CFS) = 0
TIME (MIN) = 170	DISCHARGE (CFS) = 0
TIME (MIN) = 175	DISCHARGE (CFS) = 0.1
TIME (MIN) = 180	DISCHARGE (CFS) = 0.1
TIME (MIN) = 185	DISCHARGE (CFS) = 0.1
TIME (MIN) = 190	DISCHARGE (CFS) = 0.1
TIME (MIN) = 195	DISCHARGE (CFS) = 0.1
TIME (MIN) = 200	DISCHARGE (CFS) = 0.1
TIME (MIN) = 205	DISCHARGE (CFS) = 0.1
TIME (MIN) = 210	DISCHARGE (CFS) = 0.1
TIME (MIN) = 215	DISCHARGE (CFS) = 0.1
TIME (MIN) = 220	DISCHARGE (CFS) = 0.1
TIME (MIN) = 225	DISCHARGE (CFS) = 0.1
TIME (MIN) = 230	DISCHARGE (CFS) = 0.1
TIME (MIN) = 235	DISCHARGE (CFS) = 0.2
TIME (MIN) = 240	DISCHARGE (CFS) = 0.3
TIME (MIN) = 245	DISCHARGE (CFS) = 1.03
TIME (MIN) = 250	DISCHARGE (CFS) = 0.2
TIME (MIN) = 255	DISCHARGE (CFS) = 0.1
TIME (MIN) = 260	DISCHARGE (CFS) = 0.1
TIME (MIN) = 265	DISCHARGE (CFS) = 0.1
TIME (MIN) = 270	DISCHARGE (CFS) = 0.1
TIME (MIN) = 275	DISCHARGE (CFS) = 0.1
TIME (MIN) = 280	DISCHARGE (CFS) = 0.1
TIME (MIN) = 285	DISCHARGE (CFS) = 0
TIME (MIN) = 290	DISCHARGE (CFS) = 0
TIME (MIN) = 295	DISCHARGE (CFS) = 0
TIME (MIN) = 300	DISCHARGE (CFS) = 0
TIME (MIN) = 305	DISCHARGE (CFS) = 0
TIME (MIN) = 310	DISCHARGE (CFS) = 0
TIME (MIN) = 315	DISCHARGE (CFS) = 0
TIME (MIN) = 320	DISCHARGE (CFS) = 0
TIME (MIN) = 325	DISCHARGE (CFS) = 0
TIME (MIN) = 330	DISCHARGE (CFS) = 0
TIME (MIN) = 335	DISCHARGE (CFS) = 0
TIME (MIN) = 340	DISCHARGE (CFS) = 0
TIME (MIN) = 345	DISCHARGE (CFS) = 0
TIME (MIN) = 350	DISCHARGE (CFS) = 0
TIME (MIN) = 355	DISCHARGE (CFS) = 0
TIME (MIN) = 360	DISCHARGE (CFS) = 0
TIME (MIN) = 365	DISCHARGE (CFS) = 0

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 9 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.22 ACRES
RUNOFF COEFFICIENT 0.45
PEAK DISCHARGE 0.46 CFS

TIME (MIN) = 0	DISCHARGE (CFS) = 0
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TIME (MIN) = 288	DISCHARGE (CFS) = 0
TIME (MIN) = 297	DISCHARGE (CFS) = 0
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TIME (MIN) = 342	DISCHARGE (CFS) = 0
TIME (MIN) = 351	DISCHARGE (CFS) = 0
TIME (MIN) = 360	DISCHARGE (CFS) = 0
TIME (MIN) = 369	DISCHARGE (CFS) = 0

RATIONAL METHOD HYDROGRAPH PROGRAM
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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 9 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.31 ACRES
RUNOFF COEFFICIENT 0.7
PEAK DISCHARGE 1.02 CFS

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TIME (MIN) = 63	DISCHARGE (CFS) = 0
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TIME (MIN) = 171	DISCHARGE (CFS) = 0.1
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TIME (MIN) = 189	DISCHARGE (CFS) = 0.1
TIME (MIN) = 198	DISCHARGE (CFS) = 0.1
TIME (MIN) = 207	DISCHARGE (CFS) = 0.1
TIME (MIN) = 216	DISCHARGE (CFS) = 0.1
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TIME (MIN) = 306	DISCHARGE (CFS) = 0.1
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TIME (MIN) = 351	DISCHARGE (CFS) = 0
TIME (MIN) = 360	DISCHARGE (CFS) = 0
TIME (MIN) = 369	DISCHARGE (CFS) = 0

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RUN DATE 9/19/2017
HYDROGRAPH FILE NAME Text1
TIME OF CONCENTRATION 8 MIN.
6 HOUR RAINFALL 2.5 INCHES
BASIN AREA 0.29 ACRES
RUNOFF COEFFICIENT 0.45
PEAK DISCHARGE 0.56 CFS

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TIME (MIN) = 152	DISCHARGE (CFS) = 0
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TIME (MIN) = 336	DISCHARGE (CFS) = 0
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TIME (MIN) = 352	DISCHARGE (CFS) = 0
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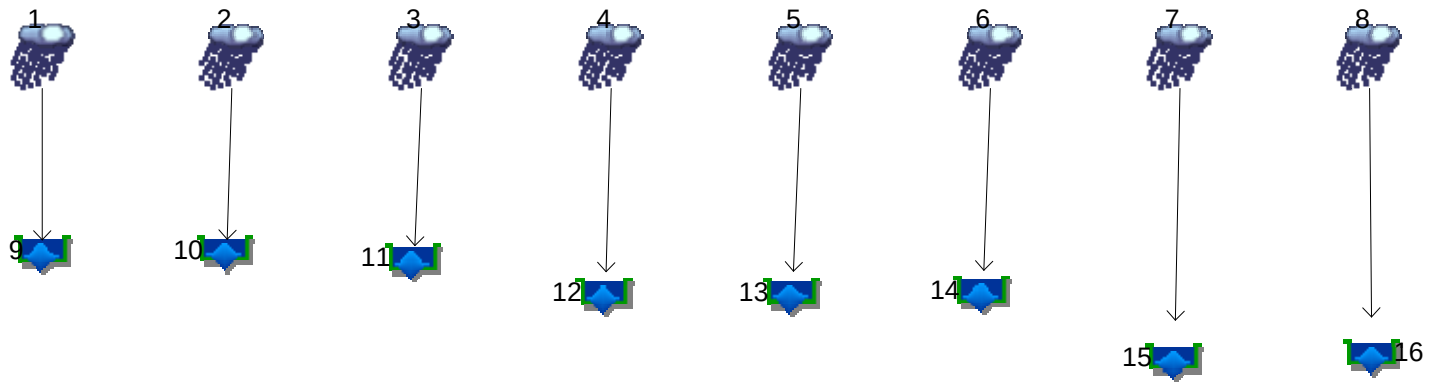
Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5



Legend

Hyd.	Origin	Description
1	Manual	BASIN 1 INFLOW
2	Manual	BASIN 2 INFL0W
3	Manual	BASINE 3 INFLOW
4	Manual	BASIN 4 INFLOW
5	Manual	BASIN 5 INFLOW
6	Manual	BASIN 6 INFLOW
7	Manual	BASIN 7 INFLOW
8	Manual	BASIN 8 INFLOW
9	Reservoir	BMP 1 OUTFLOW
10	Reservoir	BMP 2 OUTFLOW
11	Reservoir	BMP 3 OUTFLOW
12	Reservoir	BMP 4 OUTFLOW
13	Reservoir	BMP 5 OUTFLOW
14	Reservoir	BMP 6 OUTFLOW
15	Reservoir	BMP 7 OUTFLOW
16	Reservoir	BMP 8 OUTFLOW

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1890_DETENTION.gpw

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5

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Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	Manual	------	-------	-------	-------	-------	-------	-------	-------	0.550	BASIN 1 INFLOW
2	Manual	------	-------	-------	-------	-------	-------	-------	-------	0.900	BASIN 2 INFL0W
3	Manual	------	-------	-------	-------	-------	-------	-------	-------	1.890	BASINE 3 INFLOW
4	Manual	------	-------	-------	-------	-------	-------	-------	-------	3.650	BASIN 4 INFLOW
5	Manual	------	-------	-------	-------	-------	-------	-------	-------	1.030	BASIN 5 INFLOW
6	Manual	------	-------	-------	-------	-------	-------	-------	-------	0.460	BASIN 6 INFLOW
7	Manual	------	-------	-------	-------	-------	-------	-------	-------	1.020	BASIN 7 INFLOW
8	Manual	------	-------	-------	-------	-------	-------	-------	-------	0.560	BASIN 8 INFLOW
9	Reservoir	1	-------	-------	-------	-------	-------	-------	-------	0.127	BMP 1 OUTFLOW
10	Reservoir	2	-------	-------	-------	-------	-------	-------	-------	0.682	BMP 2 OUTFLOW
11	Reservoir	3	-------	-------	-------	-------	-------	-------	-------	1.457	BMP 3 OUTFLOW
12	Reservoir	4	-------	-------	-------	-------	-------	-------	-------	1.623	BMP 4 OUTFLOW
13	Reservoir	5	-------	-------	-------	-------	-------	-------	-------	1.064	BMP 5 OUTFLOW
14	Reservoir	6	-------	-------	-------	-------	-------	-------	-------	0.515	BMP 6 OUTFLOW
15	Reservoir	7	-------	-------	-------	-------	-------	-------	-------	1.056	BMP 7 OUTFLOW
16	Reservoir	8	-------	-------	-------	-------	-------	-------	-------	0.496	BMP 8 OUTFLOW

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Manual	0.550	8	248	744	------	------	------	BASIN 1 INFLOW
2	Manual	0.900	8	248	1,440	------	------	------	BASIN 2 INFL0W
3	Manual	1.890	5	245	2,727	------	------	------	BASINE 3 INFLOW
4	Manual	3.650	5	245	4,935	------	------	------	BASIN 4 INFLOW
5	Manual	1.030	5	245	1,059	------	------	------	BASIN 5 INFLOW
6	Manual	0.460	9	252	572	------	------	------	BASIN 6 INFLOW
7	Manual	1.020	9	252	1,793	------	------	------	BASIN 7 INFLOW
8	Manual	0.560	8	248	797	------	------	------	BASIN 8 INFLOW
9	Reservoir	0.127	8	272	724	1	128.53	655	BMP 1 OUTFLOW
10	Reservoir	0.682	8	256	1,414	2	116.79	892	BMP 2 OUTFLOW
11	Reservoir	1.457	5	245	2,713	3	117.34	890	BMP 3 OUTFLOW
12	Reservoir	1.623	5	250	4,824	4	110.00	3,510	BMP 4 OUTFLOW
13	Reservoir	1.064	5	245	1,343	5	119.67	495	BMP 5 OUTFLOW
14	Reservoir	0.515	5	245	874	6	117.74	495	BMP 6 OUTFLOW
15	Reservoir	1.056	5	245	1,520	7	127.67	728	BMP 7 OUTFLOW
16	Reservoir	0.496	8	256	773	8	128.94	524	BMP 8 OUTFLOW

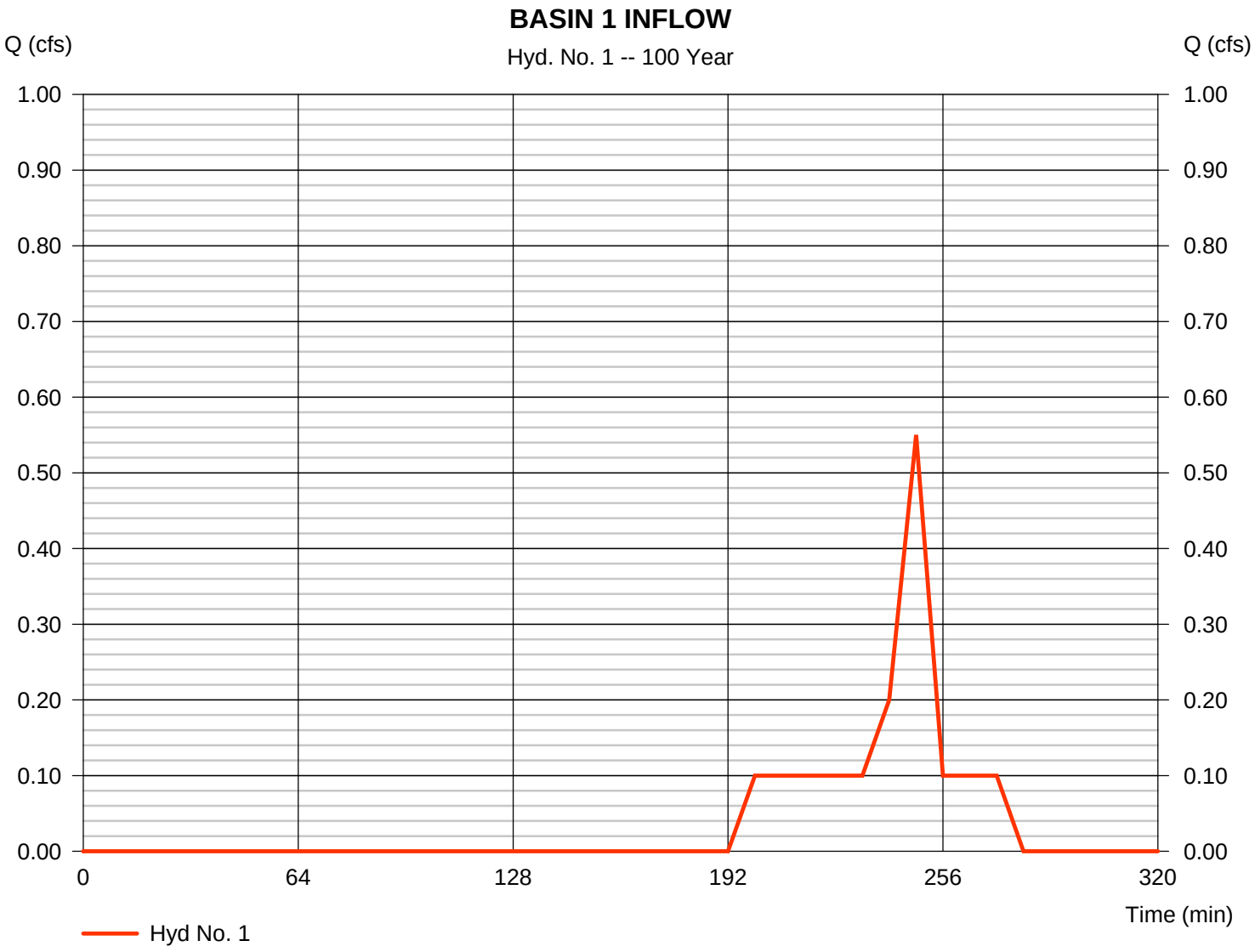
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 1

BASIN 1 INFLOW

Hydrograph type	= Manual	Peak discharge	= 0.550 cfs
Storm frequency	= 100 yrs	Time to peak	= 248 min
Time interval	= 8 min	Hyd. volume	= 744 cuft



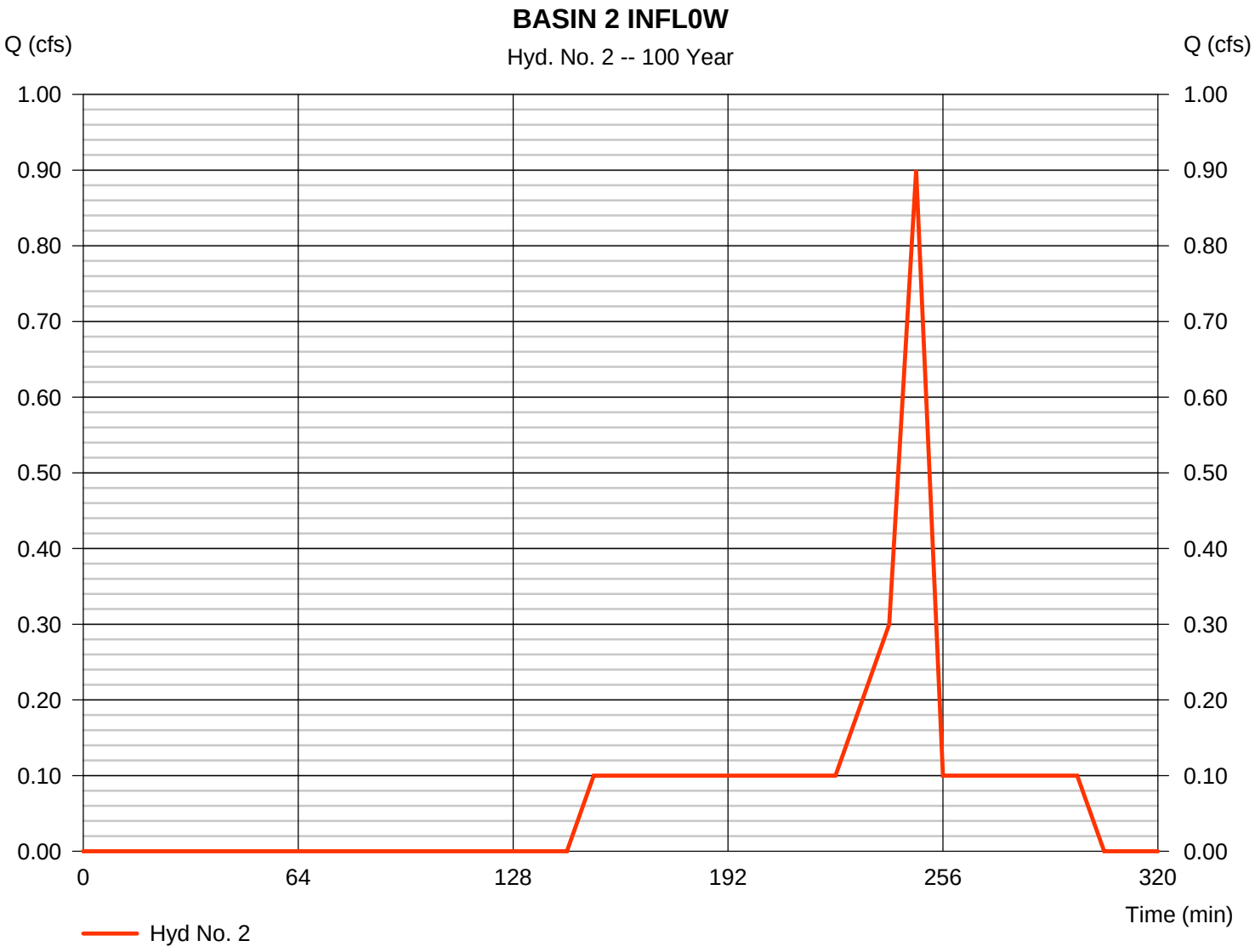
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 2

BASIN 2 INFL0W

Hydrograph type	= Manual	Peak discharge	= 0.900 cfs
Storm frequency	= 100 yrs	Time to peak	= 248 min
Time interval	= 8 min	Hyd. volume	= 1,440 cuft



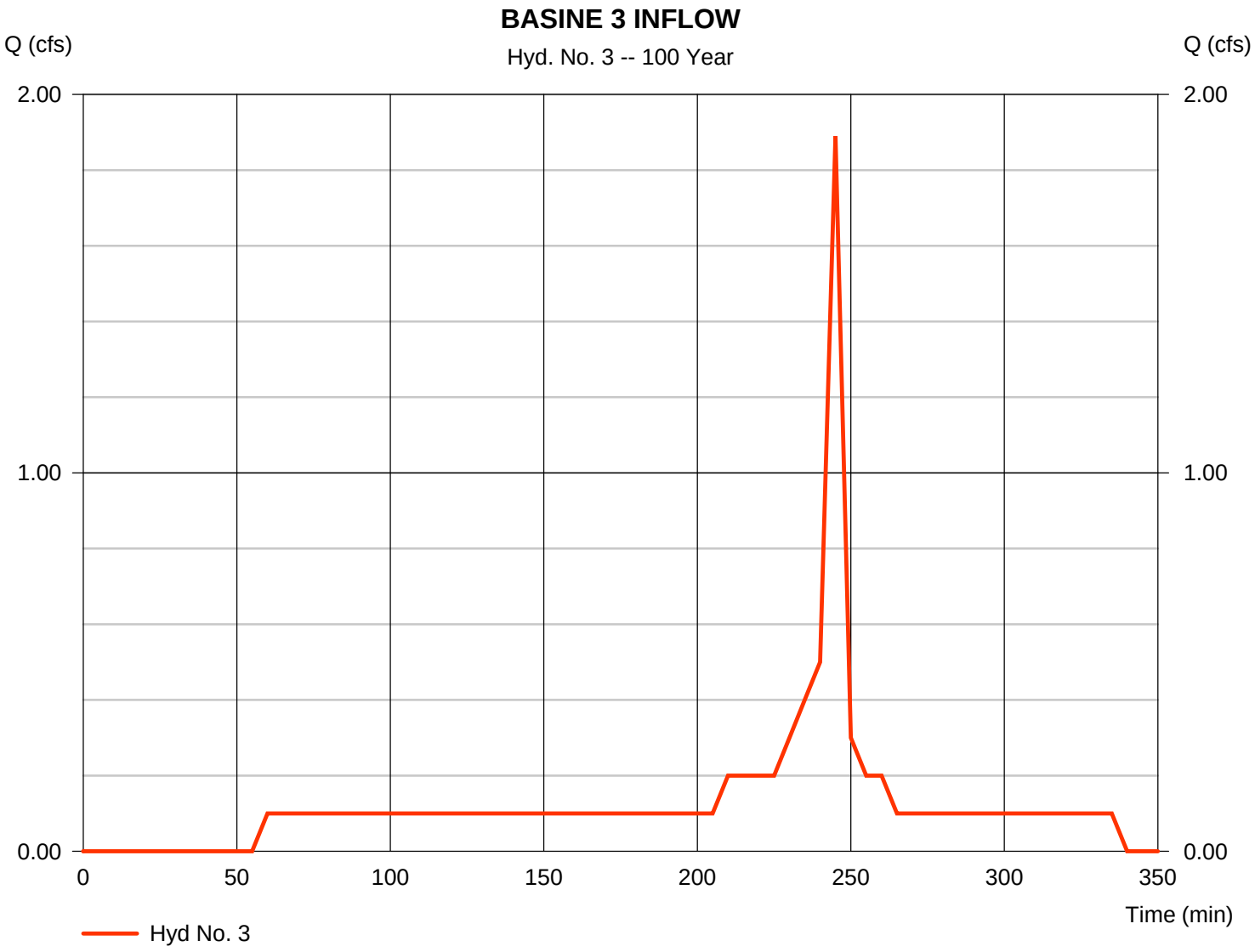
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 3

BASINE 3 INFLOW

Hydrograph type	= Manual	Peak discharge	= 1.890 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 2,727 cuft



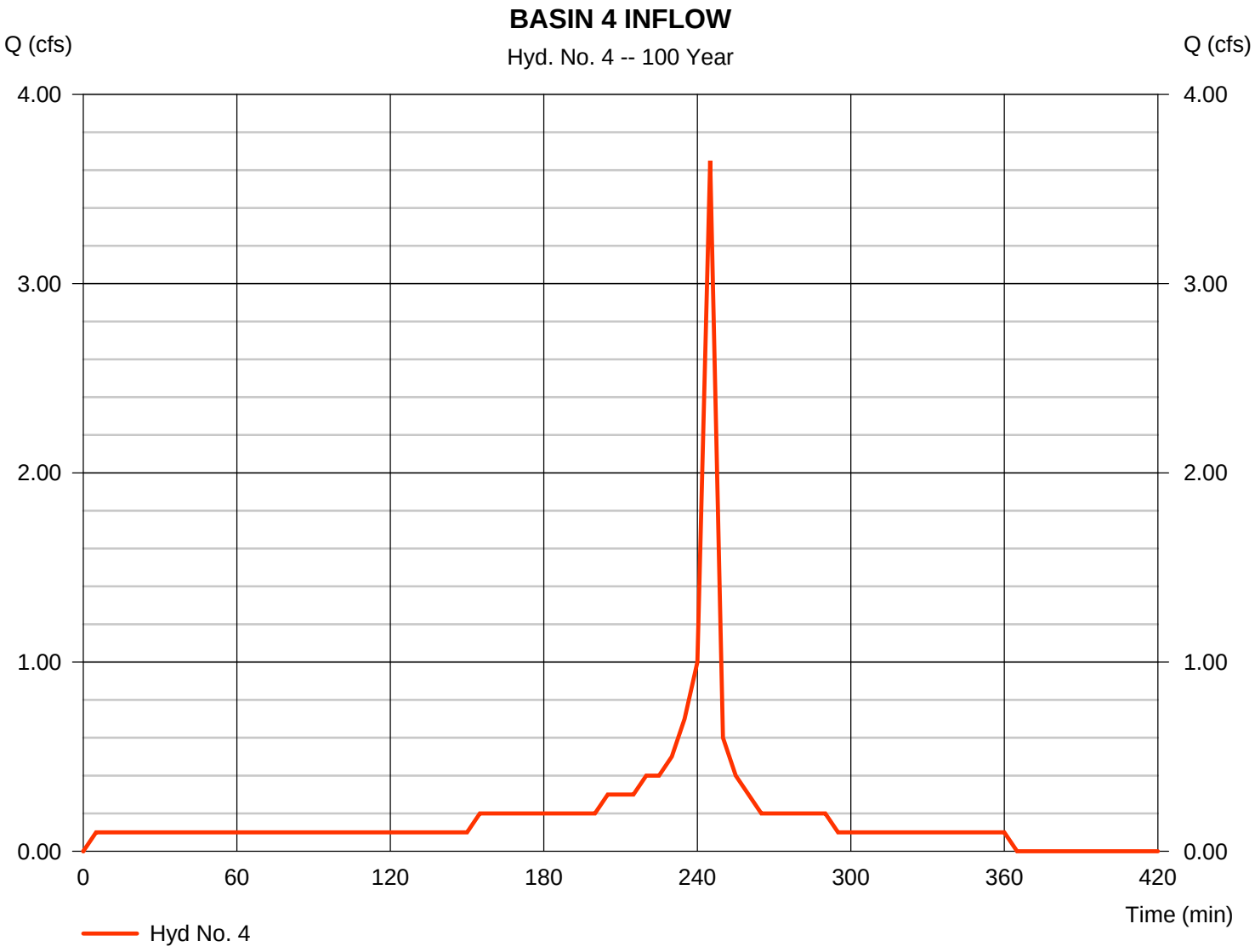
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 4

BASIN 4 INFLOW

Hydrograph type	= Manual	Peak discharge	= 3.650 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 4,935 cuft



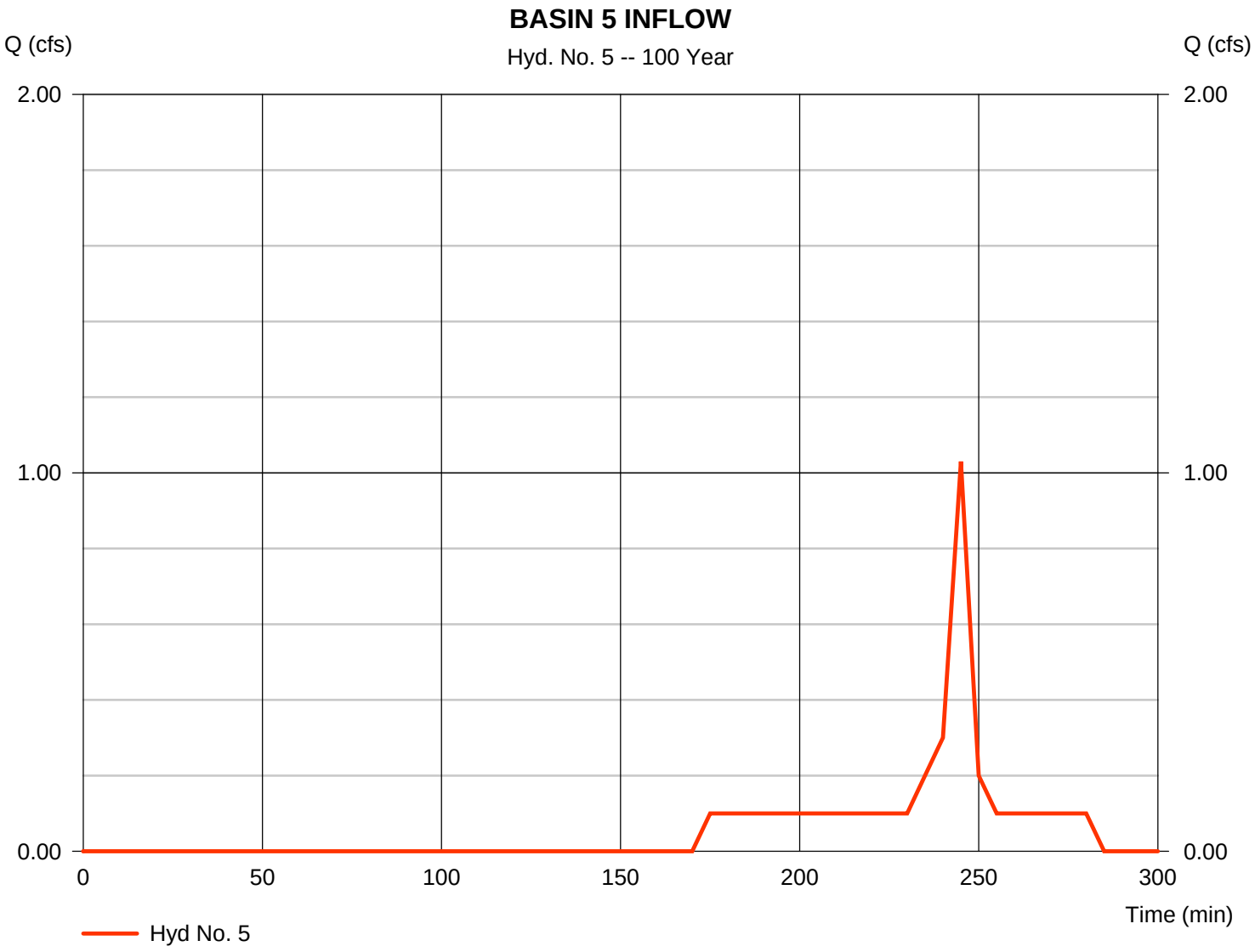
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 5

BASIN 5 INFLOW

Hydrograph type	= Manual	Peak discharge	= 1.030 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 1,059 cuft



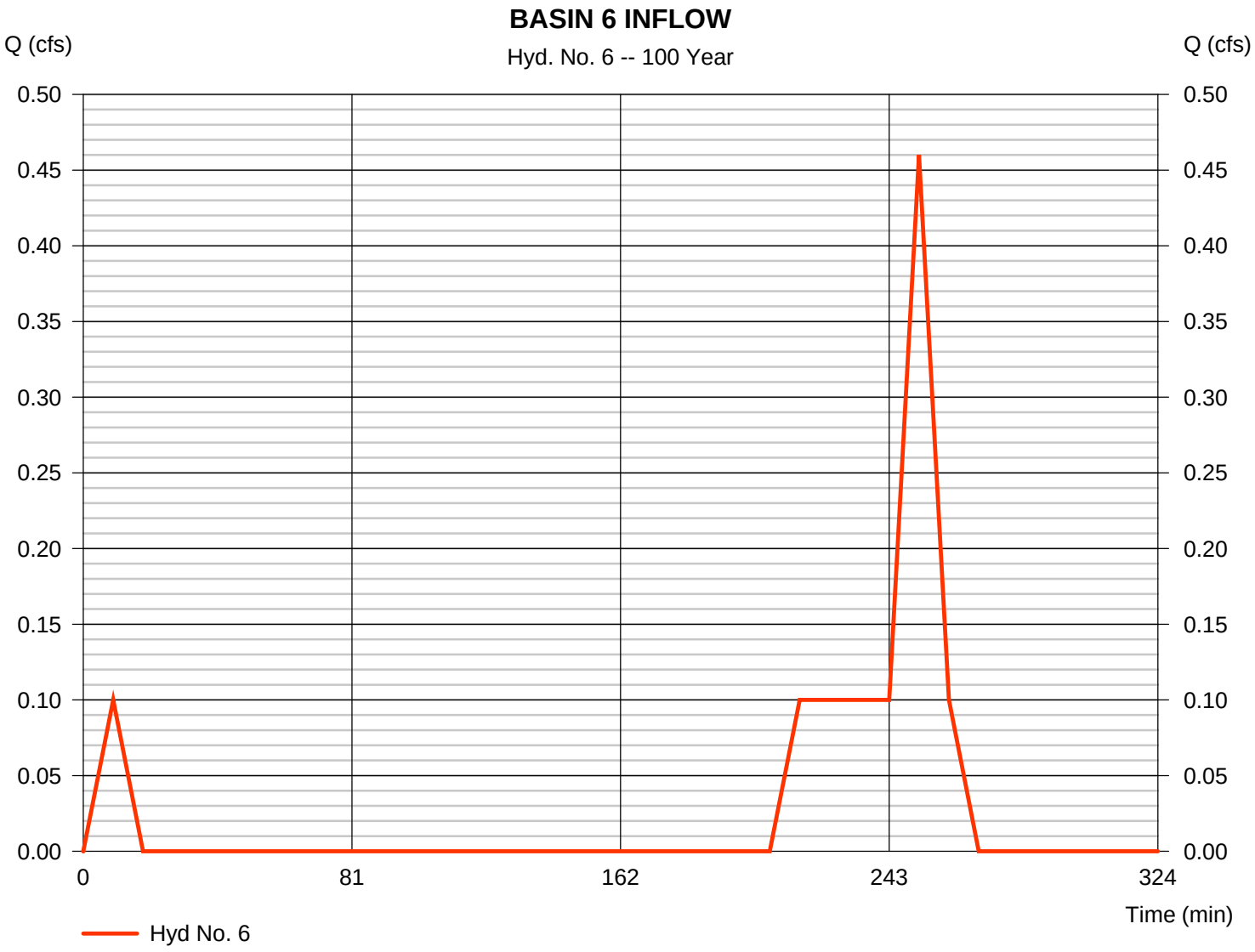
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 6

BASIN 6 INFLOW

Hydrograph type	= Manual	Peak discharge	= 0.460 cfs
Storm frequency	= 100 yrs	Time to peak	= 252 min
Time interval	= 9 min	Hyd. volume	= 572 cuft



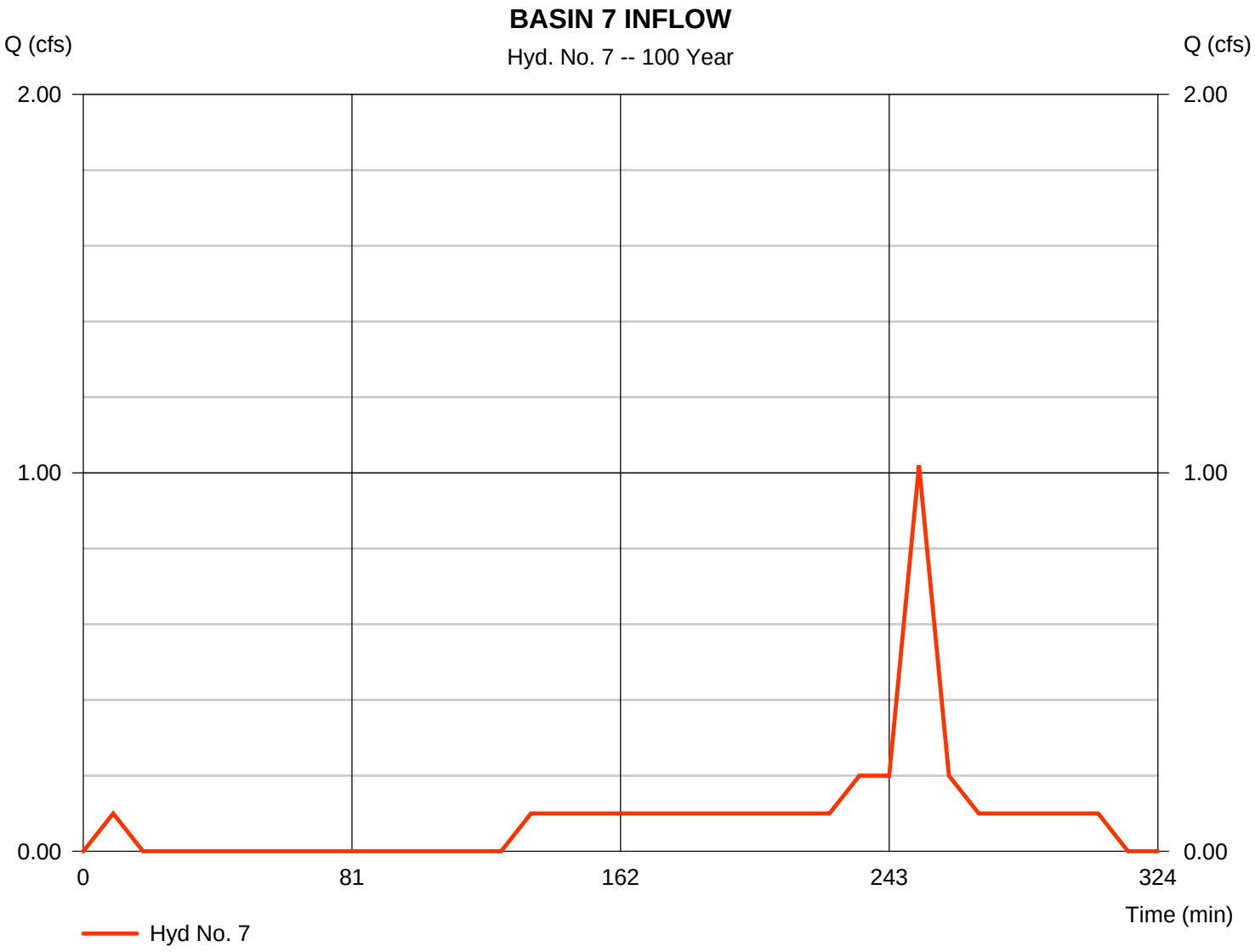
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 7

BASIN 7 INFLOW

Hydrograph type	= Manual	Peak discharge	= 1.020 cfs
Storm frequency	= 100 yrs	Time to peak	= 252 min
Time interval	= 9 min	Hyd. volume	= 1,793 cuft



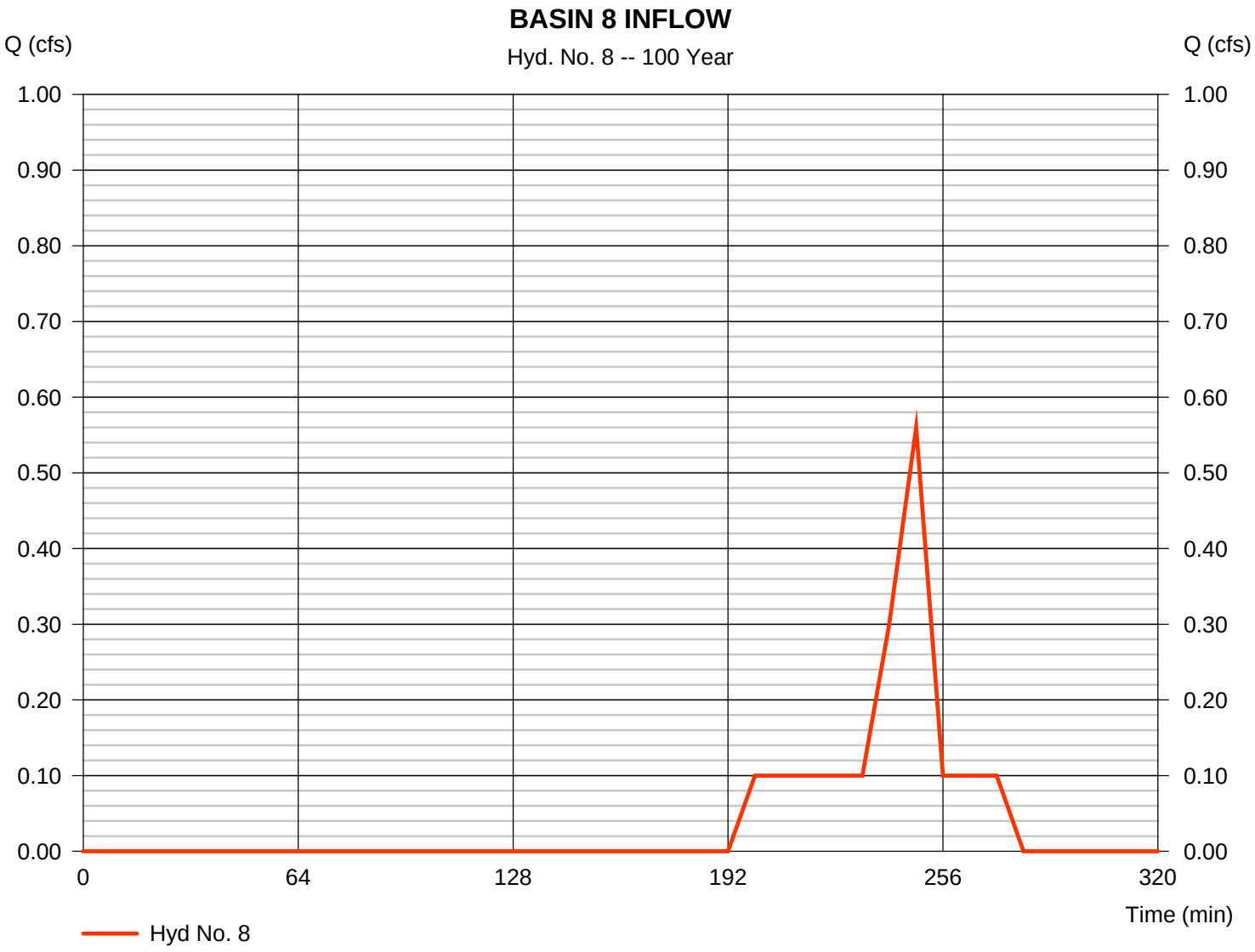
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 8

BASIN 8 INFLOW

Hydrograph type	= Manual	Peak discharge	= 0.560 cfs
Storm frequency	= 100 yrs	Time to peak	= 248 min
Time interval	= 8 min	Hyd. volume	= 797 cuft



Hydrograph Report

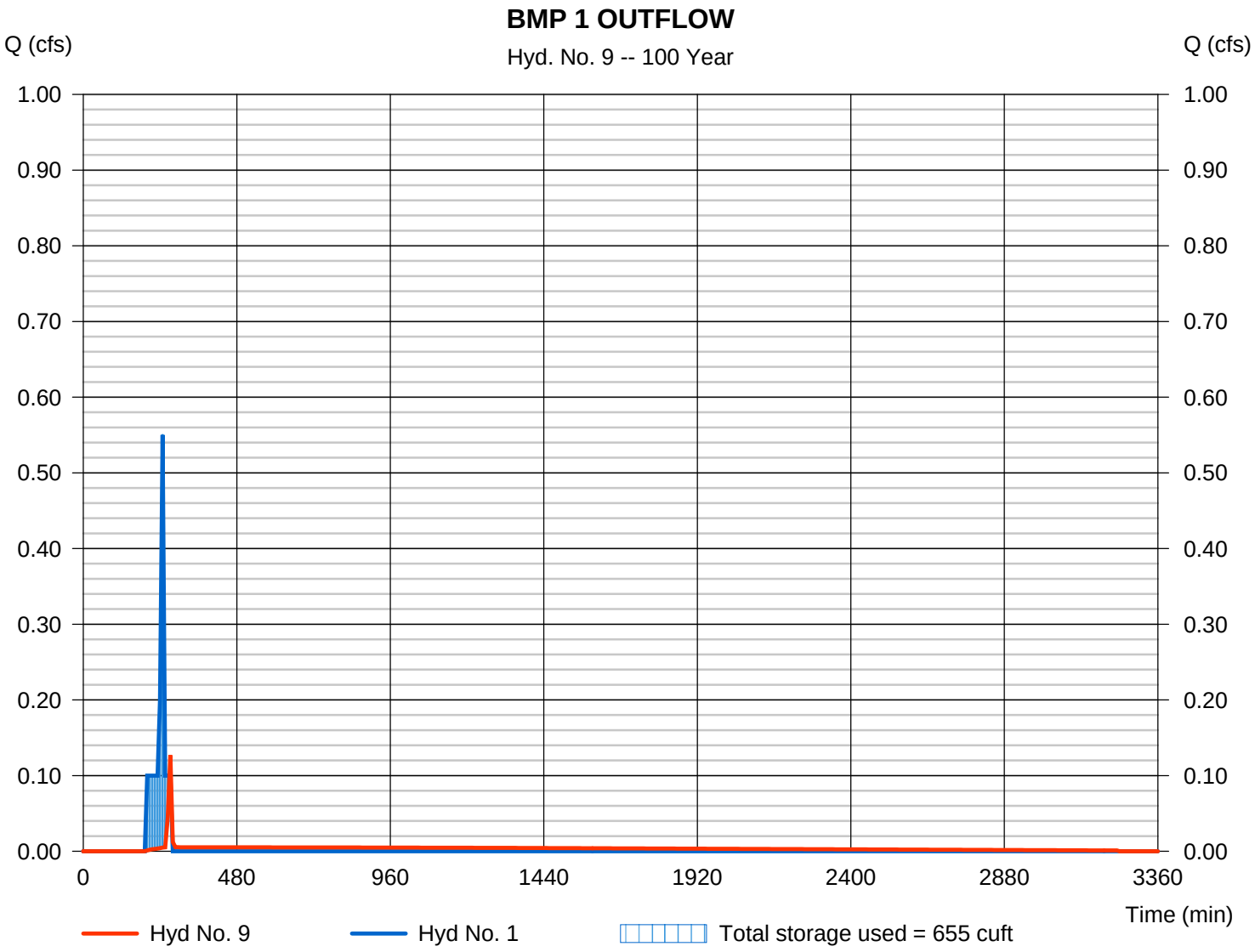
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 9

BMP 1 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 0.127 cfs
Storm frequency	= 100 yrs	Time to peak	= 272 min
Time interval	= 8 min	Hyd. volume	= 724 cuft
Inflow hyd. No.	= 1 - BASIN 1 INFLOW	Max. Elevation	= 128.53 ft
Reservoir name	= BMP #1	Max. Storage	= 655 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 1 - BMP #1

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 125.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	125.00	135	0	0
0.50	125.50	135	67	67
1.00	126.00	135	67	135
1.50	126.50	135	67	202
2.00	127.00	135	67	270
2.50	127.50	135	67	337
3.00	128.00	338	114	452
3.50	128.50	437	193	645
4.00	129.00	542	244	889

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.33	0.00	0.00
Span (in)	= 12.00	0.33	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 125.00	125.01	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 128.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	125.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	67	125.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.002
1.00	135	126.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.50	202	126.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
2.00	270	127.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
2.50	337	127.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
3.00	452	128.00	0.01 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
3.50	645	128.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.005
4.00	889	129.00	5.80 oc	0.00 ic	---	---	5.80 s	---	---	---	---	---	5.804

Hydrograph Report

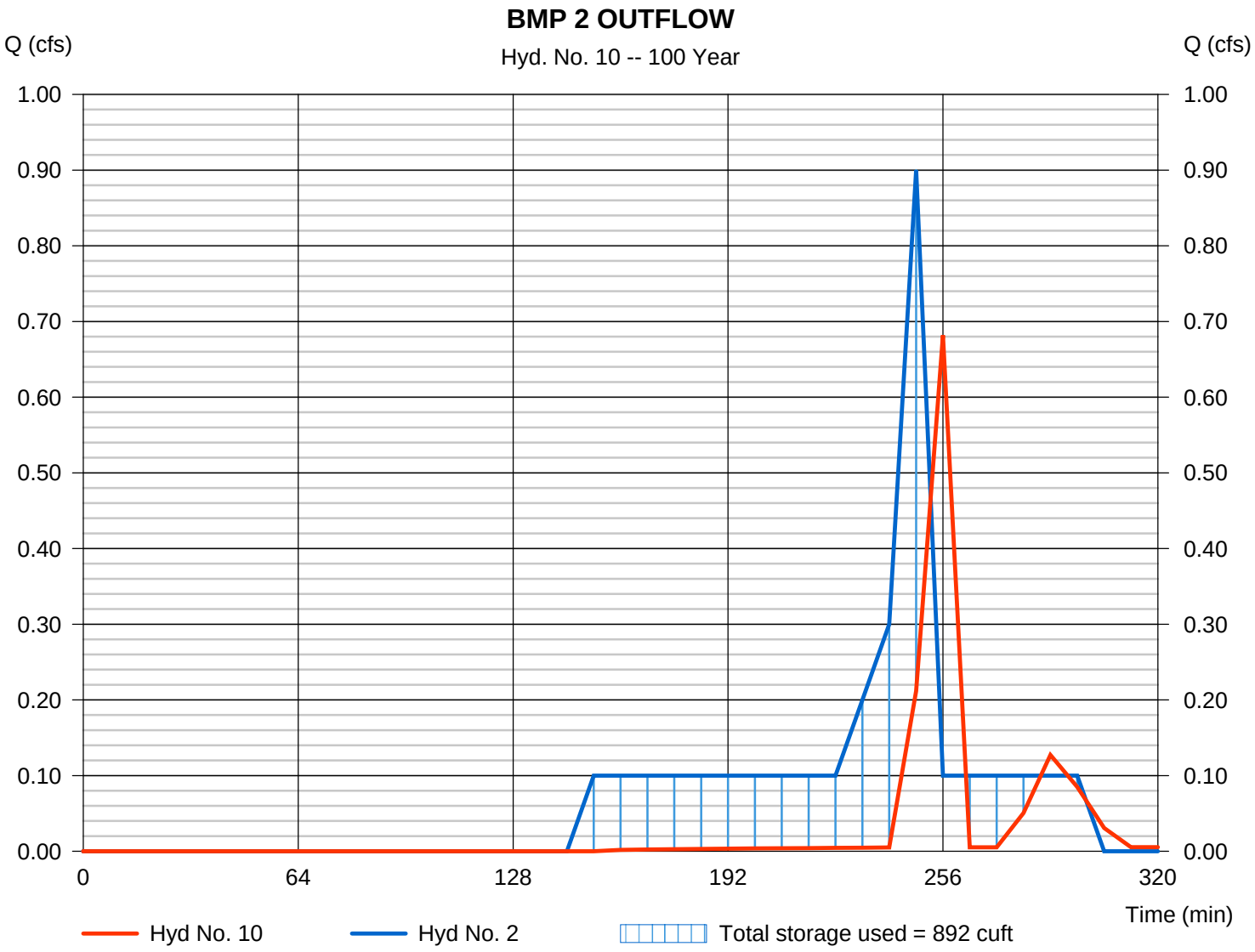
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 10

BMP 2 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 0.682 cfs
Storm frequency	= 100 yrs	Time to peak	= 256 min
Time interval	= 8 min	Hyd. volume	= 1,414 cuft
Inflow hyd. No.	= 2 - BASIN 2 INFL0W	Max. Elevation	= 116.79 ft
Reservoir name	= BMP #2	Max. Storage	= 892 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 2 - BMP #2

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 113.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	113.00	180	0	0
0.50	113.50	180	90	90
1.00	114.00	180	90	180
1.50	114.50	180	90	270
2.00	115.00	180	90	360
2.50	115.50	180	90	450
3.00	116.00	450	152	602
3.50	116.50	550	250	852
4.00	117.00	700	312	1,164

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.33	0.00	0.00
Span (in)	= 12.00	0.33	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 113.00	113.01	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 12.00	0.00	0.00	0.00
Crest El. (ft)	= 116.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	113.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	90	113.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.002
1.00	180	114.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.50	270	114.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
2.00	360	115.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
2.50	450	115.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
3.00	602	116.00	0.01 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
3.50	852	116.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.005
4.00	1,164	117.00	5.85 oc	0.00 ic	---	---	5.85 s	---	---	---	---	---	5.847

Hydrograph Report

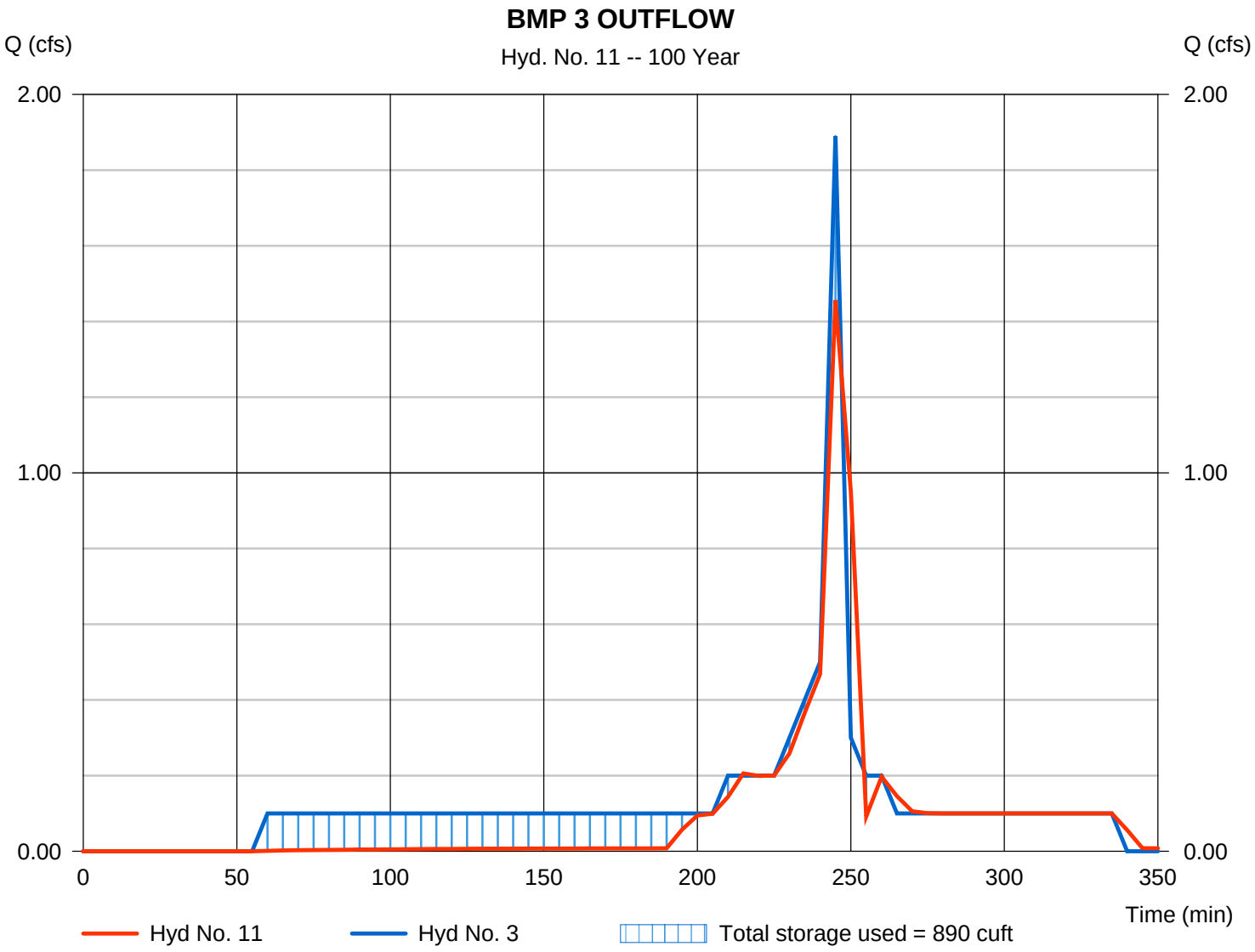
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 11

BMP 3 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 1.457 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 2,713 cuft
Inflow hyd. No.	= 3 - BASINE 3 INFLOW	Max. Elevation	= 117.34 ft
Reservoir name	= BMP #3	Max. Storage	= 890 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 3 - BMP #3

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 113.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	113.50	160	0	0
0.50	114.00	160	80	80
1.00	114.50	160	80	160
1.50	115.00	160	80	240
2.00	115.50	160	80	320
2.50	116.00	160	80	400
3.00	116.50	400	135	535
3.50	117.00	500	225	760
4.00	117.50	650	287	1,047

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.40	0.00	0.00
Span (in)	= 12.00	0.40	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 113.50	113.51	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 117.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	113.50	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	80	114.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.00	160	114.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
1.50	240	115.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.005
2.00	320	115.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.006
2.50	400	116.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.007
3.00	535	116.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.007
3.50	760	117.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.008
4.00	1,047	117.50	4.71 oc	0.01 ic	---	---	4.71	---	---	---	---	---	4.714

Hydrograph Report

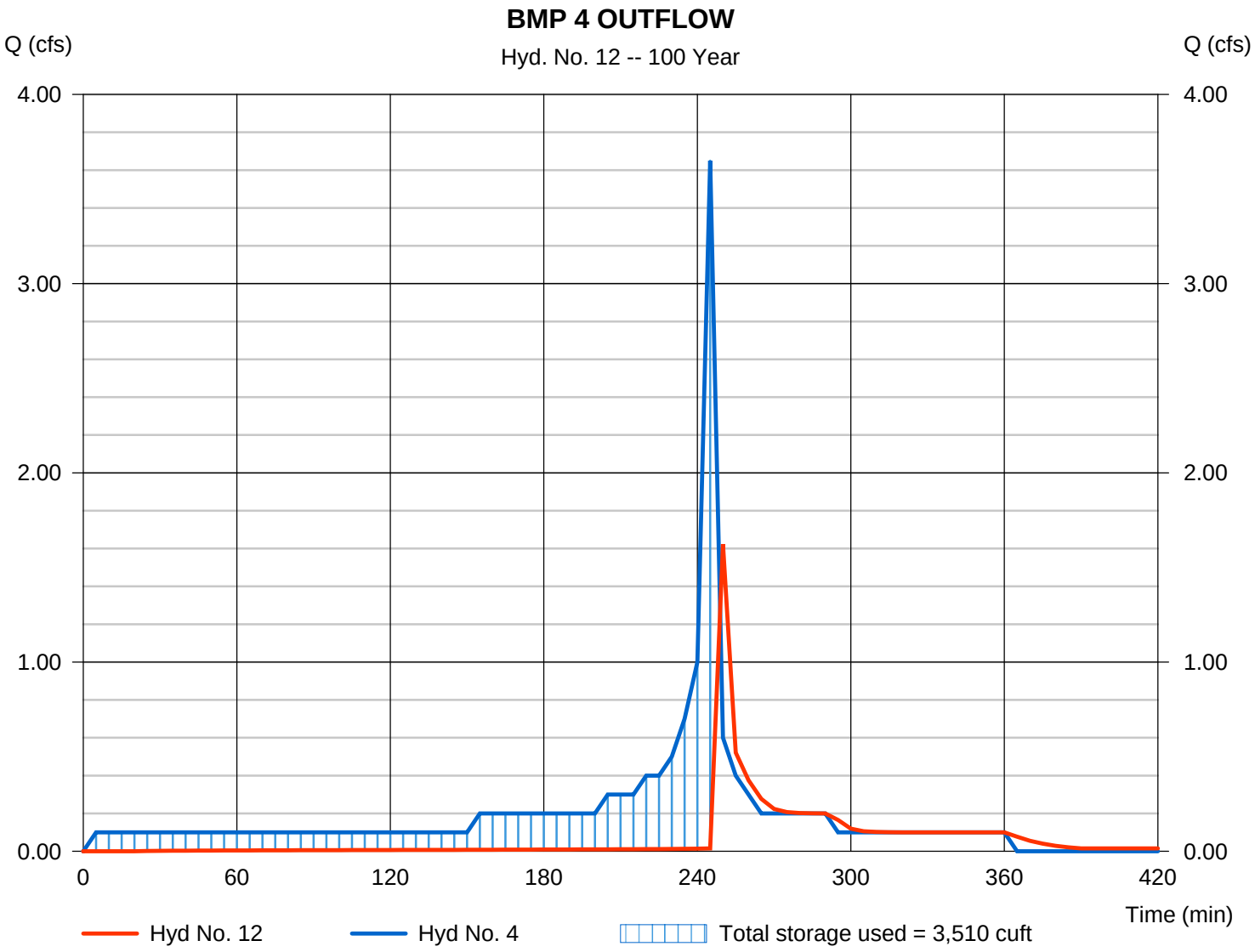
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 12

BMP 4 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 1.623 cfs
Storm frequency	= 100 yrs	Time to peak	= 250 min
Time interval	= 5 min	Hyd. volume	= 4,824 cuft
Inflow hyd. No.	= 4 - BASIN 4 INFLOW	Max. Elevation	= 110.00 ft
Reservoir name	= BMP #4	Max. Storage	= 3,510 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 4 - BMP #4

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 106.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	106.00	800	0	0
0.50	106.50	800	400	400
1.00	107.00	800	400	800
1.50	107.50	800	400	1,200
2.00	108.00	800	400	1,600
2.50	108.50	800	400	2,000
3.00	109.00	1,000	449	2,449
3.50	109.50	1,400	597	3,046
4.00	110.00	1,400	700	3,746

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.55	0.00	0.00
Span (in)	= 12.00	0.55	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 106.00	106.10	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 109.67	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	106.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	400	106.50	0.01 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
1.00	800	107.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.007
1.50	1,200	107.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.009
2.00	1,600	108.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.011
2.50	2,000	108.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.012
3.00	2,449	109.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.013
3.50	3,046	109.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.015
4.00	3,746	110.00	2.54 ic	0.01 ic	---	---	2.53	---	---	---	---	---	2.539

Hydrograph Report

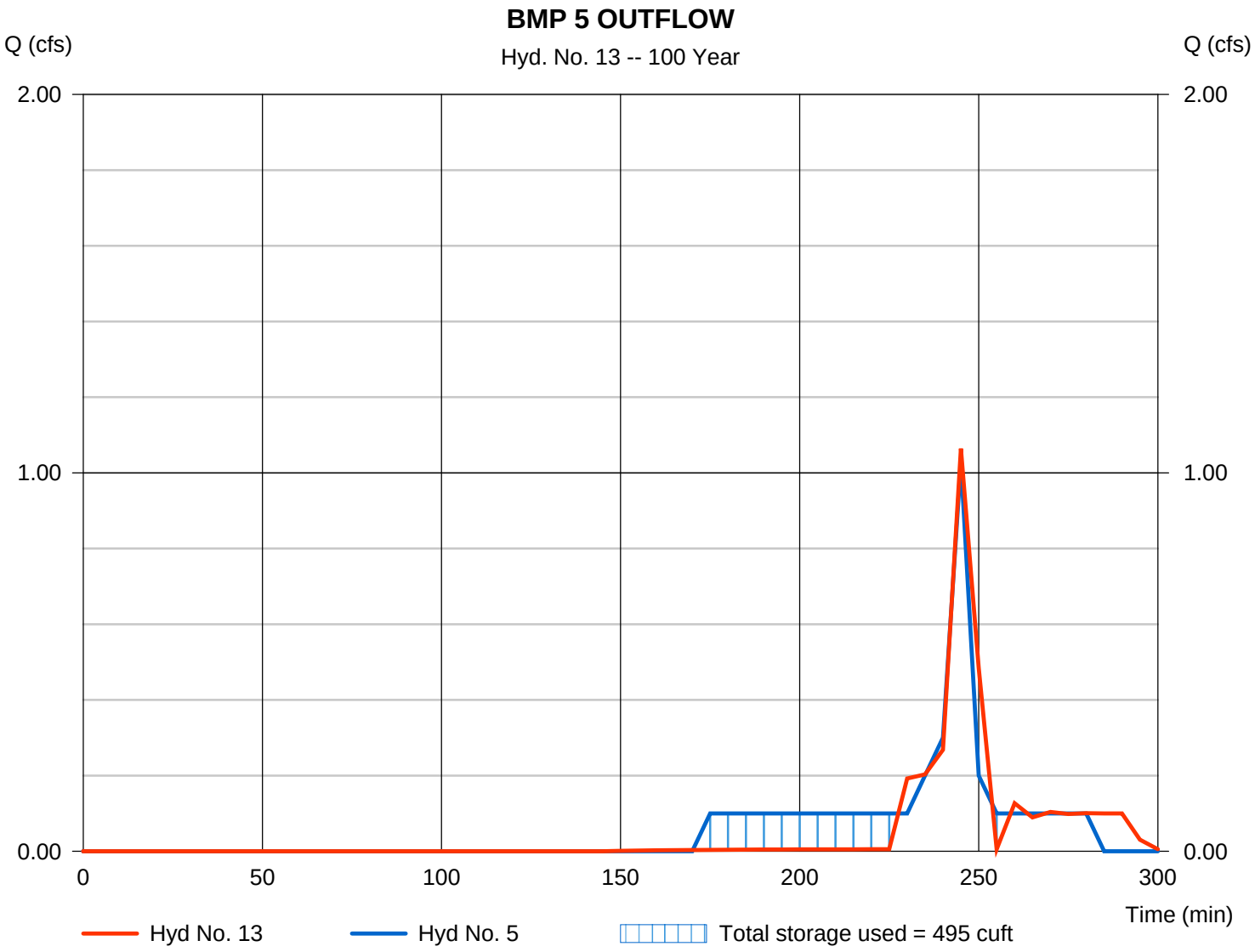
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 13

BMP 5 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 1.064 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 1,343 cuft
Inflow hyd. No.	= 5 - BASIN 5 INFLOW	Max. Elevation	= 119.67 ft
Reservoir name	= BMP #5	Max. Storage	= 495 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 5 - BMP #5

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 116.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	116.00	92	0	0
0.50	116.50	92	46	46
1.00	117.00	92	46	92
1.50	117.50	92	46	138
2.00	118.00	92	46	184
2.50	118.50	92	46	230
3.00	119.00	230	78	308
3.50	119.50	338	141	449
4.00	120.00	453	197	646

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.33	0.00	0.00
Span (in)	= 12.00	0.33	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 116.00	116.01	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 119.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	116.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	46	116.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.002
1.00	92	117.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.50	138	117.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
2.00	184	118.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
2.50	230	118.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
3.00	308	119.00	0.01 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
3.50	449	119.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.005
4.00	646	120.00	4.71 ic	0.00 ic	---	---	4.71	---	---	---	---	---	4.713

Hydrograph Report

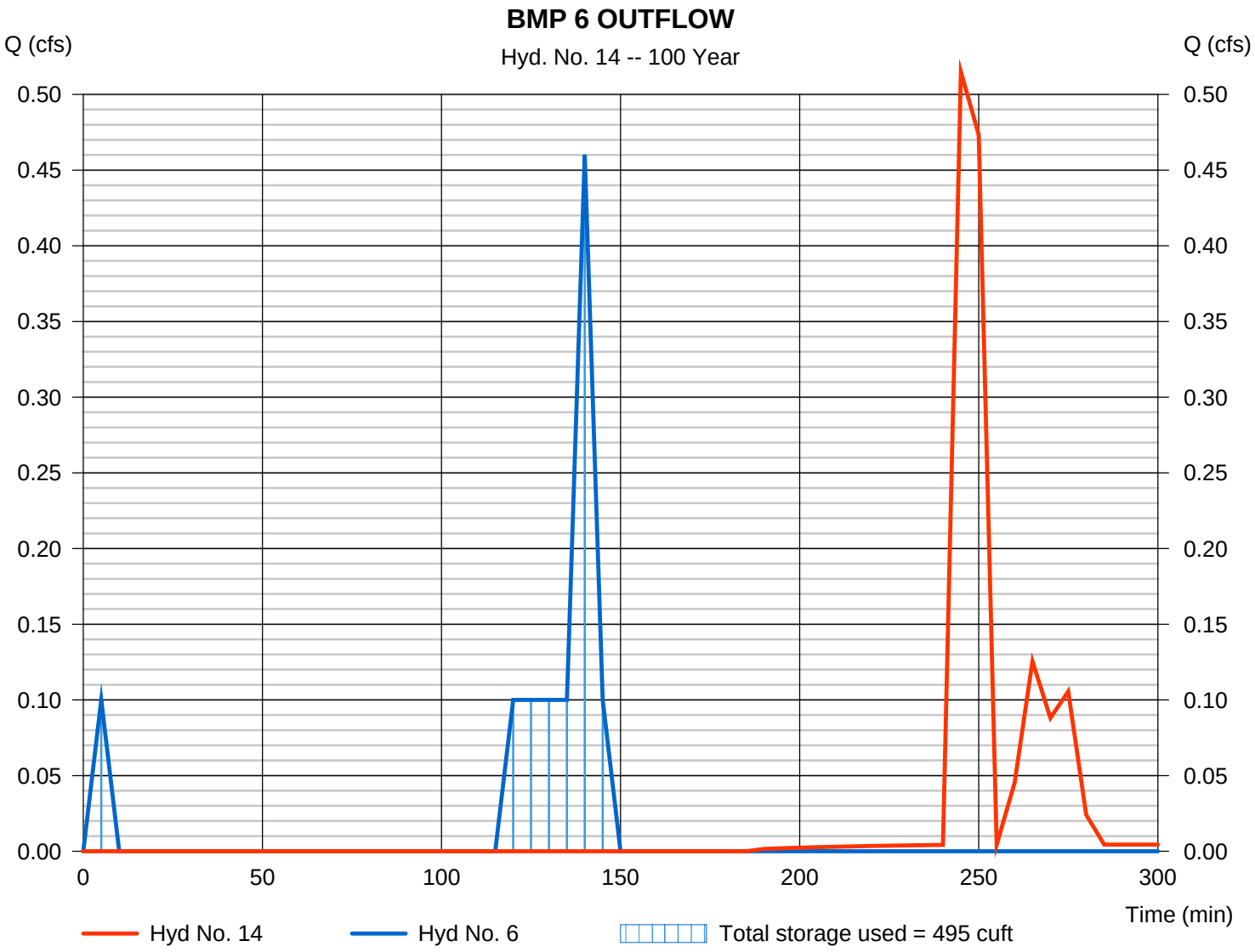
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 14

BMP 6 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 0.515 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 874 cuft
Inflow hyd. No.	= 6 - BASIN 6 INFLOW	Max. Elevation	= 117.74 ft
Reservoir name	= BMP #6	Max. Storage	= 495 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 6 - BMP #6

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 114.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	114.00	250	0	0
0.50	114.50	250	125	125
1.00	115.00	250	125	250
1.50	115.50	250	125	375
2.00	116.00	250	125	500
2.50	116.50	250	125	625
3.00	117.00	416	165	790
3.50	117.50	496	228	1,017
4.00	118.00	583	269	1,287

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.30	0.00	0.00
Span (in)	= 12.00	0.30	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 114.00	114.01	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 2.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 117.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	114.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	125	114.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.002
1.00	250	115.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.002
1.50	375	115.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
2.00	500	116.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
2.50	625	116.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
3.00	790	117.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
3.50	1,017	117.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
4.00	1,287	118.00	4.71 ic	0.00 ic	---	---	4.71	---	---	---	---	---	4.713

Hydrograph Report

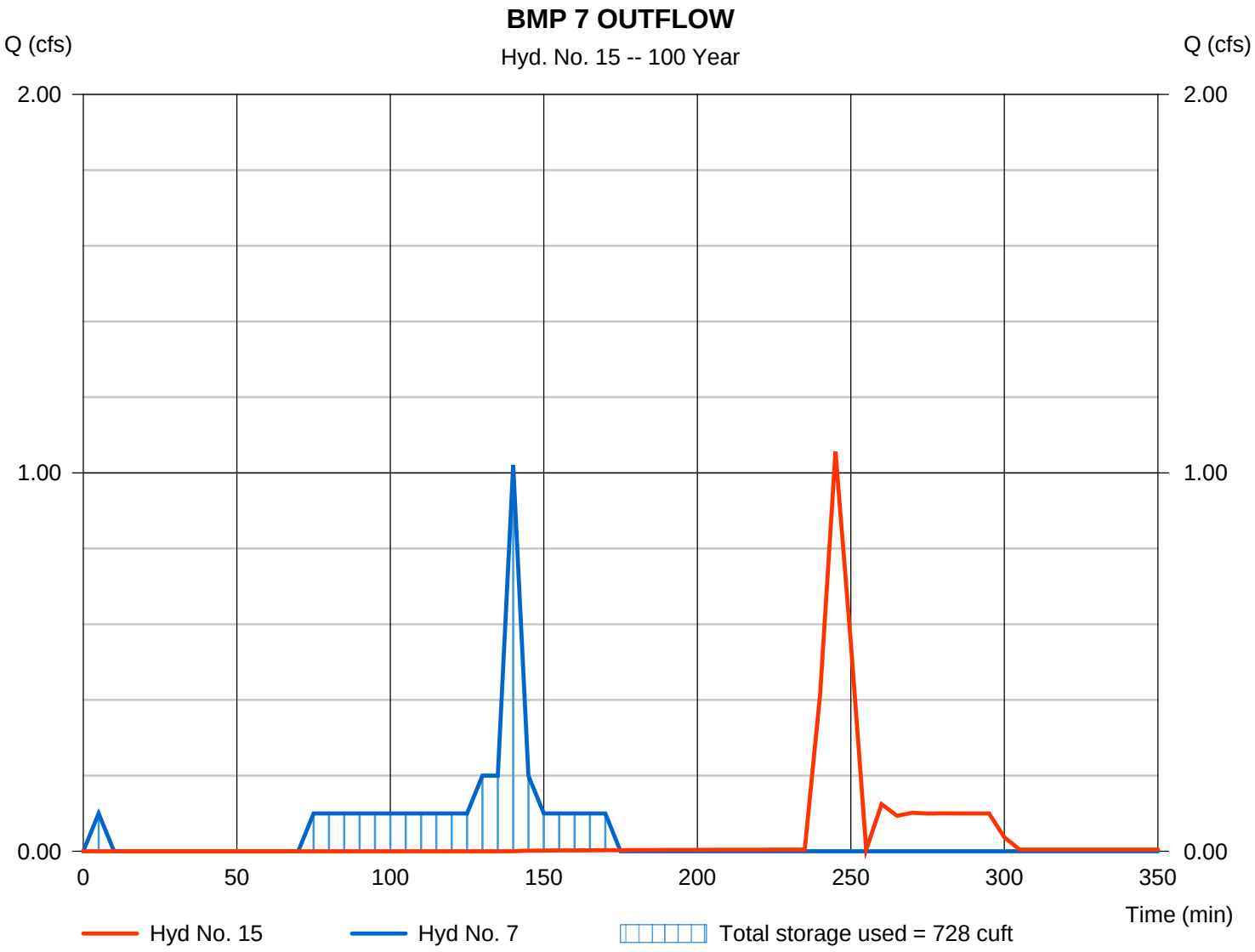
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 15

BMP 7 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 1.056 cfs
Storm frequency	= 100 yrs	Time to peak	= 245 min
Time interval	= 5 min	Hyd. volume	= 1,520 cuft
Inflow hyd. No.	= 7 - BASIN 7 INFLOW	Max. Elevation	= 127.67 ft
Reservoir name	= BMP #7	Max. Storage	= 728 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 7 - BMP #7

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 123.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	123.00	228	0	0
0.50	123.50	228	114	114
1.00	124.00	228	114	228
1.50	124.50	228	114	342
2.00	125.00	228	114	456
2.50	125.50	228	114	570
3.00	126.00	380	150	720
3.50	127.50	466	211	931
4.00	128.00	558	256	1,187
4.50	127.50	656	303	1,490
5.00	128.00	762	354	1,844

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.40	0.00	0.00
Span (in)	= 12.00	0.40	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 123.00	123.01	0.00	0.00
Length (ft)	= 100.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 127.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	123.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	114	123.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.00	228	124.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
1.50	342	124.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.005
2.00	456	125.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.006
2.50	570	125.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.007
3.00	720	126.00	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.007
3.50	931	127.50	0.01 ic	0.01 ic	---	---	0.00	---	---	---	---	---	0.009
4.00	1,187	128.00	4.72 oc	0.01 ic	---	---	4.71	---	---	---	---	---	4.716
4.50	1,490	127.50	5.24 oc	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
5.00	1,844	128.00	5.15 oc	0.01 ic	---	---	4.71	---	---	---	---	---	4.715

Hydrograph Report

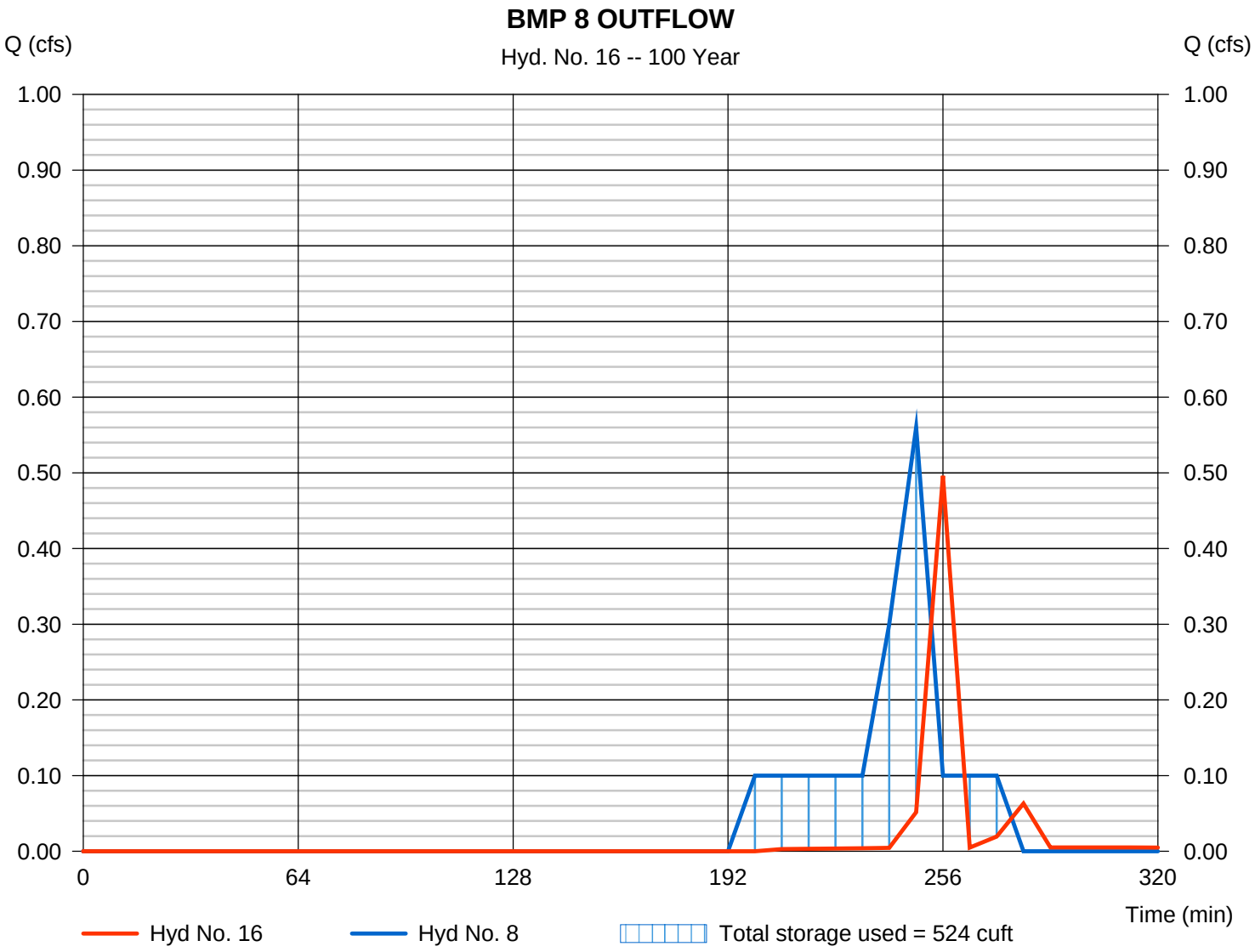
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Hyd. No. 16

BMP 8 OUTFLOW

Hydrograph type	= Reservoir	Peak discharge	= 0.496 cfs
Storm frequency	= 100 yrs	Time to peak	= 256 min
Time interval	= 8 min	Hyd. volume	= 773 cuft
Inflow hyd. No.	= 8 - BASIN 8 INFLOW	Max. Elevation	= 128.94 ft
Reservoir name	= BMP #8	Max. Storage	= 524 cuft

Storage Indication method used.



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Thursday, 09 / 21 / 2017

Pond No. 8 - BMP #8

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 124.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	124.00	120	0	0
0.50	125.50	120	60	60
1.00	126.00	120	60	120
1.50	126.50	120	60	180
2.00	127.00	120	60	240
2.50	127.50	120	60	300
3.00	128.00	200	79	379
3.50	128.50	256	114	493
4.00	129.00	317	143	636
4.50	128.50	385	175	811
5.00	129.00	460	211	1,022

Culvert / Orifice Structures

		[A]	[B]	[C]	[PrfRsr]
Rise (in)	=	12.00	0.30	0.00	0.00
Span (in)	=	12.00	0.30	0.00	0.00
No. Barrels	=	1	1	0	0
Invert El. (ft)	=	124.00	124.01	0.00	0.00
Length (ft)	=	100.00	0.00	0.00	0.00
Slope (%)	=	1.00	0.00	0.00	n/a
N-Value	=	.013	.013	.013	n/a
Orifice Coeff.	=	0.60	0.60	0.60	0.60
Multi-Stage	=	n/a	Yes	No	No

Weir Structures

		[A]	[B]	[C]	[D]
Crest Len (ft)	=	4.00	0.00	0.00	0.00
Crest El. (ft)	=	128.75	0.00	0.00	0.00
Weir Coeff.	=	3.33	3.33	3.33	3.33
Weir Type	=	1	---	---	---
Multi-Stage	=	Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	124.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	60	125.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.00	120	126.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
1.50	180	126.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
2.00	240	127.00	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
2.50	300	127.50	0.00 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.004
3.00	379	128.00	0.01 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
3.50	493	128.50	0.01 ic	0.00 ic	---	---	0.00	---	---	---	---	---	0.005
4.00	636	129.00	4.71 oc	0.00 ic	---	---	4.71	---	---	---	---	---	4.713
4.50	811	128.50	5.24 oc	0.00 ic	---	---	0.00	---	---	---	---	---	0.003
5.00	1,022	129.00	5.14 oc	0.00 ic	---	---	4.71	---	---	---	---	---	4.713

5.0 APPENDIX

RESIDENTIAL CARE FACILITY
J-1890
9/21/2017

PRE-PROJECT HYDROLOGY

Drainage Area	Area Description	Total Area (Ac)	Total Area (sq-ft)	Total Impervious Area (Sq-Ft)	% Impervious	% Pervious	Weighted Runoff Coefficient	AES Peak Runoff Q: (CFS)
EX-B	ON-SITE	2.10	91476	1865	2%	98%	0.45	1.64
EX-A	ON-SITE	0.81	35405	106	0%	100%	0.45	4.20
		2.91	126881.00	1971.00	2%	98%		5.80

POST-PROJECT HYDROLOGY

BMP Location	AES NODE	Total Area (Ac)	Total Area (sq-ft)	Total Impervious Area (Sq-Ft)	% Impervious	% Pervious	Weighted Runoff Coefficient	AES Peak Un-Detained Runoff Q: (CFS)	AES Peak Detained Runoff Q: (CFS)
DMA-1	152	0.30	13277	1584	12%	88%	0.36	0.55	0.13
DMA-2	153	0.32	13897	7439	54%	46%	0.49	0.90	0.68
DMA-3	158	0.48	20716	11112	54%	46%	0.60	1.89	1.50
DMA-4	162	0.71	31026	24515	79%	21%	0.78	3.65	0.96
DMA-5	159	0.29	12528	5328	43%	57%	0.60	1.03	1.06
DMA-6	106	0.22	9598	4099	43%	57%	0.45	0.46	0.52
DMA-7	104	0.31	13295	9252	70%	30%	0.70	1.02	1.06
DMA-8	102	0.29	12544	2877	23%	77%	0.45	0.56	0.50
TOTALS		2.91	126881.00	66206	52%	48%		9.20	5.75

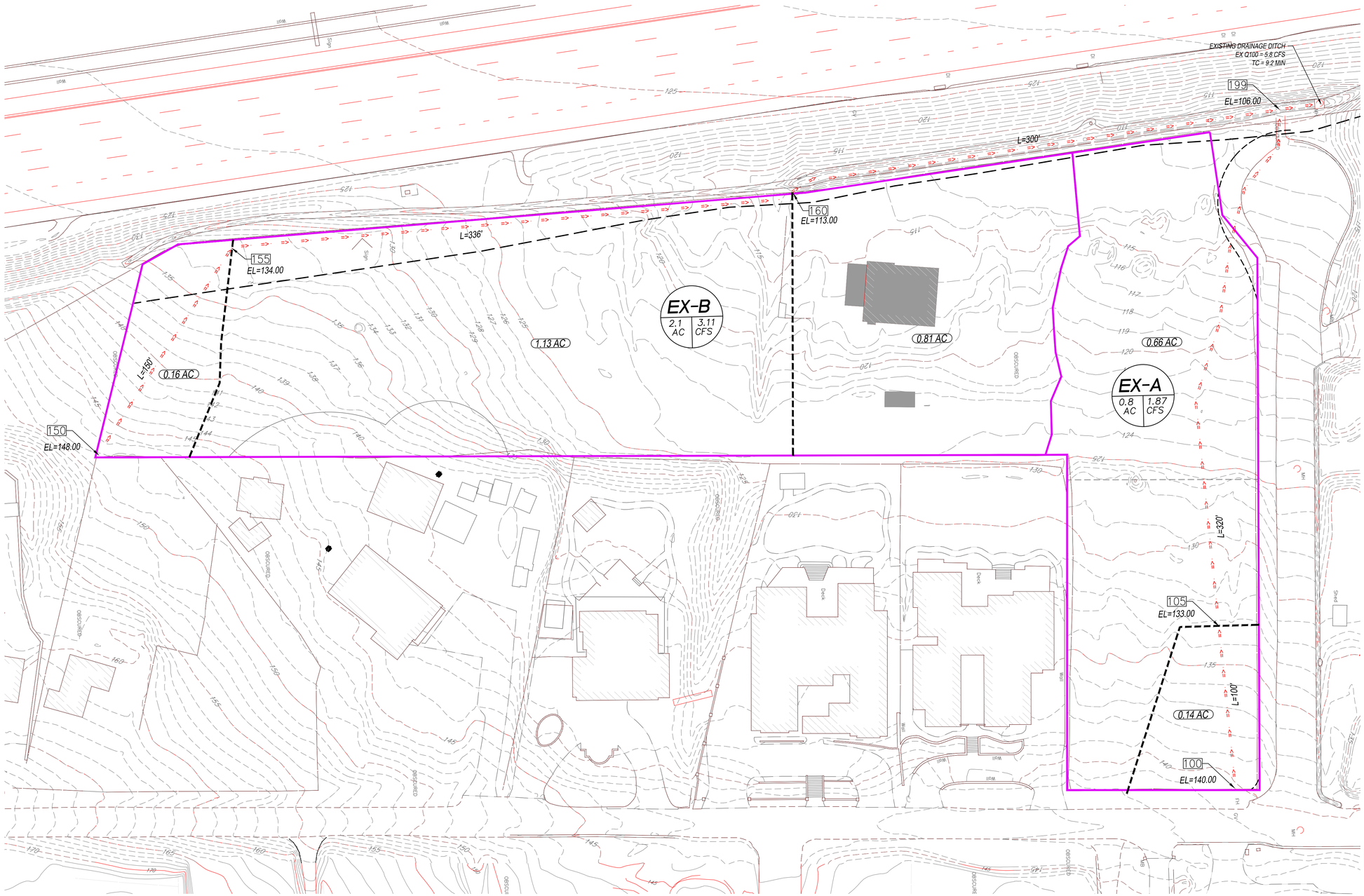
NOTE:

The runoff coefficients were determined based on the percent impervious area within each DMA and the corresponding value listed in Table 3-1 for Type B soils.

Table 3-1
RUNOFF COEFFICIENTS FOR URBAN AREAS

Land Use		Runoff Coefficient "C"				
			Soil Type			
NRCS Elements	County Elements	% IMPER.	A	B	C	D
Undisturbed Natural Terrain (Natural)	Permanent Open Space	0*	0.20	0.25	0.30	0.35
Low Density Residential (LDR)	Residential, 1.0 DU/A or less	10	0.27	0.32	0.36	0.41
Low Density Residential (LDR)	Residential, 2.0 DU/A or less	20	0.34	0.38	0.42	0.46
Low Density Residential (LDR)	Residential, 2.9 DU/A or less	25	0.38	0.41	0.45	0.49
Medium Density Residential (MDR)	Residential, 4.3 DU/A or less	30	0.41	0.45	0.48	0.52
Medium Density Residential (MDR)	Residential, 7.3 DU/A or less	40	0.48	0.51	0.54	0.57
Medium Density Residential (MDR)	Residential, 10.9 DU/A or less	45	0.52	0.54	0.57	0.60
Medium Density Residential (MDR)	Residential, 14.5 DU/A or less	50	0.55	0.58	0.60	0.63
High Density Residential (HDR)	Residential, 24.0 DU/A or less	65	0.66	0.67	0.69	0.71
High Density Residential (HDR)	Residential, 43.0 DU/A or less	80	0.76	0.77	0.78	0.79
Commercial/Industrial (N. Com)	Neighborhood Commercial	80	0.76	0.77	0.78	0.79
Commercial/Industrial (G. Com)	General Commercial	85	0.80	0.80	0.81	0.82
Commercial/Industrial (O.P. Com)	Office Professional/Commercial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (Limited I.)	Limited Industrial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (General I.)	General Industrial	95	0.87	0.87	0.87	0.87

*The values associated with 0% impervious may be used for direct calculation of the runoff coefficient as described in Section 3.1.2 (representing the pervious runoff coefficient, Cp, for the soil type), or for areas that will remain undisturbed in perpetuity. Justification must be given that the area will remain natural forever (e.g., the area is located in Cleveland National Forest).
DU/A = dwelling units per acre
NRCS = National Resources Conservation Service



LEGEND

DESCRIPTION	SYMBOL
LOT LINE	
EXIST. CONTOUR	300
PROP. CONTOUR	289
BASIN BOUNDARY	
BASIN SUB-BOUNDARY	
FLOWLINE	=>
FLOW DIRECTION	→
BASIN SUMMARY Q	100 — EX 1 (X.X AC / X.X CFS)
IMPERVIOUS AREA	
PERVIOUS PAVERS	
BIOFILTRATION BASIN AREA	
CRITICAL COURSE SEDIMENT YIELD AREAS	

PROJECT DATA

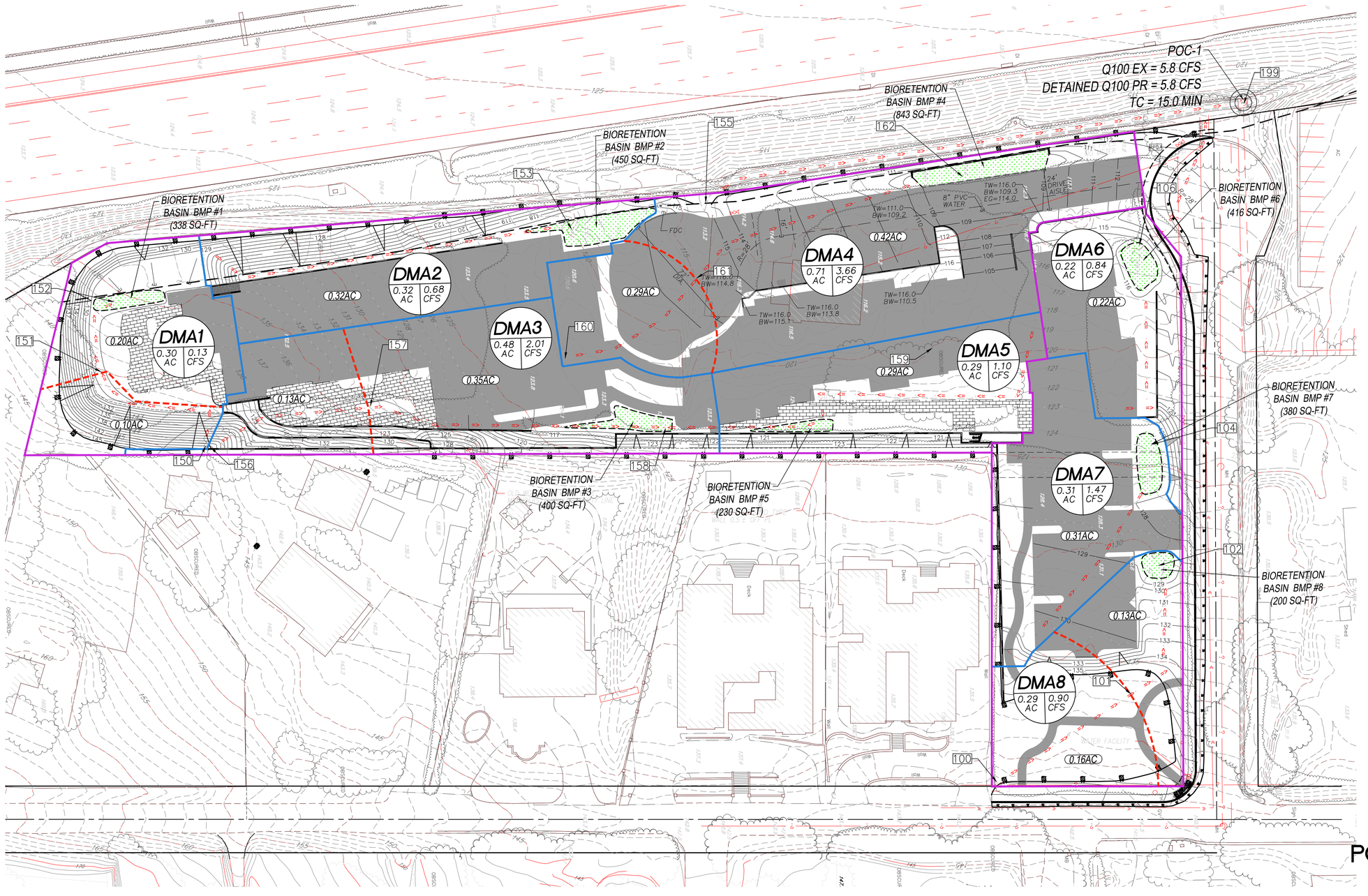
IMPERVIOUS AREA : 1,971 SQ-FT
PERVIOUS AREA : 124,910 SQ-FT
SOIL TYPE : B
SLOPE CONDITION : MODERATE
GROUND WATER DEPTH: > 20'
PCCSYA'S: NONE

ON-SITE HYDROLOGY
PRE-PROJECT WORKMAP

RESIDENTIAL CARE FACILITY
959 GENEVIEVE ST., SOLANA BEACH, CA 92075
PROJECT NUMBER: J-1890
SCALE: 1" = 30'
DATE: SEPTEMBER 21, 2017
SHEET 1 OF 1

GRAPHIC SCALE: 1" = 30'
30 15 0 30 60 90

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 North Highway 101, Ste A, Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com



LEGEND

DESCRIPTION	SYMBOL
LOT LINE	
EXIST. CONTOUR	300
PROP. CONTOUR	289
BASIN BOUNDARY	
DMA BOUNDARY	
HYDROLOGY SUB-BASIN	
FLOWLINE	=>
FLOW DIRECTION	
BASIN SUMMARY Q 100	EX 1 / X.X AC / X.X CFS
IMPERVIOUS AREA	
PERVIOUS PAVERS	
BIOFILTRATION BASIN AREA	
CRITICAL COURSE SEDIMENT YIELD AREAS	

PROJECT DATA

IMPERVIOUS AREA : 66,206 SQ-FT
PERVIOUS AREA : 60,675 SQ-FT
SOIL TYPE : B
SLOPE CONDITION : MODERATE
GROUND WATER DEPTH: > 20'
PCCSYA'S: NONE

GRAPHIC SCALE: 1" = 30'

30 15 0 30 60 90

ON-SITE HYDROLOGY POST-PROJECT WORKMAP

RESIDENTIAL CARE FACILITY

959 GENEVIEVE ST., SOLANA BEACH, CA 92075

PROJECT NUMBER: J-1890

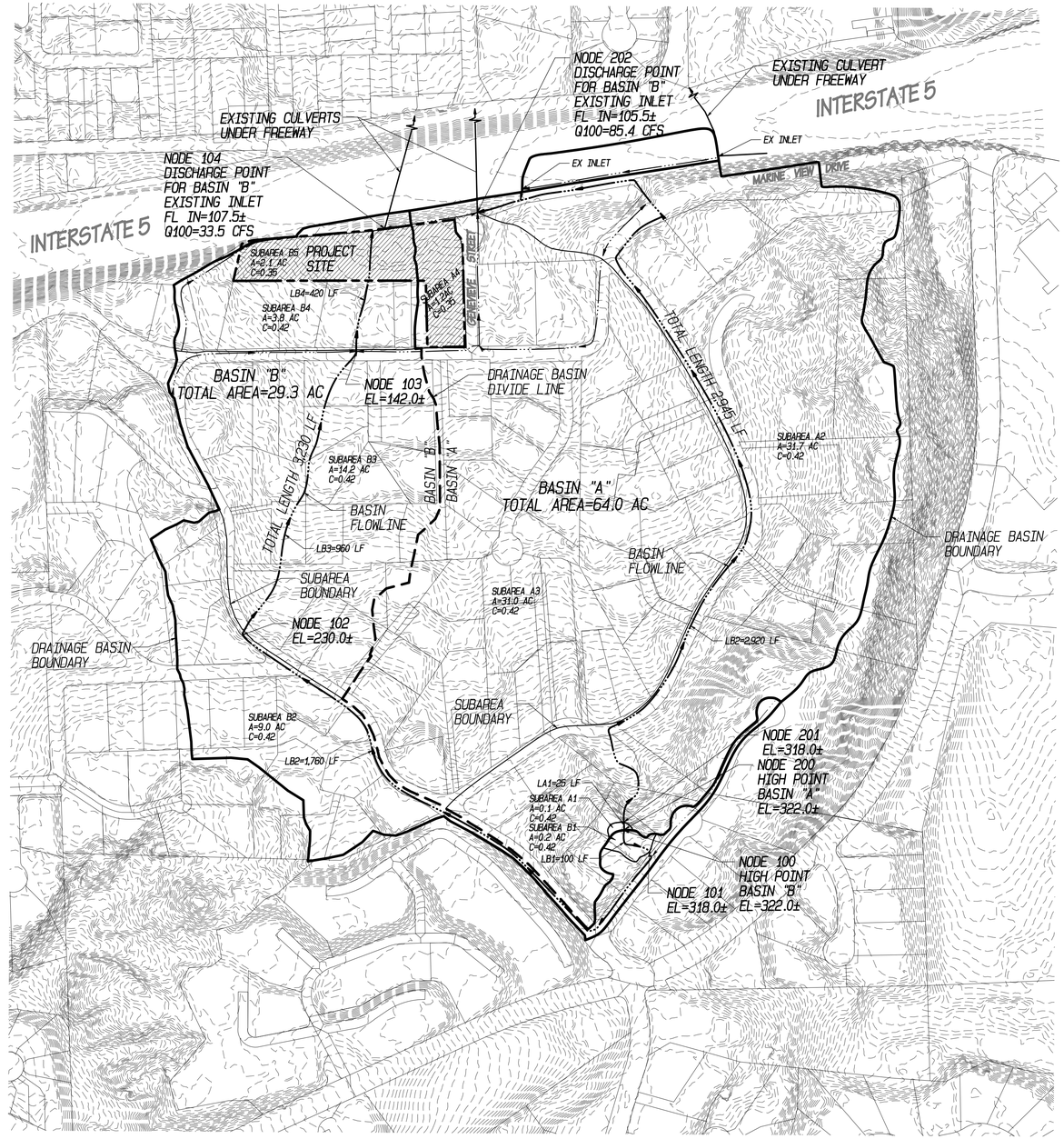
SCALE: 1" = 30'

DATE: SEPTEMBER 21, 2017

SHEET 1 OF 1

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 North Highway 101, Ste A, Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

PRE DEVELOPMENT HYDROLOGY MAP
RESIDENTIAL CARE FACILITY
959 GENEVIEVE STREET



GRAPHIC SCALE 1"=200'

0 200 400 600

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& ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
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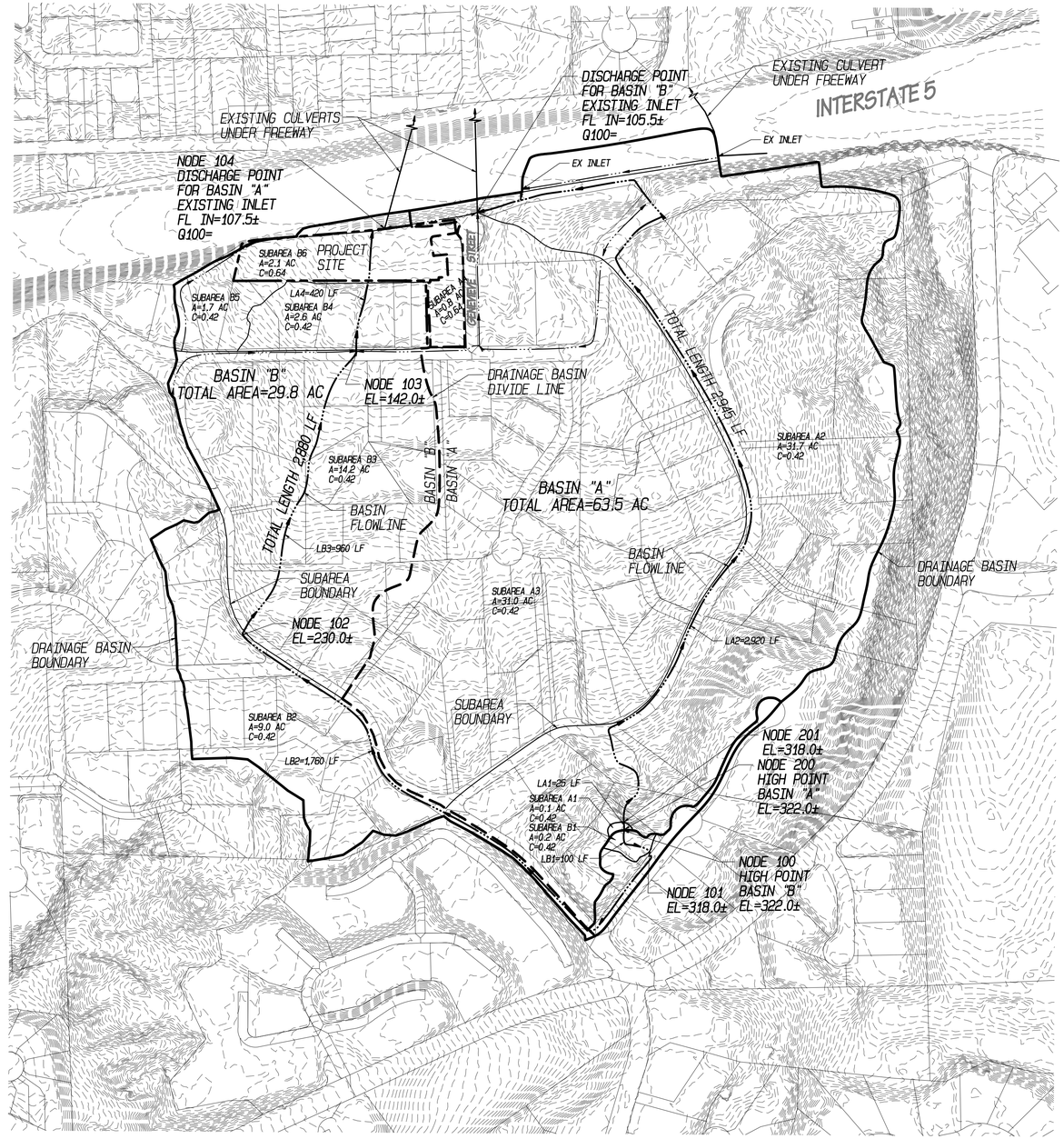
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

PLSA 1890

POST DEVELOPMENT HYDROLOGY MAP
RESIDENTIAL CARE FACILITY
959 GENEVIEVE STREET



GRAPHIC SCALE 1"=200'

0 200 400 600

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& ASSOCIATES
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ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

PLSA 1890

Appendix 5.8-2 Water Quality Technical Report

Appendices

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A.1 PDP WQTR

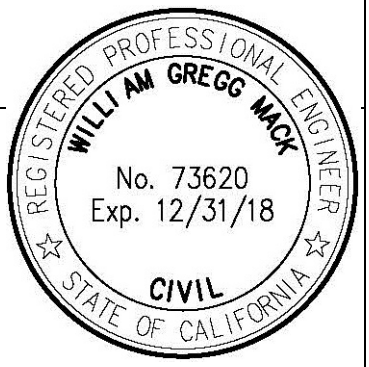
CITY OF SOLANA BEACH

PRIORITY DEVELOPMENT PROJECT (PDP)
WATER QUALITY TECHNICAL REPORT (WQTR)
FOR
RESIDENTIAL CARE FACILITY
[INSERT PERMIT APPLICATION NUMBERS]

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

ASSESSOR'S PARCEL NUMBER(S):
298-390-51

ENGINEER OF WORK:



10/3/17

WILLIAM G. MACK, PE #73620 EXP. 12/31/18

PREPARED FOR:
PACIFIC SOUND INVESTORS, LLC
1855 FREDA LANE
CARDIFF, CA 92007

PDP WQTR PREPARED BY:
PASCO LARET SUITER & ASSOCIATES
535 N. HIGHWAY 101, SUITE A
SOLANA BEACH, CA 92075
858.259.8212

DATE OF WQTR:
September 25, 2017

PLANS PREPARED BY:
PASCO LARET SUITER & ASSOCIATES
535 N. HIGHWAY 101, SUITE A
SOLANA BEACH, CA 92075
858.259.8212

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PDP WQTR Preparer's Certification Page
PDP WQTR Project Owner's Certification Page
Submittal Record
Project Vicinity Map
FORM 1 Site Information Checklist for PDPs
FORM 2 Source Control BMP Checklist for All Development Projects
FORM 3 Site Design/LID BMP Checklist for All Development Projects
FORM 4 Summary of PDP Structural BMPs
FORM 5 Harvest and Use Feasibility Checklist
FORM 6 Categorization of Infiltration Feasibility Condition
FORM 7 Factor of Safety and Design Infiltration Rate Worksheet
FORM 8 Downstream Systems Requirements for Preservation of Coarse Sediment Supply

Attachment 1: Backup for PDP Pollutant Control BMPs
- Attachment 1a: DMA Exhibit
- Attachment 1b: Tabular Summary of DMAs and Design Capture Volume Calculations (Worksheet 1.b)
- Attachment 1c: Harvest and Use Feasibility Screening (when applicable)
- Attachment 1d: Categorization of Infiltration Feasibility Condition (when applicable)
- Attachment 1e: Pollutant Control BMP Design Worksheets / Calculations

Attachment 2: Backup for PDP Hydromodification Control Measures
- Attachment 2a: Hydromodification Management Exhibit
- Attachment 2b: Management of Critical Coarse Sediment Yield Areas
- Attachment 2c: Geomorphic Assessment of Receiving Channels
- Attachment 2d: Flow Control Facility Design

Attachment 3: Structural BMP Maintenance Plan
- Attachment 3a: B Structural BMP Maintenance Thresholds and Actions
- Attachment 3b: Draft Maintenance Agreement (when applicable)

Attachment 4: Copy of Plan Sheets Showing Permanent Storm Water BMPs

ACRONYMS

APN	Assessor's Parcel Number
BMP	Best Management Practice
HMP	Hydromodification Management Plan
HSG	Hydrologic Soil Group
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NRCS	Natural Resources Conservation Service
PDP	Priority Development Project
PE	Professional Engineer
SC	Source Control
SD	Site Design
SDRWQCB	San Diego Regional Water Quality Control Board
SIC	Standard Industrial Classification
WQTR	Water Quality Technical Report

PDP WQTR PREPARER'S CERTIFICATION PAGE

Project Name: [Insert Project Name]
Permit Application Number: [Insert Permit Application Number]

PREPARER'S CERTIFICATION

I hereby declare that I am the Engineer in Responsible Charge of design of storm water best management practices (BMPs) for this project, and that I have exercised responsible charge over the design of the BMPs as defined in Section 6703 of the Business and Professions Code, and that the design is consistent with the PDP requirements of the City of Solana Beach BMP Design Manual, which is a design manual for compliance with the City of Solana Beach and the MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100) requirements for storm water management.

I have read and understand that the City Engineer has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the BMP Design Manual. I certify that this PDP WQTR has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this PDP WQTR by the City Engineer is confined to a review and does not relieve me, as the Engineer in Responsible Charge of design of storm water BMPs for this project, of my responsibilities for project design.

10/3/17
Engineer of Work's Signature, PE Number & Expiration Date

WILLIAM G. MACK
Print Name

PASCO LARET SUITER & ASSOCIATES
Company

09/25/17
Date

Engineer's Seal:

PDP WQTR PROJECT OWNER'S CERTIFICATION PAGE

Project Name: RESIDENTIAL CARE FACILITY
Permit Application Number: [Insert Permit Application Number]

PROJECT OWNER'S CERTIFICATION

This PDP WQTR has been prepared for Pacific Sound Investments, LLC by Pasco Laret Suiter & Associates. The PDP WQTR is intended to comply with the PDP requirements of the City of Solana Beach BMP Design Manual, which is a design manual for compliance with the City of Solana Beach and the MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100) requirements for storm water management.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan. Once the undersigned transfers its interests in the property, its successor-in-interest shall bear the aforementioned responsibility to implement the best management practices (BMPs) described within this plan, including ensuring on-going operation and maintenance of structural BMPs. A signed copy of this document shall be available on the subject property into perpetuity.

_____
Project Owner's Signature

_____
Print Name

____PACIFIC SOUND INVESTMENTS, LLC_____
Company

_____
Date

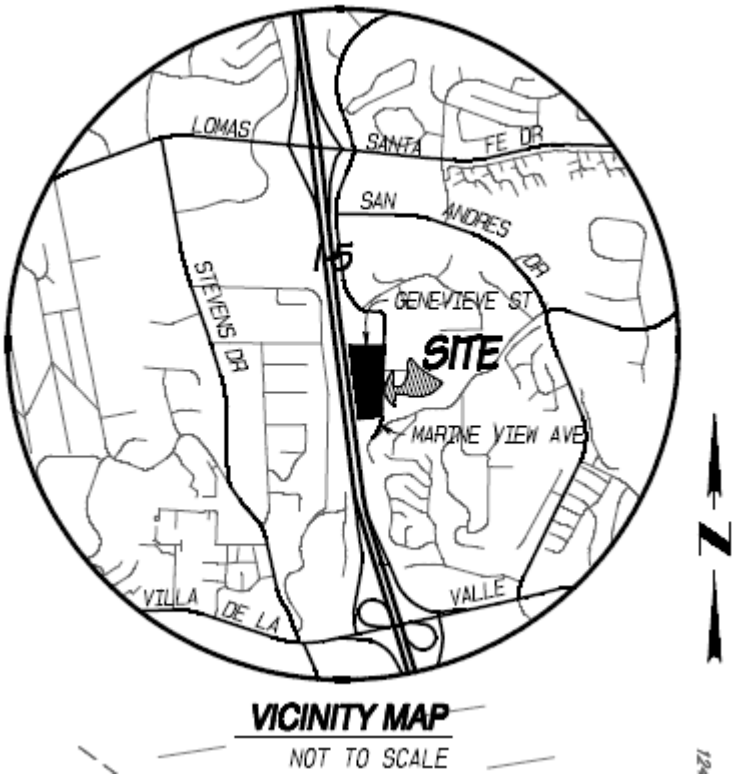
SUBMITTAL RECORD

Use this Table to keep a record of submittals of this PDP WQTR. Each time the PDP WQTR is re-submitted, provide the date and status of the project. In column 4 summarize the changes that have been made or indicate if response to plancheck comments is included. When applicable, insert response to plancheck comments behind this page.

Submittal Number	Date	Project Status	Summary of Changes
1	09/25/2017	X Preliminary Design / Planning/ CEQA ☐ Final Design	Initial Submittal
2		☐ Preliminary Design / Planning/ CEQA ☐ Final Design	
3		☐ Preliminary Design / Planning/ CEQA ☐ Final Design	
4		☐ Preliminary Design / Planning/ CEQA ☐ Final Design	

PROJECT VICINITY MAP

Project Name: RESIDENTIAL CARE FACILITY
Permit Application Number: [Insert Permit Application Number]



Site Information Checklist For PDPs	Form 1 (PDPs) City of Solana Beach BMP Design Manual
Project Summary Information:	
Project Name:	RESIDENTIAL CARE FACILITY
Project Address:	959 Genevieve Street Solana Beach, CA 92075
Assessor's Parcel Number(s) (APN(s))	298-390-51
Permit Application Number	
Project Hydrologic Unit	Select One: ☒ San Dieguito (HA Solana Beach, HSA Rancho Santa Fe) 905.11 ☐ Los Peñasquitos (HA Escondido Creek, HAS San Elijo) 904.61
Project Watershed (Complete Hydrologic Unit, Area, and Subarea Name with Numeric Identifier)	San Dieguito River, Solana Beach, Rancho Santa Fe, 905.11
Parcel Area (total area of Assessor's Parcel(s) associated with the project)	2.91 Acres (126,881 Square Feet)
Area to be Disturbed by the Project (Project Area)	2.57 Acres (111949.2 Square Feet)
Project Proposed Impervious Area (subset of Project Area)	1.51 Acres (66,206 Square Feet)
Project Proposed Pervious Area (subset of Project Area)	1.05 Acres (45,743 Square Feet)
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Parcel Area.	

Form 1
Description of Existing Site Condition
Current Status of the Site (select all that apply): ☒ Existing development ☐ Previously graded but not built out ☐ Demolition completed without new construction ☐ Agricultural or other non-impervious use ☒ Vacant, undeveloped/natural Description / Additional Information: The site exists as primarily undisturbed natural ground with an existing residential dwelling.
Existing Land Cover Includes (select all that apply): ☒ Vegetative Cover ☐ Non-Vegetated Pervious Areas ☒ Impervious Areas Description / Additional Information: The site is covered with native light vegetation similar to pasture land. The existing impervious area includes the roof area of the existing dwelling.
Underlying Soil belongs to Hydrologic Soil Group (select all that apply): ☐ NRCS Type A ☒ NRCS Type B ☐ NRCS Type C ☐ NRCS Type D
Approximate Depth to Groundwater (GW): ☐ GW Depth < 5 feet ☐ 5 feet < GW Depth < 10 feet ☐ 10 feet < GW Depth < 20 feet ☒ GW Depth > 20 feet
Form 1

Existing Natural Hydrologic Features (select all that apply):

☐ Watercourses
☐ Seeps
☐ Springs
☐ Wetlands
☒ None

Description / Additional Information:

The site conveys offsite run-on through the project area

Description of Existing Site Drainage Patterns

How is storm water runoff conveyed from the site? At a minimum, this description should answer:

(1) whether existing drainage conveyance is natural or urban;

(2) Is runoff from offsite conveyed through the site? if yes, quantify all offsite drainage areas, design flows, and locations where offsite flows enter the project site, and summarize how such flows are conveyed through the site;

(3)Provide details regarding existing project site drainage conveyance network, including any existing storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels; and

(4) Identify all discharge locations from the existing project site along with a summary of conveyance system size and capacity for each of the discharge locations. Provide summary of the pre-project drainage areas and design flows to each of the existing runoff discharge locations.

Describe existing site drainage patterns:

The existing drainage is natural. The site is moderately sloped and sheet flows storm water in a north westerly direction across the site toward the Interstate 5 Right of Way where it is collected and conveyed in a drainage channel along the Interstate 5 freeway south until it reaches the San Dieguito River. The site is primarily un-developed with one existing residential building which makes up the total impervious area. The peak storm water runoff Q for a 100 year event is calculated using rational method (Q=CiA) which resulted a 5.8 CFS peak discharge.

Form 1
Description of Proposed Site Development
Project Description / Proposed Land Use and/or Activities: The project proposes a residential care facility.
List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features): The proposed impervious areas include buildings, parking lot areas and typical improvements associated with the development of a Residential Care Facility.
List/describe proposed pervious features of the project (e.g., landscape areas): The proposed pervious areas include undisturbed slope areas, proposed landscape areas, pervious pavement and biofiltration basins for storm water treatment.
Form 1

Does the project include grading and changes to site topography?

☒ Yes
☐ No

Description / Additional Information:

The project proposes grading the site to accommodate the site plan for the residential care facility. The drainage characteristics of the existing condition will be maintained.

Form 1
Description of Proposed Site Drainage Patterns

Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

☒Yes
☐No

If yes, provide details regarding the proposed project site drainage conveyance network, including storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels, and the method for conveying offsite flows through or around the proposed project site. Identify all discharge locations from the proposed project site along with a summary of the conveyance system size and capacity for each of the discharge locations. Provide a summary of pre- and post-project drainage areas and design flows to each of the runoff discharge locations. Reference the drainage study for detailed calculations.

Describe proposed site drainage patterns::

The site has been designed to convey on-site storm water to biofiltration basins via a private storm drain network. The design incorporates LID features that allow runoff to be directed towards pervious areas before it is collected and conveyed to the biofiltration basins. The biofiltration basins will treat for water quality and detain post development flows to mitigate for hydromodification management criteria. The biofiltration basins will then discharge to the Cal Trans Right-of-Way in the same manner as the existing condition. The offsite run on will be conveyed through the site via a separate storm drain network that will bypass the proposed improvements while allowing the water to continue downstream in the same manner as the existing condition. The peak post-project runoff flow was calculated to be 5.75 cfs using AES rational method software which included the detention provided by the biofiltration basins. See the drainage study for the Residential Care Facility for a more detailed analysis of the peak runoff values.

Form 1

Identify whether any of the following features, activities, and/or pollutant source areas will be present (select all that apply):

- [x] On-site storm drain inlets
- [ ] Interior floor drains and elevator shaft sump pumps
- [ ] Interior parking garages
- [ ] Need for future indoor & structural pest control
- [x] Landscape/Outdoor Pesticide Use
- [ ] Pools, spas, ponds, decorative fountains, and other water features
- [ ] Food service
- [ ] Refuse areas
- [ ] Industrial processes
- [ ] Outdoor storage of equipment or materials
- [ ] Vehicle and Equipment Cleaning
- [ ] Vehicle/Equipment Repair and Maintenance
- [ ] Fuel Dispensing Areas
- [ ] Loading Docks
- [x] Fire Sprinkler Test Water
- [ ] Miscellaneous Drain or Wash Water
- [x] Plazas, sidewalks, and parking lots

Description / Additional Information:

Form 1
Identification and Narrative of Receiving Water and Pollutants of Concern
Describe flow path of storm water from the project site discharge location(s), through urban storm conveyance systems as applicable, to receiving creeks, rivers, and lagoons as applicable, and ultimate discharge to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable): The project sheet flows drainage in a north westerly direction towards the Cal Trans Right of Way of Interstate 5. It is then conveyed south via a public storm drain system where is discharges to the San Dieguito Lagoon before ultimately discharging to the Pacific Ocean.
List any 303(d) impaired water bodies within the path of storm water from the project site to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable), identify the pollutant(s)/stressor(s) causing impairment, and identify any TMDLs and/or Highest Priority Pollutants from the WQIP for the impaired water bodies:

303(d) Impaired Water Body	Pollutant(s)/Stressor(s)	TMDLs / WQIP Highest Priority Pollutant
San Dieguito River		Total Coliform, Enterococcus, Fecal Coliform, Nitrogen, Phosphorus, Total Dissolved Solids & Toxicity

Identification of Project Site Pollutants*

***Identification of project site pollutants is only required if flow-through treatment BMPs are implemented onsite in lieu of retention or biofiltration BMPs (note the project must also participate in an alternative compliance program unless prior lawful approval to meet earlier PDP requirements is demonstrated)**

Identify pollutants expected from the project site based on all proposed use(s) of the site (see BMP Design Manual Appendix B.6):			
Form 1			
Pollutant	**Not Applicable to the Project Site**	**Expected from the Project Site**	**Also a Receiving Water Pollutant of Concern**
Sediment			N/A
Nutrients			N/A
Heavy Metals			N/A
Organic Compounds			N/A
Trash & Debris			N/A
Oxygen Demanding Substances			N/A
Oil & Grease			N/A
Bacteria & Viruses			N/A
Pesticides			N/A

Form 1
Hydromodification Management Requirements

Do hydromodification management requirements apply (see Section 1.6 of the BMP Design Manual)?

☒ Yes, hydromodification management flow control structural BMPs required.

☐ No, the project will discharge runoff directly to existing underground storm drains discharging directly to an exempt receiving water such as the Pacific Ocean, and exempt river reach, or a tidally-influenced area.

☐ No, the project will discharge runoff directly to conveyance channels whose bed and bank are concrete-lined all the way from the point of discharge to the Pacific Ocean, a tidally-influenced area, or an exempt river reach.

☐ No, the project will discharge runoff directly to an area identified as appropriate for an exemption by the WMAA for the watershed in which the project resides.

Description / Additional Information (to be provided if a 'No' answer has been selected above):

Form 1
Critical Coarse Sediment Yield Areas* ***This Section only required if hydromodification management requirements apply**

Based on the maps provided within the WMAA, do potential critical coarse sediment yield areas exist within the project drainage boundaries?

☐ Yes
☒ No, No critical coarse sediment yield areas to be protected based on WMAA maps

If yes, have any of the optional analyses presented in Section 6.2 of the BMP Design Manual been performed?

☐ 6.2.1 Verification of Geomorphic Landscape Units (GLUs) Onsite
☐ 6.2.2 Downstream Systems Sensitivity to Coarse Sediment
☐ 6.2.3 Optional Additional Analysis of Potential Critical Coarse Sediment Yield Areas Onsite
☐ No optional analyses performed, the project will avoid critical coarse sediment yield areas identified based on WMAA maps

If optional analyses were performed, what is the final result?

☐ No critical coarse sediment yield areas to be protected based on verification of GLUs onsite
☐ Critical coarse sediment yield areas exist but additional analysis has determined that protection is not required. Documentation attached in Attachment 2.b of the WQTR.
☐ Critical coarse sediment yield areas exist and require protection. The project will implement management measures described in Sections 6.2.4 and 6.2.5 as applicable, and the areas are identified on the WQTR Exhibit.

Discussion / Additional Information:

Form 1
Flow Control for Post-Project Runoff*   ***This Section only required if hydromodification management requirements apply**
List and describe point(s) of compliance (POCs) for flow control for hydromodification management (see Section 6.3.1). For each POC, provide a POC identification name or number correlating to the project's HMP Exhibit and a receiving channel identification name or number correlating to the project's HMP Exhibit.   The project has one point of compliance (POC-1) which is located at the most north westerly edge of the project site where the storm water runoff enters the Cal Trans Right-of-Way.
Has a geomorphic assessment been performed for the receiving channel(s)?   X No, the low flow threshold is 0.1Q2 (default low flow threshold)   ☐ Yes, the result is the low flow threshold is 0.1Q2   ☐ Yes, the result is the low flow threshold is 0.3Q2   ☐ Yes, the result is the low flow threshold is 0.5Q2   If a geomorphic assessment has been performed, provide title, date, and preparer: Discussion / Additional Information: (optional)

Form 1
Other Site Requirements and Constraints
When applicable, list other site requirements or constraints that will influence storm water management design, such as zoning requirements including setbacks and open space, or local codes governing minimum street width, sidewalk construction, allowable pavement types, and drainage requirements.

Form 1
Optional Additional Information or Continuation of Previous Sections As Needed
This space provided for additional information or continuation of information from previous sections as needed.

Source Control BMP Checklist for All Development Projects	Form 2 (PDPs) City of Solana Beach BMP Design Manual

Project Identification

Project Name: Residential Care Facility

Permit Application Number:

Source Control BMPs

All development projects must implement source control BMPs SC-1 through SC-6 where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual for information to implement source control BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the source control BMP as described in Chapter 4 and/or Appendix E of the City of Solana Beach BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification may be provided.

Source Control Requirement	Applied?		
SC-1 Prevention of Illicit Discharges into the MS4	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-1 not implemented:			
SC-2 Storm Drain Stenciling or Signage	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-2 not implemented:			

Form 2			
Source Control Requirement	**Applied?**		
SC-3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-3 not implemented:			
SC-4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-4 not implemented:			
SC-5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-5 not implemented:			

Form 2			
Source Control Requirement	**Applied?**		
SC-6 Additional BMPs Based on Potential Sources of Runoff Pollutants (must answer for each source listed below)			
☐ On-site storm drain inlets	☒ Yes	☐ No	☐ N/A
☐ Interior floor drains and elevator shaft sump pumps	☐ Yes	☐ No	☒ N/A
☐ Interior parking garages	☐ Yes	☐ No	☒ N/A
☐ Need for future indoor & structural pest control	☒ Yes	☐ No	☐ N/A
☐ Landscape/Outdoor Pesticide Use	☒ Yes	☐ No	☐ N/A
☐ Pools, spas, ponds, decorative fountains, and other water features	☐ Yes	☐ No	☒ N/A
☐ Food service	☐	☐	☐
☐ Refuse areas	☐ Yes	☐ No	☒ N/A
☐ Industrial processes	☐ Yes	☐ No	☒ N/A
☐ Outdoor storage of equipment or materials	☐ Yes	☐ No	☒ N/A
☐ Vehicle and Equipment Cleaning	☒ Yes	☐ No	☐ N/A
☐ Vehicle/Equipment Repair and Maintenance	☐ Yes	☐ No	☒ N/A
☐ Fuel Dispensing Areas	☐ Yes	☐ No	☒ N/A
☐ Loading Docks	☐ Yes	☐ No	☒ N/A
☐ Fire Sprinkler Test Water	☐ Yes	☐ No	☒ N/A
☐ Miscellaneous Drain or Wash Water	☒ Yes	☐ No	☐ N/A
☐ Plazas, sidewalks, and parking lots	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-6 not implemented. Clearly identify which sources of runoff pollutants are discussed. Justification must be provided for all "No" answers shown above.			

Site Design/LID BMP Checklist for All Development Projects	Form 3 (PDPs) City of Solana Beach BMP Design Manual

Project Identification

Project Name: Residential Care Facility

Permit Application Number:

Site Design/LID BMPs

All development projects must implement site design/LID BMPs SD-1 through SD-8 where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual for information to implement site design BMPs shown in this checklist.

Answer each category below pursuant to the following.

- "Yes" means the project will implement the site design/LID BMP as described in Chapter 4 and/or Appendix E of the City of Solana Beach BMP Design Manual. Discussion / justification is not required.
- "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided.
- "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project site has no existing natural areas to conserve). Discussion / justification may be provided.

Site Design Requirement	Applied?		
SD-1 Maintain Natural Drainage Pathways and Hydrologic Features	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-1 not implemented:			
SD-2 Conserve Natural Areas, Soils, and Vegetation	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-2 not implemented:			

Form 3			
Source Control Requirement	**Applied?**		
SD-3 Minimize Impervious Area	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-3 not implemented:			
SD-4 Minimize Soil Compaction	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-4 not implemented:			
SD-5 Impervious Area Dispersion	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-5 not implemented:			
SD-6 Runoff Collection	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-6 not implemented:			
SD-7 Landscaping with Native or Drought Tolerant Species	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-7 not implemented:			
SD-8 Harvesting and Using Precipitation	☐ Yes	☒ No	☐ N/A
Discussion / justification if SD-8 not implemented: Harvest & Use is not feasible			

Summary of PDP Structural BMPs	Form 4 (PDPs) City of Solana Beach BMP Design Manual
Project Identification	
Project Name: Residential Care Facility	
Permit Application Number:	
PDP Structural BMPs	

All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the BMP Design Manual). Selection of PDP structural BMPs for storm water pollutant control must be based on the selection process described in Chapter 5. PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management (see Chapter 6 of the BMP Design Manual). Both storm water pollutant control and flow control for hydromodification management can be achieved within the same structural BMP(s).

PDP structural BMPs must be verified by the local jurisdiction at the completion of construction. This may include requiring the project owner or project owner's representative and engineer of record to certify construction of the structural BMPs (see Section 1.12 of the BMP Design Manual). PDP structural BMPs must be maintained into perpetuity, and the local jurisdiction must confirm the maintenance (see Section 7 of the BMP Design Manual).

Use this form to provide narrative description of the general strategy for structural BMP implementation at the project site in the box below. Then complete the PDP structural BMP summary information sheet (page 3 of this form) for each structural BMP within the project (copy the BMP summary information page as many times as needed to provide summary information for each individual structural BMP).

Form 4

Describe the general strategy for structural BMP implementation at the site. This information must describe how the steps for selecting and designing storm water pollutant control BMPs presented in Section 5.1 of the BMP Design Manual were followed, and the results (type of BMPs selected). For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate.

The overall strategy was to minimze impervious area where feasible and direct all storm water runoff to biofiltration planter areas. Per Form 5 the water use produced by the site is less the 0.25 DCV, therefore harvest and use is considered to be infeasible. The existing soil will partially infiltrate and therefore the next highest priority treatment facility is biofiltration which has been selected to treat the required design capture volume (DCV). The project is broken up into 8 drainage management areas that are tributary to 8 partial retention biofiltraton planter areas. The planter areas have been sized to treat the tributary DCV and provide flow control to meet hydromodification management criteria. The combined treatment and flow control planters meet the BMP Design Manual requirements by providing above the minimum footprint requirements for treatment and each planter bmp is flow control using an orifice plate within the outlet structures to reduce the peak discharge rates. EPA SWMM continuous simmulation was used to determine the required orifice diameter. Each individual DMA tributary to their respective BMP was modeled in parallel to the POC. The model results shows that BMP's 1, 2, & 5 require a 0.33" orifice, BMP 3 requires a 0.40" orifice, BMP 4 requires a 0.55" orifice and BMPs 6 through 8 requires a 0.30" orifice that will achieve the required post-project flow durations, therefore each basin will include an orifice plate with the specified orifice diameter for flow control of the smaller events. The large events will overtop the on-site storm drain inlets and continue to drain off the site in the same manner as the existing condition without an increase of peak discharge because the overall impervious area is decreasing and the biofiltration planters provide additional detention.

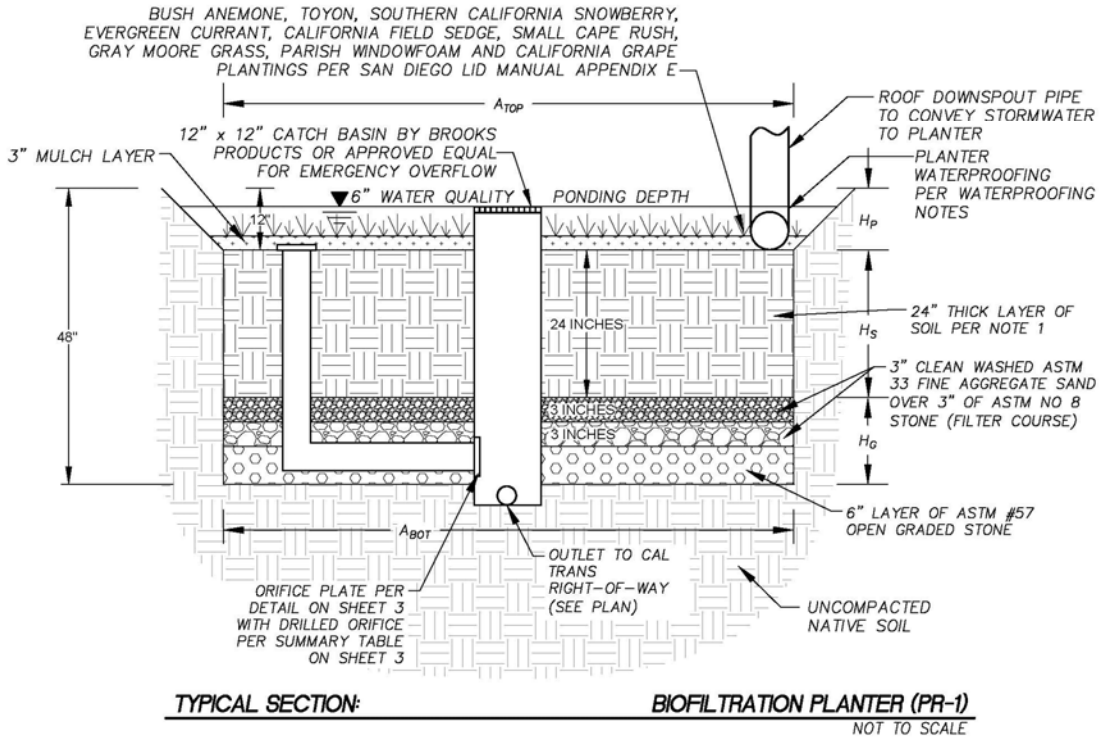
(Continue on next page as necessary.)

Form 4
(Page reserved for continuation of description of general strategy for structural BMP implementation at the site)
Continued from page 1)

Form 4 (Copy as many as needed)
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**
Structural BMP ID No. BMP # 1 through 8
Construction Plan Sheet No. Sheet 1
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☐ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☒ Partial retention by biofiltration with partial retention (PR-1) ☐ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-through treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-through treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ Other (describe in discussion section below)
Purpose: ☐ Pollutant control only ☐ Hydromodification control only ☒ Combined pollutant control and hydromodification control ☐ Pre-treatment/forebay for another structural BMP ☐ Other (describe in discussion section below)
Form 4 (Copy as many as needed)

Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification forms if required by the City Engineer (See Section 1.12 of the BMP Design Manual).	Will G. Mack, PE Pasco Laret Suite & Associates 535 N. Highway 101, Suite A Solana Beach, CA 92075
Who will be the final owner of this BMP?	Pacific Sound Investors, LLC 1855 Freda Lane Cardiff, CA 92007
Who will maintain this BMP into perpetuity?	Pacific Sound Investors, LLC 1855 Freda Lane Cardiff, CA 92007
What is the funding mechanism for maintenance?	Pacific Sound Investors, LLC 1855 Freda Lane Cardiff, CA 92007

Form 4 (Copy as many as needed)
Structural BMP ID No. BMP #1 to #8
Construction Plan Sheet No. Sheet 1
Discussion (as needed):



Harvest and Use Feasibility Checklist	Form 5 (PDPs) City of Solana Beach BMP Design Manual

1. Is there a demand for harvested water (check all that apply) at the project site that is reliably present during the wet season?

☒ Toilet and urinal flushing
☒ Landscape irrigation
☐ Other:_____

2. If there is a demand; estimate the anticipated average wet season demand over a period of 36 hours. Guidance for planning level demand calculations for toilet/urinal flushing and landscape irrigation is provided in Section B.3.2.

(9.3gal/person*day)*(0.13368ft^3/gal)= (1.24ft^3/person*day)*(1.5 days) = 1.86ft^3/36hr

100 Beds * 1.86ft^3/36 hour = **186 ft^3/36 hr**

3. Calculate the DCV using worksheet B-2.1.

DCV = __3099____ (cubic feet)

3a. Is the 36 hour demand greater than or equal to the DCV?	3b. Is the 36 hour demand greater than 0.25DCV but less than the full DCV?	3c. Is the 36 hour demand less than 0.25DCV?
☐ Yes / ☒ No ⇨ ⇩	☐ Yes / ☒ No ⇨ ⇩	☒ Yes ⇩
Harvest and use appears to be feasible. Conduct more detailed evaluation and sizing calculations to confirm that DCV can be used at an adequate rate to meet drawdown criteria.	Harvest and use may be feasible. Conduct more detailed evaluation and sizing calculations to determine feasibility. Harvest and use may only be able to be used for a portion of the site, or (optionally) the storage may need to be upsized to meet long term capture targets while draining in longer than 36 hours.	Harvest and use is considered to be infeasible.

Is harvest and use feasible based on further evaluation?

☐ Yes, refer to Appendix E to select and size harvest and use BMPs.

☐ No, select alternate BMPs.

Categorization of Infiltration Feasibility Condition	Form 6 (PDPs) City of Solana Beach BMP Design Manual

Part 1 - Full Infiltration Feasibility Screening Criteria

Would infiltration of the full design volume be feasible from a physical perspective without any undesirable consequences that cannot be reasonably mitigated?

Criteri	Screening Question	Yes	No
1	**Is the estimated reliable infiltration rate below proposed facility locations greater than 0.5 inches per hour?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	X	

Provide basis:

Based on the web soil survey and NRCS soil map of the site, the underlying soil type is "B". Soil type B will generally have infiltration rates greater than 0.5 inches per hour. For planning purposes during the discretionary process, an infiltration rate greater than 0.5 inches per hour is assumed and a site specific investigation will be performed during final engineering.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.

2	**Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.		X

Provide basis:

The proposed basins are adjacent to proposed structures and existing slopes therefore partial lining is proposed to limit lateral migration that could negatively impact geotechnical hazards.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.

Form 6			
Criteria	Screening Question	**Yes**	**No**
3	**Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination (shallow water table, storm water pollutants or other factors) that cannot be mitigated to an acceptable level?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	X	
Provide basis: Record information of the groundwater in the area is greater than 20 feet, therefore no risk to groundwater. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
4	**Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams or increased discharge of contaminated groundwater to surface waters?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	X	
Provide basis: The discharge of storm water will not impact down stream waterbodies. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
Part 1 Result *	If all answers to rows 1 - 4 are "**Yes**" a full infiltration design is potentially feasible. The feasibility screening category is **Full Infiltration** If any answer from row 1-4 is "**No**", infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a "full infiltration" design. Proceed to Part 2		PARTIAL INFILTRATION

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by Agency/Jurisdictions to substantiate findings

Form 6			
Part 2 – Partial Infiltration vs. No Infiltration Feasibility Screening Criteria **Would infiltration of water in any appreciable amount be physically feasible without any negative consequences that cannot be reasonably mitigated?**			
Criteria	Screening Question	**Yes**	**No**
5	**Do soil and geologic conditions allow for infiltration in any appreciable rate or volume?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	X	
Provide basis: Based on the web soil survey and NRCS soil map of the site, the underlying soil type is "B". Soil type B will generally have infiltration rates greater than 0.5 inches per hour. For planning purposes during the discretionary process, an infiltration rate greater than 0.5 inches per hour is assumed and a site specific investigation will be performed during final engineering. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
6	**Can Infiltration in any appreciable quantity be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level**? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.		X
Provide basis: The proposed basins are adjacent to proposed structures and existing slopes therefore partial lining is proposed to limit lateral migration that could negatively impact geotechnical hazards. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			

Form 6			
Criteria	Screening Question	**Yes**	**No**
7	**Can Infiltration in any appreciable quantity be allowed without posing significant risk for groundwater related concerns (shallow water table, storm water pollutants or other factors)?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	X	
Provide basis: Record information of the groundwater in the area is greater than 20 feet, therefore no risk to groundwater. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
8	**Can infiltration be allowed without violating downstream water rights**? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.	X	
Provide basis: The discharge of storm water will not impact down stream waterbodies. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
Part 2 Result*	If all answers from row 1-4 are yes then partial infiltration design is potentially feasible. The feasibility screening category is **Partial Infiltration.** If any answer from row 5-8 is no, then infiltration of any volume is considered to be **infeasible** within the drainage area. The feasibility screening category is **No Infiltration.**		PARTIAL INFILTRATION

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by Agency/Jurisdictions to substantiate findings

Factor of Safety and Design Infiltration Rate Worksheet					Form 7 (PDPs) City of Solana Beach BMP Design Manual
Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w x v
A	Suitability Assessment	Soil assessment methods	0.25	3	0.75
		Predominant soil texture	0.25	1	0.25
		Site soil variability	0.25	1	0.25
		Depth to groundwater / impervious layer	0.25	1	0.25
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			1.5
B	Design	Level of pretreatment/ expected sediment loads	0.5	1	0.5
		Redundancy/resiliency	0.25	1	0.25
		Compaction during construction	0.25	1	0.25
		Design Safety Factor, $S_B = \Sigma p$			1.0
Combined Safety Factor, $S_{total} = S_A \times S_B$					2.5
Observed Infiltration Rate, inch/hr, $K_{observed}$ (corrected for test-specific bias)					0.25
Design Infiltration Rate, in/hr, $K_{design} = K_{observed} / S_{total}$					0.1
Supporting Data					
Briefly describe infiltration test and provide reference to test forms: 0.25 in/hr infiltration rate is used for the observed because 0.25 is a conservative value for a reliable infiltration rate of type B soils.					

Downstream Systems Requirements for Preservation of Coarse Sediment Supply		Form 8 (PDPs) City of Solana Beach BMP Design Manual	
When it has been determined that potential critical coarse sediment yield areas exist within the project site, the next step is to determine whether downstream systems would be sensitive to reduction of coarse sediment yield from the project site. Use this form to document the evaluation of downstream systems requirements for preservation of coarse sediment supply.			
Project Name: Residential Care Facility			
Project Tracking Number / Permit Application Number:			
1	Will the project discharge runoff to a hardened MS4 system (pipe or lined channel) or an un-lined channel?	☐ Hardened MS4 system	Go to 2
		X Un-lined channel	Go to 4
2	Will the hardened MS4 system convey sediment (e.g., a concrete-lined channel with steep slope and cleansing velocity) or sink sediment (e.g., flat slopes, constrictions, treatment BMPs, or ponds with restricted outlets within the system will trap sediment and not allow conveyance of coarse sediment from the project site to an un-lined system).	☐ Convey	Go to 3
		☐ Sink	Go to 7
3	What kind of receiving water will the hardened MS4 system convey the sediment to?	☐ Un-lined channel	Go to 4
		☐ Lake ☐ Reservoir ☐ Bay	Go to 7
		☐ Lagoon ☐ Ocean	Go to 6
4	Is the un-lined channel impacted by deposition of sediment? This condition must be documented by the local agency.	☐ Yes	Go to 7
		X No	Go to 5

Form 8	
5	End – Preserve coarse sediment supply to protect un-lined channels from accelerated erosion due to reduction of coarse sediment yield from the project site unless further investigation determines the sediment is not critical to the receiving stream. Sediment that is critical to receiving streams is the sediment that is a significant source of bed material to the receiving stream (bed sediment supply) (see Section 6.2.3 and Appendix H.2 of the manual).
6	End – Provide management measures for preservation of coarse sediment supply (protect beach sand supply).
7	End – Downstream system does not warrant preservation of coarse sediment supply, no measures for protection of critical coarse sediment yield areas onsite are necessary. Use the space below to describe the basis for this finding for the project.

ATTACHMENT 1
BACKUP FOR PDP POLLUTANT CONTROL BMPS

This is the cover sheet for Attachment 1.

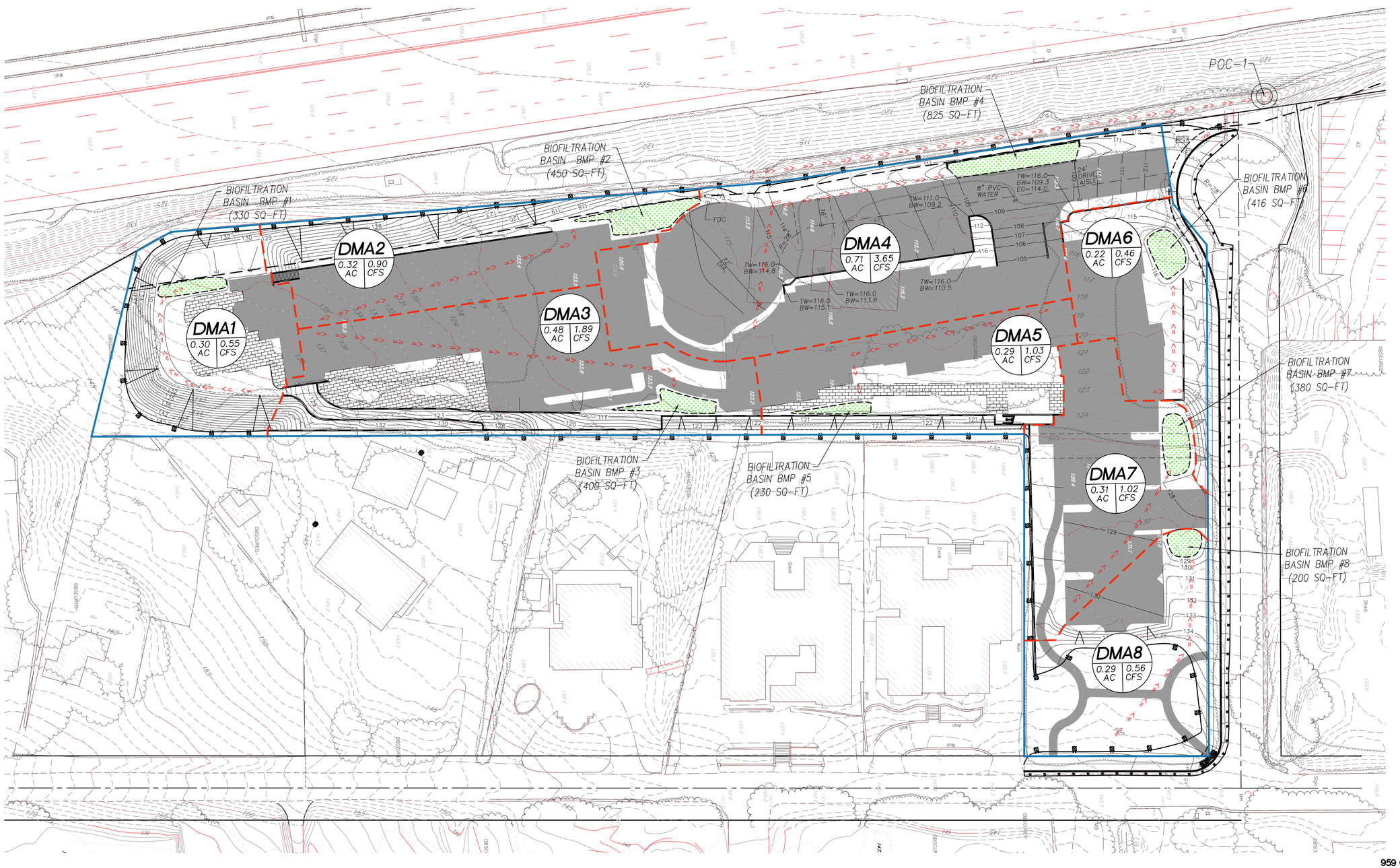
Indicate which Items are Included behind this cover sheet:

Attachment Sequence	**Contents**	**Checklist**
Attachment 1a	DMA Exhibit (Required) See DMA Exhibit Checklist on the back of this Attachment cover sheet.	☒ Included
Attachment 1b	Tabular Summary of DMAs Showing DMA ID matching DMA Exhibit, DMA Area, and DMA Type (Required)* *Provide table in this Attachment OR on DMA Exhibit in Attachment 1.a	☐ Included on DMA Exhibit in Attachment 1.a ☒ Included as Attachment 1.b, separate from DMA Exhibit
Attachment 1c	Form 5, Harvest and Use Feasibility Screening Checklist (Required unless the entire project will use infiltration BMPs) Refer to Appendix B.3-1 of the BMP Design Manual to complete Form 5.	☒ Included ☐ Not included because the entire project will use infiltration BMPs
Attachment 1d	Form 6, Categorization of Infiltration Feasibility Condition (Required unless the project will use harvest and use BMPs) Refer to Appendices C and D of the BMP Design Manual to complete Form 6.	☒ Included ☐ Not included because the entire project will use harvest and use BMPs
Attachment 1e	Pollutant Control BMP Design Worksheets / Calculations (Required) Refer to Appendices B and E of the BMP Design Manual for structural pollutant control BMP design guidelines	☒ Included

Use this checklist to ensure the required information has been included on the DMA Exhibit:

The DMA Exhibit must identify:

- ☒ Underlying hydrologic soil group
- ☒ Approximate depth to groundwater
- ☒ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
- N/A Critical coarse sediment yield areas to be protected
- ☒ Existing topography and impervious areas
- ☒ Existing and proposed site drainage network and connections to drainage offsite
- ☒ Proposed demolition
- ☒ Proposed grading
- ☒ Proposed impervious features
- ☒ Proposed design features and surface treatments used to minimize imperviousness
- ☒ Drainage management area (DMA) boundaries, DMA ID numbers, and DMA areas (square footage or acreage), and DMA type (i.e., drains to BMP, self-retaining, or self-mitigating)
- ☒ Potential pollutant source areas and corresponding required source controls (see Chapter 4, Appendix E.1, and Form 1)
- ☒ Structural BMPs (identify location, type of BMP, and size/detail)



LEGEND

DESCRIPTION	SYMBOL
LOT LINE	
EXIST. CONTOUR	300
PROP. CONTOUR	289
BASIN BOUNDARY	
DMA BOUNDARY	
FLOWLINE	=> => =>
FLOW DIRECTION	
BASIN SUMMARY Q	100 — EX 1 (X.X AC / X.X CFS)
IMPERVIOUS AREA	
PERVIOUS PAVERS	
BIOFILTRATION BASIN AREA	
CRITICAL COURSE SEDIMENT YIELD AREAS	

GRAPHIC SCALE: 1" = 30'

30 15 0 30 60 90

DMA EXHIBIT

RESIDENTIAL CARE FACILITY

959 GENEVIEVE ST., SOLANA BEACH, CA 92075

PROJECT NUMBER: J-1890

SCALE: 1" = 20'

DATE: SEPTEMBER 26, 2017

SHEET 1 OF 1

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 North Highway 101, Ste A, Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

RESIDENTIAL CARE FACILITY
J-1890
10/2/2017

BMP Sizing and DCV Summary Table

BMP Location	BMP Description	Total Area (sq-ft)	% Impervious	% Pervious	% Pavers	Weighted Runoff Factor	DCV (Cu-ft)	Minimum 3% Treatment Area (sq-ft)	Treatment Area Provided (sq-ft)	DCV Provided (Cu-Ft)
DMA-1	**BIORETENTION**	**13277**	**12%**	**88%**	**0%**	0.23	123	92	330.0	495
DMA-2	**BIORETENTION**	**13897**	**54%**	**46%**	**0%**	0.55	304	228	450.0	675
DMA-3	**BIORETENTION**	**20716**	**54%**	**46%**	**0%**	0.55	454	340	400.0	600
DMA-4	**BIORETENTION**	**31026**	**79%**	**21%**	**0%**	0.74	919	689	825.0	1237.5
DMA-5	**BIORETENTION**	**12528**	**43%**	**45%**	**13%**	0.46	230	172	230.0	345
DMA-6	**BIORETENTION**	**9598**	**43%**	**57%**	**0%**	0.46	178	134	416.0	624
DMA-7	**BIORETENTION**	**13295**	**70%**	**30%**	**0%**	0.67	356	267	380.0	570
DMA-8	**BIORETENTION**	**12544**	**23%**	**77%**	**0%**	0.31	158	118	200.0	300
	TOTAL	**126881**					**2721**	**2041**	**3231**	**4847**

Runoff Factor		
Impervious	0.9	
Landscape	0.14	*Class "B" Soils
Permeable Pavers	0.10	

SUSMP Parameters		
Intensity:	0.20	in/hr
Precip:	0.48	in

Automated Worksheet B.1-1: Calculation of Design Capture Volume (V1.3)

Category	#	Description	*i*	*ii*	*iii*	*iv*	*v*	*vi*	*vii*	*viii*	*ix*	*x*	Units
Standard Drainage Basin Inputs	0	Drainage Basin ID or Name	1	2	3	4	5	6	7	8			unitless
	1	Basin Drains to the Following BMP Type	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration			unitless
	2	85th Percentile 24-hr Storm Depth	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48			inches
	3	Design Infiltration Rate Recommended by Geotechnical Engineer	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250			in/hr
	4	Impervious Surfaces Not Directed to Dispersion Area (C=0.90)	1,584	7,439	11,112	24,515	4,636	4,099	9,252	2,877			sq-ft
	5	Semi-Pervious Surfaces Not Serving as Dispersion Area (C=0.30)											sq-ft
	6	Engineered Pervious Surfaces Not Serving as Dispersion Area (C=0.10)					692						sq-ft
	7	Natural Type A Soil Not Serving as Dispersion Area (C=0.10)											sq-ft
	8	Natural Type B Soil Not Serving as Dispersion Area (C=0.14)	11,693	6,458	9,604	6,511	7,200	5,499	4,043	9,667			sq-ft
	9	Natural Type C Soil Not Serving as Dispersion Area (C=0.23)											sq-ft
	10	Natural Type D Soil Not Serving as Dispersion Area (C=0.30)											sq-ft
Dispersion Area, Tree Well & Rain Barrel Inputs (Optional)	11	Does Tributary Incorporate Dispersion, Tree Wells, and/or Rain Barrels?	No	No	No	No	No	No	No	No	No	No	yes/no
	12	Impervious Surfaces **Directed to Dispersion Area** per SD-B (Ci=0.90)											sq-ft
	13	Semi-Pervious Surfaces **Serving as Dispersion Area** per SD-B (Ci=0.30)											sq-ft
	14	Engineered Pervious Surfaces **Serving as Dispersion Area** per SD-B (Ci=0.10)											sq-ft
	15	Natural Type A Soil **Serving as Dispersion Area** per SD-B (Ci=0.10)											sq-ft
	16	Natural Type B Soil **Serving as Dispersion Area** per SD-B (Ci=0.14)											sq-ft
	17	Natural Type C Soil **Serving as Dispersion Area** per SD-B (Ci=0.23)											sq-ft
	18	Natural Type D Soil **Serving as Dispersion Area** per SD-B (Ci=0.30)											sq-ft
	19	Number of Tree Wells Proposed per SD-A											#
	20	Average Mature Tree Canopy Diameter											ft
	21	Number of Rain Barrels Proposed per SD-E											#
	22	Average Rain Barrel Size											gal
Treatment Train Inputs & Calculations	23	Does BMP Overflow to Stormwater Features in Downstream Drainage?	No	No	No	No	No	No	No	No	No	No	unitless
	24	Identify Downstream Drainage Basin Providing Treatment in Series											unitless
	25	Percent of Upstream Flows Directed to Downstream Dispersion Areas											percent
	26	Upstream Impervious Surfaces Directed to Dispersion Area (Ci=0.90)	0	0	0	0	0	0	0	0	0	0	cubic-feet
	27	Upstream Impervious Surfaces Not Directed to Dispersion Area (C=0.90)	0	0	0	0	0	0	0	0	0	0	cubic-feet
Initial Runoff Factor Calculation	28	Total Tributary Area	13,277	13,897	20,716	31,026	12,528	9,598	13,295	12,544	0	0	sq-ft
	29	Initial Runoff Factor for Standard Drainage Areas	0.23	0.55	0.55	0.74	0.42	0.46	0.67	0.31	0.00	0.00	unitless
	30	Initial Runoff Factor for Dispersed & Dispersion Areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	unitless
	31	Initial Weighted Runoff Factor	0.23	0.55	0.55	0.74	0.42	0.46	0.67	0.31	0.00	0.00	unitless
	32	Initial Design Capture Volume	122	306	456	918	210	177	356	156	0	0	cubic-feet
Dispersion Area Adjustments	33	Total Impervious Area Dispersed to Pervious Surface	0	0	0	0	0	0	0	0	0	0	sq-ft
	34	Total Pervious Dispersion Area	0	0	0	0	0	0	0	0	0	0	sq-ft
	35	Ratio of Dispersed Impervious Area to Pervious Dispersion Area	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ratio
	36	Adjustment Factor for Dispersed & Dispersion Areas	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	ratio
	37	Runoff Factor After Dispersion Techniques	0.23	0.55	0.55	0.74	0.42	0.46	0.67	0.31	n/a	n/a	unitless
	38	Design Capture Volume After Dispersion Techniques	122	306	456	918	210	177	356	156	0	0	cubic-feet
Tree & Barrel Adjustments	39	Total Tree Well Volume Reduction	0	0	0	0	0	0	0	0	0	0	cubic-feet
	40	Total Rain Barrel Volume Reduction	0	0	0	0	0	0	0	0	0	0	cubic-feet
Results	41	Final Adjusted Runoff Factor	0.23	0.55	0.55	0.74	0.42	0.46	0.67	0.31	0.00	0.00	unitless
	42	Final Effective Tributary Area	3,054	7,643	11,394	22,959	5,262	4,415	8,908	3,889	0	0	sq-ft
	43	Initial Design Capture Volume Retained by Site Design Elements	0	0	0	0	0	0	0	0	0	0	cubic-feet
	44	Final Design Capture Volume Tributary to BMP	122	306	456	918	210	177	356	156	0	0	cubic-feet

Worksheet B.1-1 General Notes:

A. Applicants may use this worksheet to calculate design capture volumes for up to 10 drainage areas User input must be provided for yellow shaded cells, values for all other cells will be automatically generated, errors/notifications will be highlighted in red and summarized below. Upon completion of this worksheet, proceed to the appropriate BMP Sizing worksheet(s).

Automated Worksheet B.3-1: Project-Scale BMP Feasibility Analysis (V1.3)

Category	#	Description	Value	Units
Capture & Use Inputs	0	Design Capture Volume for Entire Project Site	3,099	cubic-feet
	1	Proposed Development Type	Residential	unitless
	2	Number of Residents or Employees at Proposed Development	100	#
	3	Total Planted Area within Development	3,257	sq-ft
	4	Water Use Category for Proposed Planted Areas	Low	unitless
Infiltration Inputs	5	Is Average Site Design Infiltration Rate ≤0.500 Inches per Hour?	Yes	yes/no
	6	Is Average Site Design Infiltration Rate ≤0.010 Inches per Hour?	No	yes/no
	7	Is Infiltration of the Full DCV Anticipated to Produce Negative Impacts?	Yes	yes/no
	8	Is Infiltration of Any Volume Anticipated to Produce Negative Impacts?	No	yes/no
Calculations	9	36-Hour Toilet Use Per Resident or Employee	1.86	cubic-feet
	10	Subtotal: Anticipated 36 Hour Toilet Use	186	cubic-feet
	11	Anticipated 1 Acre Landscape Use Over 36 Hours	52.14	cubic-feet
	12	Subtotal: Anticipated Landscape Use Over 36 Hours	4	cubic-feet
	13	Total Anticipated Use Over 36 Hours	190	cubic-feet
	14	Total Anticipated Use / Design Capture Volume	0.06	cubic-feet
	15	Are Full Capture and Use Techniques Feasible for this Project?	No	unitless
	16	Is Full Retention Feasible for this Project?	No	yes/no
	17	Is Partial Retention Feasible for this Project?	Yes	yes/no
Result	18	Feasibility Category	4	1, 2, 3, 4, 5

Worksheet B.3-1 General Notes:

A. Applicants may use this worksheet to determine the types of structural BMPs that are acceptable for implementation at their project site (as required in Section 5 of the BMPDM). User input should be provided for yellow shaded cells, values for all other cells will be automatically generated. Projects demonstrating feasibility or potential feasibility via this worksheet are encouraged to incorporate capture and use features in their project.

B. Negative impacts associated with retention may include geotechnical, groundwater, water balance, or other issues identified by a geotechnical engineer and substantiated through completion of Form I-8.

C. Feasibility Category 1: Applicant must implement capture & use, retention, and/or infiltration elements for the entire DCV.

D. Feasibility Category 2: Applicant must implement capture & use elements for the entire DCV.

E. Feasibility Category 3: Applicant must implement retention and/or infiltration elements for all DMAs with Design Infiltration Rates greater than 0.50 in/hr.

F. Feasibility Category 4: Applicant must implement standard unlined biofiltration BMPs sized at ≥3% of the effective impervious tributary area for all DMAs with Design Infiltration Rates of 0.011 to 0.50 in/hr. Applicants may be permitted to implement lined BMPs, reduced size BMPs, and/or specialized biofiltration BMPs provided additional criteria identified in "Supplemental Retention Criteria for Non-Standard Biofiltration BMPs" are satisfied.

G. Feasibility Category 5: Applicant must implement standard lined biofiltration BMPs sized at ≥3% of the effective impervious tributary area for all DMAs with Design Infiltration Rates of 0.010 in/hr or less. Applicants may also be permitted to implement reduced size and/or specialized biofiltration BMPs provided additional criteria identified in "Supplemental Retention Criteria for Non-Standard Biofiltration BMPs" are satisfied.

H. PDPs participating in an offsite alternative compliance program are not held to the feasibility categories presented herein.

Automated Worksheet B.5-1: Sizing Lined or Unlined Biofiltration BMPs (V1.3)

Category	#	Description	*i*	*ii*	*iii*	*iv*	*v*	*vi*	*vii*	*viii*	*ix*	*x*	Units
BMP Inputs	0	Drainage Basin ID or Name	1	2	3	4	5	6	7	8	-	-	sq-ft
	1	Design Infiltration Rate Recommended by Geotechnical Engineer	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	-	-	in/hr
	2	Effective Tributary Area	3,054	7,643	11,394	22,959	5,262	4,415	8,908	3,889	-	-	sq-ft
	3	Minimum Biofiltration Footprint Sizing Factor	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	-	-	ratio
	4	Design Capture Volume Tributary to BMP	122	306	456	918	210	177	356	156	-	-	cubic-feet
	5	Is Biofiltration Basin Impermeably Lined or Unlined?	Unlined	Unlined	Unlined	Unlined	Unlined	Unlined	Unlined	Unlined			unitless
	6	Provided Biofiltration BMP Surface Area	330	450	400	825	230	416	380	200			sq-ft
	7	Provided Surface Ponding Depth	6	6	6	6	6	18	18	18			inches
	8	Provided Soil Media Thickness	24	24	24	24	24	24	24	24			inches
	9	Provided Depth of Gravel Above Underdrain Invert	12	12	12	12	12	12	12	12			inches
	10	Diameter of Underdrain or Hydromod Orifice (Select Smallest)	0.33	0.33	0.40	0.55	0.33	0.30	0.30	0.30			inches
	11	Provided Depth of Gravel Below the Underdrain	3	3	3	3	3	3	3	3			inches
Retention Calculations	12	Volume Infiltrated Over 6 Hour Storm	41	56	50	103	29	52	48	25	0	0	cubic-feet
	13	Soil Media Pore Space Available for Retention	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	unitless
	14	Gravel Pore Space Available for Retention	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.00	unitless
	15	Effective Retention Depth	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	0.00	0.00	inches
	16	Calculated Retention Storage Drawdown (Including 6 Hr Storm)	11	11	11	11	11	11	11	11	0	0	hours
	17	Volume Retained by BMP	107	146	130	268	75	135	124	65	0	0	cubic-feet
	18	Fraction of DCV Retained	0.88	0.48	0.29	0.29	0.36	0.76	0.35	0.42	0.00	0.00	ratio
	19	Portion of Retention Performance Standard Satisfied	1.00	0.96	0.72	0.72	0.83	1.00	0.81	0.91	0.00	0.00	ratio
	20	Fraction of DCV Retained (normalized to 36-hr drawdown)	1.00	0.90	0.54	0.54	0.68	1.00	0.66	0.79	0.00	0.00	ratio
	21	Design Capture Volume Remaining for Biofiltration	0	31	210	422	67	0	121	33	0	0	cubic-feet
Biofiltration Calculations	22	Max Hydromod Flow Rate through Underdrain	0.0053	0.0053	0.0078	0.0148	0.0053	0.0050	0.0050	0.0050	n/a	n/a	CFS
	23	Max Soil Filtration Rate Allowed by Underdrain Orifice	0.70	0.51	0.85	0.78	1.00	0.52	0.57	1.08	n/a	n/a	in/hr
	24	Soil Media Filtration Rate per Specifications	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	in/hr
	25	Soil Media Filtration Rate to be used for Sizing	0.70	0.51	0.85	0.78	1.00	0.52	0.57	1.08	5.00	5.00	in/hr
	26	Depth Biofiltered Over 6 Hour Storm	4.19	3.08	5.08	4.65	6.02	3.12	3.42	6.49	30.00	30.00	inches
	27	Soil Media Pore Space Available for Biofiltration	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	unitless
	28	Effective Depth of Biofiltration Storage	15.60	15.60	15.60	15.60	15.60	27.60	27.60	27.60	0.00	0.00	inches
	29	Drawdown Time for Surface Ponding	6	8	5	6	5	23	22	14	0	0	hours
	30	Drawdown Time for Effective Biofiltration Depth	16	20	14	15	12	36	34	21	0	0	hours
	31	Total Depth Biofiltered	19.79	18.68	20.68	20.25	21.62	30.72	31.02	34.09	30.00	30.00	inches
	32	Option 1 - Biofilter 1.50 DCV: Target Volume	0	47	315	633	101	0	182	50	0	0	cubic-feet
	33	Option 1 - Provided Biofiltration Volume	0	47	315	633	101	0	182	50	0	0	cubic-feet
	34	Option 2 - Store 0.75 DCV: Target Volume	0	23	158	317	50	0	91	25	0	0	cubic-feet
	35	Option 2 - Provided Storage Volume	0	23	158	317	50	0	91	25	0	0	cubic-feet
	36	Portion of Biofiltration Performance Standard Satisfied	#DIV/0!	1.00	1.00	1.00	1.00	#DIV/0!	1.00	1.00	0.00	0.00	ratio
Result	37	Do Site Design Elements and BMPs Satisfy Annual Retention Requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	yes/no
	38	Overall Portion of Performance Standard Satisfied	#DIV/0!	1.00	1.00	1.00	1.00	#DIV/0!	1.00	1.00	0.00	0.00	ratio
	39	This BMP Overflows to the Following Drainage Basin	-	-	-	-	-	-	-	-	-	-	unitless
	40	**Deficit of Effectively Treated Stormwater**	**#DIV/0!**	**0**	**0**	**0**	**0**	**#DIV/0!**	**0**	**0**	**n/a**	**n/a**	cubic-feet

Worksheet B.5-1 General Notes:

A. Applicants may use this worksheet to size Lined or Unlined Biofiltration BMPs (BF-1, PR-1) for up to 10 basins. User input must be provided for yellow shaded cells, values for blue cells are automatically populated based on user inputs from previous worksheets, values for all other cells will be automatically generated, errors/notifications will be highlighted in red/orange and summarized below. BMPs fully satisfying the pollutant control performance standards will have a deficit treated volume of zero and be highlighted in green.

Summary of Stormwater Pollutant Control Calculations (V1.3)

Category	#	Description	*i*	*ii*	*iii*	*iv*	*v*	*vi*	*vii*	*viii*	*ix*	*x*	Units
General Info	0	Drainage Basin ID or Name	1	2	3	4	5	6	7	8	-	-	unitless
	1	85th Percentile Storm Depth	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	-	-	inches
	2	Design Infiltration Rate Recommended by Geotechnical Engineer	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	-	-	in/hr
	3	Total Tributary Area	13,277	13,897	20,716	31,026	12,528	9,598	13,295	12,544	-	-	sq-ft
	4	85th Percentile Storm Volume (Rainfall Volume)	531	556	829	1,241	501	384	532	502	-	-	cubic-feet
Initial DCV	5	Initial Weighted Runoff Factor	0.23	0.55	0.55	0.74	0.42	0.46	0.67	0.31	-	-	unitless
	6	Initial Design Capture Volume	122	306	456	918	210	177	356	156	-	-	cubic-feet
Site Design Volume Reductions	7	Dispersion Area Reductions	0	0	0	0	0	0	0	0	-	-	cubic-feet
	8	Tree Well and Rain Barrel Reductions	0	0	0	0	0	0	0	0	-	-	cubic-feet
BMP Volume Reductions	9	Effective Area Tributary to BMP	3,054	7,643	11,394	22,959	5,262	4,415	8,908	3,889	-	-	square feet
	10	Final Design Capture Volume Tributary to BMP	122	306	456	918	210	177	356	156	-	-	cubic-feet
	11	Basin Drains to the Following BMP Type	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	Biofiltration	-	-	unitless
	12	Volume Retained by BMP (normalized to 36 hour drawdown)	122	275	246	496	143	177	235	123	-	-	cubic-feet
Total Volume Reductions	13	Total Fraction of Initial DCV Retained within DMA	1.00	0.90	0.54	0.54	0.68	1.00	0.66	0.79	-	-	fraction
	14	Percent of Average Annual Runoff Retention Provided	80.4%	76.5%	57.3%	57.3%	66.1%	80.4%	65.0%	72.1%	-	-	%
	15	Percent of Average Annual Runoff Retention Required	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	-	-	%
Performance Standard	16	Percent of Pollution Control Standard Satisfied	#DIV/0!	100.0%	100.0%	100.0%	100.0%	#DIV/0!	100.0%	100.0%	-	-	%
Treatment Train	17	Discharges to Secondary Treatment in Drainage Basin	-	-	-	-	-	-	-	-	-	-	unitless
	18	Impervious Surface Area Still Requiring Treatment	#DIV/0!	0	0	0	0	#DIV/0!	0	0	-	-	square feet
	19	Impervious Surfaces Directed to Downstream Dispersion Area	-	-	-	-	-	-	-	-	-	-	square feet
	20	Impervious Surfaces Not Directed to Downstream Dispersion Area	-	-	-	-	-	-	-	-	-	-	square feet
Result	21	Deficit of Effectively Treated Stormwater	#DIV/0!	0	0	0	0	#DIV/0!	0	0	-	-	cubic-feet

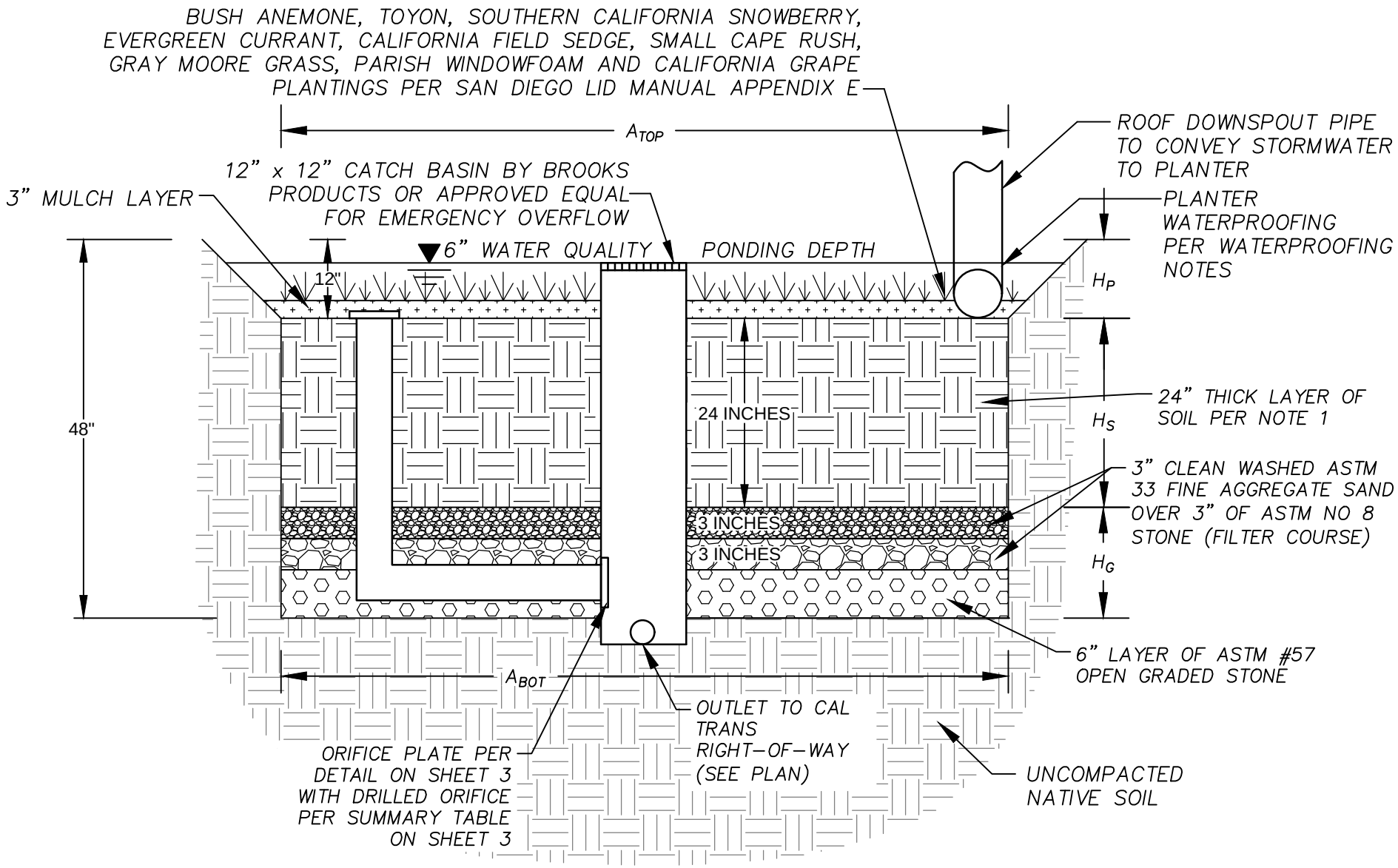
Summary Notes:

All fields in this summary worksheet are populated based on previous user inputs. If applicable, drainage basin elements that require revisions and/or supplemental information outside the scope of these worksheets are highlighted in orange and summairzed in the red text below. If all drainage basins achieve full compliance without a need for supplemental information, a green message will appear below.

-Congratulations, all specified drainage basins and BMPs are in compliance with stormwater pollutant control requirements. Include 11x17 color prints of this summary sheet and supporting worksheet calculations as part of the SWQMP submittal package.

False

#DIV/0!



TYPICAL SECTION: BIOFILTRATION PLANTER (PR-1)

NOT TO SCALE

ATTACHMENT 2
BACKUP FOR PDP HYDROMODIFICATION CONTROL MEASURES

This is the cover sheet for Attachment 2.

☐ Mark this box if this attachment is empty because the project is exempt from PDP hydromodification management requirements.

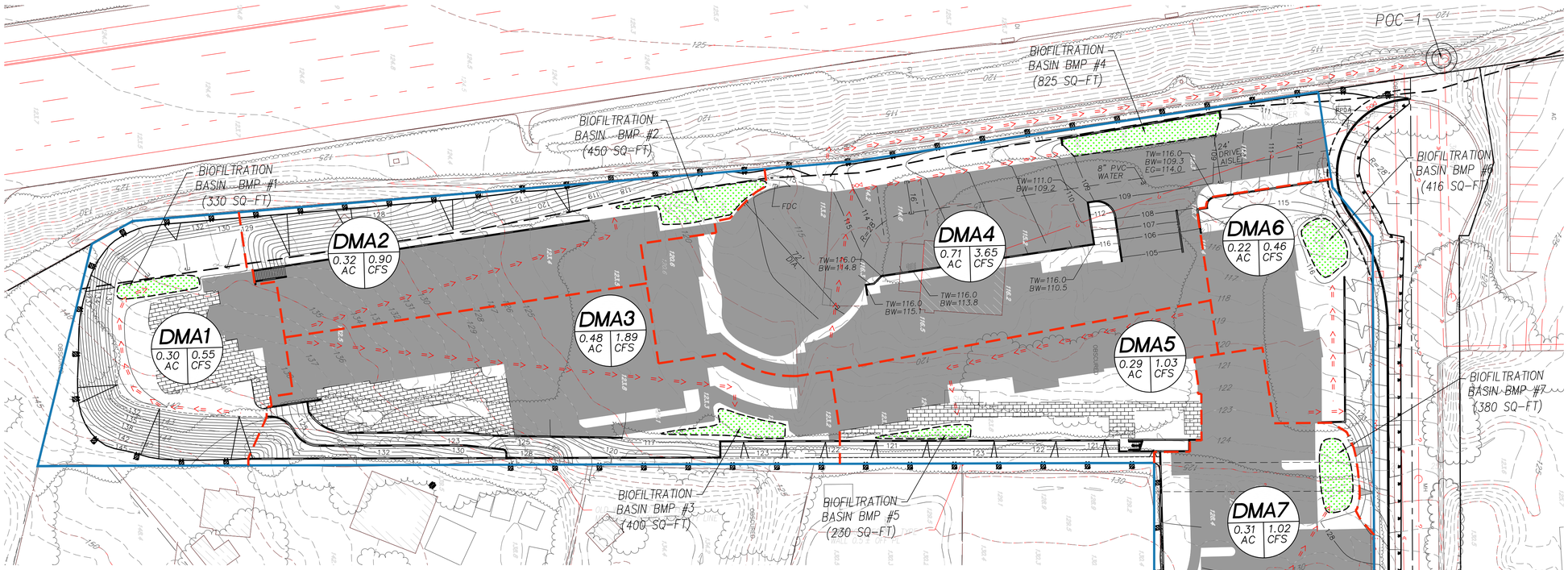
Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 2a	Hydromodification Management Exhibit (Required)	☒ Included See Hydromodification Management Exhibit Checklist on the back of this Attachment cover sheet.
Attachment 2b	Management of Critical Coarse Sediment Yield Areas (WMAA Exhibit is required, additional analyses are optional) See Section 6.2 of the BMP Design Manual.	☒ Exhibit showing project drainage boundaries marked on WMAA Critical Coarse Sediment Yield Area Map (Required) Optional analyses for Critical Coarse Sediment Yield Area Determination ☐ 6.2.1 Verification of Geomorphic Landscape Units Onsite ☐ 6.2.2 Downstream Systems Sensitivity to Coarse Sediment ☐ 6.2.3 Optional Additional Analysis of Potential Critical Coarse Sediment Yield Areas Onsite
Attachment 2c	Geomorphic Assessment of Receiving Channels (Optional) See Section 6.3.4 of the BMP Design Manual.	☒ Not performed ☐ Included ☐ Submitted as separate stand-alone document
Attachment 2d	Flow Control Facility Design, including Structural BMP Drawdown Calculations and Overflow Design Summary (Required) See Chapter 6 and Appendix G of the BMP Design Manual	☒ Included ☐ Submitted as separate stand-alone document
Attachment 2e	Vector Control Plan (Required when structural BMPs will not drain in 96 hours)	☐ Included ☒ Not required because BMPs will drain in less than 96 hours

Use this checklist to ensure the required information has been included on the Hydromodification Management Exhibit:

☒ The Hydromodification Management Exhibit must identify:

- ☒ Underlying hydrologic soil group
- ☒ Approximate depth to groundwater
- ☒ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
- ☒ Critical coarse sediment yield areas to be protected
- ☒ Existing topography
- ☒ Existing and proposed site drainage network and connections to drainage offsite
- ☒ Proposed grading
- ☒ Proposed impervious features
- ☒ Proposed design features and surface treatments used to minimize imperviousness
- ☒ Point (s) of Compliance (POC) for Hydromodification Management
- ☒ Existing and proposed drainage boundary and drainage area to each POC (when necessary, create separate exhibits for pre-development and post-project conditions)
- ☒ Structural BMPs for hydromodification management (identify location, type of BMP, and size/detail)



LEGEND

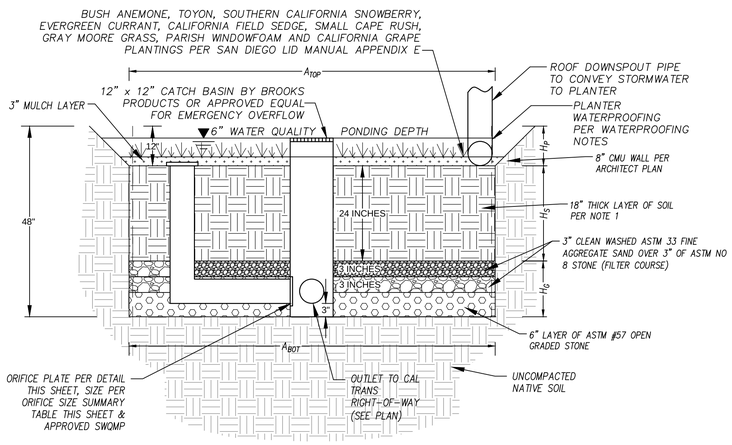
DESCRIPTION	SYMBOL
LOT LINE	
EXIST. CONTOUR	300
PROP. CONTOUR	289
BASIN BOUNDARY	
DMA BOUNDARY	
FLOWLINE	
FLOW DIRECTION	
BASIN SUMMARY Q	100 — EX 1 (X.X AC / X.X CFS)
IMPERVIOUS AREA	
PERVIOUS PAVERS	
BIOFILTRATION BASIN AREA	
CRITICAL COURSE SEDIMENT YIELD AREAS	

GRAPHIC SCALE: 1" = 30'

30 15 0 30 60 90

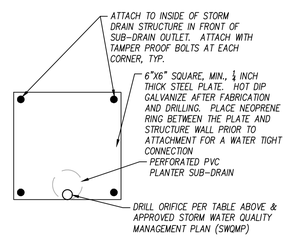
BMP SIZE + ORIFICE DIAMETER SUMMARY

BMP #	H_P (FT)	H_S (FT)	H_G (FT)	HMP ORIFICE (IN)	A_{BOT} (FT^2)	A_{TOP} (FT^2)
1	0.5	2.0	1.0	0.33	330	330
2	0.5	2.0	1.0	0.33	450	450
3	0.5	2.0	1.0	0.40	400	400
4	0.5	2.0	1.0	0.55	825	825
5	0.5	2.0	1.0	0.33	230	230
6	1.5	2.0	1.0	0.30	416	416
7	1.5	2.0	1.0	0.30	380	380
8	1.5	2.0	1.0	0.30	200	200



TYPICAL SECTION: BIOFILTRATION PLANTER (INF-2)

NOT TO SCALE



DRILLED ORIFICE PLATE DETAIL (TYP.)

NOT TO SCALE

BIOFILTRATION AREA NOTES:

1. THE SOIL SHALL HAVE THE FOLLOWING PROPERTIES:
   - -5 IN/HR MINIMUM INFILTRATION RATE
   - -ORGANIC CONTECT > 5 PERCENT
   - -CATION EXCHANGE CAPACITY > 5 MILLIEQUIVALENT/100 G SOIL
   - -85% WASHED COURSE CONCRETE SAND, 10 PERCENT FINES
   - -FINES SHOULD PASS A #270 (SCREEN SIZE) SIEVE
2. THE PROJECT'S GEOTECHNICAL ENGINEER SHALL PROVIDE CERTIFICATION TO THE ENGINEER OF WORK STATING THAT THE SOIL PLACED IN EACH BIOFILTRATION AREA MEETS INFILTRATION SPECIFICATIONS LISTED ABOVE.
3. COMPLACTION OF SOIL IN BIOFILTRATION AREAS SHALL BE MINIMIZED TO ALLOW INFILTRATION TO OCCUR.
4. PERFORATED 3-INCH DIA. UNDERDRAIN PIPE SHALL HAVE PERFORATIONS ALL THE WAY AROUND THE PIPE AND BE SET AS CLOSE TO THE BOTTOMG OF THE PLANTER AS POSSIBLE.
5. IRRIGATION SYSTEM PER LANDSCAPE PLANS.

HYDROMODIFICATION MANAGEMENT POST-PROJECT WORKMAP

RESIDENTIAL CARE FACILITY

959 GENEVIEVE ST., SOLANA BEACH, CA 92075

PROJECT NUMBER: J-1890

SCALE: 1" = 20'

DATE: DECEMBER 7, 2016

SHEET 1 OF 1

PASCO LARET SUITER & ASSOCIATES

CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING

535 North Highway 101, Ste A, Solana Beach, CA 92075

ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

POTENTIAL CCSYA EXHIBIT

RESIDENTIAL CARE FACILITY

959 GENEVIEVE ST, SOLANA BEACH, CA 92075

PROJECT NUMBER: PE 1890

SCALE: NOT TO SCALE

DATE: SEPTEMBER 26, 2017

SHEET 1 OF 1

PASCO LARET SUITER & ASSOCIATES

CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING

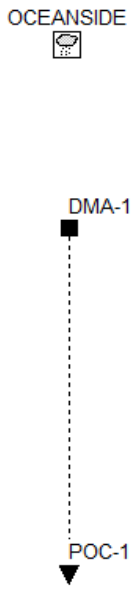
535 North Highway 101, Ste A, Solana Beach, CA 92075

ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

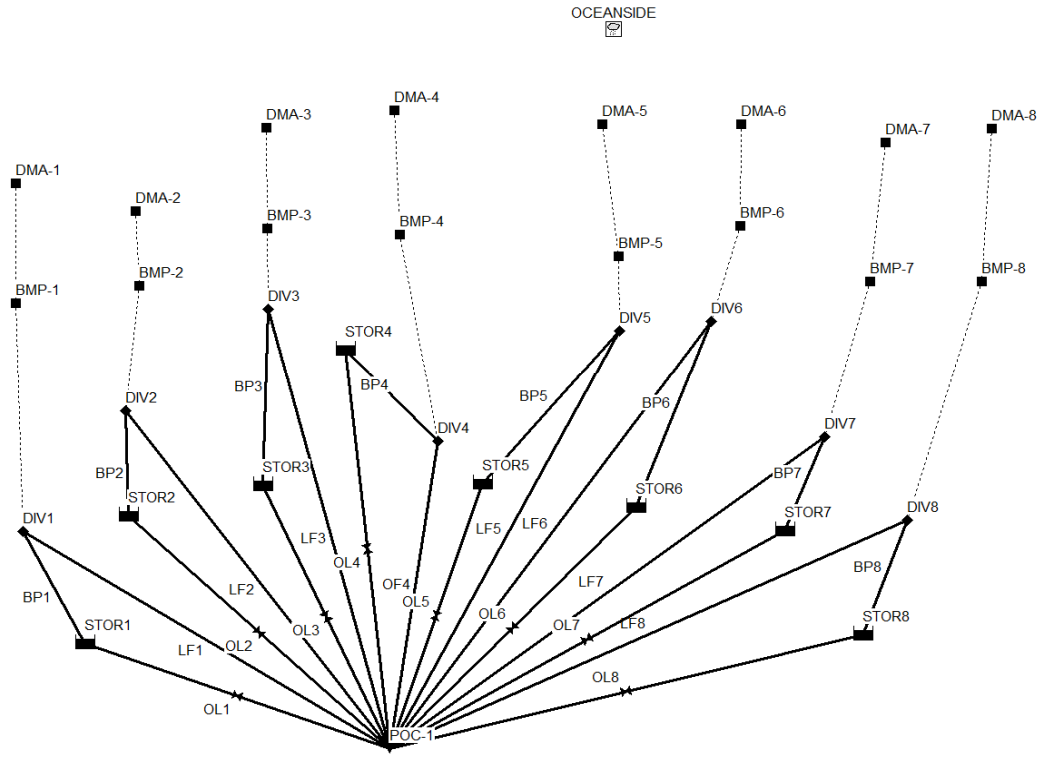
RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

SWMM MODEL SCHEMATICS FOR BASIN

PRE-PROJECT MODEL



POST-PROJECT MODEL



RESIDENTIAL CARE FACILITY
J-1890
9/26/2017

PRE-PROJECT

DMA	Basin	Area (ac)	Width (Area/ Flow Length) (ft)	% Slope	% Impervious	% "A" Soils	% "B" Soils	Weighted Infiltration (in/hr):	Weighted Suction Head (in):	Weighted Initial Deficit:
DMA-1	1	2.91	203.99	4.3%	0%	3%	97%	0.203	2.955	0.310
	Total:	**2.91**								

POST-PROJECT

DMA	BMP	Area (ac)	Width (Area/ Flow Length) (ft)	% Impervious	% Slope	% "A" Soils	% "B" Soils	Weighted Infiltration (in/hr):	Weighted Suction Head (in):	Weighted Initial Deficit:
DMA-1	1	0.30	94.84	12%	2.0%	0%	100%	0.200	3.000	0.310
DMA-2	2	0.32	73.14	54%	2.0%	0%	100%	0.200	3.000	0.310
DMA-3	3	0.48	84.21	54%	2.0%	0%	100%	0.200	3.000	0.310
DMA-4	4	0.71	154.36	79%	2.0%	0%	100%	0.200	3.000	0.310
DMA-5	5	0.29	75.47	43%	2.0%	0%	100%	0.200	3.000	0.310
DMA-6	6	0.22	99.98	43%	2.0%	0%	100%	0.200	3.000	0.310
DMA-7	7	0.31	121.97	70%	2.0%	0%	100%	0.200	3.000	0.310
DMA-8	8	0.29	92.24	23%	2.0%	0%	100%	0.200	3.000	0.310
	Total:	**2.91**								

Infiltration:		
A:	0.3	in/hr
B:	0.2	in/hr

Suction Head:		
A:	1.5	in
B:	3	in

Initial Deficit	
A:	0.3
B:	0.31

OUTLET RATING CURVE

HEAD (ft)	12" X 12" BROOKS BOX Q (cfs)
0.1	0.4
0.2	1.14
0.3	2.1
0.4	3.24
0.5	4.52

```
[TITLE]
;;Project Title/Notes
RESIDENTIAL CARE FACILITY
J-1890
PRE-PROJECT CONDITION

[OPTIONS]
;;Option             Value
FLOW_UNITS           CFS
INFILTRATION         GREEN_AMPT
FLOW_ROUTING         KINWAVE
LINK_OFFSETS         DEPTH
MIN_SLOPE            0
ALLOW_PONDING        NO
SKIP_STEADY_STATE    NO

START_DATE           08/28/1951
START_TIME           05:00:00
REPORT_START_DATE    08/28/1951
REPORT_START_TIME    05:00:00
END_DATE             05/23/2008
END_TIME             23:00:00
SWEEP_START          01/01
SWEEP_END            12/31
DRY_DAYS             0
REPORT_STEP          01:00:00
WET_STEP             00:15:00
DRY_STEP             04:00:00
ROUTING_STEP         0:01:00

INERTIAL_DAMPING     PARTIAL
NORMAL_FLOW_LIMITED  BOTH
FORCE_MAIN_EQUATION  H-W
VARIABLE_STEP        0.75
LENGTHENING_STEP     0
MIN_SURFAREA         12.557
MAX_TRIALS           8
HEAD_TOLERANCE       0.005
SYS_FLOW_TOL         5
LAT_FLOW_TOL         5
MINIMUM_STEP         0.5
THREADS              1

[EVAPORATION]
;;Data Source    Parameters
;;-------------- ----------------
MONTHLY          0.03   0.05   0.08   0.11   0.13   0.15   0.15   0.13   0.11
0.08   0.04   0.02
DRY_ONLY         NO

[RAINGAGES]
;;Name           Format    Interval SCF      Source
;;-------------- --------- ------ ------ ----------
OCEANSIDE        INTENSITY 1:00     1.0      TIMESERIES OCEANSIDE

[SUBCATCHMENTS]
;;Name           Rain Gage        Outlet           Area     %Imperv  Width
%Slope   CurbLen  SnowPack
;;-------------- ---------------- ---------------- -------- -------- --------
-------- -------- ----------------
DMA-1            OCEANSIDE        POC-1            2.91     0        203.99   4.3
     0
```

```
[SUBAREAS]
;;Subcatchment   N-Imperv   N-Perv     S-Imperv   S-Perv     PctZero    RouteTo
 PctRouted
;;-------------- ---------- ---------- ---------- ---------- ----------
---------- ----------
DMA-1            0.012      0.032      0.05       0.1        25         OUTLET


[INFILTRATION]
;;Subcatchment   Suction    Ksat       IMD
;;-------------- ---------- ---------- ----------
DMA-1            9.0        0.025      0.330

[OUTFALLS]
;;Name           Elevation  Type       Stage Data       Gated    Route To
;;-------------- ---------- ---------- ---------------- -------- ----------------
;Basin 200
POC-1            0          FREE                        NO

[TIMESERIES]
;;Name           Date       Time       Value
;;-------------- ---------- ---------- ----------
OCEANSIDE        FILE "J:\Active Jobs\1890\CIVIL\REPORTS\SWQMP\SWMM\ELECTRONIC
FILES\Rainfall_data\oceanside.txt"

[REPORT]
;;Reporting Options
INPUT      NO
CONTROLS   NO
SUBCATCHMENTS ALL
NODES ALL
LINKS ALL

[TAGS]

[MAP]
DIMENSIONS 0.000 0.000 10000.000 10000.000
Units      None

[COORDINATES]
;;Node           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
POC-1            1100.000           3500.000

[VERTICES]
;;Link           X-Coord            Y-Coord
;;-------------- ------------------ ------------------

[Polygons]
;;Subcatchment   X-Coord            Y-Coord
;;-------------- ------------------ ------------------
DMA-1            1100.000           6000.000

[SYMBOLS]
;;Gage           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
OCEANSIDE        1100.000           7300.000
```

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.009)
--------------------------------------------------------------

RESIDENTIAL CARE FACILITY
J-1890
POST PROJECT CONDITION
WARNING 04: minimum elevation drop used for Conduit LF1
WARNING 04: minimum elevation drop used for Conduit BP1
WARNING 04: minimum elevation drop used for Conduit LF2
WARNING 04: minimum elevation drop used for Conduit LF3
WARNING 04: minimum elevation drop used for Conduit OF4
WARNING 04: minimum elevation drop used for Conduit LF5
WARNING 04: minimum elevation drop used for Conduit LF6
WARNING 04: minimum elevation drop used for Conduit LF7
WARNING 04: minimum elevation drop used for Conduit LF8
WARNING 04: minimum elevation drop used for Conduit BP2
WARNING 04: minimum elevation drop used for Conduit BP3
WARNING 04: minimum elevation drop used for Conduit BP4
WARNING 04: minimum elevation drop used for Conduit BP5
WARNING 04: minimum elevation drop used for Conduit BP6
WARNING 04: minimum elevation drop used for Conduit BP7
WARNING 04: minimum elevation drop used for Conduit BP8

*********************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*********************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... YES
  Ponding Allowed ........ NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Flow Routing Method ...... KINWAVE
Starting Date ............ AUG-28-1951 05:00:00
Ending Date .............. MAY-23-2008 23:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:15:00
```

Wet Time Step 00:05:00
Dry Time Step 01:00:00
Routing Time Step ..... 60.00 sec

**********	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
**********	---	---
Initial LID Storage	0.015	0.060
Total Precipitation	168.478	675.090
Evaporation Loss	15.048	60.297
Infiltration Loss	95.625	383.167
Surface Runoff	13.908	55.730
LID Drainage	44.157	176.938
Final Storage	0.026	0.105
Continuity Error (%)	-0.161	

**********	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
**********	---	---
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	58.066	18.922
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	57.015	18.579
Flooding Loss	4.063	1.324
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.000	0.000
Continuity Error (%)	-5.188	

****
Highest Flow Instability Indexes
****
All links are stable.

****
Routing Time Step Summary
****
Minimum Time Step : 60.00 sec
Average Time Step : 60.00 sec
Maximum Time Step : 60.00 sec
Percent in Steady State : 0.00

Average Iterations per Step : 1.00
Percent Not Converging : 0.00

****
Analysis begun on: Fri Sep 22 11:47:52 2017
Analysis ended on: Fri Sep 22 11:52:00 2017
Total elapsed time: 00:04:08

```
[TITLE]
;;Project Title/Notes
RESIDENTIAL CARE FACILITY
J-1890
POST PROJECT CONDITION

[OPTIONS]
;;Option             Value
FLOW_UNITS           CFS
INFILTRATION         GREEN_AMPT
FLOW_ROUTING         KINWAVE
LINK_OFFSETS         DEPTH
MIN_SLOPE            0
ALLOW_PONDING        NO
SKIP_STEADY_STATE    NO

START_DATE           08/28/1951
START_TIME           05:00:00
REPORT_START_DATE    08/28/1951
REPORT_START_TIME    05:00:00
END_DATE             05/23/2008
END_TIME             23:00:00
SWEEP_START          01/01
SWEEP_END            12/31
DRY_DAYS             0
REPORT_STEP          00:15:00
WET_STEP             00:05:00
DRY_STEP             01:00:00
ROUTING_STEP         0:01:00

INERTIAL_DAMPING     PARTIAL
NORMAL_FLOW_LIMITED  BOTH
FORCE_MAIN_EQUATION  H-W
VARIABLE_STEP        0.75
LENGTHENING_STEP     0
MIN_SURFAREA         12.557
MAX_TRIALS           8
HEAD_TOLERANCE       0.005
SYS_FLOW_TOL         5
LAT_FLOW_TOL         5
MINIMUM_STEP         0.5
THREADS              1

[EVAPORATION]
;;Data Source    Parameters
;;-------------- ----------------
MONTHLY          0.03   0.05   0.08   0.11   0.13   0.15   0.15   0.13   0.11
0.08   0.04   0.02
DRY_ONLY         NO

[RAINGAGES]
;;Name           Format    Interval SCF      Source
;;-------------- --------- ------ ------ ----------
OCEANSIDE        INTENSITY 1:00     1.0      TIMESERIES OCEANSIDE

[SUBCATCHMENTS]
;;Name           Rain Gage        Outlet           Area     %Imperv  Width
%Slope   CurbLen  SnowPack
;;-------------- ---------------- ---------------- -------- -------- --------
-------- -------- ----------------
DMA-1            OCEANSIDE        BMP-1            0.30     12       94.84    2
     0
BMP-1            OCEANSIDE        DIV1             0.00775941205 0        10
```

```
 0        0
DMA-2            OCEANSIDE        BMP-2            0.32     54       73.14    2
     0
DMA-3            OCEANSIDE        BMP-3            0.48     54       84.21    2.0
     0
DMA-4            OCEANSIDE        BMP-4            0.71     79       154.36   2
     0
DMA-5            OCEANSIDE        BMP-5            0.29     43       75.47    2.0
     0
DMA-6            OCEANSIDE        BMP-6            0.22     43       99.98    2.0
     0
DMA-7            OCEANSIDE        BMP-7            0.31     70       121.97   2.0
     0
DMA-8            OCEANSIDE        BMP-8            0.29     23       92.24    2.0
     0
BMP-2            OCEANSIDE        DIV2             0.01033057851 0        10.5
 0        0
BMP-3            OCEANSIDE        DIV3             0.0091827365 0        12.7
0        0
BMP-4            OCEANSIDE        DIV4             0.01935261708 0        10
 0        0
BMP-5            OCEANSIDE        DIV5             0.0052800735 0        19.16
0        0
BMP-6            OCEANSIDE        DIV6             0.009550045914 0        5
  0        0
BMP-7            OCEANSIDE        DIV7             0.008723599633 0        17.2
  0        0
BMP-8            OCEANSIDE        DIV8             0.004591368228 0        32.5
  0        0

[SUBAREAS]
;;Subcatchment   N-Imperv   N-Perv     S-Imperv   S-Perv     PctZero    RouteTo
 PctRouted
;;-------------- ---------- ---------- ---------- ---------- ----------
---------- ----------
DMA-1            0.012      0.15       0.05       0.05       25         OUTLET

BMP-1            0.012      0.15       0.05       0.05       25         OUTLET

DMA-2            0.012      0.15       0.05       0.05       25         OUTLET

DMA-3            0.012      0.15       0.05       0.05       25         OUTLET

DMA-4            0.012      0.15       0.05       0.05       25         OUTLET

DMA-5            0.012      0.15       0.05       0.05       25         OUTLET

DMA-6            0.012      0.15       0.05       0.05       25         OUTLET

DMA-7            0.012      0.15       0.05       0.05       25         OUTLET

DMA-8            0.012      0.15       0.05       0.05       25         OUTLET

BMP-2            0.012      0.15       0.05       0.05       25         OUTLET

BMP-3            0.012      0.15       0.05       0.05       25         OUTLET

BMP-4            0.012      0.15       0.05       0.05       25         OUTLET

BMP-5            0.012      0.15       0.05       0.05       25         OUTLET

BMP-6            0.012      0.15       0.05       0.05       25         OUTLET
```

```
BMP-7            0.012      0.15       0.05       0.05       25         OUTLET

BMP-8            0.012      0.15       0.05       0.05       25         OUTLET


[INFILTRATION]
;;Subcatchment   Suction    Ksat       IMD
;;-------------- ---------- ---------- ----------
DMA-1            3.0        0.2        0.31
BMP-1            3          0.2        0.31
DMA-2            3.0        0.2        0.31
DMA-3            3.0        0.2        0.31
DMA-4            3.0        0.2        0.31
DMA-5            3.0        0.2        0.31
DMA-6            3.0        0.2        0.31
DMA-7            3.0        0.2        0.31
DMA-8            3.0        0.2        0.31
BMP-2            3          0.2        0.31
BMP-3            3          0.2        0.31
BMP-4            3          0.2        0.31
BMP-5            3          0.2        0.31
BMP-6            3          0.2        0.31
BMP-7            3          0.2        0.31
BMP-8            3          0.2        0.31

[LID_CONTROLS]
;;Name           Type/Layer Parameters
;;-------------- ---------- ----------
BF-1             BC
BF-1             SURFACE    8          0.0        0          0          5

BF-1             SOIL       24         .4         0.2        0.1        5
 5          1.5
BF-1             STORAGE    12         0.67       0.1        0
BF-1             DRAIN      0.1053     0.5        3          6

BF-2             BC
BF-2             SURFACE    8          0.0        0.1        1.0        5

BF-2             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-2             STORAGE    12         0.67       0.1        0
BF-2             DRAIN      0.0791     0.5        3          6

BF-3             BC
BF-3             SURFACE    8          0.0        0          0          5

BF-3             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-3             STORAGE    12         0.67       0.1        0
BF-3             DRAIN      0.1307     0.5        3          6

BF-4             BC
BF-4             SURFACE    8          0.0        0          0          5

BF-4             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-4             STORAGE    12         0.67       0.1        0
BF-4             DRAIN      0.1171     0.5        3          6

BF-5             BC
BF-5             SURFACE    8          0.0        0          0          5
```

```
BF-5             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-5             STORAGE    12         0.67       0.1        0
BF-5             DRAIN      0.1548     0.5        3          6

BF-6             BC
BF-6             SURFACE    8          0.0        0          0          5

BF-6             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-6             STORAGE    12         0.67       0.1        0
BF-6             DRAIN      0.0707     0.5        3          6

BF-7             BC
BF-7             SURFACE    8          0.0        0          0          5

BF-7             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-7             STORAGE    12         0.67       0.1        0
BF-7             DRAIN      0.0774     0.5        3          6

BF-8             BC
BF-8             SURFACE    8          0.0        0          0          5

BF-8             SOIL       24         0.4        0.2        0.1        5
 5          1.5
BF-8             STORAGE    12         0.67       0.1        0
BF-8             DRAIN      0.1471     0.5        3          6

[LID_USAGE]
;;Subcatchment   LID Process      Number  Area       Width      InitSat
FromImp    ToPerv     RptFile                  DrainTo
;;-------------- ---------------- ------- ---------- ---------- ----------
---------- ---------- ------------------------ ----------------
BMP-1            BF-1             1       338.00     0          0          100
    0
BMP-2            BF-2             1       450.00     0          0          100
    0
BMP-3            BF-3             1       400.00     0          0          100
    0
BMP-4            BF-4             1       843.00     0          0          0
    0
BMP-5            BF-5             1       230.00     0          0          100
    0
BMP-6            BF-6             1       416.00     0          0          100
    0
BMP-7            BF-7             1       380.00     0          0          100
    0
BMP-8            BF-8             1       200.00     0          0          100
    0

[OUTFALLS]
;;Name           Elevation  Type       Stage Data       Gated    Route To
;;-------------- ---------- ---------- ---------------- -------- ----------------
POC-1            0          FREE                        NO

[DIVIDERS]
;;Name           Elevation  Diverted Link    Type       Parameters
;;-------------- ---------- ---------------- ---------- ----------
DIV1             0          BP1              CUTOFF     0.00547    1.5        0
       0          0
DIV2             0          BP2              CUTOFF     0.00547    1.5        0
       0          0
```

```
DIV3             0          BP3              CUTOFF     0.01516    1.5        0
       0          0
DIV4             0          BP4              CUTOFF     0.01516    1.5        0
       0          0
DIV5             0          BP5              CUTOFF     0.00547    1.5        0
       0          0
DIV6             0          BP6              CUTOFF     0.00452    1.5        0
       0          0
DIV7             0          BP7              CUTOFF     0.00452    1.5        0
       0          0
DIV8             0          BP8              CUTOFF     0.00452    1.5        0
       0          0

[STORAGE]
;;Name           Elev.    MaxDepth   InitDepth  Shape      Curve Name/Params
               Fevap    Psi      Ksat     IMD
;;-------------- -------- ---------- ----------- ----------
---------------------------- -------- --------          -------- --------
STOR1            0        2          0          TABULAR    STOR1
      0        0
STOR2            0        2          0          TABULAR    STOR2
      0        0
STOR3            0        2          0          TABULAR    STOR3
      0        0
STOR4            0        2          0          TABULAR    STOR4
      0        0
STOR5            0        2          0          TABULAR    STOR5
      0        0
STOR6            0        2          0          TABULAR    STOR6
      0        0
STOR7            0        2          0          TABULAR    STOR7
      0        0
STOR8            0        2          0          TABULAR    STOR8
      0        0

[CONDUITS]
;;Name           From Node        To Node          Length     Roughness  InOffset
  OutOffset  InitFlow   MaxFlow
;;-------------- ---------------- ---------------- ---------- ----------
---------- ---------- ---------- ----------
LF1              DIV1             POC-1            400        0.01       0
  0          0          0
BP1              DIV1             STOR1            400        0.01       0
  0          0          0
LF2              DIV2             POC-1            400        0.01       0
  0          0          0
LF3              DIV3             POC-1            400        0.01       0
  0          0          0
OF4              DIV4             POC-1            400        0.01       0
  0          0          0
LF5              DIV5             POC-1            400        0.01       0
  0          0          0
LF6              DIV6             POC-1            400        0.01       0
  0          0          0
LF7              DIV7             POC-1            400        0.01       0
  0          0          0
LF8              DIV8             POC-1            400        0.01       0
  0          0          0
BP2              DIV2             STOR2            400        0.01       0
  0          0          0
BP3              DIV3             STOR3            400        0.01       0
  0          0          0
BP4              DIV4             STOR4            400        0.01       0
```

```
  0          0          0
BP5              DIV5             STOR5            400        0.01       0
  0          0          0
BP6              DIV6             STOR6            400        0.01       0
  0          0          0
BP7              DIV7             STOR7            400        0.01       0
  0          0          0
BP8              DIV8             STOR8            400        0.01       0
  0          0          0

[OUTLETS]
;;Name           From Node        To Node          Offset     Type
QTable/Qcoeff    Qexpon     Gated
;;-------------- ---------------- ---------------- ---------- ---------------
---------------- ---------- --------
OL1              STOR1            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL2              STOR2            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL3              STOR3            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL4              STOR4            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL5              STOR5            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL6              STOR6            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL7              STOR7            POC-1            0          TABULAR/DEPTH
12x12                       NO
OL8              STOR8            POC-1            0          TABULAR/DEPTH
12x12                       NO

[XSECTIONS]
;;Link           Shape        Geom1            Geom2      Geom3      Geom4
Barrels    Culvert
;;-------------- ------------ ---------------- ---------- ---------- ----------
---------- ----------
LF1              DUMMY        0                0          0          0          1

BP1              DUMMY        0                0          0          0          1

LF2              CIRCULAR     1                0          0          0          1

LF3              CIRCULAR     1                0          0          0          1

OF4              CIRCULAR     1                0          0          0          1

LF5              CIRCULAR     1                0          0          0          1

LF6              CIRCULAR     1                0          0          0          1

LF7              CIRCULAR     1                0          0          0          1

LF8              CIRCULAR     1                0          0          0          1

BP2              CIRCULAR     1                0          0          0          1

BP3              CIRCULAR     1                0          0          0          1

BP4              CIRCULAR     1                0          0          0          1

BP5              CIRCULAR     1                0          0          0          1
```

```
BP6              CIRCULAR     1                0          0          0          1

BP7              CIRCULAR     1                0          0          0          1

BP8              CIRCULAR     1                0          0          0          1


[CURVES]
;;Name           Type       X-Value    Y-Value
;;-------------- ---------- ---------- ----------
;12"x12" BROOKS BOX
12x12            Rating     0          0
12x12                       0.1        0.1
12x12                       0.2        1.14
12x12                       0.3        2.1
12x12                       0.4        3.24
12x12                       0.5        4.52
;
;24x24 Brooks Box
24x24            Rating     0          0
24x24                       0.1        0.69
24x24                       0.2        1.94
24x24                       0.3        3.56
24x24                       0.4        5.48
24x24                       0.5        7.66
;
;BMP-1 Above the Berm
STOR1            Storage    0          338
STOR1                       0.5        338
STOR1                       1          338
;
;BMP-2 ABOVE THE GRATE
STOR2            Storage    0          450
STOR2                       0.5        450
STOR2                       1          450
;
;BMP-3 ABOVE THE GRATE
STOR3            Storage    0          400
STOR3                       0.5        400
STOR3                       1.0        400
;
;BMP-4 ABOVE THE GRATE
STOR4            Storage    0          843
STOR4                       0.5        843
STOR4                       1          843
;
;BMP-5 ABOVE THE GRATE
STOR5            Storage    0          230
STOR5                       0.5        230
STOR5                       1.0        230
;
;BMP-6
STOR6            Storage    0          416
STOR6                       0.5        416
STOR6                       1.0        416
;
;BMP-7 ABOVE THE GRATE
STOR7            Storage    0          380
STOR7                       0.5        380
STOR7                       1          380
;
;BMP-8 ABOVE THE GRATE
STOR8            Storage    0          200
```

```
STOR8                       0.5        200
STOR8                       1          200

[TIMESERIES]
;;Name           Date       Time       Value
;;-------------- ---------- ---------- ----------
OCEANSIDE        FILE "J:\Active Jobs\1890\CIVIL\REPORTS\SWQMP\SWMM\ELECTRONIC
FILES\Rainfall_data\oceanside.txt"

[REPORT]
;;Reporting Options
INPUT      NO
CONTROLS   NO
SUBCATCHMENTS ALL
NODES ALL
LINKS ALL

[TAGS]

[MAP]
DIMENSIONS 0.000 0.000 10000.000 10000.000
Units      None

[COORDINATES]
;;Node           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
POC-1            1480.263           383.772
DIV1             -2767.094          3012.821
DIV2             -1570.513          4476.496
DIV3             74.786             5715.812
DIV4             2035.446           4103.115
DIV5             4134.615           5448.718
DIV6             5202.991           5566.239
DIV7             6517.094           4155.983
DIV8             7467.949           3151.709
STOR1            -2051.282          1655.983
STOR2            -1549.145          3205.128
STOR3            10.684             3568.376
STOR4            961.538            5224.359
STOR5            2553.419           3589.744
STOR6            4326.923           3311.966
STOR7            6047.009           3023.504
STOR8            6955.128           1762.821

[VERTICES]
;;Link           X-Coord            Y-Coord
;;-------------- ------------------ ------------------

[Polygons]
;;Subcatchment   X-Coord            Y-Coord
;;-------------- ------------------ ------------------
DMA-1            -2841.880          7232.906
BMP-1            -2841.880          5790.598
DMA-2            -1463.675          6901.709
DMA-3            53.419             7905.983
DMA-4            1538.462           8119.658
DMA-5            3942.308           7948.718
DMA-6            5544.872           7948.718
DMA-7            7211.538           7735.043
DMA-8            8440.171           7895.299
BMP-2            -1420.940          5993.590
BMP-3            64.103             6688.034
BMP-4            1591.880           6613.248
```

```
BMP-5            4123.932           6356.838
BMP-6            5534.188           6720.085
BMP-7            7040.598           6047.009
BMP-8            8333.333           6047.009

[SYMBOLS]
;;Gage           X-Coord            Y-Coord
;;-------------- ------------------ ------------------
OCEANSIDE        4081.197           9081.197
```

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.009)
--------------------------------------------------------------

RESIDENTIAL CARE FACILITY
J-1890
POST PROJECT CONDITION
WARNING 04: minimum elevation drop used for Conduit LF1
WARNING 04: minimum elevation drop used for Conduit BP1
WARNING 04: minimum elevation drop used for Conduit LF2
WARNING 04: minimum elevation drop used for Conduit LF3
WARNING 04: minimum elevation drop used for Conduit OF4
WARNING 04: minimum elevation drop used for Conduit LF5
WARNING 04: minimum elevation drop used for Conduit LF6
WARNING 04: minimum elevation drop used for Conduit LF7
WARNING 04: minimum elevation drop used for Conduit LF8
WARNING 04: minimum elevation drop used for Conduit BP2
WARNING 04: minimum elevation drop used for Conduit BP3
WARNING 04: minimum elevation drop used for Conduit BP4
WARNING 04: minimum elevation drop used for Conduit BP5
WARNING 04: minimum elevation drop used for Conduit BP6
WARNING 04: minimum elevation drop used for Conduit BP7
WARNING 04: minimum elevation drop used for Conduit BP8

*********************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*********************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... YES
  Ponding Allowed ........ NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Flow Routing Method ...... KINWAVE
Starting Date ............ AUG-28-1951 05:00:00
Ending Date .............. MAY-23-2008 23:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:15:00
```

Wet Time Step 00:05:00
Dry Time Step 01:00:00
Routing Time Step ..... 60.00 sec

**********	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
**********	---	---
Initial LID Storage	0.015	0.060
Total Precipitation	168.478	675.090
Evaporation Loss	15.048	60.297
Infiltration Loss	95.625	383.167
Surface Runoff	13.908	55.730
LID Drainage	44.157	176.938
Final Storage	0.026	0.105
Continuity Error (%)	-0.161	

**********	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
**********	---	---
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	58.066	18.922
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	57.015	18.579
Flooding Loss	4.063	1.324
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.000	0.000
Continuity Error (%)	-5.188	

****
Highest Flow Instability Indexes
****
All links are stable.

****
Routing Time Step Summary
****
Minimum Time Step : 60.00 sec
Average Time Step : 60.00 sec
Maximum Time Step : 60.00 sec
Percent in Steady State : 0.00

Average Iterations per Step : 1.00
Percent Not Converging : 0.00

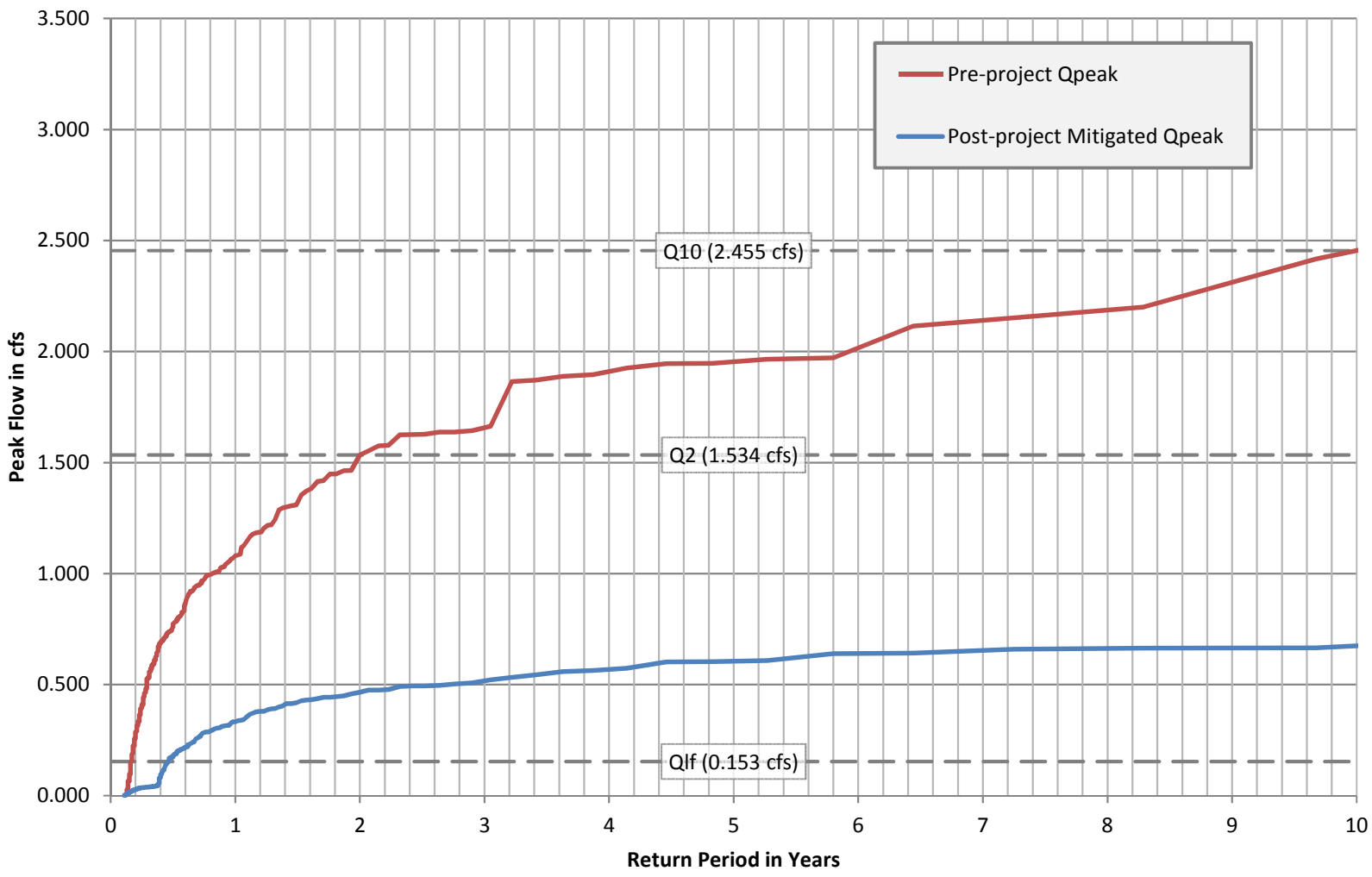
****
Analysis begun on: Fri Sep 22 11:47:52 2017
Analysis ended on: Fri Sep 22 11:52:00 2017
Total elapsed time: 00:04:08

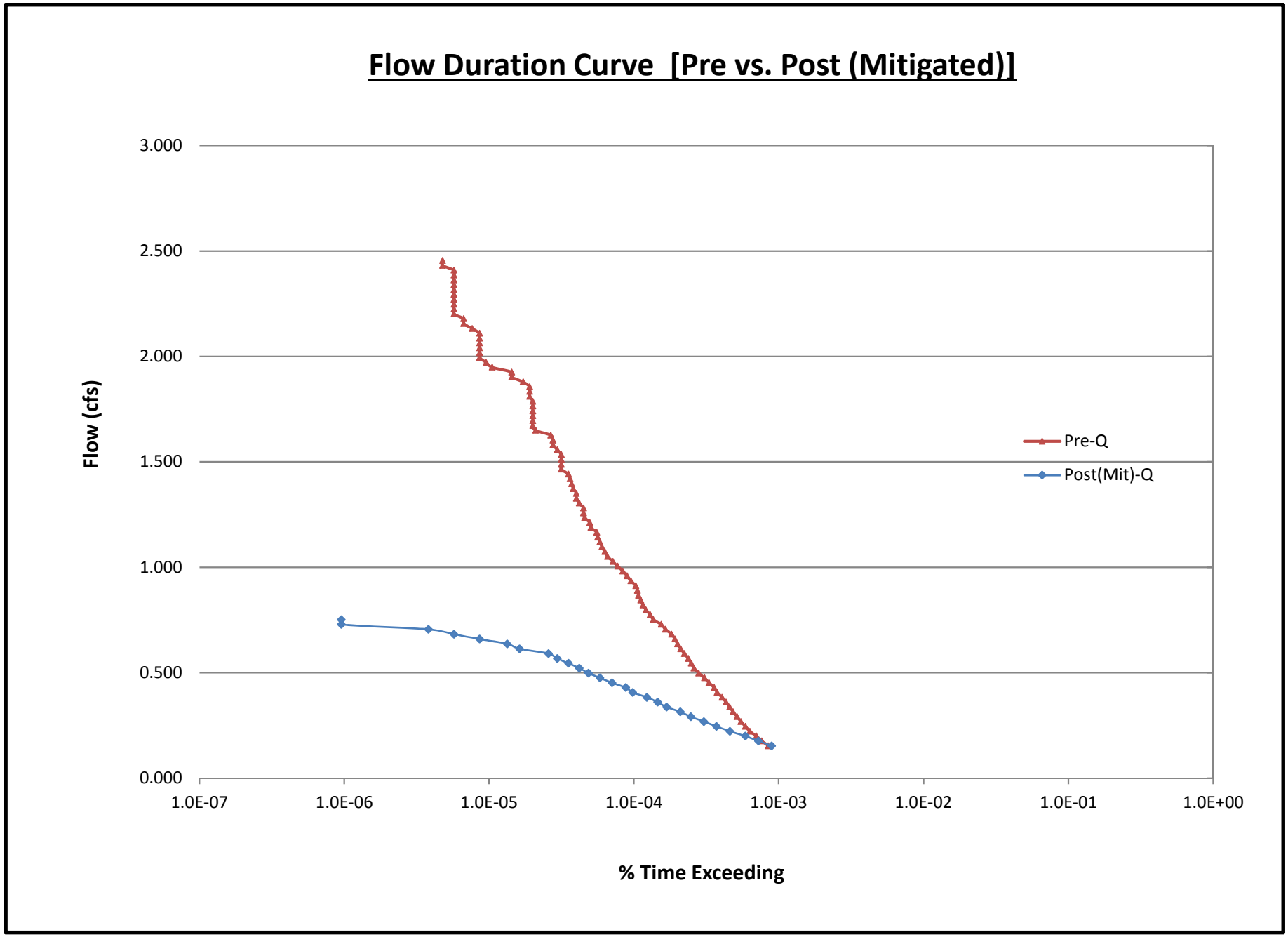
RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

Peak Flow Frequency Summary

Return Period	Pre-project Q (cfs)	Post-project - Mitigated Q (cfs)
LF = 0.1*Q2	0.153	0.047
2-year	1.534	0.465
3-year	1.657	0.517
4-year	1.910	0.569
5-year	1.954	0.606
6-year	2.016	0.641
7-year	2.140	0.654
8-year	2.187	0.663
9-year	2.311	0.665
10-year	2.455	0.675

Peak Flow Frequency Curves




Flow Duration Curve [Pre vs. Post (Mitigated)]
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Flow (cfs)
1.0E-07
1.0E-06
1.0E-05
1.0E-04
1.0E-03
1.0E-02
1.0E-01
1.0E+00
% Time Exceeding
Pre-Q
Post(Mit)-Q

RESIDENTIAL CARE FACILITY
J-1890
10/2/2017

BMP-1

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	6	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.5	ft
		42	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.33	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.005	cfs
Ponding Depth Surface Area	A_{PD}	330	ft^2
Bioretention Surface Area	A_S, A_G	330	ft^2
	A_S, A_G	0.0076	ac
Flow Rate (per unit area)	q	0.699	in/hr
Effective Ponding Depth	PD_{eff}	**6.00**	in
Drain Coefficient	C	**0.1079**	--

Cutoff Flow	Q_{cutoff}	**0.00534**	cfs

RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

BMP-2

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	6	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.5	ft
		42	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.33	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.005	cfs
Ponding Depth Surface Area	A_{PD}	450	ft^2
Bioretention Surface Area	A_S, A_G	450	ft^2
	A_S, A_G	0.0103	ac
Flow Rate (per unit area)	q	0.513	in/hr
Effective Ponding Depth	PD_{eff}	**6.00**	in
Drain Coefficient	C	**0.0791**	--

Cutoff Flow	Q_{cutoff}	**0.00534**	cfs

RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

BMP-3

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	6	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.5	ft
		42	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.4	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.008	cfs
Ponding Depth Surface Area	A_{PD}	400	ft^2
Bioretention Surface Area	A_S, A_G	400	ft^2
	A_S, A_G	0.0092	ac
Flow Rate (per unit area)	q	0.847	in/hr
Effective Ponding Depth	PD_{eff}	**6.00**	in
Drain Coefficient	C	**0.1307**	--

Cutoff Flow	Q_{cutoff}	**0.00784**	cfs

RESIDENTIAL CARE FACILITY
J-1890
10/2/2017

BMP-4

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	6	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.5	ft
		42	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.55	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.015	cfs
Ponding Depth Surface Area	A_{PD}	825	ft^2
Bioretention Surface Area	A_S, A_G	825	ft^2
	A_S, A_G	0.0189	ac
Flow Rate (per unit area)	q	0.776	in/hr
Effective Ponding Depth	PD_{eff}	**6.00**	in
Drain Coefficient	C	**0.1197**	--

Cutoff Flow	Q_{cutoff}	**0.01481**	cfs

RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

BMP-5

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	6	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.5	ft
		42	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.33	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.005	cfs
Ponding Depth Surface Area	A_{PD}	230	ft^2
Bioretention Surface Area	A_S, A_G	230	ft^2
	A_S, A_G	0.0053	ac
Flow Rate (per unit area)	q	1.003	in/hr
Effective Ponding Depth	PD_{eff}	**6.00**	in
Drain Coefficient	C	**0.1548**	--

Cutoff Flow	Q_{cutoff}	**0.00534**	cfs

RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

BMP-6

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	8	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.7	ft
		44	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.3	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.005	cfs
Ponding Depth Surface Area	A_{PD}	416	ft^2
Bioretention Surface Area	A_S, A_G	416	ft^2
	A_S, A_G	0.0096	ac
Flow Rate (per unit area)	q	0.469	in/hr
Effective Ponding Depth	PD_{eff}	**8.00**	in
Drain Coefficient	C	**0.0707**	--

Cutoff Flow	Q_{cutoff}	**0.00452**	cfs

RESIDENTIAL CARE FACILITY
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BMP-7

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	8	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.7	ft
		44	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.3	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.005	cfs
Ponding Depth Surface Area	A_{PD}	380	ft^2
Bioretention Surface Area	A_S, A_G	380	ft^2
	A_S, A_G	0.0087	ac
Flow Rate (per unit area)	q	0.514	in/hr
Effective Ponding Depth	PD_{eff}	**8.00**	in
Drain Coefficient	C	**0.0774**	--

Cutoff Flow	Q_{cutoff}	**0.00452**	cfs

RESIDENTIAL CARE FACILITY
J-1890
9/22/2017

BMP-8

SWMM Model Drain Coefficient Calculation

PARAMETER	ABBREV.	Basin 1	
Ponding Depth	PD	8	in
Bioretention Soil Layer	S	24	in
Gravel Layer	G	12	in
TOTAL		3.7	ft
		44	in
Orifice Coefficient	c_g	0.6	--
Low Flow Orifice Diameter	D	0.3	in
Drain exponent	n	0.5	--
Flow Rate (volumetric)	Q	0.005	cfs
Ponding Depth Surface Area	A_{PD}	200	ft^2
Bioretention Surface Area	A_S, A_G	200	ft^2
	A_S, A_G	0.0046	ac
Flow Rate (per unit area)	q	0.976	in/hr
Effective Ponding Depth	PD_{eff}	**8.00**	in
Drain Coefficient	C	**0.1471**	--

Cutoff Flow	Q_{cutoff}	**0.00452**	cfs

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Low-flow Threshold:	10%	
0.1xQ2 (Pre):	0.153	cfs
Q10 (Pre):	2.455	cfs
Ordinate #:	100	
Incremental Q (Pre):	0.02301	cfs
Total Hourly Data:	1048571	hours

The proposed BMP: PASSED

Interval	Pre-project Flow (cfs)	Pre-project Hours	Pre-project % Time Exceeding	Post-project Hours	Post-project % Time Exceeding	Percentage	Pass/Fail
0	0.153	888	8.47E-04	938	8.95E-04	106%	Pass
1	0.176	802	7.65E-04	759	7.24E-04	95%	Pass
2	0.199	735	7.01E-04	617	5.88E-04	84%	Pass
3	0.222	663	6.32E-04	483	4.61E-04	73%	Pass
4	0.245	617	5.88E-04	390	3.72E-04	63%	Pass
5	0.268	574	5.47E-04	319	3.04E-04	56%	Pass
6	0.291	541	5.16E-04	259	2.47E-04	48%	Pass
7	0.314	507	4.84E-04	219	2.09E-04	43%	Pass
8	0.337	480	4.58E-04	176	1.68E-04	37%	Pass
9	0.361	454	4.33E-04	153	1.46E-04	34%	Pass
10	0.384	426	4.06E-04	129	1.23E-04	30%	Pass
11	0.407	394	3.76E-04	103	9.82E-05	26%	Pass
12	0.430	376	3.59E-04	92	8.77E-05	24%	Pass
13	0.453	346	3.30E-04	74	7.06E-05	21%	Pass
14	0.476	322	3.07E-04	61	5.82E-05	19%	Pass
15	0.499	294	2.80E-04	51	4.86E-05	17%	Pass
16	0.522	273	2.60E-04	44	4.20E-05	16%	Pass
17	0.545	261	2.49E-04	37	3.53E-05	14%	Pass
18	0.568	249	2.37E-04	31	2.96E-05	12%	Pass
19	0.591	234	2.23E-04	27	2.57E-05	12%	Pass
20	0.614	221	2.11E-04	17	1.62E-05	8%	Pass
21	0.637	210	2.00E-04	14	1.34E-05	7%	Pass
22	0.660	201	1.92E-04	9	8.58E-06	4%	Pass
23	0.683	191	1.82E-04	6	5.72E-06	3%	Pass
24	0.706	173	1.65E-04	4	3.81E-06	2%	Pass
25	0.729	162	1.54E-04	1	9.54E-07	1%	Pass
26	0.752	143	1.36E-04	1	9.54E-07	1%	Pass
27	0.775	136	1.30E-04	0	0.00E+00	0%	Pass
28	0.798	127	1.21E-04	0	0.00E+00	0%	Pass
29	0.821	121	1.15E-04	0	0.00E+00	0%	Pass
30	0.844	117	1.12E-04	0	0.00E+00	0%	Pass
31	0.867	113	1.08E-04	0	0.00E+00	0%	Pass
32	0.890	111	1.06E-04	0	0.00E+00	0%	Pass
33	0.913	108	1.03E-04	0	0.00E+00	0%	Pass
34	0.936	100	9.54E-05	0	0.00E+00	0%	Pass
35	0.959	94	8.96E-05	0	0.00E+00	0%	Pass
36	0.982	88	8.39E-05	0	0.00E+00	0%	Pass
37	1.005	81	7.72E-05	0	0.00E+00	0%	Pass
38	1.028	75	7.15E-05	0	0.00E+00	0%	Pass
39	1.051	69	6.58E-05	0	0.00E+00	0%	Pass
40	1.074	66	6.29E-05	0	0.00E+00	0%	Pass
41	1.097	63	6.01E-05	0	0.00E+00	0%	Pass
42	1.120	61	5.82E-05	0	0.00E+00	0%	Pass
43	1.143	59	5.63E-05	0	0.00E+00	0%	Pass

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Interval	Pre-project Flow (cfs)	Pre-project Hours	Pre-project % Time Exceeding	Post-project Hours	Post-project % Time Exceeding	Percentage	Pass/Fail
44	1.166	58	5.53E-05	0	0.00E+00	0%	Pass
45	1.189	53	5.05E-05	0	0.00E+00	0%	Pass
46	1.212	52	4.96E-05	0	0.00E+00	0%	Pass
47	1.235	48	4.58E-05	0	0.00E+00	0%	Pass
48	1.258	47	4.48E-05	0	0.00E+00	0%	Pass
49	1.281	47	4.48E-05	0	0.00E+00	0%	Pass
50	1.304	44	4.20E-05	0	0.00E+00	0%	Pass
51	1.327	42	4.01E-05	0	0.00E+00	0%	Pass
52	1.350	42	4.01E-05	0	0.00E+00	0%	Pass
53	1.373	40	3.81E-05	0	0.00E+00	0%	Pass
54	1.396	39	3.72E-05	0	0.00E+00	0%	Pass
55	1.419	38	3.62E-05	0	0.00E+00	0%	Pass
56	1.442	37	3.53E-05	0	0.00E+00	0%	Pass
57	1.465	33	3.15E-05	0	0.00E+00	0%	Pass
58	1.488	33	3.15E-05	0	0.00E+00	0%	Pass
59	1.511	33	3.15E-05	0	0.00E+00	0%	Pass
60	1.534	33	3.15E-05	0	0.00E+00	0%	Pass
61	1.557	31	2.96E-05	0	0.00E+00	0%	Pass
62	1.580	29	2.77E-05	0	0.00E+00	0%	Pass
63	1.603	29	2.77E-05	0	0.00E+00	0%	Pass
64	1.626	28	2.67E-05	0	0.00E+00	0%	Pass
65	1.649	22	2.10E-05	0	0.00E+00	0%	Pass
66	1.672	21	2.00E-05	0	0.00E+00	0%	Pass
67	1.695	21	2.00E-05	0	0.00E+00	0%	Pass
68	1.718	21	2.00E-05	0	0.00E+00	0%	Pass
69	1.741	21	2.00E-05	0	0.00E+00	0%	Pass
70	1.764	21	2.00E-05	0	0.00E+00	0%	Pass
71	1.787	21	2.00E-05	0	0.00E+00	0%	Pass
72	1.810	20	1.91E-05	0	0.00E+00	0%	Pass
73	1.833	20	1.91E-05	0	0.00E+00	0%	Pass
74	1.856	20	1.91E-05	0	0.00E+00	0%	Pass
75	1.879	18	1.72E-05	0	0.00E+00	0%	Pass
76	1.902	15	1.43E-05	0	0.00E+00	0%	Pass
77	1.925	15	1.43E-05	0	0.00E+00	0%	Pass
78	1.948	11	1.05E-05	0	0.00E+00	0%	Pass
79	1.971	10	9.54E-06	0	0.00E+00	0%	Pass
80	1.994	9	8.58E-06	0	0.00E+00	0%	Pass
81	2.017	9	8.58E-06	0	0.00E+00	0%	Pass
82	2.040	9	8.58E-06	0	0.00E+00	0%	Pass
83	2.063	9	8.58E-06	0	0.00E+00	0%	Pass
84	2.086	9	8.58E-06	0	0.00E+00	0%	Pass
85	2.109	9	8.58E-06	0	0.00E+00	0%	Pass
86	2.132	8	7.63E-06	0	0.00E+00	0%	Pass
87	2.155	7	6.68E-06	0	0.00E+00	0%	Pass
88	2.178	7	6.68E-06	0	0.00E+00	0%	Pass
89	2.202	6	5.72E-06	0	0.00E+00	0%	Pass
90	2.225	6	5.72E-06	0	0.00E+00	0%	Pass
91	2.248	6	5.72E-06	0	0.00E+00	0%	Pass
92	2.271	6	5.72E-06	0	0.00E+00	0%	Pass
93	2.294	6	5.72E-06	0	0.00E+00	0%	Pass

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Interval	Pre-project Flow (cfs)	Pre-project Hours	Pre-project % Time Exceeding	Post-project Hours	Post-project % Time Exceeding	Percentage	Pass/Fail
94	2.317	6	5.72E-06	0	0.00E+00	0%	Pass
95	2.340	6	5.72E-06	0	0.00E+00	0%	Pass
96	2.363	6	5.72E-06	0	0.00E+00	0%	Pass
97	2.386	6	5.72E-06	0	0.00E+00	0%	Pass
98	2.409	6	5.72E-06	0	0.00E+00	0%	Pass
99	2.432	5	4.77E-06	0	0.00E+00	0%	Pass
100	2.455	5	4.77E-06	0	0.00E+00	0%	Pass

RESIDENTIAL CARE FACILITY
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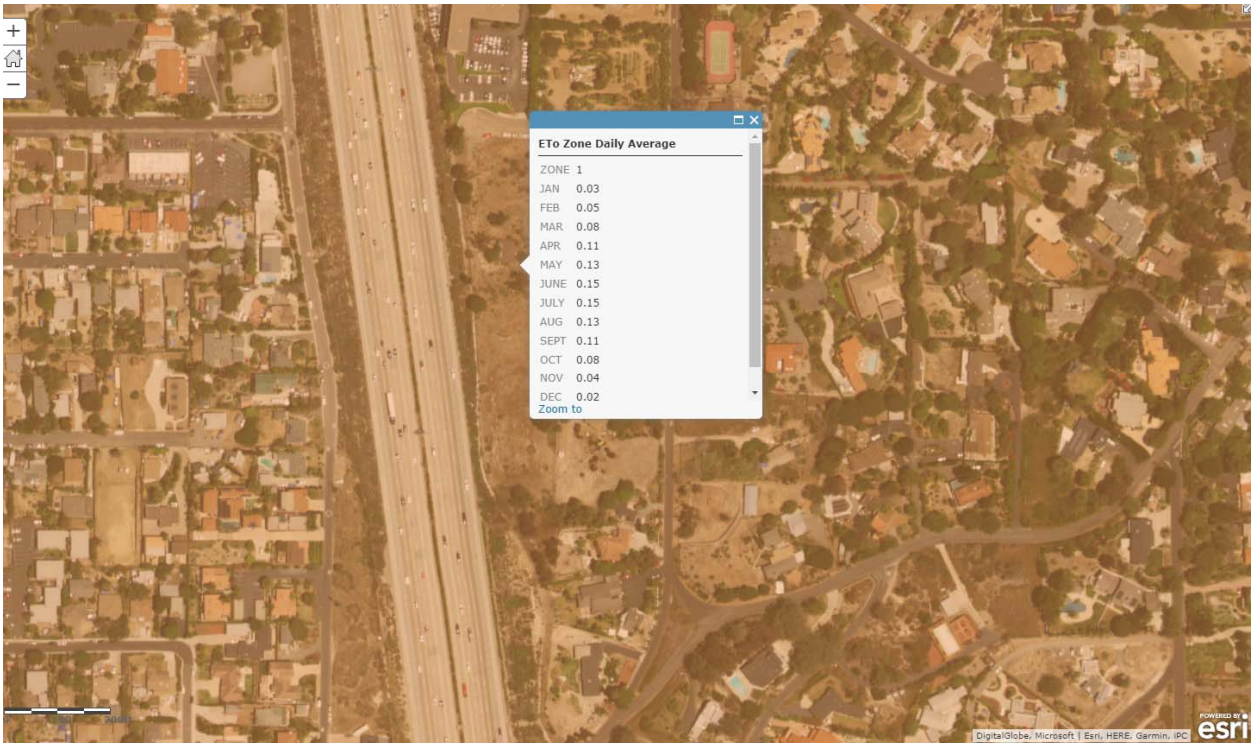
9/10/2016

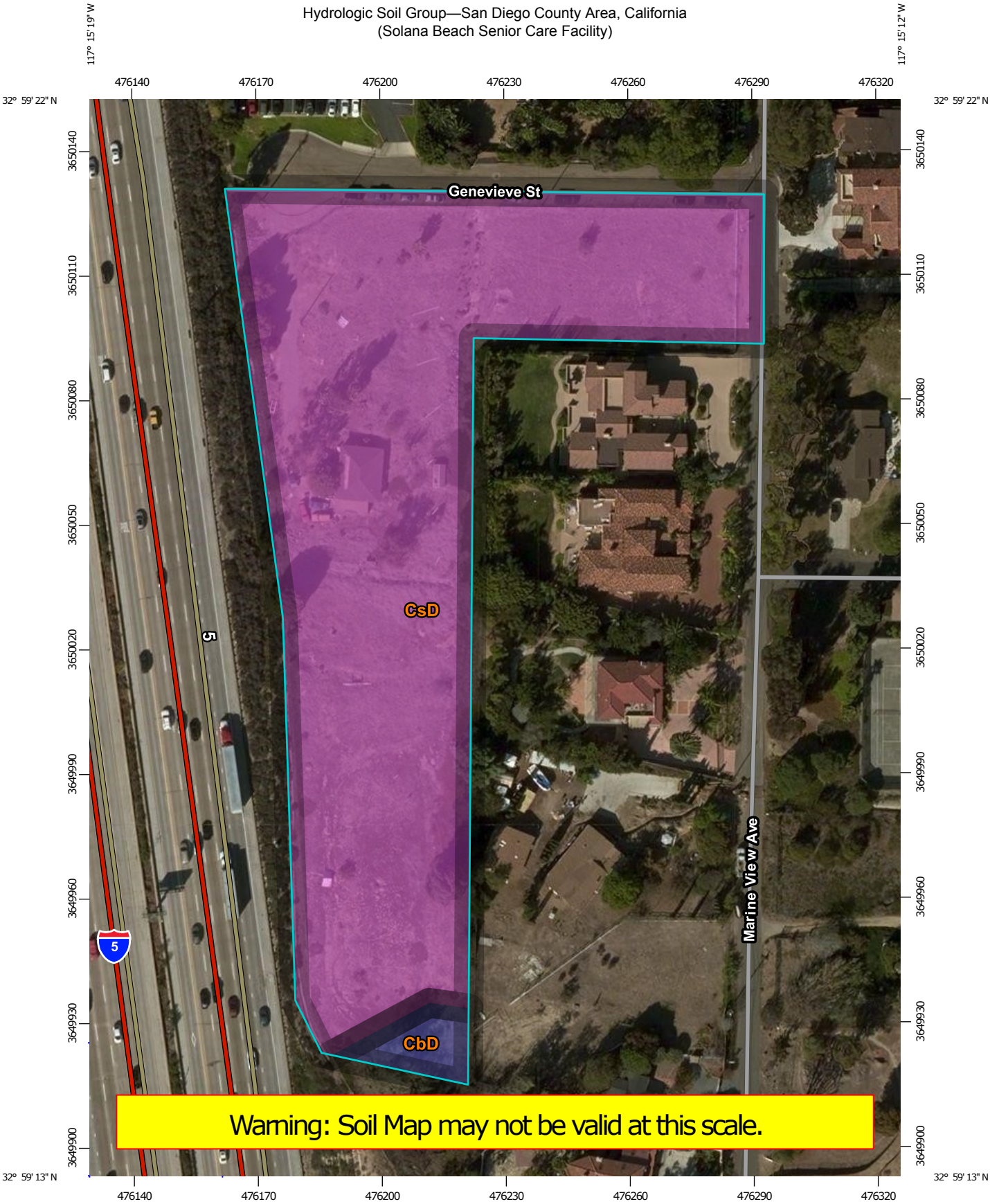
SHERIDAN AVENUE



Source:

http://www.arcgis.com/home/webmap/viewer.html?webmap=46368de75d69480db276c0b42e4afd80

Hydrologic Soil Group—San Diego County Area, California
(Solana Beach Senior Care Facility)



Map Scale: 1:1,270 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Diego County Area, California
Survey Area Data: Version 10, Sep 12, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 3, 2014—Nov 22, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — San Diego County Area, California (CA638)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
CbD	Carlsbad gravelly loamy sand, 9 to 15 percent slopes	B	0.1	3.0%
CsD	Corralitos loamy sand, 9 to 15 percent slopes	A	3.0	97.0%
Totals for Area of Interest			**3.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

Tie-break Rule: Higher

ATTACHMENT 3
Structural BMP Maintenance Information

This is the cover sheet for Attachment 3.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	**Contents**	**Checklist**
Attachment 3a	Structural BMP Maintenance Thresholds and Actions (Required)	☒ Included See Structural BMP Maintenance Information Checklist on the back of this Attachment cover sheet.
Attachment 3b	Draft Maintenance Agreement (when applicable)	☒ Included ☐ Not Applicable

Use this checklist to ensure the required information has been included in the Structural BMP Maintenance Information Attachment:

☒ **Preliminary Design / Planning / CEQA level submittal:**

Attachment 3a must identify:

- ☒ Typical maintenance indicators and actions for proposed structural BMP(s) based on Section 7.7 of the BMP Design Manual

Attachment 3b is not required for preliminary design / planning / CEQA level submittal.

☐ **Final Design level submittal:**

Attachment 3a must identify:

- ☐ Specific maintenance indicators and actions for proposed structural BMP(s). This shall be based on Section 7.7 of the BMP Design Manual and enhanced to reflect actual proposed components of the structural BMP(s)
- ☐ How to access the structural BMP(s) to inspect and perform maintenance
- ☐ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☐ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable
- ☐ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ Recommended equipment to perform maintenance
- ☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management

Attachment 3b: For private entity operation and maintenance, Attachment 3b shall include a draft maintenance agreement in the local jurisdiction's standard format (PDP applicant to contact the City Engineer to obtain the current maintenance agreement forms).

Attachment 3a: Structural BMP Maintenance Thresholds and Actions

Inspection and Maintenance Activities for Treatment Control BMPs

The structural treatment control BMPs for the proposed project consists of eight (8) biofiltration basin. The discussions below provide inspection frequency, maintenance indicators and maintenance activities for the proposed structural BMPs. The proposed biofiltration basins should be inspected and maintained to ensure proper functionality over time. The discussion below provides recommendations for inspection and maintenance for the biofiltration basins in order to ensure their lasting effectiveness.

During inspection, the inspector shall check for the maintenance indicators given below and take the appropriate maintenance action:

Typical Maintenance Indicator(s) for Vegetated BMPs	Maintenance Actions
Accumulation of sediment, litter, or debris	Remove and properly dispose of accumulated materials, without damage to the vegetation.
Poor vegetation establishment	Re-seed, re-plant, or re-establish vegetation per original plans.
Overgrown vegetation	Mow or trim as appropriate, but not less than the design height of the vegetation per original plans when applicable
Erosion due to concentrated irrigation flow	Repair/re-seed/re-plant eroded areas and adjust the irrigation system.
Erosion due to concentrated storm water runoff flow	Repair/re-seed/re-plant eroded areas, and make appropriate corrective measures such as adding erosion control blankets, adding stone at flow entry points, or minor re-grading to restore proper drainage according to the original plan. If the issue is not corrected by restoring the BMP to the original plan and grade, the City Engineer shall be contacted prior to any additional repairs or reconstruction.
Standing water in or biofiltration basin for longer than 96 hours following a storm event*	Make appropriate corrective measures such as adjusting irrigation system, removing obstructions of debris or invasive vegetation, clearing underdrains (where applicable), or repairing/replacing clogged or compacted soils.
Obstructed inlet or outlet structure	Clear obstructions.
Damage to structural components such as weirs, inlet or outlet structures	Repair or replace as applicable.

*These BMPs typically include a surface ponding layer as part of their function which may take 96 hours to drain following a storm event.

Inspection and Maintenance Frequency

The Table below lists the TC-BMPs to be inspected and maintained and the minimum frequency of inspection and maintenance activities.

Table 4.1: Summary Table of Inspection and Maintenance Frequency

BMP	Inspection Frequency	Maintenance Frequency
Biofiltration Basins	At a minimum: annually, and after major storm events	Routine maintenance to remove accumulated materials at the inlets and outlets: annually, on or before September 30th. As-needed maintenance based on maintenance indicators

The frequencies given in the Summary Table of Inspection and Maintenance Frequency are minimum recommended frequencies for inspection and maintenance activities for the project. Typically, the frequency of maintenance required for structural BMPs is site and drainage area specific. If it is determined during the regularly scheduled inspection and/or routine maintenance that a structural BMP requires more frequent maintenance (e.g., to remove accumulated trash) it may be necessary to increase the frequency of inspection and/or routine maintenance.

Recordkeeping Requirements

The party responsible to ensure implementation and funding of maintenance of structural BMPs shall maintain records documenting the inspection and maintenance activities. The records must be kept a minimum of 5 years and shall be made available to the City of Solana Beach for inspection upon request at any time.

RECORDING REQUESTED BY:

WHEN RECORDED MAIL TO:

(property owner)

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MAINTENANCE NOTIFICATION AGREEMENT FOR CATEGORY 1 STORMWATER STRUCTURAL BMP's

THIS AGREEMENT is made on the _____ day of _____, 20_____ and replaces and rescinds the previous agreement with document number_____.
_____, the Owner(s) of the hereinafter described real property:
Address_____ Post Office _____ Zip Code _____
Assessor Parcel No.(s) _____

List, identify, locate (in Exhibit A) and describe the Structural Best Management Practice below:

_____

_____

Owner(s) of the above property acknowledge the existence of the stormwater Structural Best Management Practice (BMP) on the said property. Perpetual maintenance of the Structural BMP(s) is the requirement of the State NPDES Permit, Order No. R9-2015-0001, Section E.3.e. and the County of San Diego Watershed Protection Ordinance (WPO) Ordinance No. 10385 Section 67.812 through Section 67.814, and County BMP Design Manual (BMP DM) Chapters 7 & 8. In consideration of the requirement to construct and maintain Structural BMP(s), as conditioned by Discretionary Permit, Grading Permit, and/or Building Permit (as may be applicable), I/we hereby covenant and agree that:

1. I/We are the owner(s) of the existing (or to be constructed concurrently) premises located on the above described property.
2. I/We shall take the responsibility for the perpetual maintenance of the Structural BMP(s) as listed above in accordance with the maintenance plan (in Exhibit B) and in compliance with County's self-inspection reporting and verification for as long as I/we have ownership of said property(ies).
3. I/We shall cooperate with and allow the County staff to come onto said property(ies) and perform inspection duties as prescribed by local and state regulators.
4. I/We shall inform future buyer(s) or successors of said property(ies) of the existence and perpetual maintenance requirement responsibilities for Structural BMP(s) as listed above and to ensure that such responsibility shall transfer to the future owner(s).
5. I/We will abide by all of the requirements and standards of Section 67.812 through Section 67.814 of the WPO (or renumbering thereof) as it exists on the date of this Agreement, and which hereby is incorporated herein by reference.

This Agreement shall run with the land. If the subject property is conveyed to any other person, firm, or corporation, the instrument that conveys title or any interest in or to said property, or any portion thereof, shall contain a provision transferring maintenance responsibility for Structural BMP(s) to the successive owner according to the terms of this Agreement. Any violation of this Agreement is grounds for the County to impose penalties upon the property owner as prescribed in County Code of Regulatory Ordinances, Title 1, Division 8, Chapter 1 Administrative Citations §§18.101-18.116.

_____ _____
Owner(s) Signature(s)

_____ _____
Print Owner(s) Name(s) and Title

STATE OF CALIFORNIA)
COUNTY OF _____)

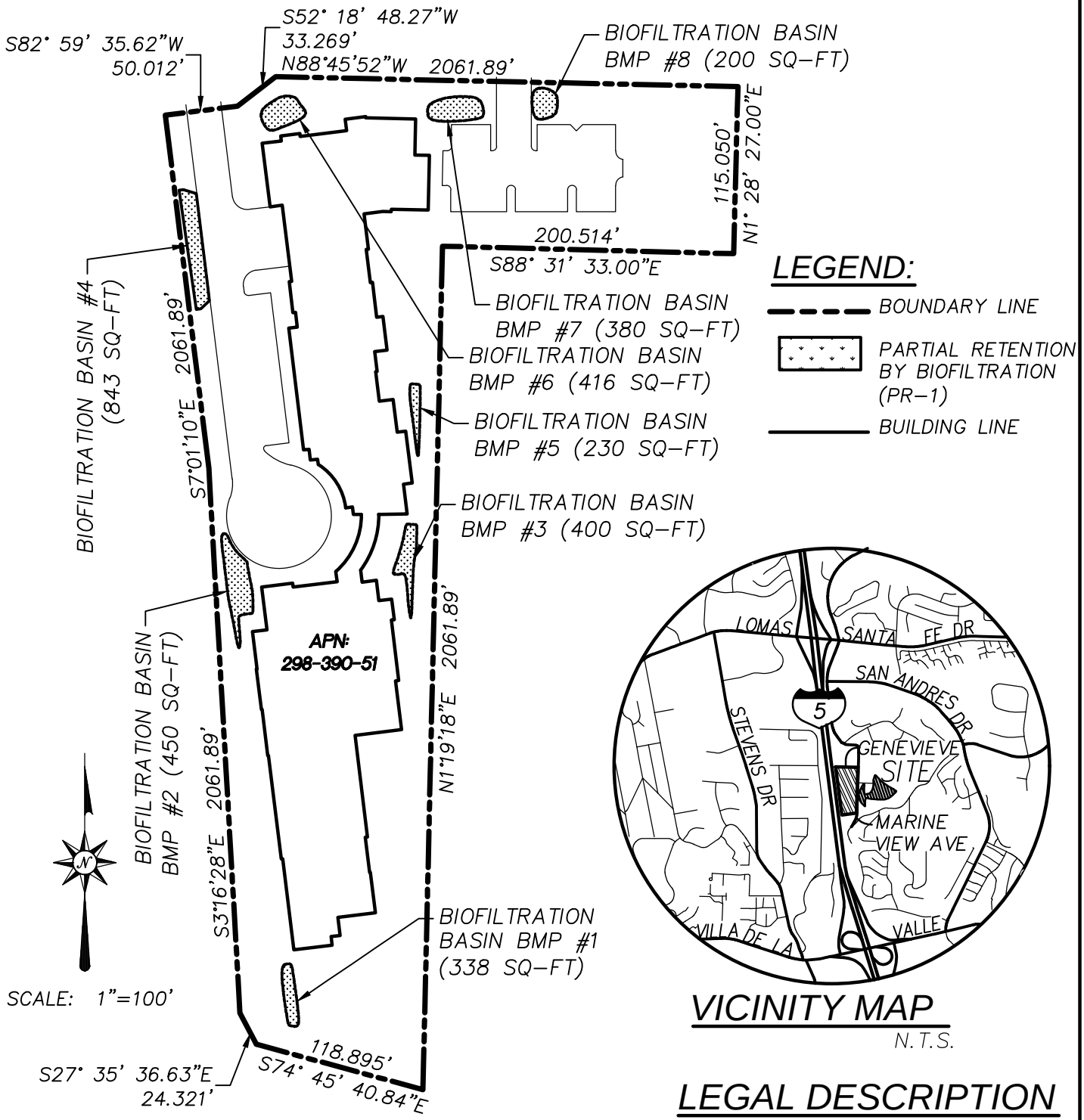
On _____ before me, _____Notary Public, personally appeared _____ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.

Include Exhibits that illustrate:

- Exhibit A: Project Site Vicinity; the Project Site Map; and a map for each BMP and it's Drainage Management Area
- Exhibit B: the maintenance plan.

EXHIBIT 'A'

STORM WATER MANAGEMENT AND DISCHARGE CONTROL MAINTENANCE AGREEMENT EXHIBIT (SWMDCMA)



VICINITY MAP

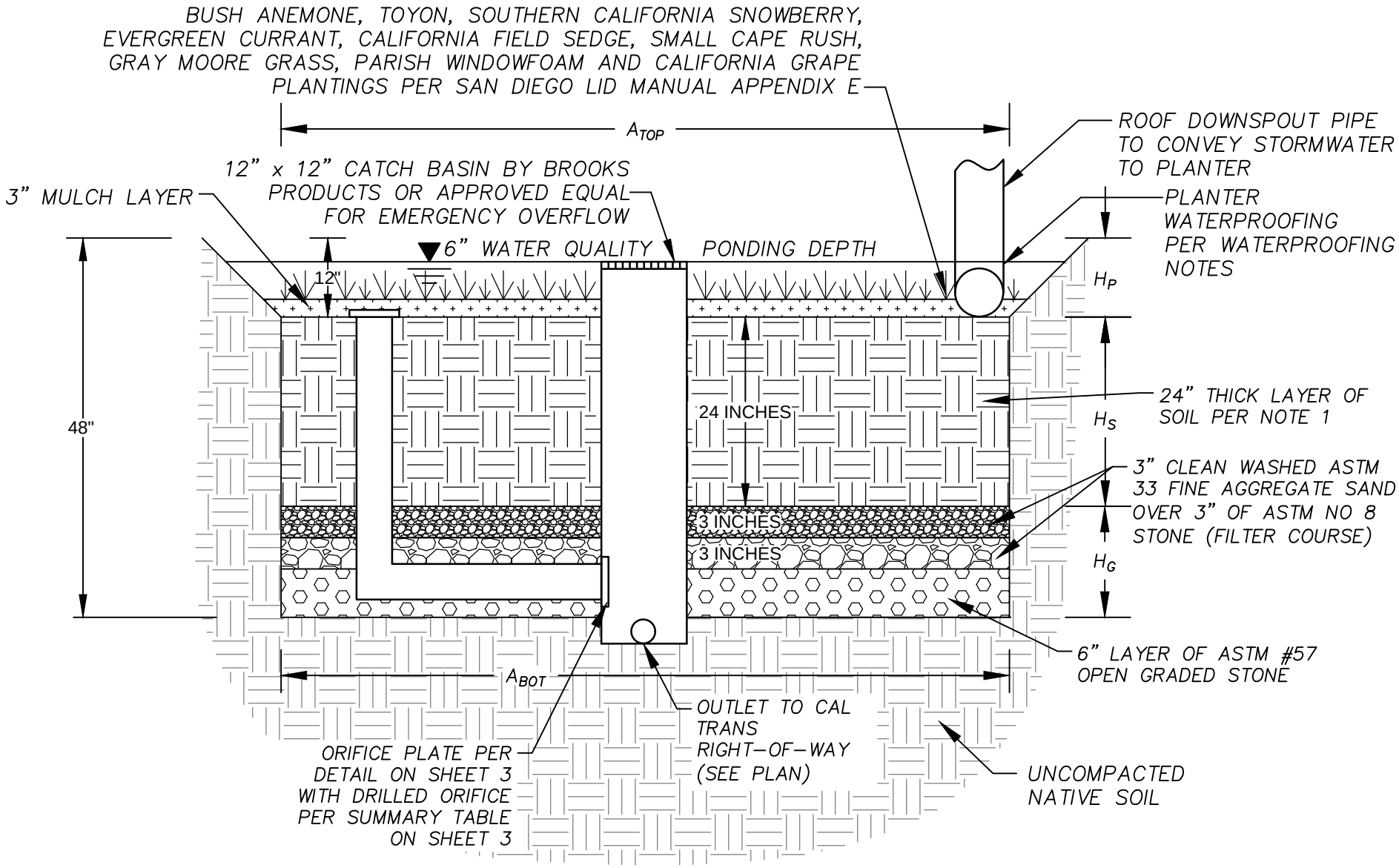
N.T.S.

LEGAL DESCRIPTION

PORTION OF LOTS 1 & 2
IN BLOCK OF KENNEY'S
MARINE VIEW GARDENS

959 GENEVIEVE ST. PERMANENT STORM WATER BMP's

EXHIBIT 'B'

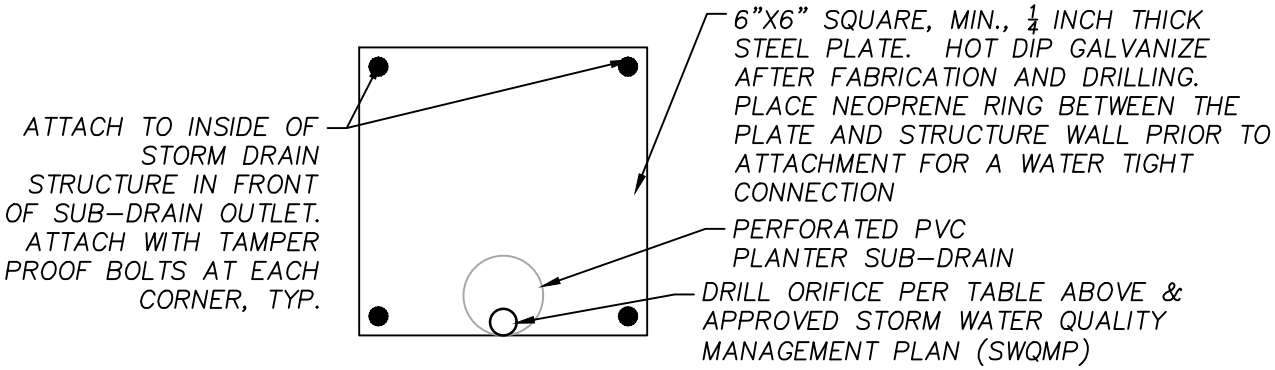


TYPICAL SECTION: **BIOFILTRATION PLANTER (PR-1)**

NOT TO SCALE

BMP #	H_P (FT)	H_S (FT)	H_G (FT)	HMP ORIFICE (IN)	A_{BOT} (FT^2)	A_{TOP} (FT^2)
1	0.5	2.0	1.0	0.33	330	330
2	0.5	2.0	1.0	0.33	450	450
3	0.5	2.0	1.0	0.40	400	400
4	0.5	2.0	1.0	0.55	825	825
5	0.5	2.0	1.0	0.33	230	230
6	1.5	2.0	1.0	0.30	416	416
7	1.5	2.0	1.0	0.30	380	380
8	1.5	2.0	1.0	0.30	200	200

BMP SIZE + ORIFICE DIAMETER SUMMARY



DRILLED ORIFICE PLATE DETAIL (TYP.)

NOT TO SCALE

POST-CONSTRUCTION PERMANENT BMP OPERATION & MAINTENANCE PROCEDURE DETAILS

STORM WATER MANAGEMENT AND DISCHARGE CONTROL
CONTROL MAINTENANCE AGREEMENT APPROVAL NO.:

O&M RESPONSIBLE PARTY DESIGNEE: PACIFIC SOUND INVESTORS, LLC

BMP DESCRIPTION	INSPECTION FREQUENCY	MAINTENANCE FREQUENCY	MAINTENANCE METHOD	QUANTITY	SHEET NUMBER(S)
BIOFILTRATION PLANTER LID AND TREATMENT CONTROL	BI-ANNUAL	BI-ANNUAL, AS NEEDED	MOWING AND DEBRIS COLLECTION AS NECESSARY. REPAIR AS NEEDED.	8	C1.0
SELF MITIGATING AREAS (PER APPENDIX E)	BI-ANNUAL	BI-ANNUAL, AS NEEDED	MOWING AND DEBRIS COLLECTION AS NECESSARY. REPAIR AS NEEDED.	1	C1.0
SITE DESIGN AREAS (PER APPENDIX E)	BI-ANNUAL	BI-ANNUAL, AS NEEDED	MOWING AND DEBRIS COLLECTION AS NECESSARY. REPAIR AS NEEDED.	1	C1.0

ATTACHMENT 4
Copy of Plan Sheets Showing Permanent Storm Water BMPs

This is the cover sheet for Attachment 4.

Use this checklist to ensure the required information has been included on the plans:

The plans must identify:

- ☒ Structural BMP(s) with ID numbers matching Form 4 Summary of PDP Structural BMPs
- ☒ The grading and drainage design shown on the plans must be consistent with the delineation of DMAs shown on the DMA exhibit
- ☒ Details and specifications for construction of structural BMP(s)
- ☒ Signage indicating the location and boundary of structural BMP(s) as required by the City Engineer
- ☒ How to access the structural BMP(s) to inspect and perform maintenance
- ☒ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☒ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable
- ☒ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ Recommended equipment to perform maintenance
- ☒ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management
- ☒ Include landscaping plan sheets showing vegetation requirements for vegetated structural BMP(s)
- ☒ All BMPs must be fully dimensioned on the plans
- ☐ When proprietary BMPs are used, site-specific cross section with outflow, inflow, and model number shall be provided. Photocopies of general brochures are not acceptable.
- ☒ A single plan BMP sheet for each construction drawing highlighting only those BMPs included in the referenced construction drawing. (See Section 5.5.2 of the City's JRMP for further detail.)

PRELIMINARY GRADING PLAN FOR RESIDENTIAL CARE FACILITY 959 GENEVIEVE STREET

PREPARED FOR

PACIFIC SOUND INVESTORS, LLC

SITE ADDRESS

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

APN'S

298-390-51

LEGAL DESCRIPTION

PORTION OF LOTS 1 & 2 IN BLOCK 3 OF KENNEY'S MARINE VIEW GARDENS IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774 REC 12-31-1923 IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY. BEING PARCEL A OF CERTIFICATE OF COMPLIANCE RECORDED APRIL 28, 2003 AS DOC. NO. 2003-487729 OF OFFICIAL RECORDS OF SAID SAN DIEGO COUNTY.

BENCHMARK

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE BENCHMARK USED TO ESTABLISH SAID ELEVATIONS IS THE CITY OF SOLANA BEACH, CONTROL POINT NUMBER 2004, PER RECORD OF SURVEY 18971.

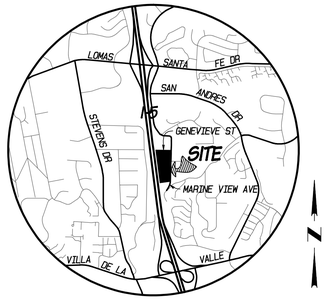
THE PUBLISHED NAVD88 ELEVATION OF SAID BENCHMARK IS 315.148 FEET. EPOC 2004.0

PROPOSED DISTURBED AREA

2.57 AC

LEGEND

DESCRIPTION	SYMBOL
SITE BOUNDARY	
RIGHT-OF-WAY CENTERLINE	
OFFSITE PROPERTY LINE	
EXISTING EASEMENT	
EXISTING CONTOUR LINE	134
EXISTING FENCE	X X
EXISTING WATER LINE	W
EXISTING SEWER LINE	S
EXISTING OVERHEAD UTILITIES	E
PROPOSED CONTOUR LINE	134
PROPOSED LIMIT OF GRADING	
PROPOSED BUILDING FOOTPRINT	
PROPOSED LOWER BUILDING LEVEL	
PROPOSED RETAINING WALL	
PROPOSED CUT SLOPE	
PROPOSED BROW DITCH	
PROPOSED DRAINAGE DIRECTION	
PROPOSED PERMANENT BMP AREA	
PROPOSED PVC STORMDRAIN	
PROPOSED DRAIN INLET	
PROPOSED RIP-RAP ENERGY DISSIPATOR	
PROPOSED CONCRETE DROP INLET	
PROPOSED BOX CULVERT	
PROPOSED CONCRETE WING HEADWALL	
TYPE G CATCH BASIN	
PROPOSED SAWCUT LINE	
PROPOSED G-2 CURB, GUTTER & G-7 SIDEWALK	
PROPOSED ROLLED CURB & DG SIDEWALK	
PROPOSED AC PAVING	
PROPOSED ENHANCED PAVING PER LANDSCAPE PLAN	



VICINITY MAP
NOT TO SCALE

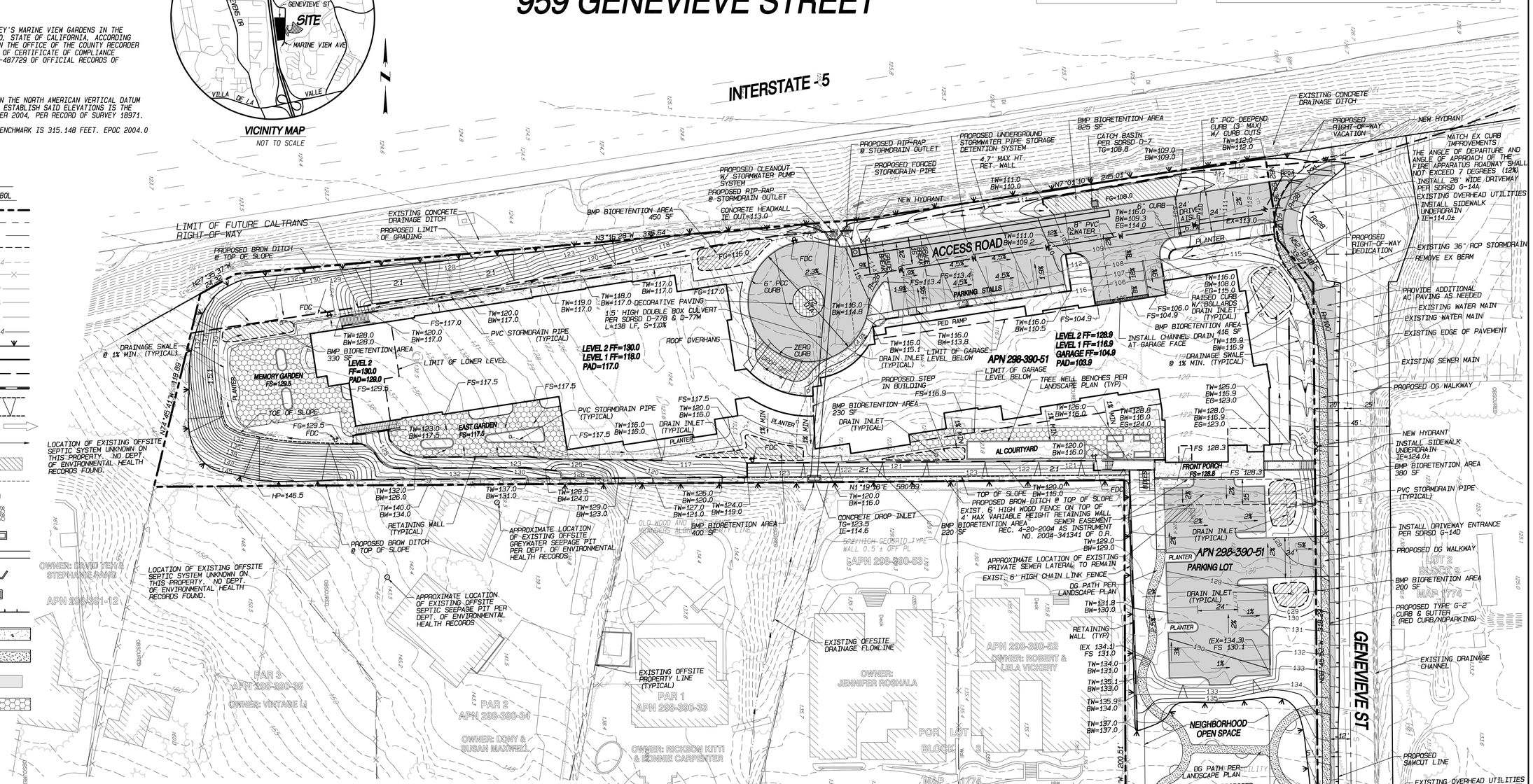
PROJECT AREA TABULATION:

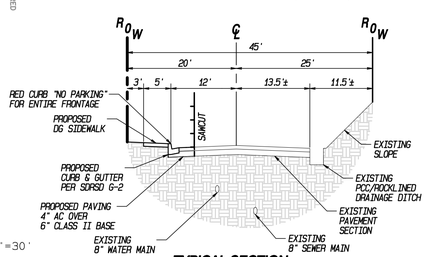
GROSS AREA: 126,875 SF (2.91 AC)
AREA OF DEDICATION: -347 SF
AREA OF STREET VACATION: +603 SF
NET AREA: 127,131 SF (2.91 AC)

ESTIMATED EARTHWORK QUANTITIES

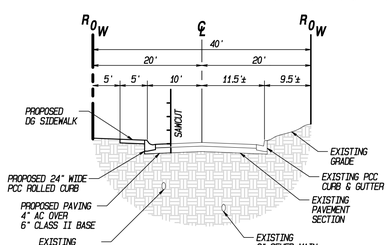
28,000 CY CUT
1,200 CY FILL
26,800 CY NET EXPORT

NOTE:
GRADING QUANTITIES HEREON REPRESENT COMPACTED SOIL VOLUMES AND DO NOT ACCOUNT FOR SPOILS GENERATED FROM FOOTINGS OR UTILITY TRENCHES OR FOR REMEDIAL GRADING THAT MAY BE REQUIRED PER THE PROJECT GEOTECHNICAL RECOMMENDATIONS





TYPICAL SECTION GENEVIEVE ST.
NOT TO SCALE



TYPICAL SECTION MARINE VIEW AVE.
NOT TO SCALE

GRAPHIC SCALE 1"=30'
0 30 60 90

DATE PREPARED: 10/2/2017

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 North Highway 101, Ste A, Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

PLSA 1890

Appendix 5.9-1 LCP Consistency Analysis

Appendices

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Project Consistency with City of Solana Beach LUP Policies

The proposed project is within the City of Solana Beach's Local Coastal Program (LCP) Land Use Plan (LUP) area. Although the City has adopted the LCP LUP, the City has not adopted a Local Implementation Plan. Therefore, the Coastal Development Permit for the proposed project is required to be reviewed and certified by the California Coastal Commission to determine if the proposed project is consistent with the policies of the City's adopted LCP. To assist the CCC in its determination, an evaluation of the proposed project with these policies is contained in Table 1, *Local Coastal Program Consistency*. As demonstrated in the table, the proposed project would be consistent with the policies of the LCP, and no associated land use policy consistency impacts would occur.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
Chapter 2 – Public Access and Recreation			
Policy 2.24	New development shall provide off-street parking sufficient to serve the approved use in order to minimize impacts to public street parking available for coastal access and recreation.	See Section 5.12, *Transportation and Traffic*, of the DEIR. In accordance with the City of Solana Beach's LCP LUP parking requirements for residential care facility to provide 1 parking space per employee plus 1 space per 7 beds, the proposed project would require 60 off-street parking stalls; the proposed project includes 62 off-street parking spaces and would exceed the required spaces by 2.	The proposed project is consistent with this policy.
Policy 2.25	Adequate parking should be provided to serve coastal access and recreation uses. Existing parking areas serving recreational uses may not be displaced unless a comparable replacement area is provided.	See Section 5.12, *Transportation and Traffic*, of the DEIR. In accordance with the City of Solana Beach's LCP LUP parking requirements for residential care facility to provide 1 parking space per employee plus 1 space per 7 beds, the proposed project would require 60 off-street parking stalls; the proposed project includes 62 off-street parking spaces and would exceed the required spaces by 2.	The proposed project is consistent with this policy.
Policy 2.38	Apply City parking regulations to new projects and redevelopment projects to ensure that the parking demands generated by new development are provided on-site as follows: Residential care facilities: 1 parking space per employee and one parking space for every 7 beds, unless the director of community development determines that additional parking spaces are required.	See Section 5.12, *Transportation and Traffic*, of the DEIR. In accordance with the City of Solana Beach's LCP LUP parking requirements for residential care facility to provide 1 parking space per employee plus 1 space per 7 beds, the proposed project would require 60 off-street parking stalls; the proposed project includes 62 off-street parking spaces and would exceed the required spaces by 2.	The proposed project is consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
Chapter 3 Marine and Land Resources			
Policy 3.7	If a site-specific biological study contains substantial evidence that an area previously mapped as ESHA does not contain habitat that meets the definition of ESHA, the City Community Development Director shall review all available site-specific information to determine if the area in question should no longer be considered ESHA and not subject to the ESHA protection policies of the LUP. If the area is determined to be adjacent to ESHA, LUP ESHA buffer policies shall apply. The Community Development Director shall provide recommendations to the City Council as to the ESHA status of the area in question. If the City Council finds that an area previously mapped as ESHA does not meet the definition of ESHA, a modification shall be made to the LUP ESHA Maps, as part of an LCP map update and LCP Amendment. If an area is not ESHA or ESHA buffer, LCP policies and standards for protection of ESHA and ESHA buffer shall not apply and development may be allowed (consistent with other LCP requirements) after the ESHA map and LCP has been amended.	A site-specific biological letter report was prepared for the proposed project (included as Appendix 5.3-1, biological Resources Survey) to this DEIR. As provided in the biological survey, the project site does not contain habitat that meets the definition of an ESHA.	The proposed project is consistent with this policy.
Policy 3.32	For development in locations known, or determined by environmental review, to potentially have breeding or nesting sensitive birds species, two weeks prior to any scheduled development, a qualified biological monitor shall conduct a pre-construction survey of the site and within 500 feet of the project site. Sensitive bird species are those species designated "threatened" or "endangered" by state or federal agencies,	The project site supports vegetation communities and contains mature trees that could support nesting sites for bird species which are protected under the MBTA. However, demolition of the existing site features and vegetation clearing would begin outside of the general avian breeding season (beginning February 1 and ending in August 31). if vegetation clearing cannot be conducted outside of avian breeding season, two weeks prior to any scheduled development or vegetation clearing, the project applicant is required to retain a qualified biological monitor to conduct a survey of the project site and within 500 feet of the project site. If no active nests are discovered, the clearing can proceed. If active nests are discovered, no clearing may take place within a buffer zone of no less than 100 feet of any active nest until the qualified biologist determines the nest is	The proposed project is consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	California Species of Special Concern, California Fully Protected Species, raptors, and large wading birds. In addition, surveys must be conducted every two weeks for sensitive nesting birds during the breeding season. If nesting sensitive birds are detected at any time during the breeding season, the California Department of Fish and Wildlife shall be notified and an appropriate disturbance set-back will be determined and imposed until the young-of-the-year are no longer reliant upon the nest. The set-back or buffer shall be no less than 100 feet.	no longer active. Compliance with the policies and regulations of the LCP would ensure compliance with the MBTA by conducting a survey and restricting construction, if necessary, to ensure that no significant impact to migratory birds would occur.	
Policy 3.38	New development shall be sited and designed to minimize impacts to coastal resources by: • Minimizing grading and landform alteration. • Minimizing the removal of natural vegetation, both that required for the building pad or driveway, as well as, the required fuel modification around structures. • Limiting the maximum number of structures to one main residence, one second residential structure, and accessory structures such as, workshop, gym, studio, pool cabana, office, or tennis court, provided that such accessory structures are located within the approved development area and structures are clustered to minimize the need for fuel modification. • Minimizing the length of the access road or driveway, except where a longer roadway can be demonstrated to avoid or be more protective of resources. Access roads and driveway lengths must comply with fire code requirements. • Grading for access roads and driveways	The project site is approximately 1 mile east of the coast and is an infill project within a developed area of Solana Beach; the proposed improvements would not impact coastal resources. The project site would be graded to accommodate the proposed senior care facility while maintaining westward views towards the Pacific Ocean (see Section 5.1, *Aesthetics*, of the DEIR). Although vegetation would be removed from the site for the proposed improvements. However, new landscaping at the project site would total 41 percent of the site area. The new private roadway would be 24 feet wide and approximately 240 feet long and would lead to a turnaround with a 36-foot radius near the center of the proposed building (see Figure 5.11-1 of the DEIR). The new access roadway would be constructed in accordance with the California Fire Code and were approved by the Solana Beach Fire Department Fire Marshall (see Section 5.12, *Transportation and Traffic*). The project site is not near a water body; the nearest water body is the Pacific Ocean, approximately 1 mile west of the site. Construction and operation impacts related to water quality would be less than significant (see Section 5.7, *Hydrology and Water Quality*).	The proposed project is consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	should be minimized; the standard for new on-site access roads shall be a maximum of 300 feet or one-third the parcel depth, whichever is less. Longer roads may be allowed on approval of the City Council or Commission on appeal, if the determination can be made that adverse environmental impacts will not be incurred. Such approval shall constitute a conditional use to be processed consistent with the LIP provisions. • Limiting earthmoving operations during the rainy season to prevent soil erosion, stream siltation, reduced water percolation, and increased runoff. • Prevent net increases in baseline flows for any receiving waterbody. • Minimizing impacts to water quality.		
Policy 3.41	Grading or earthmoving exceeding 50 cubic yards shall require a Development Review Permit from the City. Grading plans shall meet the requirements of the LIP with respect to maximum quantities, maximum cuts and fills, remedial grading, grading for safety purposes, and maximum heights of cut or fill.	As provided in Chapter 4, *Project Description*, the project would be required to obtain approval of a development review permit. Project implementation would require moving approximately 28,000 cubic yards of soil, with an estimated export of about 26,800 cubic yards to an approved fill site.	The proposed project is consistent with this policy.
Policy 3.45	Cut and fill slopes and other areas disturbed by construction activities (including areas disturbed by fuel modification or brush clearance) shall be landscaped or revegetated at the completion of grading. Landscape plans shall provide that: • Plantings shall be native, non-invasive drought-tolerant salt-tolerant and fire resistant plant species, and blend with existing natural vegetation and natural	The project proposes four open space areas. The proposed landscaped courtyards, gardens, and walkways would be made of decomposed granite and concrete. Drought-tolerant, native, and ornamental trees and shrubs would be used. The project would not result in the removal of native vegetation from the site (see Section 5.3, *Biological Resources*, of the DEIR).	The proposed project is consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	habitats on the site, except as noted below. • Invasive plant species that tend to supplant native species and natural habitats shall be prohibited. • Non-invasive ornamental plants and lawn may be permitted in combination with native, drought-tolerant, salt tolerant and fire resistant species within the irrigated zone(s) required for fuel modification nearest approved residential structures. • Landscaping or revegetation shall provide 90% coverage within five years, or that percentage of ground cover demonstrated locally appropriate for a healthy stand of the particular native vegetation type chosen for restoration. Landscaping or revegetation that is located within any required fuel modification thinning zone shall provide 60% coverage within five years. • Any landscaping or revegetation shall be monitored for a period of at least five, and no more years than ten following the completion of planting. Performance criteria shall be designed to measure the success of the plantings. Adaptive management techniques shall be implemented if necessary. If performance standards are not met by the end of five years, the applicant may request that the monitoring period be extended up to an additional five years until the standards are met. However, if at any time after five years the applicant concludes that performance standards cannot be met, or if ten years have elapsed and performance standards have still not been met, the		

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	applicant shall submit an amendment proposing alternative mitigation measures.		
Policy 3.76	All new development, public and private, shall meet or exceed the storm water standards of the State of California, and the most recent standards of the RWQCB with regard to storm water runoff and other polluted runoff.	The proposed project would meet the storm water standards of the San Diego Regional Water Quality Control Board and comply with the statewide general NPDES permit (see Section 5.8, *Hydrology and Water Quality*).	The proposed project is consistent with this policy.
Policy 3.77	All new development shall be designed to avoid or minimize the creation of impervious surfaces, reduce the extent of existing unused impervious surfaces, and to reduce directly connected impervious area to the maximum extent practicable on the site. No new development shall result in an increase in storm water flow discharge or redirected/diverted storm water flow in a manner that results in a negative impact to downstream properties. The permittee shall put into effect and maintain all precautionary measures necessary to ensure that pollutant discharges from the site will be reduced to the maximum extent practicable and will not cause exceedances of water quality objectives or adversely impact water quality.	An underground pipe storage stormwater retention system is proposed to mitigate for any increase in peak runoff. This system would be underneath the access road along the western site boundary. It has been sized to contain the net increase in runoff volume from the site from a 100-year, 6-hour storm event. Onsite runoff from the new onsite access road and part of the roof would be collected by the pipes used to store the stormwater. Once the peak flow has passed, the stormwater would be pumped to the surface along the west side of the site where it would sheet flow to the existing concrete drainage channel and into the existing public storm drain system. The system is intended to mimic existing site runoff to ensure that the proposed development does not result in additional drainage impacts to downstream properties or to the existing drainage improvements that receive runoff from the site. Permanent stormwater treatment areas, including swales, landscaping, and retention areas, have been incorporated into the site design (see Figure 5.8-3) and sized to meet the minimum low impact development requirements for priority stormwater projects, as defined by the San Diego County's current BMP Manual.	The proposed project is consistent with this policy.
Policy 3.81	Design and manage development to avoid or minimize increases in stormwater runoff volume and peak runoff rate, and to avoid detrimental water quality impacts caused by excessive erosion or sedimentation.	A SWPPP would be prepared for the proposed project specifying BMPs to be implemented to minimize construction stormwater pollution impacts. The project applicant would prepare a stormwater quality management plan for the project specifying BMPs to minimize stormwater pollution from project operation. As discussed in Section 5.8, *Hydrology and Water Quality*, the project would result in less than significant impacts to water quality through erosion or sedimentation.	The proposed project is consistent with this policy.
Policy 3.86	Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate. Dry weather runoff from new development must not exceed the pre-development baseline	The project site is generally undeveloped. The project would result in construction of impervious surfaces and storm drain improvements. Although construction of impervious surfaces on the project site would increase onsite stormwater runoff rates, as provided in Section 5.8, *Hydrology and Water Quality* of the DEIR, the combination of storm drainage improvements, stormwater retention pipes, and surface low-impact-development	The proposed project is consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	flow rate to receiving water bodies and may only consist of non-storm runoff explicitly allowed by Stormwater Permit 2007-0001 or updates of that permit.	improvements would not result in an increase in peak limit runoff from the site due to a 100-year, 6-hour storm.	
Policy 3.87	New development shall be sited and designed to minimize impacts to water quality from increased runoff volumes and nonpoint source pollution. All new development shall meet the requirements of the San Diego RWQCB in its SUSMP for San Diego County	A SWPPP would be prepared for the proposed project specifying BMPs to be implemented to minimize construction stormwater pollution impacts. The project applicant would prepare a stormwater quality management plan for the project specifying BMPs to minimize stormwater pollution from project operation. As discussed in Section 5.8, *Hydrology and Water Quality*, the project would result in less than significant impacts to water quality through erosion or sedimentation.	The proposed project is consistent with this policy.
Policy 3.96	New development shall include construction phase erosion control and polluted runoff control plans. These plans shall specify BMPs that will be implemented to minimize erosion and sedimentation provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by sediment, construction chemicals and materials.	The project-specific SWPPP includes construction phase BMPs that would be implemented to reduce impacts to water quality and would prevent contamination from runoff (see Section 5.8*, Hydrology and Water Quality*).	The proposed project is consistent with this policy.
Policy 3.97	New development shall include post-development phase drainage and polluted runoff control plans. These plans shall specify site design, source control and treatment control BMPs that will be implemented to minimize post-construction polluted runoff, and shall include the monitoring and maintenance plans for these BMPs.	The project-specific hydrology study, included as Appendix 5.8-1 to the DEIR, includes post-development drainage plans that calculate pre- and post-development on- and off-site drainage. The project-specific SWQMP, included as Appendix 5.8-2 to the DEIR, includes site design, source control, and treatment control BMPs that would be implemented to minimize polluted runoff from the site.	The proposed project is consistent with this policy.
Policy 3.105	New development that requires a grading permit or local Storm Water Pollution Prevention Plan (SWPPP) shall include landscaping and re-vegetation of graded or disturbed areas. Any landscaping that is required to control erosion shall use native or drought-tolerant noninvasive plants to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation. Where	The entire project site would be graded and would include a SWPPP for construction BMPs. The project proposes four open space areas with drought-tolerant, native, and ornamental trees and shrubs. The project would not result in the removal of native vegetation from the site (see Section 5.3, *Biological Resources*, of the DEIR). As discussed in Section 5.8, the proposed improvements would be designed to minimize runoff impacts.	The proposed project is consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	irrigation is necessary, efficient irrigation practices shall be required. Landscaping maintenance and irrigation shall be designed and built to avoid or minimize dry weather runoff.		
Chapter 5 – New Development			
Policy 5.2	Encourage and provide recreational facilities to support both local resident and visitor needs within the City of Solana Beach.	The project proposes an open space area at the northeastern portion of the site near the intersection of Marine View Avenue and Genevieve Street. The open space would be available for community use.	The proposed project is consistent with this policy.
Policy 5.7	Protect and encourage lower cost visitor and recreational facilities. Priority shall be given to developments that include public recreational opportunities. New or expanded facilities shall be sited and designed to minimize impacts to environmentally sensitive habitat areas and visual resources. Coastal recreational and visitor serving uses and opportunities, especially lower cost opportunities; shall be protected, encouraged, and where feasible, provided by both public and private means.	The project site is generally vacant and is not utilized; the proposed project includes a public recreational opportunity at the open space at the northeastern portion of the site.	This policy is not applicable to the proposed project.
Policy 5.10	Assess the potential for environmental effects of new development or redevelopment before receiving City approval in accordance with CEQA and to avoid, reduce and/or mitigate impacts where feasible.	The proposed project is evaluated throughout the DEIR for its potential for environmental effects. As discussed throughout the DEIR, all potentially significant impacts would be mitigated to a level of less than significant, and no significant unavoidable impacts would occur.	This policy is not applicable to the proposed project.
Policy 5.16	Off-street parking shall be provided for all new development in accordance with the policies of the LUP to assure there is adequate public access to coastal resources. A modification in the required parking standards through the variance process shall not be approved unless the City makes findings that the provision of fewer parking	In accordance with the City of Solana Beach's LCP LUP parking requirements for residential care facility to provide 1 parking space per employee plus 1 space per 7 beds, the proposed project would require 60 off-street parking stalls; the proposed project includes 62 off-street parking spaces and would exceed the required spaces by 2. Additionally, the project site is approximately 1 mile east of the Pacific Ocean. Access to the beach is limited because the site is immediately east of the I-5. Due to the distance and physical roadway barrier, the site and vicinity are not used for beach parking or	This policy is not applicable to the proposed project.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	spaces will not result in adverse impacts to public access.	coastal access.	
Policy 5.51	Identify and mitigate potential impacts of development on archaeological, paleontological and historic resources.	Implementation of mitigation measures CUL-1 and CUL-2 would reduce impacts to archaeological and paleontological resources to a less than significant level.	This policy is not applicable to the proposed project.
Policy 5.52	New development shall protect and preserve archaeological, historical and paleontological resources from destruction, and shall avoid, and minimize impacts to such resources.	Implementation of mitigation measures CUL-1 and CUL-2 would reduce impacts to archaeological and paleontological resources to a less than significant level.	This policy is not applicable to the proposed project.
Chapter 6 – Scenic and Visual Resources			
Policy 6.4	Locations along public roads, railways, trails, parklands, and beaches that offer views of scenic resources are considered public viewing areas. Existing public roads where there are major views of the ocean and other scenic resources are considered Scenic Roads and include: - Highway 101/Pacific Coast Highway and Railway Corridor - I-5 - Lomas Santa Fe Drive Public views to scenic resources from Scenic Roads shall also be protected	The project site is east and generally below the grade of I-5. The site contains abandoned structures, including a residence, greenhouse, and shed. The remainder of the site, approximately 124,000 square feet or 98 percent, of the site is vacant with grasses, small shrubs, and ornamental palm trees. The project site also contains debris and a few conceptual story poles. The project site is not considered to be a scenic resource (see Section 5.1, Aesthetics, of the DEIR).	The proposed project is consistent with this policy.
Policy 6.12	All new development shall be sited and designed to minimize alteration of natural landforms by: - Conforming to the natural topography. - Preventing substantial grading or reconfiguration of the project site. - Eliminating flat building pads on slopes and utilizing split level or stepped-pad designs. - Requiring that man-made contours mimic	The project site would be graded so the building could conform to the natural topography and would not contrast with the topography and elevations of the surrounding residences (see Impact 5.1-2 in Section 5.1, *Aesthetics*, of the DEIR). . The top of the building would be approximately 11 feet above ground level at the south end of the building, and approximately 25 feet above ground level at the north end of the building. Because of the adjacent topography, the existing homes nearby would have views of the second floor of the building and would be able to look over the roof of the building. Visual simulations were prepared by the applicant to illustrate how views onto the site would change due to as a result of construction of the proposed project (see Figure 5.1-1 through 5.1-4 of the DEIR).	The proposed project would be consistent with this policy.

Table 1 Local Coastal Program Consistency

Goal / Policy Number	Analysis	Consistency Analysis	Consistency Determination
	the natural contours to and blend with the existing terrain of the site and surrounding area. - Minimize grading outside of the building footprint. - Clustering structures to minimize site disturbance and to minimize development area. - Minimizing height and length of cut and fill slopes. - Minimizing the height and length of retaining walls. - Cut and fill operations may be balanced on-site, where the grading does not substantially alter the existing topography and blends with the surrounding area.		
Chapter 7 – Public Works			
Policy 7.7	Provide an adequate supply of private off-street and public parking to meet the needs of residents and visitors to the City.	In accordance with the City of Solana Beach's LCP LUP parking requirements for residential care facility to provide 1 parking space per employee plus 1 space per 7 beds, the proposed project would require 60 off-street parking stalls; the proposed project includes 62 off-street parking spaces and would exceed the required spaces by 2.	The proposed project would be consistent with this policy.

Appendix 5.10-1 Noise Impact Assessment

Appendices

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NOISE ASSESSMENT

RESIDENTIAL CARE FACILITY
929 Genevieve Street
SOLANA BEACH CA

Project Proponent:

Pacific Sound Invertors, LLC.
1855 Freda Lane
Cardiff, CA 92007

Prepared by:

Ldn Consulting, Inc.

42428 Chisolm Trail
Murrieta, CA 92562
760-473-1253

July 29, 2017

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GLOSSARY OF TERMS

Sound Pressure Level (SPL): a ratio of one sound pressure to a reference pressure (L_{ref}) of 20 μPa. Because of the dynamic range of the human ear, the ratio is calculated logarithmically by 20 log (L/L_{ref}).

Sound Power Level (SWL): the total sound energy radiated and measured in all directions.

A-weighted Sound Pressure Level (dBA): Some frequencies of noise are more noticeable than others. To compensate for this fact, different sound frequencies are weighted more.

Minimum Sound Level (L_{min}): Minimum SPL or the lowest SPL measured over the time interval using the A-weighted network and slow time weighting.

Maximum Sound Level (L_{max}): Maximum SPL or the highest SPL measured over the time interval the A-weighted network and slow time weighting.

Equivalent sound level (L_{eq}): the true equivalent sound level measured over the run time. Leq is the A-weighted steady sound level that contains the same total acoustical energy as the actual fluctuating sound level.

Day Night Sound Level (LDN): Representing the Day/Night sound level, this measurement is a 24 –hour average sound level where 10 dB is added to all the readings that occur between 10 pm and 7 am. This is primarily used in community noise regulations where there is a 10 dB "Penalty" for night time noise. Typically LDN's are measured using A weighting.

Community Noise Exposure Level (CNEL): The accumulated exposure to sound measured in a 24-hour sampling interval and artificially boosted during certain hours. For CNEL, samples taken between 7 pm and 10 pm are boosted by 5 dB; samples taken between 10 pm and 7 am are boosted by 10 dB.

Octave Band: An octave band is defined as a frequency band whose upper band-edge frequency is twice the lower band frequency.

Third-Octave Band: A third-octave band is defined as a frequency band whose upper band-edge frequency is 1.26 times the lower band frequency.

Response Time (F,S,I): The response time is a standardized exponential time weighting of the input signal according to fast (F), slow (S) or impulse (I) time response relationships. Time response can be described with a time constant. The time constants for fast, slow and impulse responses are 1.0 seconds, 0.125 seconds and 0.35 milliseconds, respectively.

1.0 Project Introduction

1.1 Purpose of this Study

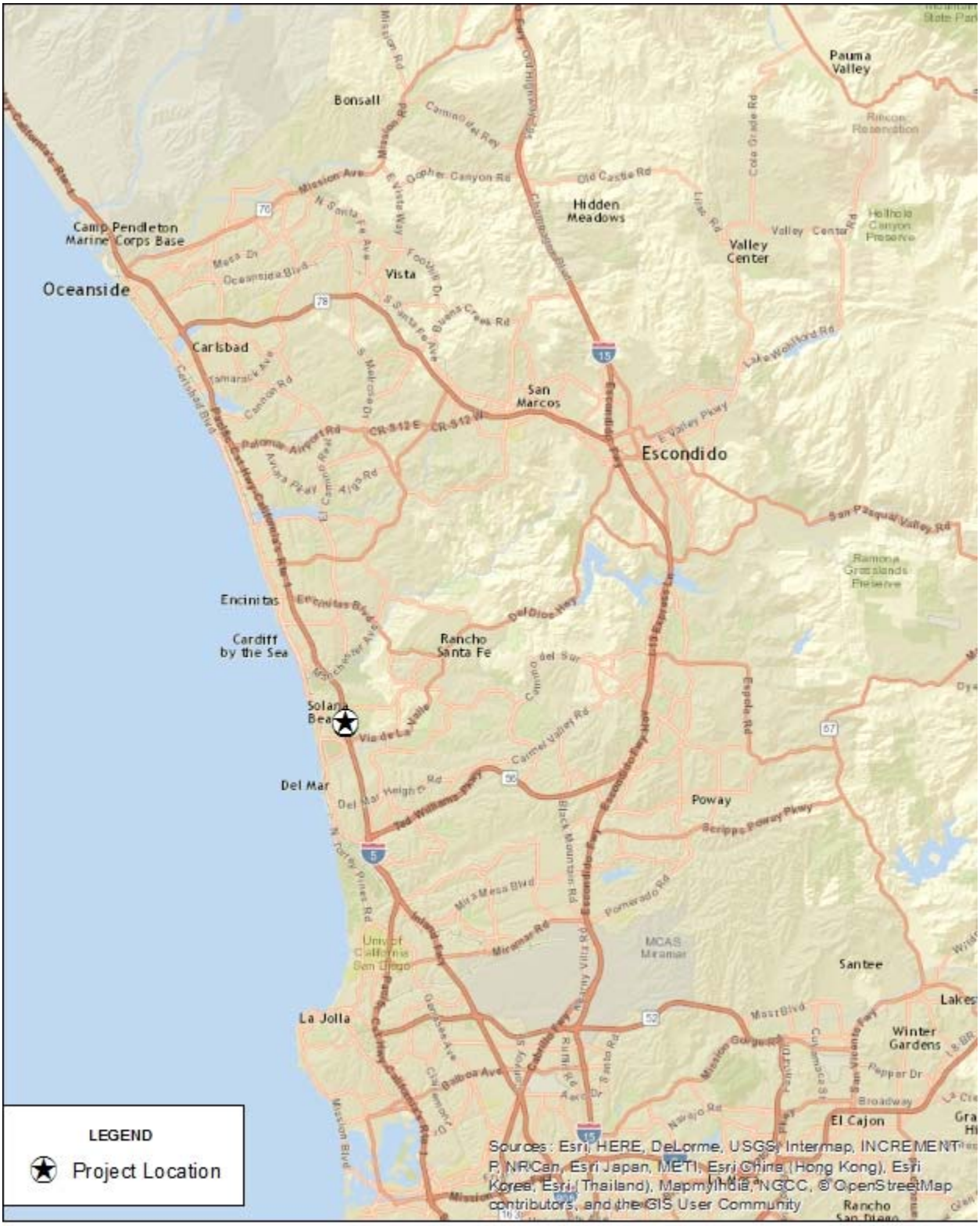
The purpose of this Noise study is to determine potential onsite traffic noise impacts (if any) created from adjacent Interstate 5. Should impacts be determined, the intent of this study would be to recommend suitable mitigation measures to bring those impacts to a level that would be considered less then significant.

1.2 Project Location

The proposed development is located in the City of Solana Beach at 929 Genevieve Street. Access to the Project is proposed from a single driveway on Genevieve Street. To reach Genevieve Street, project traffic will be required to use Marine View Avenue. Overall travel to and from the project site is anticipated from Lomas Santa Fe Drive via San Andres Drive and Marine View Avenue. Interstate 5 to the west provides regional access to the Project site. A general project vicinity map is shown in Figure 1–A on the following page.

1.3 Project Setting

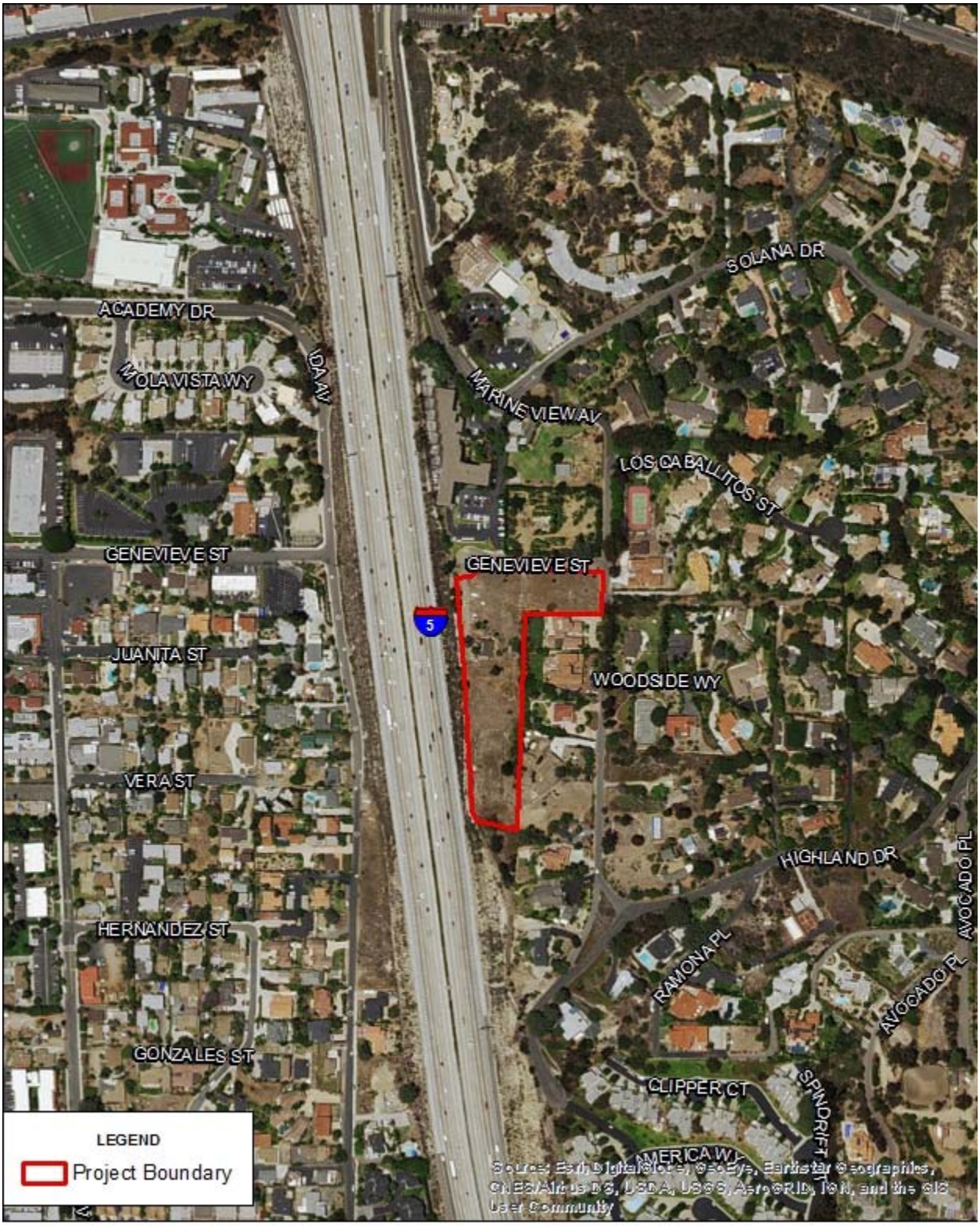
The Project proposes building 99 senior housing units, an open space park and courtyard areas on approximately 2.9 acres within the City of Solana Beach. The existing site conditions are characterized as mostly disturbed land with a couple of existing structures onsite to be removed. The general topography of the site is characterized as down-sloping from the south and east and lowers more than fifteen feet to the north and west along Interstate 5. Single-family residential uses are located on the south and eastern sides of the site, commercial exists to the north and Interstate 5 is along the western property boundary. A project site plan is shown in Figure 1–B on Page 3 of this report.



0 2.5 5 10 Miles

1 inch = 5 miles

Figure 1-A: Project Regional Map



0 200 400 800 Feet

1 inch = 400 feet

Figure 1-B: Project Vicinity Map

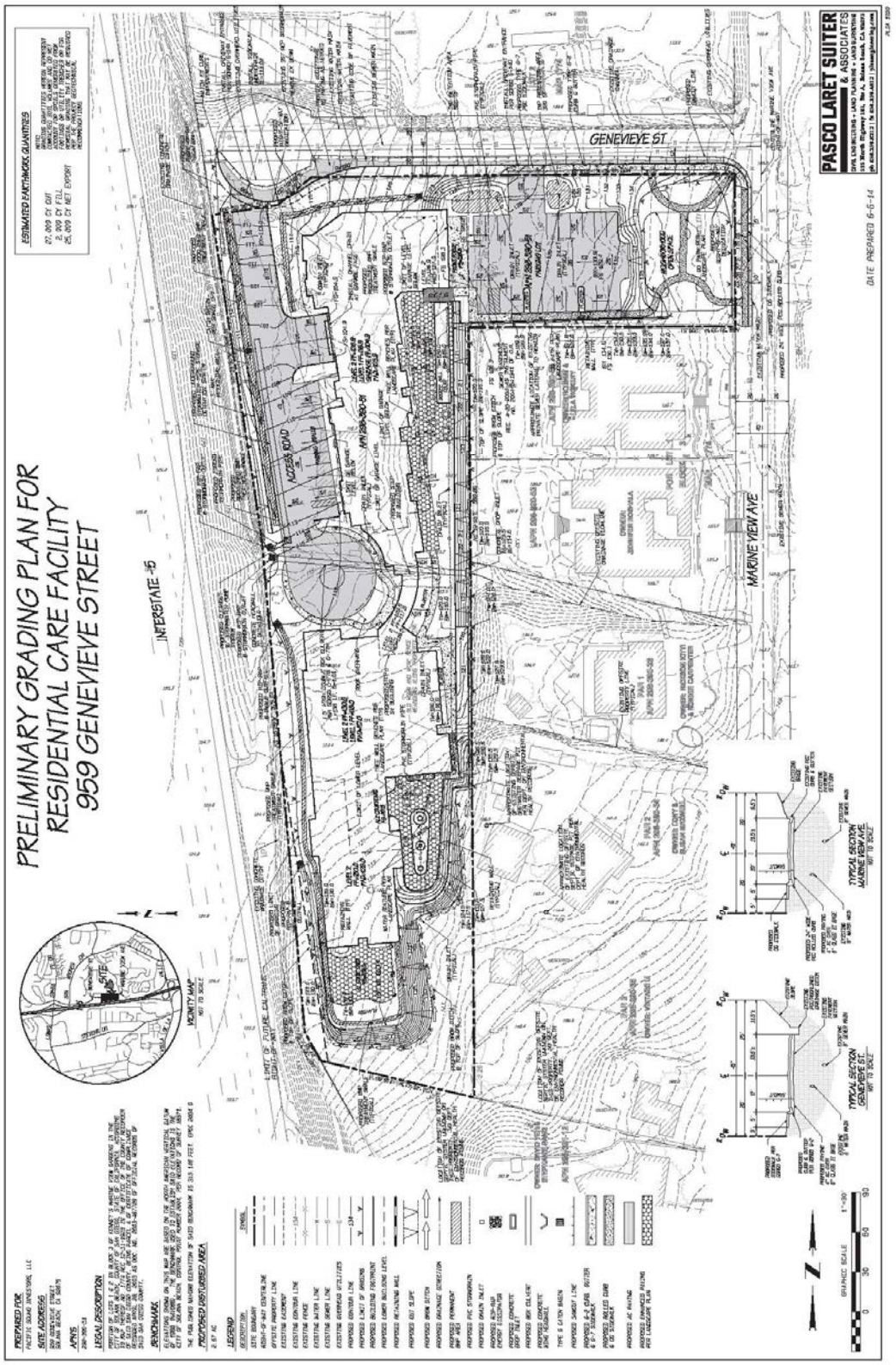


Figure 1-C:
Proposed Project Site Plan

2.0 ACOUSTICAL FUNDAMENTALS

2.1 Acoustical Fundamentals

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs and when the noise occurs. Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies.

Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level," which while commonly confused are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power is the energy converted into sound by the source. The sound power level of the source is expressed as SPL. The SPL is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an ear drum or microphone and is the sound pressure level. Noise measurement instruments only measure sound pressure and noise level limits used in public agency standards are generally sound pressure levels.

The effect of noise on people is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptor used for this study is the equivalent noise level (L_{eq}) and the Community Noise Equivalent Level (CNEL). CNEL is the 24 hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of 5 decibels to sound levels in the evening hours between 7 P.M. and 10 P.M. and an addition of 10 decibels to sound levels at nighttime hours between 10 P.M. and 7 A.M. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

A vehicles noise level is from a combination of the noise produced by the engine, exhaust and tires. The cumulative traffic noise levels along a roadway segment are based on three primary factors: the amount of traffic, the travel speed of the traffic, and the vehicle mix ratio or number of medium and heavy trucks. The intensity of traffic noise is increased by higher traffic volumes, greater speeds and increased number of trucks.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of 3 dBA. Therefore the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA. Mobile noise levels radiant in an almost oblique fashion from the source and drop off at a rate of 3 dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt and hard pack dirt while soft site conditions exist in areas having slight grade changes, landscaped areas and vegetation. On the other hand, fixed/point sources radiate outward uniformly as it travels away from the source. Their sound levels attenuate or drop off at a rate of 6 dBA for each doubling of distance.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers or relocating the receiver. Any or all of these methods may be required to reduce noise levels to an acceptable level.

2.2 Vibration Fundamentals

Vibration is a trembling or oscillating motion of the ground. Like noise, vibration is transmitted in waves, but in this case through the ground or solid objects. Unlike noise, vibration is typically felt rather than heard. Vibration can be either natural as in the form of earthquakes, volcanic eruptions; or manmade as from explosions, heavy machinery, or trains. Both natural and manmade vibration may be continuous, such as from operating machinery; or infrequent, as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways: displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move

in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table 2-1 shows the human reaction to various levels of peak particle velocity. Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occurring around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, it is less common, to measure traffic frequencies above 30 Hz.

Propagation of ground-borne vibrations is complicated and difficult to predict because of the endless variations in the soil through which the waves travel. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by dropping an object into water. P-waves, or compression waves, are waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and special voids. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

Table 2-1: Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans, Division of Environmental Analysis, *Transportation Related Earthborne Vibration,* Vibration, TAV-02-01-R9601

3.0 SIGNIFICANCE THRESHOLDS AND STANDARDS

3.1 Transportation Related Noise Levels (SB Noise Element)

The City of Solana Beach General Plan Noise Element states that the Noise and Land Use Compatibility Guidelines, (shown in Exhibit 15 of the Noise Element and provided below in Figure 3-A in this report) and the accompanying discussion should set forth the criteria for new development in the City. These guidelines state that any project which would be located in a normally unacceptable noise exposure area, based on the Land Use Compatibility Guidelines, shall require an acoustical analysis. Noise mitigation in the future shall be incorporated in the project as needed.

Pursuant to the Exhibit 15 of the Noise Element (Figure 3-A below), exterior noise levels up to 65 dBA CNEL are considered acceptable for multi-family residential development based upon the assumption that the homes are built with normal conventional construction. For park uses, noise levels up to 65 dBA CNEL are also acceptable.

Interior noise levels should be mitigated to a maximum of 45 dBA CNEL in all habitual rooms when the exterior of the residence are exposed to levels of 60 dBA CNEL or more. If windows and doors are required to be closed to meet the interior noise standard, then mechanical ventilation shall be provided per City requirements.

In accordance with CEQA, a project should not have a noticeable adverse impact on the surrounding environment. Noise level changes greater than 3 dBA, or a doubling of the acoustic energy, are often identified as audible and considered potentially significant, while changes less than 1 dBA are not discernible. In the range of 1 to 3 dBA, humans who are very sensitive to noise may perceive a slight change. For the purposes for this analysis, a direct and cumulative roadway noise impact would be considered significant if the project increases noise levels at a noise sensitive land use 3 dBA CNEL and if the noise level increases above an unacceptable noise level per the City's Noise Element.

Figure 3-A: Noise Compatibility Guidelines

LAND USE CATEGORIES		ENERGY AVERAGE CNEL	
CATEGORIES	USES	INTERIOR [1]	EXTERIOR [2]
RESIDENTIAL	Single Family, Duplex, Multiple Family	45[3] 55[4]	65
	Mobile Home	-----	65[5]
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Hotel, Motel, Transient Lodging	45	65[6]
	Commercial Retail, Bank Restaurant	55	-----
	Office Building, Research and Development, Professional Offices, City Office Building	50	-----
	Amphitheatre, Concert Hall Auditorium, Meeting Hall	45	-----
	Gymnasium (Multipurpose)	50	-----
	Sports Club	55	-----
	Manufacturing, Warehousing, Wholesale, Utilities	65	-----
	Movie Theatres	45	-----
INSTITUTIONAL	Hospital, Schools' classroom	45	65
	Church, Library	45	-----
OPEN SPACE	Parks	------	65

INTERPRETATION

1. Indoor environment excluding: Bathrooms, toilets, closets, corridors.

2. Outdoor environment limited to: Private yard of single family
   Multi-family private patio or balcony which is served by a means of exit from inside.
   Mobile home Park
   Hospital patio
   Park's picnic area
   School's playground
   Hotel and motel recreation area

3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of UBC.

4 Noise level requirement with open windows, if they are used to meet natural ventilation requirement.

5. Exterior noise level should be such that interior noise level will not exceed 45 CNEL.

6. Except those areas affected by aircraft noise.

3.2 Operational Sound level limits (SBMC 7.34.040)

A. Unless a permit has been applied for and granted pursuant to this chapter, it shall be unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced, exceeds the applicable limits set forth below except as provided in SBMC 7.34.170 and construction noise level limits governed by SBMC 7.34.100. The noise subject to the limits set forth below is that part of the total noise at the specified location that is due solely to the action of said person. The limits apply to the source of the noise only, not the source of the noise plus the ambient noise level. Table 3.1 below shows the City's noise level thresholds for daily operations.

Table 3.1: City of Solana Beach Operational Noise Levels

Zone	Noise Limit Between 7:00 A.M. and 10:00 P.M.	Noise Limit Between 10:00 P.M. and 7:00 A.M.
Residential: ER1, ER2, LR, LMR, MR	50	45
Residential: MHR, HR	55	45
Commercial Office: C, LC, OP	60	55
Light Industrial and Special Commercial: LI, SC	70	60
Public/ Institutional: PI, ROW	60	45
Park/Recreational: OSR	60	45

B. In the event the alleged offensive noise, as judged by the noise control officer, contains a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting, the applicable limits set forth above shall be reduced by five dB. The noise control officer may use an octave band spectral filter coupled to a sound level meter to aid in the judgment of the presence of an audible tone. If the sound intensity measured in any audible octave band exceeds that in adjacent bands by five dB, then an audible tone shall be judged as present.

C. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

D. Fixed location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

E. "Noise control officer" as used in this chapter shall mean the city manager or his/her designee. (Ord. 399 § 1, 2009; Ord. 190 § 2, 1994; Ord. 147 § 1, 1991)

3.3 Construction hours and noise levels limited (SBMC 7.34.100)

A. The erection, demolition, alteration or repair of any building structure or the grading or excavation of land in such a manner as to create disturbing, excessive or offensive noise during the following hours, except as hereinafter provided, is a violation of this code:

1. Before 7:00 A.M. or after 7:00 P.M., Monday through Friday, and before 8:00 A.M. or after 7:00 P.M. on Saturday;

2. All day on Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

B. Exceptions.

1. An owner/occupant or resident/tenant of residential property may engage in home improvement or a home construction project involving the erection, demolition, alteration or repair of a building or structure or the grading or excavation of land on any weekday between the hours of 7:00 A.M. and 7:00 P.M., and on weekends between the hours of 8:00 A.M. and 7:00 P.M.; provided such project is for the benefit of the residential property and is personally carried out by said owner/occupant or resident/tenant.

2. The city manager may grant exceptions of this section by issuing a permit in the following circumstances:

a. When emergency repairs are required to protect the health and safety of any member of the community;

b. In nonresidential zones, provided there are not inhabited dwellings within

1,500 feet of the building or structure being erected, demolished, altered or repaired or the exterior boundaries of the site being graded or excavated.

C. Construction noise levels shall not exceed 75 decibels for more than eight hours [Leq (8)] during any 24-hour period when measured at or with in property lines of any property which is developed and used either in part or in whole for residential purposes. In the event that lower noise limit standards are established for such construction activity pursuant to state or federal law, such lower limits shall be used as a basis for revising and amending the noise level limits specified in subsection C of this section. (Ord. 147 § 1, 1991).

3.4 Vibration Standards

The City has not yet adopted vibration criteria. The United States Department of Transportation Federal Transit Administration (FTA) provides criteria for acceptable levels of groundborne vibration for various types of special buildings that are sensitive to vibration. For purposes of identifying potential project-related vibration impacts, the FTA criteria will be used. The human reaction to various levels of vibration is highly subjective. The upper end of the range shown for the threshold of perception, or roughly 65 VdB, may be considered annoying by some people. Vibration below 65 VdB may also cause secondary audible effects, such as a slight rattling of doors, suspended ceilings/fixtures, windows, and dishes, any of which may result in additional annoyance. Table 3-2 on the following page shows the FTA groundborne vibration and noise impact criteria for human annoyance.

In addition to the vibration annoyance standards presented above, the FTA also applies the following standards for construction vibration damage. Table 3-3 on the following page, structural damage is possible for typical residential construction when the peak particle velocity (PPV) exceeds 0.2 inch per second (in/sec). This criterion is the threshold at which there is a risk of damage to normal dwellings.

In the context of this analysis, the noise and vibration impacts associated with the construction operations and blasting operations will be conditioned to comply with the thresholds stated above. The potential noise and vibration impacts are analyzed separately below.

Table 3-2: Vibration and Noise Impact Criteria (Human Annoyance)

	Groundborne Vibration Impact Levels (VdB re 1 microinch/second)			Groundborne Noise Impact Levels (dB re 20 micropascals)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where low ambient vibration is essential for interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[4]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Source: United States Department of Transportation Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment,* June 2006.

[1] "Frequent Events" are defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.

[2] "Occasional Events" are defined as between 30 and 70 vibration events of the same source per day. Most commuter truck lines have this many operations.

[3] "Infrequent Events" are defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines

[4] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

[5] Vibration-sensitive equipment is not sensitive to groundborne noise.

Table 3-3: Vibration Impact Criteria (Structural Damage)

Building Category	PPV (in/sec)	VdB
I. Reinforced-concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: United States Department of Transportation Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment,* June 2006.

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

4.0 NOISE ENVIRONMENT

4.1 Existing Noise Environment Onsite

Noise measurements were taken using Larson-Davis Model LxT Type 1 precision sound level meter and a Larson Davis Model Spark 706, each meter was programmed, in "slow" mode, to record noise levels in "A" weighted form. The sound level meters and microphones were mounted on tripods, five feet above ground level, and equipped with a windscreen during all measurements. The sound level meters were calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 150.

Ambient noise level measurements were conducted September 14 through 15, 2016. One 24-hour noise level measurement and three short-term measurements were conducted. The results of the noise level measurements are presented in Tables 4-1 and 4-2. The measurements were taken at locations around the site to establish a good baseline of the vehicle noise from adjacent Interstate 5.

The long-term noise level measurement is summarized in Table 4-1, based on this measurement existing ambient noise levels range from 54 to 64 dBA Leq. The 24-noise level is calculated to be 60 dBA Leq and after applying evening and nighttime noise level penalties, the CNEL is calculated to be 66 CNEL. Thus, the CNEL is approximately 2 dBA higher than the peak hour noise level. The short-term noise measurements are summarized in Table 4-2. The statistical indicators Lmax, Lmin, L10, L50 and L90, are also given for each short-term monitoring location. The noise monitoring locations are shown on Figure 4-A.

4.2 Traffic Noise Prediction Methodology

To determine the future noise environment and compatibility of the project the Federal Highway Administration's (FHWA) Traffic Noise Model, version 2.5 (TNM) was utilized. The model input parameters, which determine the projected vehicular traffic noise levels, include vehicle volumes, travel speeds, and classification mix (i.e. the percentages of automobiles, medium trucks and heavy trucks), receiver and lane locations, and site specific conditions (e.g. vegetation, elevation, and intervening topography and obstructions).

Table 4-1: 24-Hour Ambient Noise Levels

Time	dBA Leq	Time	dBA Leq
18:00	57.8	6:00	62.8
19:00	60.9	7:00	63.7
20:00	60.4	8:00	62.9
21:00	58.9	9:00	62.4
22:00	59.3	10:00	62.4
23:00	56.5	11:00	63.1
0:00	55.5	12:00	63.6
1:00	54.4	13:00	63.3
2:00	55.0	14:00	62.0
3:00	56.3	15:00	58.4
4:00	58.4	16:00	57.6
5:00	61.9	17:00	57.4
Noise level measurements were conducted September 14 through 15, 2016. Detailed noise level measurement files are included in Attachment A.			

Table 4-2: Short-Term Ambient Noise Levels

Measurement Identification	Description	Time	Noise Levels (dBA Leq)					
			Leq	Lmax	Lmin	L10	L50	L90
ML1	Northwest portion of the site	2:46–2:56 p.m.	72.2	77.6	66.5	74.2	72.4	68.6
ML2	Northeast portion of the site	3:01–3:11 p.m.	61.1	71.7	57.7	62.9	60.2	58.7
ML3	Southern portion of the site	3:15–3:23 p.m.	63.8	68.5	59.0	65.6	63.4	61.5
Noise level measurements were conducted September 14, 2016 Detailed noise level measurement files are included in Attachment A.								

Noise compatibility is determined by calculating the typical weighted 24-hour noise level, or the CNEL. However, 24-hour traffic volumes fluctuate throughout the year, thus the CNEL is typically calculated by determining the relationship between the peak-hour traffic noise level and the CNEL. The first step in the process of validating the noise measurement with the noise model is to adjust the short term noise level measurements to be representative of the loudest hour. This is done by evaluating the 24-hour noise level measurement and determining the difference between the times the short term noise level were measured to the loudest hour measured.

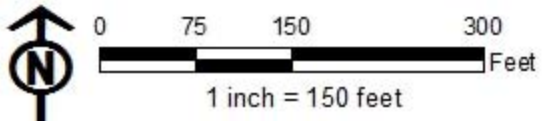


Figure 4-A:
Ambient Monitoring Locations

Based on the 24-hour measurement summarized in Table 4-1, the loudest traffic hour occurs during the 7:00 a.m. hour. The short-term noise level measurements were taken during the 2:00 p.m. and 3:00 p.m. hours, which are 1.7 and 5.2 dBA lower than the loudest hour, respectively. Based on the differences, the short-term noise levels were adjusted upward and are summarized in Table 4-3.

Table 4-3: Adjusted Short-Term Nosie Level

Location	Measured Noise Level (dBA Leq)	Difference to Loudest Hour	Adjusted Noise Level (dBA Leq)
ML1	72.2	1.7	73.9
ML2	61.1	5.2	66.3
ML3	63.8	5.2	69.0

For purposes of modeling freeway noise, Caltrans recommends using the maximum level of service (LOS) "C" traffic volume per lane per hour (v/l/h), which based on the Highway Capacity Manual is approximately 1,800 v/l/h for limited access roadways. The maximum LOS C traffic capacity is recommended as this represents the greatest number of vehicles operating on the roadway at the highest speed. Generally, high a LOS rating indicates high volumes of traffic, which tend to result in slower speeds, while lower LOS ratings result in lower traffic volumes, both of which result in lower traffic noise levels. Based on the future configuration of 7 total lanes in each direction, 2 high occupancy vehicle (HOV) lanes, 4 general lanes, and 1 auxiliary lanes; HOV lanes are modeled as one line along the divider line of two HOV lanes with 1,500 cars per lane and no trucks. Inside two general lanes are modeled along the striping between two lanes with 1,800 cars and medium trucks per lane and no heavy trucks. Two outside general lanes and the auxiliary lane are modeled as one line along the centerline of the middle lane with 1,800 cars, medium trucks, and heavy trucks per lane. All the heavy trucks are included in this line. Medium trucks are spread proportionally between two modeled lines using 2/5 and 3/5 ratios.

Based on the existing and future freeway configurations as discussed in the *Interstate 5 North Coast Corridor Project Final Environmental Impact Report* (I-5 EIR), I-5 is currently a 10 lane freeway in the vicinity of the project, this includes 3 general purpose lanes, a high occupancy vehicle (HOV) lane, and an auxiliary lane in each direction. In the vicinity of the project site, Caltrans will widen the freeway to 14 lanes, which would

include 4 general purpose lanes, 2 HOV lanes, and an auxiliary lane in each direction. As part of the I-5 EIR evaluation, Caltrans identified a noise impact at the project site (R6.20/ST6.4) as well as adjacent surrounding properties. To mitigate the future noise impacts Caltrans required a 16-foot high sound wall between I-5 stations 595+50 and 604+40, which was identified as Sound Wall (SW) S602. SW S602 was evaluated as part of the Noise Abatement Decision Report and was recommended to be included in project the design. Additionally, Caltrans would not widened I-5 and increase capacity until SW S602 is built along the eastern side of I-5 extending from south to just the north of the project site. Therefore, two future conditions are assessed, a condition where the freeway does not expand and the project must mitigate on-site noise levels, called the "interim condition" and a second condition where Caltrans has expanded I-5 and constructed SW S602.

Table 4-4 presents the traffic parameters used in the analysis of traffic noise including the existing and future freeway volumes, vehicle speeds and the hourly traffic flow distribution (vehicle mix). The existing I-5 traffic volumes are based on the current 10 lane configuration and the future I-5 traffic volumes are based on the future configuration with 14 lanes. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks and heavy trucks for input into the TNM. The traffic was broken into lane representing for the outer lanes and inner lanes based on the ultimate buildout configuration.

Table 4-4: Traffic Parameters

Roadway	Maximum LOS C Peak Hour Volumes	Modeled Speeds (MPH)	Vehicle Classification Mix[1]		
			Auto	Medium Trucks	Heavy Trucks
Existing and Interim I-5	16,650	65/65/55	15,801	539	311
Future I-5	25,900		24,627	809	466
Existing Marine View Ave.	22	25	21	1	1
Future and Interim Marine View Ave.	49		46	2	2
Existing Genevieve St.	4	25	3	1	1
Future and Interim Genevieve St.	30		28	2	1

[1] Based on Caltrans Truck Traffic Counts 2014, which indicate a classification mix of 94.27% automobiles, 3.64% medium trucks, and 2.09% heavy trucks. Modeled traffic mix roundup volumes for trucks.

The required coordinate information necessary for the TNM model input was taken from the site plans provided by Pasco Laret Suiter & Associates and Pancake Architects and Maple Architects, 2016. The plans were used to identify the pad elevations, roadway elevations, and the relationship between the noise source(s) and the outdoor receiver areas.

Modeled Existing Noise Levels and Model Calibration

Noise levels were predicted at all receivers, including noise measurement locations, using TNM 2.5 and various input parameters to compare the predicted traffic noise levels with adjusted measured traffic noise levels at common points. Calibration factors were derived and applied to individual receivers as appropriate.

The purpose of model calibration is to verify the accuracy and "fine-tune" the prediction model to actual site conditions that are not adequately accounted for by the model. Model calibration is necessary as, "TNM cannot account for all the variables present in the real world. It uses relatively simple algorithms to approximate physical processes that are complex in nature" (Caltrans 2013).

Model calibration is performed by algebraically adding a constant, or K-factor, to the noise level calculated in TNM 2.5. The magnitude of K-factors is initially determined by the difference between measured and modeled noise levels at specific points. Calibration factors may be positive or negative. Additional factors may be applied based upon the experience and judgment of the noise engineer performing the analysis.

Section 4 of the TeNS, Detailed Analysis for Traffic Noise Impacts, provides guidance on the application of calibrations. Subsection 4.4 provides the following caution in calibrating TNM. "…model calibration should not be attempted when calculated and measured noise levels agree within 1 dBA…calibration may be attempted when calculated noise levels are within 2 dBA…[d]ifferences of 3 to 4 dBA may routinely be calibrated[, and d]ifferences of 5 dBA or more should be approached with caution" (Caltrans 2013).

Existing measured and modeled noise levels at specific receivers are compared and the resultant difference is shown in Table 4-5. Existing noise model input and output data are included in Attachment B.

Table 4-5. Loudest Hour Noise Level Model Verification

Measurement Location	Measured Noise Level L_{eq} (dBA)	Loudest Hour Noise Level Adjustment	Adjusted Loudest Hour Noise Level L_{eq} (dBA)	Modeled Loudest Hour Noise Level L_{eq} (dBA)	Rounded Difference (K-Factor)
ML1	72.2	1.7	73.9	76.1	-2.2
ML2	61.1	5.2	66.3	68.6	-2.3
ML3	63.8	5.2	69.0	71.2	-2.2

All noise measurement locations along were modeled and differences between measured loudest hour noise levels and the modeled predicted loudest hour noise were evaluated. Based on the difference, a K-factor of -2 could be applied to all receivers in this study in accordance with Caltrans noise modeling policy. However, as discussed Section 4.1, the difference in measured CNEL and peak hour traffic noise level is 2 dBA. Therefore, the modeled, uncalibrated peak hour traffic noise-levels are considered representative of the CNEL and no adjustments are necessary to the modeled peak hour noise levels reported by TNM.

4.3 On-Site Traffic Noise

Interim Condition

To evaluate the potential noise impacts on the proposed development, outdoor observers were located in the Park and Courtyard areas and placed five feet above the finished pad elevation. The modeled observer locations for the outdoor use areas and modeled building façade locations are presented in Figure 4-B.

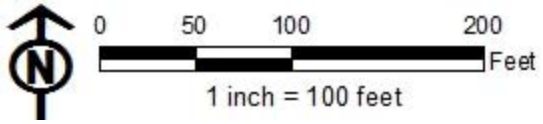


Figure 4-B:
Modeled Receptor Locations

The modeling results for the interim condition are shown in Table 4-6 below for the unmitigated and mitigated scenarios. The proposed structure was also included in the TNM models to determine the noise reductions. Based upon these findings, exterior noise mitigation will be necessary at the Courtyard areas in the southern portion of the site in order to comply with the City of Solana Beach's Noise standards.

Table 4-6: Interim Exterior Noise Levels

Receiver Number[1]	Exterior Use Type and Location	City Noise Standard (dBA CNEL)	Unmitigated Noise Level (dBA CNEL)	Mitigation Required	Mitigated Outdoor Noise Levels (dBA CNEL)
E-1	Courtyard - North	65	63	No	NA
E-2	Courtyard - North	65	63	No	NA
E-3	Park	65	55	No	NA
E-4	Park	65	58	No	NA
E-5	Courtyard - East	65	63	No	NA
E-6	Courtyard- East	65	63	No	NA
E-7	Courtyard - East	65	63	No	NA
E-8	Courtyard - East	65	59	No	NA
E-9	Courtyard – South	65	64	No	NA
E-10	Courtyard – South	65	64	No	NA
E-11	Courtyard – South	65	**74**	**Yes**	65
E-12	Courtyard – South	65	**72**	**Yes**	65

* **BOLD** means above the City's noise threshold.
[1] See Figure 4-B above for receiver locations.

Noise affected outdoor areas at the Courtyards in the southern portion of the site will require a noise barrier along the top of slope along Interstate 5 from the building towards the western and southern property lines and returning to the east. The top of the barrier must be generally 12 feet above finished grade along the freeway and follow the elevation change along the southern portion of the site. Figure 4-C shows the barrier location. With incorporation on the 12-foot high wall interim future noise levels would comply with the City of Solana Beach's 65 dBA CNEL exterior noise level standards for all proposed outdoor areas. The minimum barrier elevations above mean sea level (MSL) are shown in Figure 4-C for clarification. The barriers must be constructed of a non-gapping material consisting of masonry, ½ inch thick glass,

earthen berm or any combination of these materials. The model input parameters and output files are provided in Attachment B.

Future Condition

The modeling results for the future condition, i.e. post Caltrans improvements, are shown in Table 4-7 below for the unmitigated and mitigated scenarios. As with the interim condition, the proposed structures were also included in the TNM models to accurately calculate the associated noise reductions. Based upon these findings, exterior additional noise mitigation, beyond Caltrans' SW S602, would not be necessary in order to comply with the City of Solana Beach's Noise standards. The model input parameters and output files are provided in Attachment C.

Table 4-7: Future Exterior Noise Levels

Receiver Number[1]	Exterior Use Type and Location	City Noise Standard (dBA CNEL)	Unmitigated Noise Level (dBA CNEL)	Mitigation Required
E-1	Courtyard - North	65	58	No
E-2	Courtyard - North	65	58	No
E-3	Park	65	54	No
E-4	Park	65	56	No
E-5	Courtyard - East	65	58	No
E-6	Courtyard- East	65	58	No
E-7	Courtyard - East	65	58	No
E-8	Courtyard - East	65	54	No
E-9	Courtyard – South	65	58	No
E-10	Courtyard – South	65	59	No
E-11	Courtyard – South	65	62	No
E-12	Courtyard – South	65	62	No

* **BOLD** means above the City's noise threshold.
[1] See Figure 4-B above for receiver locations

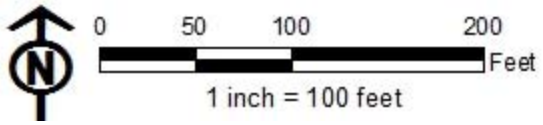


Figure 4-C:
Exterior Noise Mitigation Measures

The City of Solana Beach as part of its noise guidelines also states, consistent with Title 24 of the California Code of Regulations (CCR), a project is required to perform an interior assessment on the portions of a project site to ensure a 45 dBA CNEL interior noise level in habitable rooms. The lower and upper floor building facades along the building were modeled to determine the anticipated future noise levels at the building facade. The results of the building façade noise modeling are provided in Table 4-8 below. The TNM model input parameters and results for the future building façade conditions are provided in Attachment D.

Table 4-8: Building Facade Noise Levels (All Floors)

Building Facade Receiver Number[1]	Lower Floor Noise Levels (dBA CNEL)	Interior Noise Reduction Needed (dBA CNEL)	Upper Floor Noise Levels (dBA CNEL)	Interior Noise Reduction Needed (dBA CNEL)
F-1	70	25	76	31
F-2	74	29	80	35
F-3	78	33	82	37
F-4	79	34	82	37
F-5	79	34	82	37
F-6	81	36	83	38
F-7	77	32	84	39
F-8	70	25	83	38
F-9	70	25	72	27
F-10	67	22	68	23

[1] See Figure 4-B above for receiver locations.

Based on the modeling results presented in Table 4-8 the building facades noise levels were found to potentially result in interior noise level in excess of 45 CNEL and therefore will require a final noise study be prepared prior to the issuance of the first building permit of each affected planning area. This final report would identify the interior noise requirements based upon architectural and building plans. It should be noted, interior noise levels of 45 dBA CNEL can be obtained with conventional building construction methods with a closed window condition which requires a means of mechanical ventilation (e.g. air conditioning) for each unit and upgraded windows for all sensitive rooms (e.g. bedrooms, living areas and group rooms).

4.4 Offsite Traffic Noise

The off-site project-related roadway segment noise levels projected in this report were calculated using the methods in the Highway Noise Model published by the Federal Highway Administration (FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108, December, 1978). The FHWA Model uses the traffic volume, vehicle mix, speed, and roadway geometry to compute the equivalent noise level. A spreadsheet calculation was used which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these equivalent noise levels and summing them gives the CNEL for the traffic projections. The noise contours are then established by iterating the equivalent noise level over many distances until the distance to the desired noise contour(s) are found.

To determine if off-site noise level increases associated with the development of the project will create noise impacts, the noise levels for the existing conditions were compared with the noise level increase from when the project is full built. Utilizing the project's traffic assessment (Source: LOS Engineering), noise contours were developed for the following traffic scenarios:

Existing: Traffic projections at the time the proposed project would open without project traffic.
Existing Plus Project: Projected Existing conditions plus the added noise from the proposed project related traffic.
Existing vs. Existing Plus Project: Comparison between the Existing conditions without the project and Existing traffic with the project.

The noise levels and reference distances to the 65 dBA CNEL contours for the roadways in the vicinity of the Project site are given in Table 4-9 for the Existing Scenario and in Table 4-10 for the Existing Plus Project Scenario. Table 4-11 presents the comparison of the Existing Year with and without project related noise levels. The overall roadway segment noise levels will increase from 0.8 dBA CNEL to 9.1 dBA CNEL with the development of the Project. The Project does create a direct noise increase of more than 3 dBA CNEL on the roadway segments near the site. The overall noise level was found to be 50-52 dBA CNEL with no shielding. The overall noise levels are well below the City's most restrictive 60 dBA CNEL threshold for single family residents. Therefore, the Project's direct contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

Table 4-9: Existing Noise Levels without Project

Roadway Segment	ADT[1]	Vehicle Speeds (MPH)[1]	Noise Level @ 50-Feet (dBA CNEL)	65 dBA CNEL Contour Distance (Feet)
Marine View Ave				
San Andres Dr to Solana Dr	1,258	25	55.9	12
Los Caballitos to Genevieve St	221	25	48.3	4
Genevieve Street				
Marine View Ave to I-5 (cul-de-sac)	37	25	40.6	1

[1] Source: Project Traffic study prepared by LOS Engineering

Table 4-10: Existing + Project Noise Levels

Roadway Segment	ADT[1]	Vehicle Speeds (MPH)[1]	Noise Level @ 50-Feet (dBA CNEL)	65 dBA CNEL Contour Distance (Feet)
Marine View Ave				
San Andres Dr to Solana Dr	1,521	25	56.7	14
Los Caballitos to Genevieve St	484	25	51.8	7
Genevieve Street				
Marine View Ave to I-5 (cul-de-sac)	300	25	49.7	5

[1] Source: Project Traffic study prepared by LOS Engineering

Table 4-11: Existing vs. Existing + Project Noise Levels

Roadway Segment	Existing Noise Level @ 50-Feet (dBA CNEL)	Existing Plus Project Noise Level @ 50-Feet (dBA CNEL)	Project Related Direct Noise Level Increase (dBA CNEL)
Marine View Ave			
San Andres Dr to Solana Dr	55.9	56.7	0.8
Los Caballitos to Genevieve St	48.3	51.8	3.5
Genevieve Street			
Marine View Ave to I-5 (cul-de-sac)	40.6	49.7	9.1

5.0 CONSTRUCTION ACTIVITIES

5.1 Guidelines for the Determination of Significance

Section 7.34.100 of the City's Municipal Code establishes construction hours and noise level limits. Construction may only occur after 7:00 A.M. or before 7:00 P.M., Monday through Friday, and after 8:00 A.M. or before 7:00 P.M. on Saturday. Construction cannot occur outside of these hours. Construction noise levels shall not exceed 75 decibels for more than eight hours [Leq (8)] during any 24-hour period when measured at or with in property lines of any property which is developed and used either in part or in whole for residential purposes. In the event that lower noise limit standards are established for such construction activity pursuant to state or federal law, such lower limits shall be used as a basis for revising and amending the noise level limits specified in subsection C of this section. (Ord. 147 § 1, 1991).

5.2 Construction Noise Prediction Methodology

Construction noise represents a short-term impact on the ambient noise levels. Grading activities typically represent one of the highest potential sources for noise impacts. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal weekday working hours. Noise levels generated by heavy construction equipment can range from 60 dBA to in excess of 100 dBA when measured at 50 feet. However, these noise levels diminish rapidly with distance at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 75 dBA measured at 50 feet from the noise source to the receiver would be reduced to 69 dBA at 100 feet and reduced to 63 dBA at 200 feet.

Noise levels from the proposed construction activities were modeled with SoundPLAN Essential, version 3.0, a three-dimensional acoustical modeling software package (NAVCOM 2015). Propagation of modeled stationary noise sources was based on ISO Standard 9613-2, "Attenuation of Sound During Propagation Outdoors, Part 2: General Method of Calculation." The model includes the terrain, which allows the calculation to take topography into account. The terrain model was developed from project specific topographical data. The ISO Standard 9613-2 assumes that all receptors would be downwind of stationary sources. This is a worst-case assumption for noise impacts, since, in reality, only some receptors will be downwind at any one time. The model calculates noise levels at selected receiver locations using input parameter estimates

such as noise generated by each noise source, distances between sources, barriers, and receivers; and shielding provided by intervening terrain, barriers, and structures.

Model input includes receiver locations and noise source locations with associated sound power levels. Typical increases or decreases of sound levels depend on the ground absorption factor between the source and receiver. Acoustically hard sites include surfaces such as pavement, bare hard ground, water, ice, and other surfaces with high reflectivity (i.e., 0.0). A higher ground factor defines more absorptive ground, such as vegetation or tilled and loose soil (typically 0.5 to 1.0). To be conservative, for construction noise analysis the project site was modeled as flat and acoustically hard. Construction receivers include all residences surrounding the site to the east, south, and north. The modeling utilized an area source to represent the construction site, which is representative of the activity and movement of equipment throughout the site over a given hour or day. To determine a representative noise level, the individual sound level of each piece of equipment was individually calculated and then combined and used to calculate a reference sound power level.

The project will be mass graded with all the internal roadways, parking and pads being developed at once. Due to the limited project size and slope construction the equipment needed for the development will consist of up to two tractors/loaders, a dozer, a grader and a water truck during the preparation and grading. A backhoe and cement truck are anticipated for the installation of utilities and driveways. These operations will not occur simultaneously. Based on reference data collected by the FHWA, the worst case noise levels from the construction equipment for site preparation would occur during the grading operations. Reference noise levels for each piece of equipment during the grading operations are provided in Table 5-1 below and source data from the FHWA Road Construction Nosie Model (RCNM) is provided in Attachment E.

Table 5-1: Reference Noise Levels

Construction Phase	Construction Equipment	Quantity	Source Level @ 50-Feet (dBA L_{max})[1]	Source Level @ 50-Feet (dBA L_{eq})[1]
Grading Operations	Grader	1	85	81
	Loader/Backhoe	2	80	79
	Dozer	1	85	81
	Water Truck	1	84	80

[1] Source: FHWA 2006

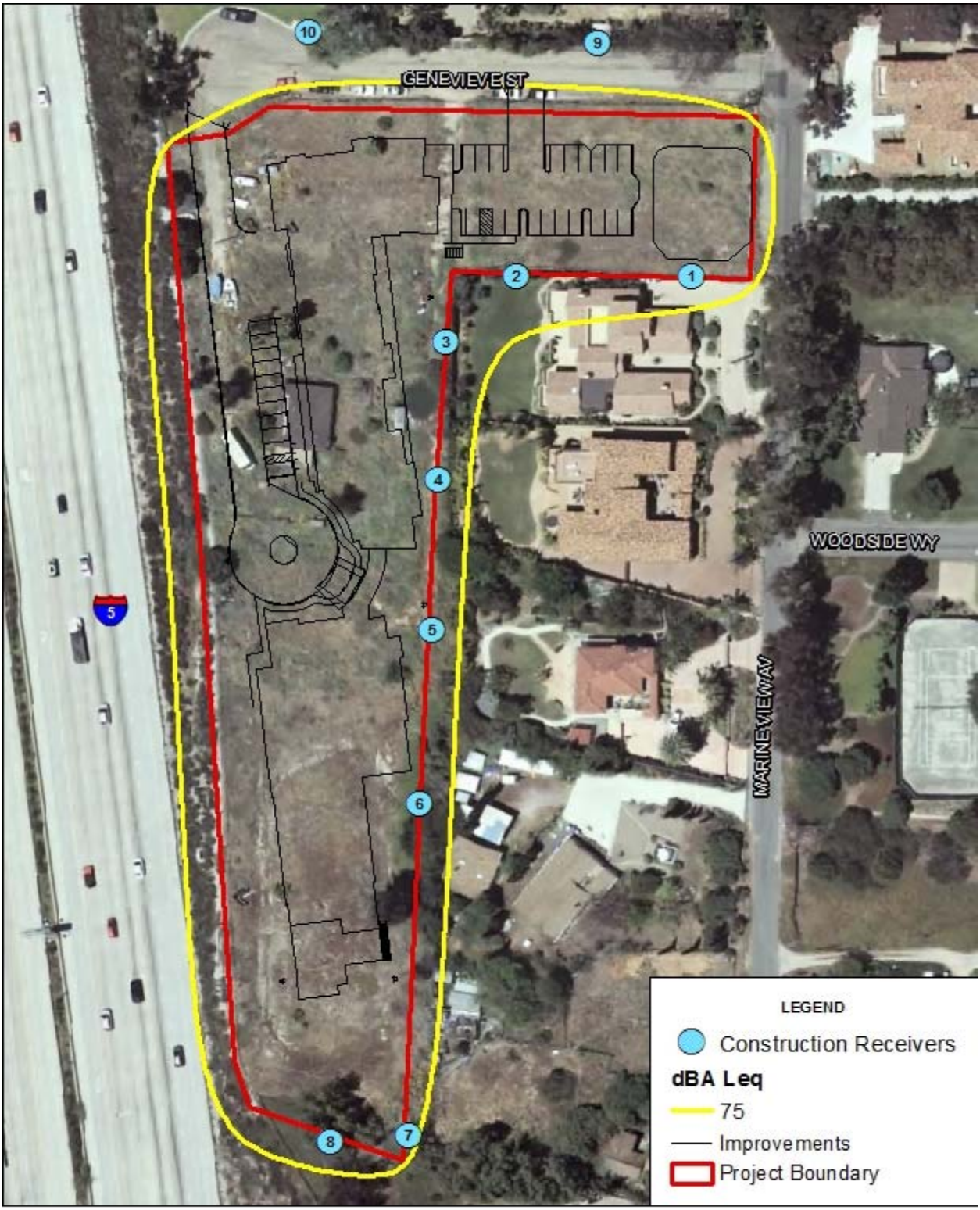
5.3 Construction Findings and Mitigation

Noise level were modeled at specific receiver locations at adjacent property lines. As shown in Figure 5-1 and Table 5-2, grading activities are anticipated to generate noise levels up to 78 dBA Leq at adjacent property lines, which exceeds with the City of Solana Beach's 75 dBA Leq standard and mitigation would be required to reduce noise levels at the property lines located to the south and east of the project site. SoundPlan modeling input and output data is included in Attachment E.

An 8-foot high wall would be required along the eastern and southern boundary of the project as shown in Figure 5-A. With an 8-foot high barrier, construction noise level would be reduced 8 to 10 dBA depending on distance of the equipment or receiver from the barrier. As shown in Table 5-2, with the incorporation of the identified noise wall maximum construction noise level would attenuate to 68 dBA L_{eq} or less at adjacent properties. Therefore, with incorporation of an 8-foot high barrier as shown in Figure 5-2, construction noise levels would comply with the City of Solana Beach standards and impacts would be less than significant.

Table 5-2: Construction Noise Levels

Receiver Number	Address	City Noise Standard (dBA $L_{eq(8)}$)	Unmitigated Noise Level (dBA $L_{eq(8)}$)	Mitigation Required	Mitigated Noise Levels $L_{eq(8)}$)
CR-1	609 Marine View Ave	75	**77**	**Yes**	69
CR-2	609 Marine View Ave	75	**78**	**Yes**	71
CR-3	609 Marine View Ave	75	**78**	**Yes**	71
CR-4	621 Marine View Ave	75	**78**	**Yes**	69
CR-5	641 Marine View Ave	75	**78**	**Yes**	68
CR-6	649 Marine View Ave	75	**78**	**Yes**	68
CR-7	667 Marine View Ave	75	**76**	**Yes**	67
CR-8	677 Marine View Ave	75	**77**	**Yes**	68
CR-9	1024 Genevieve St	75	73	No	73
CR-10	445 Marine View Ave	75	71	No	71
* **BOLD** means above the City's noise threshold.					



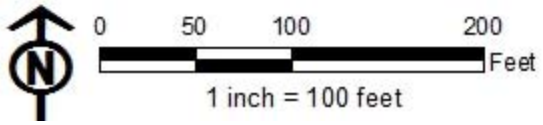
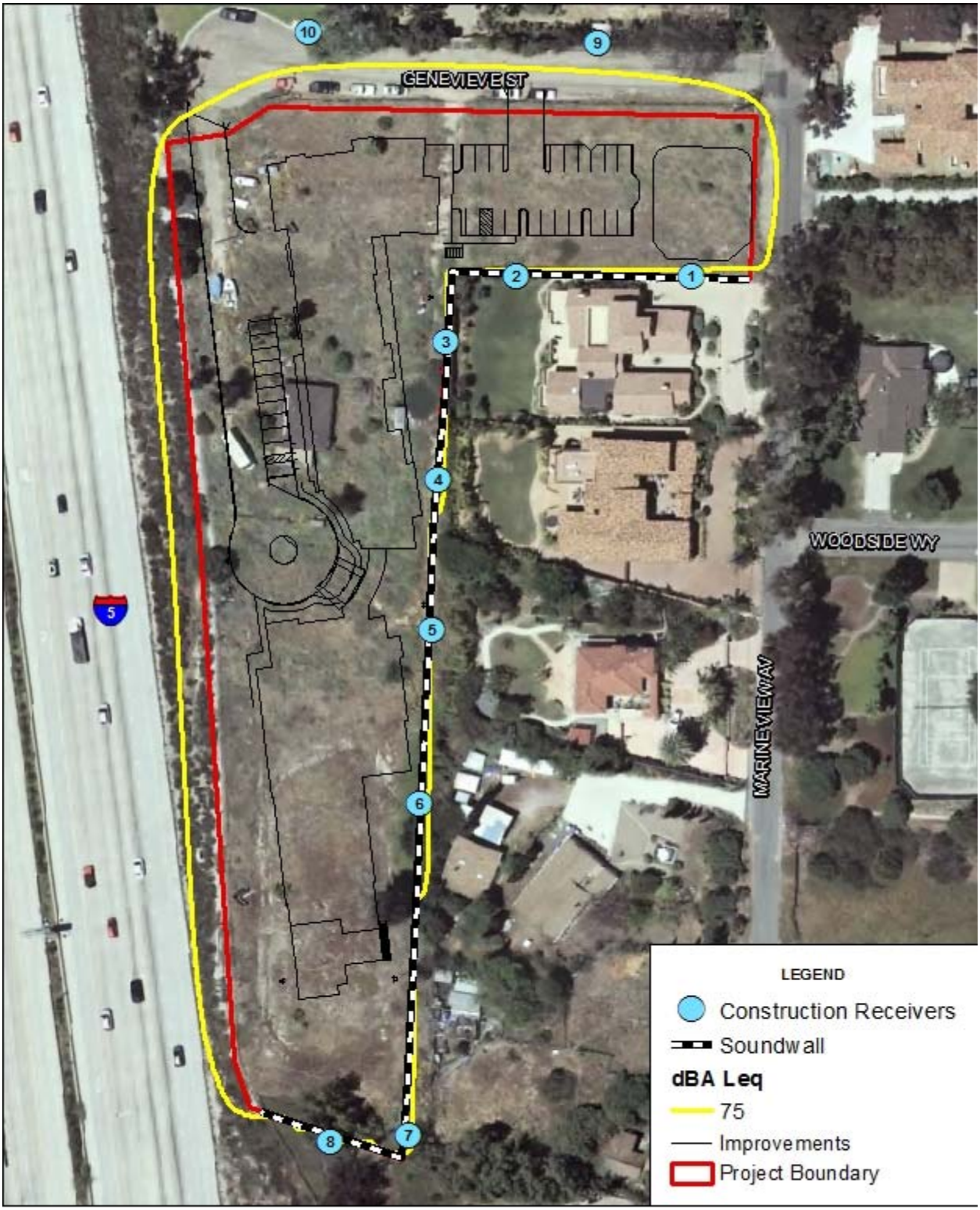


Figure 5-A:
Construction Noise Level Contours – Without Mitigation



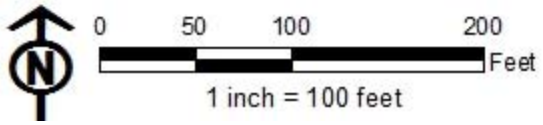


Figure 5-B:
Construction Noise Level Contours – With Mitigation

5.4 Construction Vibration Findings and Mitigation

The nearest vibration-sensitive uses are the residences located adjacent to the proposed construction. Table 5-3 lists the average vibration levels that would be experienced at the nearest vibration sensitive land uses from the temporary construction activities.

The FTA has determined vibration levels that would cause annoyance to a substantial number of people and potential damage to building structures. The FTA criterion for vibration induced structural damage is 0.20 in/sec for the peak particle velocity (PPV). Project construction activities would result in PPV levels below the FTA's criteria for vibration induced structural damage. Therefore, project construction activities would not result in vibration induced structural damage to residential buildings near the demolition and construction areas. The FTA criterion for infrequent vibration induced annoyance is 80 Vibration Velocity (VdB) for residential uses. Construction activities would generate levels of vibration that would not exceed the FTA criteria for nuisance for nearby residential uses. Therefore, vibration impacts would be less than significant.

Table 5-3: Vibration Levels from Construction Activities

Equipment	Velocity Level at 25 Feet (VdB)	RMS Velocity at 25 Feet (in/sec)	Velocity Level at 50 Feet (VdB)	RMS Velocity at 50 Feet (in/sec)
Small bulldozer	58	0.003	49.0	0.0011
Jackhammer	79	0.035	70.0	0.0124
Loaded trucks	86	0.076	77.0	0.0269
Large bulldozer	87	0.089	78.0	0.0315
		FTA Criteria	80	0.2
		Significant Impact?	**No**	**No**

[1] PPV at Distance D = PPVref x $(25/D)^{1.5}$

6.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the noise environment and impacts within and surrounding the Residential Care Facility Project. The information contained in this report was based on the best available data at the time of preparation.

DRAFT

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Date: July 29, 2017

ATTACHMENT A

Detailed Noise Level Measurement Data

General Information

Serial Number	2412		
Model Number	LxT1		
User	TOA		
Job Description	Short Term Measurements		
Location	SB Residential Care Facility		
File Name	LxT_Data.095		
Start	Thursday	2016 September 15 14:46:19	
Stop	Thursday	2016 September 15 14:56:19	
Run Time		0:10:00	
Pre Calibration	14-Jun-16	13:21:25	
Post Calibration	None		
Calibration Deviation	---		

Note

Overall Data

Leq	72.2	dBA	
Lmax	2016 Sep 1	77.6	dBA
LPeak	2016 Sep 1	92.9	dBA
Lmin	2016 Sep 1	66.5	dBA
LE	100	dBA	
SE	1.1	mPa²hr	
SE(8)	53.6	mPa²hr	
SE(40)	267.9	mPa²hr	
Overload?	No		

Statistics

L[5.0]	74.7	dBA
L[10.0]	74.2	dBA
L[33.3]	73.1	dBA
L[50.0]	72.4	dBA
L[66.6]	70.5	dBA
L[90.0]	68.6	dBA

Event Counts (SPL Trigger 85.0 dB)	0
Event Counts (SPL Trigger 115.0 dB)	0
Event Counts (Lpeak Trigger 135.0 dB)	0

Dose

Dose Name	OSHA-1	OSHA-2	
Dose	0	0	%
Projected Dose	0	0	%
Projected TWA	---	---	dBA
TWA (8)	---	---	dBA
Lep (8)	55.4	55.4	dBA

Dose Settings

Exch. Rate	5	5	
Threshold	90	80	dBA
Criterion	90	90	dBA
Crit. Duration	8	8	hours

General Information

Serial Number	2412
Model Number	LxT1
User	TOA
Job Description	Short Term Measurements
Location	SB Residential Care Facility
File Name	LxT_Data.096
Start	Thursday 2016 September 15 15:01:05
Stop	Thursday 2016 September 15 15:11:12
Run Time	0:10:07
Pre Calibration	14-Jun-16 13:21:25
Post Calibration	None
Calibration Deviation	---

Note

Overall Data

Leq		61.1	dBA
Lmax	2016 Sep 1	71.7	dBA
LPeak	2016 Sep 1	85.7	dBA
Lmin	2016 Sep 1	57.7	dBA
LE		89	dBA
SE		87.8	µPa²hr
SE(8)		4.2	mPa²hr
SE(40)		20.8	mPa²hr
Overload?	No		

Statistics

L[5.0]	63.9	dBA
L[10.0]	62.9	dBA
L[33.3]	61	dBA
L[50.0]	60.2	dBA
L[66.6]	59.6	dBA
L[90.0]	58.7	dBA

Event Counts (SPL Trigger 85.0 dB)	0
Event Counts (SPL Trigger 115.0 dB)	0
Event Counts (Lpeak Trigger 135.0 dB)	0

Dose

Dose Name	OSHA-1	OSHA-2	
Dose	0	0	%
Projected Dose	0	0	%
Projected TWA	---	---	dBA
TWA (8)	---	---	dBA
Lep (8)	44.4	44.4	dBA

Dose Settings

Exch. Rate	5	5	
Threshold	90	80	dBA
Criterion	90	90	dBA
Crit. Duration	8	8	hours

General Information

Serial Number	2412
Model Number	LxT1
User	TOA
Job Description	Short Term Measurements
Location	SB Residential Care Facility
File Name	LxT_Data.097
Start	Thursday 2016 September 15 15:13:16
Stop	Thursday 2016 September 15 15:23:17
Run Time	0:10:01
Pre Calibration	14-Jun-16 13:21:25
Post Calibration	None
Calibration Deviation	---

Note

Overall Data

Leq		63.8	dBA
Lmax	2016 Sep 1	68.5	dBA
LPeak	2016 Sep 1	89.1	dBA
Lmin	2016 Sep 1	59	dBA
LE		91.6	dBA
SE		160.4	μPa²hr
SE(8)		7.7	mPa²hr
SE(40)		38.4	mPa²hr
Overload?	No		

Statistics

L[5.0]	65.9	dBA
L[10.0]	65.6	dBA
L[33.3]	64.2	dBA
L[50.0]	63.4	dBA
L[66.6]	62.8	dBA
L[90.0]	61.5	dBA

Event Counts (SPL Trigger 85.0 dB)	0
Event Counts (SPL Trigger 115.0 dB)	0
Event Counts (Lpeak Trigger 135.0 dB)	0

General Information

Serial Numl	2994
Model Num	706
User	TOA
Job Descrip	SB Residential Care Facility
Location	Long Term Measurement
Start	14-Sep-16 17:35:03
Stop	16-Sep-16 17:59:03
Run Time	2 Days 00:24:00
Pre Calibrat	30-Oct-14 10:55:00
Post Calibra	None
Calibration	---
Sample Per	60 seconds
Periods	2904
Note	

Results	Dose 1	Dose 2	Dose 3	Dose 4
Dose	0.6	---	---	2.1
Projected D	0.1	---	---	0.3
Leq	60.3	60.3	60.3	60.3
TWA	60.3	---	---	60.3
TWA (8)	68.1	9.5	9.5	68.1
Lmax	82.1	82.1	82.1	82.1
LPeak	117.2	117.2	117.2	117.2
Lmin	37.2	37.2	37.2	37.2
Lep (8)	68.1	68.1	68.1	68.1
SE	0	0	0	0
Overload?	No			

Statistics

L[10]	63
L[30]	61
L[50]	58.5
L[70]	56.5
L[90]	53

Settings

Exch. Rate	3	5	5	3
Threshold	30	80	80	0
Criterion	90	90	85	85
Crit. Duratic	8	8	8	8
RMS Weigh	A Weighting			
Peak Weigh	Unweighted			
Detector	Slow			
Gain	30			

Time History

Number	Date	Time	Leq	Max	Min	Peak	TWA1	TWA2	TWA3	TWA4	Overload?	Mic Disconnect?		
1	14-Sep-16	17:35:03	65.9	75.2	52.9	117.2	65.9	---	---	65.9			2.33E+08	65.9
2	14-Sep-16	17:36:03	54.8	60.6	51	93.9	54.8	---	---	54.8			1.81E+07	54.8
3	14-Sep-16	17:37:03	55.6	58.6	52.1	84.1	55.6	---	---	55.6			2.18E+07	55.6
4	14-Sep-16	17:38:03	57.2	60.8	54.8	85.3	57.2	---	---	57.2			3.15E+07	57.2
5	14-Sep-16	17:39:03	57.8	60.5	55.3	85.8	57.8	---	---	57.8			3.62E+07	57.8
6	14-Sep-16	17:40:03	57.1	59.5	54.4	83.5	57.1	---	---	57.1			3.08E+07	57.1
7	14-Sep-16	17:41:03	54.7	57.7	52.3	82.8	54.7	---	---	54.7			1.77E+07	54.7
8	14-Sep-16	17:42:03	56.2	58.9	54.2	84.1	56.2	---	---	56.2			2.50E+07	56.2
9	14-Sep-16	17:43:03	57.2	59.2	55.1	88.1	57.2	---	---	57.2			3.15E+07	57.2
10	14-Sep-16	17:44:03	57	60.4	55	84.1	57	---	---	57			3.01E+07	57.0
11	14-Sep-16	17:45:03	57.2	60.2	54.5	83.5	57.2	---	---	57.2			3.15E+07	57.2
12	14-Sep-16	17:46:03	55.7	60.4	52.7	86.3	55.7	---	---	55.7			2.23E+07	55.7
13	14-Sep-16	17:47:03	58.8	67.1	54.5	87.7	58.8	---	---	58.8			4.55E+07	58.8
14	14-Sep-16	17:48:03	55.8	58.5	53.7	84.8	55.8	---	---	55.8			2.28E+07	55.8
15	14-Sep-16	17:49:03	58.5	65.5	55.3	89.5	58.5	---	---	58.5			4.25E+07	58.5
16	14-Sep-16	17:50:03	56.4	61.5	53.1	82.8	56.4	---	---	56.4			2.62E+07	56.4
17	14-Sep-16	17:51:03	56.5	61.2	52.7	84.1	56.5	---	---	56.5			2.68E+07	56.5
18	14-Sep-16	17:52:03	58.7	61.6	54.9	84.8	58.7	---	---	58.7			4.45E+07	58.7
19	14-Sep-16	17:53:03	58.4	61.1	55.1	85.3	58.4	---	---	58.4			4.15E+07	58.4
20	14-Sep-16	17:54:03	57.1	59.5	53.2	84.1	57.1	---	---	57.1			3.08E+07	57.1
21	14-Sep-16	17:55:03	56.5	59.9	50.8	86.3	56.5	---	---	56.5			2.68E+07	56.5
22	14-Sep-16	17:56:03	58.7	65.1	55.3	91.9	58.7	---	---	58.7			4.45E+07	58.7
23	14-Sep-16	17:57:03	58.8	62.3	56.2	85.8	58.8	---	---	58.8			4.55E+07	58.8
24	14-Sep-16	17:58:03	55.7	58.1	53.5	84.1	55.7	---	---	55.7			2.23E+07	55.7
25	14-Sep-16	17:59:03	55.8	59.3	53	83.5	55.8	---	---	55.8			2.28E+07	55.8
													9.72E+08	58.1
26	14-Sep-16	18:00:03	56.2	60.6	53.3	84.8	56.2	---	---	56.2			2.50E+07	56.2
27	14-Sep-16	18:01:03	55	56.5	53.3	83.5	55	---	---	55			1.90E+07	55.0
28	14-Sep-16	18:02:03	55.5	59.3	51.7	85.8	55.5	---	---	55.5			2.13E+07	55.5
29	14-Sep-16	18:03:03	55.2	58.9	51.9	82.8	55.2	---	---	55.2			1.99E+07	55.2
30	14-Sep-16	18:04:03	54.1	60.2	48.9	84.8	54.1	---	---	54.1			1.54E+07	54.1
31	14-Sep-16	18:05:03	54.6	56.5	50.6	83.5	54.6	---	---	54.6			1.73E+07	54.6
32	14-Sep-16	18:06:03	56.6	61.2	53	85.3	56.6	---	---	56.6			2.74E+07	56.6
33	14-Sep-16	18:07:03	54.5	58.9	52	86.3	54.5	---	---	54.5			1.69E+07	54.5
34	14-Sep-16	18:08:03	56.5	60.7	52.4	85.3	56.5	---	---	56.5			2.68E+07	56.5

35	14-Sep-16	18:09:03	56.4	60.8	51.8	84.1	56.4	---	---	56.4	2.62E+07	56.4
36	14-Sep-16	18:10:03	54.3	59.4	51.5	88.1	54.3	---	---	54.3	1.61E+07	54.3
37	14-Sep-16	18:11:03	55.1	58.7	51.6	87.3	55.1	---	---	55.1	1.94E+07	55.1
38	14-Sep-16	18:12:03	56	59.7	52.6	82.8	56	---	---	56	2.39E+07	56.0
39	14-Sep-16	18:13:03	55.4	58.5	51.9	82.8	55.4	---	---	55.4	2.08E+07	55.4
40	14-Sep-16	18:14:03	56.8	65.8	52	85.8	56.8	---	---	56.8	2.87E+07	56.8
41	14-Sep-16	18:15:03	59.5	71.2	53.8	90.2	59.5	---	---	59.5	5.35E+07	59.5
42	14-Sep-16	18:16:03	53.6	59.3	52	82.1	53.6	---	---	53.6	1.37E+07	53.6
43	14-Sep-16	18:17:03	55.1	60.3	51.3	82.8	55.1	---	---	55.1	1.94E+07	55.1
44	14-Sep-16	18:18:03	55.9	61.1	50.7	89.2	55.9	---	---	55.9	2.33E+07	55.9
45	14-Sep-16	18:19:03	57.9	62.4	54.3	83.5	57.9	---	---	57.9	3.70E+07	57.9
46	14-Sep-16	18:20:03	57.1	59.5	54.3	85.8	57.1	---	---	57.1	3.08E+07	57.1
47	14-Sep-16	18:21:03	57.9	61.8	54.6	84.8	57.9	---	---	57.9	3.70E+07	57.9
48	14-Sep-16	18:22:03	57.6	61.5	55.5	86.3	57.6	---	---	57.6	3.45E+07	57.6
49	14-Sep-16	18:23:03	55.9	59	53	85.3	55.9	---	---	55.9	2.33E+07	55.9
50	14-Sep-16	18:24:03	57.4	60.5	55	86.3	57.4	---	---	57.4	3.30E+07	57.4
51	14-Sep-16	18:25:03	58.2	62.3	55.2	84.8	58.2	---	---	58.2	3.96E+07	58.2
52	14-Sep-16	18:26:03	57.4	59	55.6	81.2	57.4	---	---	57.4	3.30E+07	57.4
53	14-Sep-16	18:27:03	58.1	63.3	55	87.7	58.1	---	---	58.1	3.87E+07	58.1
54	14-Sep-16	18:28:03	58.1	62.6	55.4	85.8	58.1	---	---	58.1	3.87E+07	58.1
55	14-Sep-16	18:29:03	58.3	62.4	54.4	87.7	58.3	---	---	58.3	4.06E+07	58.3
56	14-Sep-16	18:30:03	58.7	63.4	55.6	86.3	58.7	---	---	58.7	4.45E+07	58.7
57	14-Sep-16	18:31:03	59.5	62.8	55.1	85.8	59.5	---	---	59.5	5.35E+07	59.5
58	14-Sep-16	18:32:03	59.2	62	57.3	86.3	59.2	---	---	59.2	4.99E+07	59.2
59	14-Sep-16	18:33:03	57.7	60.2	55.7	86.3	57.7	---	---	57.7	3.53E+07	57.7
60	14-Sep-16	18:34:03	57.2	59.5	55.5	84.1	57.2	---	---	57.2	3.15E+07	57.2
61	14-Sep-16	18:35:03	58.8	65.8	53.9	87.7	58.8	---	---	58.8	4.55E+07	58.8
62	14-Sep-16	18:36:03	55.7	57	54.7	82.1	55.7	---	---	55.7	2.23E+07	55.7
63	14-Sep-16	18:37:03	58.8	63.2	56.2	84.1	58.8	---	---	58.8	4.55E+07	58.8
64	14-Sep-16	18:38:03	59.2	64.2	54.6	85.8	59.2	---	---	59.2	4.99E+07	59.2
65	14-Sep-16	18:39:03	58.2	62.2	54.4	88.5	58.2	---	---	58.2	3.96E+07	58.2
66	14-Sep-16	18:40:03	57.5	60	55.8	85.8	57.5	---	---	57.5	3.37E+07	57.5
67	14-Sep-16	18:41:03	57.8	62.6	55.1	85.8	57.8	---	---	57.8	3.62E+07	57.8
68	14-Sep-16	18:42:03	57.8	60.1	54.4	84.8	57.8	---	---	57.8	3.62E+07	57.8
69	14-Sep-16	18:43:03	58.7	63.8	56.6	88.1	58.7	---	---	58.7	4.45E+07	58.7
70	14-Sep-16	18:44:03	56.7	59.8	54	84.8	56.7	---	---	56.7	2.81E+07	56.7
71	14-Sep-16	18:45:03	59.6	65.1	56.2	88.1	59.6	---	---	59.6	5.47E+07	59.6
72	14-Sep-16	18:46:03	57.6	61.3	56	84.8	57.6	---	---	57.6	3.45E+07	57.6
73	14-Sep-16	18:47:03	57.6	60.6	56.1	85.3	57.6	---	---	57.6	3.45E+07	57.6
74	14-Sep-16	18:48:03	58.3	59.9	56.7	84.1	58.3	---	---	58.3	4.06E+07	58.3
75	14-Sep-16	18:49:03	57.9	61.9	55.4	86.3	57.9	---	---	57.9	3.70E+07	57.9
76	14-Sep-16	18:50:03	58	60.2	56.3	86.8	58	---	---	58	3.79E+07	58.0
77	14-Sep-16	18:51:03	58.4	63.1	55.9	87.3	58.4	---	---	58.4	4.15E+07	58.4
78	14-Sep-16	18:52:03	59.4	62.2	56.4	90.8	59.4	---	---	59.4	5.23E+07	59.4
79	14-Sep-16	18:53:03	59.3	65.6	56.6	84.8	59.3	---	---	59.3	5.11E+07	59.3
80	14-Sep-16	18:54:03	59.1	62.4	56.4	88.9	59.1	---	---	59.1	4.88E+07	59.1
81	14-Sep-16	18:55:03	59.5	61.9	57.3	82.8	59.5	---	---	59.5	5.35E+07	59.5
82	14-Sep-16	18:56:03	60.7	66.2	57.6	89.5	60.7	---	---	60.7	7.05E+07	60.7
83	14-Sep-16	18:57:03	59.9	62.3	57.1	87.3	59.9	---	---	59.9	5.86E+07	59.9
84	14-Sep-16	18:58:03	58	61.8	55.3	85.8	58	---	---	58	3.79E+07	58.0
85	14-Sep-16	18:59:03	61.8	71.4	55.8	96.4	61.8	---	---	61.8	9.08E+07	61.8
											2.16E+09	57.8
86	14-Sep-16	19:00:03	58.3	60	55.7	86.3	58.3	---	---	58.3	4.06E+07	58.3
87	14-Sep-16	19:01:03	59.6	63.1	57	91.3	59.6	---	---	59.6	5.47E+07	59.6
88	14-Sep-16	19:02:03	60.3	63.7	57.3	89.5	60.3	---	---	60.3	6.43E+07	60.3
89	14-Sep-16	19:03:03	59.4	62.3	57.8	84.1	59.4	---	---	59.4	5.23E+07	59.4
90	14-Sep-16	19:04:03	60.3	63.3	57.1	88.5	60.3	---	---	60.3	6.43E+07	60.3
91	14-Sep-16	19:05:03	61.7	66.9	56.3	88.9	61.7	---	---	61.7	8.87E+07	61.7
92	14-Sep-16	19:06:03	62.3	66	59.3	88.9	62.3	---	---	62.3	1.02E+08	62.3
93	14-Sep-16	19:07:03	60.3	63.5	54.4	87.3	60.3	---	---	60.3	6.43E+07	60.3
94	14-Sep-16	19:08:03	60.4	62.8	57.5	84.1	60.4	---	---	60.4	6.58E+07	60.4
95	14-Sep-16	19:09:03	60.9	66.2	57	86.3	60.9	---	---	60.9	7.38E+07	60.9
96	14-Sep-16	19:10:03	61.5	65.2	56.9	88.5	61.5	---	---	61.5	8.48E+07	61.5
97	14-Sep-16	19:11:03	62	66.3	56.2	88.5	62	---	---	62	9.51E+07	62.0
98	14-Sep-16	19:12:03	61	63.2	58.4	82.8	61	---	---	61	7.55E+07	61.0
99	14-Sep-16	19:13:03	59.8	66.8	55.4	85.3	59.8	---	---	59.8	5.73E+07	59.8
100	14-Sep-16	19:14:03	62.4	71.1	58.6	86.3	62.4	---	---	62.4	1.04E+08	62.4
101	14-Sep-16	19:15:03	61.6	66.2	58.4	91.9	61.6	---	---	61.6	8.67E+07	61.6
102	14-Sep-16	19:16:03	61	65.5	58.6	88.1	61	---	---	61	7.55E+07	61.0
103	14-Sep-16	19:17:03	61.7	66.4	58.5	81.2	61.7	---	---	61.7	8.87E+07	61.7
104	14-Sep-16	19:18:03	59.7	65.8	56.9	82.1	59.7	---	---	59.7	5.60E+07	59.7
105	14-Sep-16	19:19:03	60.8	64.3	58.3	87.7	60.8	---	---	60.8	7.21E+07	60.8
106	14-Sep-16	19:20:03	62.2	66.3	57.4	86.8	62.2	---	---	62.2	9.96E+07	62.2
107	14-Sep-16	19:21:03	62.6	67	59.5	88.5	62.6	---	---	62.6	1.09E+08	62.6
108	14-Sep-16	19:22:03	59.8	62.9	58	87.3	59.8	---	---	59.8	5.73E+07	59.8
109	14-Sep-16	19:23:03	60.1	63.5	56.1	89.2	60.1	---	---	60.1	6.14E+07	60.1
110	14-Sep-16	19:24:03	59.8	63.4	56.9	87.7	59.8	---	---	59.8	5.73E+07	59.8
111	14-Sep-16	19:25:03	60.8	64.7	58.2	85.8	60.8	---	---	60.8	7.21E+07	60.8
112	14-Sep-16	19:26:03	61.5	64.9	58.3	88.5	61.5	---	---	61.5	8.48E+07	61.5
113	14-Sep-16	19:27:03	61	64.9	58.4	86.3	61	---	---	61	7.55E+07	61.0
114	14-Sep-16	19:28:03	59.8	61.4	57.5	88.5	59.8	---	---	59.8	5.73E+07	59.8
115	14-Sep-16	19:29:03	61.3	64.7	56.1	88.9	61.3	---	---	61.3	8.09E+07	61.3
116	14-Sep-16	19:30:03	60.1	62	57.8	82.8	60.1	---	---	60.1	6.14E+07	60.1
117	14-Sep-16	19:31:03	61.7	65.5	58.7	85.8	61.7	---	---	61.7	8.87E+07	61.7

118	14-Sep-16	19:32:03	60.6	63.5	57.8	87.7	60.6	---	---	60.6	6.89E+07	60.6
119	14-Sep-16	19:33:03	60.8	64.5	56.7	88.9	60.8	---	---	60.8	7.21E+07	60.8
120	14-Sep-16	19:34:03	61.2	65.1	58.3	87.7	61.2	---	---	61.2	7.91E+07	61.2
121	14-Sep-16	19:35:03	60.4	62.5	56.9	91.1	60.4	---	---	60.4	6.58E+07	60.4
122	14-Sep-16	19:36:03	60.9	65.8	57.9	88.1	60.9	---	---	60.9	7.38E+07	60.9
123	14-Sep-16	19:37:03	60.4	65.7	57.3	85.8	60.4	---	---	60.4	6.58E+07	60.4
124	14-Sep-16	19:38:03	61	63.6	57.6	87.7	61	---	---	61	7.55E+07	61.0
125	14-Sep-16	19:39:03	61.1	65.8	58.2	85.8	61.1	---	---	61.1	7.73E+07	61.1
126	14-Sep-16	19:40:03	60.2	63.3	56.1	88.1	60.2	---	---	60.2	6.28E+07	60.2
127	14-Sep-16	19:41:03	61.4	66.1	57.2	88.5	61.4	---	---	61.4	8.28E+07	61.4
128	14-Sep-16	19:42:03	60.9	64.3	57	88.5	60.9	---	---	60.9	7.38E+07	60.9
129	14-Sep-16	19:43:03	59.5	62.3	56.2	86.3	59.5	---	---	59.5	5.35E+07	59.5
130	14-Sep-16	19:44:03	62.8	70.1	59.8	90.8	62.8	---	---	62.8	1.14E+08	62.8
131	14-Sep-16	19:45:03	62.9	67.5	59.3	91.6	62.9	---	---	62.9	1.17E+08	62.9
132	14-Sep-16	19:46:03	61.8	64.5	58.9	86.3	61.8	---	---	61.8	9.08E+07	61.8
133	14-Sep-16	19:47:03	60.1	64.6	56.1	85.3	60.1	---	---	60.1	6.14E+07	60.1
134	14-Sep-16	19:48:03	60.4	67.5	55.9	84.1	60.4	---	---	60.4	6.58E+07	60.4
135	14-Sep-16	19:49:03	60.3	63.2	57.2	85.3	60.3	---	---	60.3	6.43E+07	60.3
136	14-Sep-16	19:50:03	60.7	64.5	56.9	88.5	60.7	---	---	60.7	7.05E+07	60.7
137	14-Sep-16	19:51:03	61.5	66.6	58.6	85.8	61.5	---	---	61.5	8.48E+07	61.5
138	14-Sep-16	19:52:03	59.2	62.7	55.2	84.1	59.2	---	---	59.2	4.99E+07	59.2
139	14-Sep-16	19:53:03	60.8	63.4	58.4	84.1	60.8	---	---	60.8	7.21E+07	60.8
140	14-Sep-16	19:54:03	59.3	63.2	57.3	84.8	59.3	---	---	59.3	5.11E+07	59.3
141	14-Sep-16	19:55:03	60.6	64.5	57.1	87.7	60.6	---	---	60.6	6.89E+07	60.6
142	14-Sep-16	19:56:03	60.7	65	56.9	88.5	60.7	---	---	60.7	7.05E+07	60.7
143	14-Sep-16	19:57:03	60.1	65.8	54.3	85.8	60.1	---	---	60.1	6.14E+07	60.1
144	14-Sep-16	19:58:03	61.6	67.5	57.1	87.7	61.6	---	---	61.6	8.67E+07	61.6
145	14-Sep-16	19:59:03	60.1	63.6	54.6	88.9	60.1	---	---	60.1	6.14E+07	60.1
											4.41E+09	60.9
146	14-Sep-16	20:00:03	60	63.1	56.4	83.5	60	---	---	60	6.00E+07	60.0
147	14-Sep-16	20:01:03	61.5	66.8	56	92.6	61.5	---	---	61.5	8.48E+07	61.5
148	14-Sep-16	20:02:03	60.6	66.3	56.2	84.8	60.6	---	---	60.6	6.89E+07	60.6
149	14-Sep-16	20:03:03	61.1	65.8	57.4	86.3	61.1	---	---	61.1	7.73E+07	61.1
150	14-Sep-16	20:04:03	61.5	65.1	57.3	87.3	61.5	---	---	61.5	8.48E+07	61.5
151	14-Sep-16	20:05:03	61.5	70.5	55.2	90.2	61.5	---	---	61.5	8.48E+07	61.5
152	14-Sep-16	20:06:03	60.8	65.7	56.5	87.3	60.8	---	---	60.8	7.21E+07	60.8
153	14-Sep-16	20:07:03	59.7	62.6	56.1	87.3	59.7	---	---	59.7	5.60E+07	59.7
154	14-Sep-16	20:08:03	60.2	64.7	54.6	92.6	60.2	---	---	60.2	6.28E+07	60.2
155	14-Sep-16	20:09:03	61.2	66.7	56.6	88.1	61.2	---	---	61.2	7.91E+07	61.2
156	14-Sep-16	20:10:03	61	64.6	57.1	85.8	61	---	---	61	7.55E+07	61.0
157	14-Sep-16	20:11:03	61.9	69.6	56	91.1	61.9	---	---	61.9	9.29E+07	61.9
158	14-Sep-16	20:12:03	60.5	64.3	53.8	85.8	60.5	---	---	60.5	6.73E+07	60.5
159	14-Sep-16	20:13:03	58.9	61	53.8	85.3	58.9	---	---	58.9	4.66E+07	58.9
160	14-Sep-16	20:14:03	62	69.6	56.7	88.9	62	---	---	62	9.51E+07	62.0
161	14-Sep-16	20:15:03	60.8	65.6	55.7	83.5	60.8	---	---	60.8	7.21E+07	60.8
162	14-Sep-16	20:16:03	60.8	66.5	56.6	85.3	60.8	---	---	60.8	7.21E+07	60.8
163	14-Sep-16	20:17:03	59.7	62.5	55.7	85.3	59.7	---	---	59.7	5.60E+07	59.7
164	14-Sep-16	20:18:03	60	65.1	55.5	86.3	60	---	---	60	6.00E+07	60.0
165	14-Sep-16	20:19:03	61.3	65.2	56.7	85.3	61.3	---	---	61.3	8.09E+07	61.3
166	14-Sep-16	20:20:03	61.3	65.9	57.5	87.7	61.3	---	---	61.3	8.09E+07	61.3
167	14-Sep-16	20:21:03	61.3	69.7	56.9	87.3	61.3	---	---	61.3	8.09E+07	61.3
168	14-Sep-16	20:22:03	61.2	66.1	55.4	85.8	61.2	---	---	61.2	7.91E+07	61.2
169	14-Sep-16	20:23:03	60.3	64.3	55.8	87.3	60.3	---	---	60.3	6.43E+07	60.3
170	14-Sep-16	20:24:03	59	62.2	52.7	82.8	59	---	---	59	4.77E+07	59.0
171	14-Sep-16	20:25:03	59.1	62.3	55.9	86.8	59.1	---	---	59.1	4.88E+07	59.1
172	14-Sep-16	20:26:03	61.3	67.4	54.1	89.5	61.3	---	---	61.3	8.09E+07	61.3
173	14-Sep-16	20:27:03	59.9	63.2	55.6	86.8	59.9	---	---	59.9	5.86E+07	59.9
174	14-Sep-16	20:28:03	61.2	68.9	55.6	88.9	61.2	---	---	61.2	7.91E+07	61.2
175	14-Sep-16	20:29:03	59.8	63.4	56.3	86.3	59.8	---	---	59.8	5.73E+07	59.8
176	14-Sep-16	20:30:03	59.5	64.4	52.8	87.7	59.5	---	---	59.5	5.35E+07	59.5
177	14-Sep-16	20:31:03	61.3	65.8	55.3	88.5	61.3	---	---	61.3	8.09E+07	61.3
178	14-Sep-16	20:32:03	59.3	65.2	53.6	83.5	59.3	---	---	59.3	5.11E+07	59.3
179	14-Sep-16	20:33:03	61	65.1	57.1	89.2	61	---	---	61	7.55E+07	61.0
180	14-Sep-16	20:34:03	60.3	63.7	56.4	87.3	60.3	---	---	60.3	6.43E+07	60.3
181	14-Sep-16	20:35:03	61.3	65.2	56.4	86.3	61.3	---	---	61.3	8.09E+07	61.3
182	14-Sep-16	20:36:03	61.8	69.3	57.4	91.1	61.8	---	---	61.8	9.08E+07	61.8
183	14-Sep-16	20:37:03	60.3	65.7	56.5	84.8	60.3	---	---	60.3	6.43E+07	60.3
184	14-Sep-16	20:38:03	60.6	64.8	55.5	85.3	60.6	---	---	60.6	6.89E+07	60.6
185	14-Sep-16	20:39:03	61	65.3	56.2	90.2	61	---	---	61	7.55E+07	61.0
186	14-Sep-16	20:40:03	60.1	63.6	55.5	87.7	60.1	---	---	60.1	6.14E+07	60.1
187	14-Sep-16	20:41:03	60.5	64.4	55.9	86.3	60.5	---	---	60.5	6.73E+07	60.5
188	14-Sep-16	20:42:03	60.1	63.1	56.4	84.8	60.1	---	---	60.1	6.14E+07	60.1
189	14-Sep-16	20:43:03	59.5	63.1	54.1	87.7	59.5	---	---	59.5	5.35E+07	59.5
190	14-Sep-16	20:44:03	60.3	63.7	57	85.8	60.3	---	---	60.3	6.43E+07	60.3
191	14-Sep-16	20:45:03	61.4	66.5	56.9	85.3	61.4	---	---	61.4	8.28E+07	61.4
192	14-Sep-16	20:46:03	59	63.6	55.3	85.8	59	---	---	59	4.77E+07	59.0
193	14-Sep-16	20:47:03	60.2	63.3	55.4	85.3	60.2	---	---	60.2	6.28E+07	60.2
194	14-Sep-16	20:48:03	60.3	63.6	57.1	84.8	60.3	---	---	60.3	6.43E+07	60.3
195	14-Sep-16	20:49:03	61.3	66.8	56	87.3	61.3	---	---	61.3	8.09E+07	61.3
196	14-Sep-16	20:50:03	58.6	63	55.8	84.8	58.6	---	---	58.6	4.35E+07	58.6
197	14-Sep-16	20:51:03	58.8	62.9	54.9	84.1	58.8	---	---	58.8	4.55E+07	58.8
198	14-Sep-16	20:52:03	59.9	63.6	52.4	87.7	59.9	---	---	59.9	5.86E+07	59.9
199	14-Sep-16	20:53:03	58.7	62.6	49	87.7	58.7	---	---	58.7	4.45E+07	58.7
200	14-Sep-16	20:54:03	59.1	64.5	55.4	81.2	59.1	---	---	59.1	4.88E+07	59.1

201	14-Sep-16	20:55:03	59.1	64	53.7	89.5	59.1	---	---	59.1	4.88E+07	59.1
202	14-Sep-16	20:56:03	60.1	64.1	54.7	85.3	60.1	---	---	60.1	6.14E+07	60.1
203	14-Sep-16	20:57:03	59.2	62.3	53.8	84.8	59.2	---	---	59.2	4.99E+07	59.2
204	14-Sep-16	20:58:03	59	64.6	53.2	85.8	59	---	---	59	4.77E+07	59.0
205	14-Sep-16	20:59:03	58.3	67.4	52.4	85.3	58.3	---	---	58.3	4.06E+07	58.3
											3.97E+09	60.4
206	14-Sep-16	21:00:03	58.1	61.6	51.6	86.3	58.1	---	---	58.1	3.87E+07	58.1
207	14-Sep-16	21:01:03	59.4	62.3	55.6	85.3	59.4	---	---	59.4	5.23E+07	59.4
208	14-Sep-16	21:02:03	59.8	64	52.8	88.5	59.8	---	---	59.8	5.73E+07	59.8
209	14-Sep-16	21:03:03	58.6	62.8	52.5	84.8	58.6	---	---	58.6	4.35E+07	58.6
210	14-Sep-16	21:04:03	57.2	60.6	51.8	80.3	57.2	---	---	57.2	3.15E+07	57.2
211	14-Sep-16	21:05:03	59.1	65.2	49.9	86.3	59.1	---	---	59.1	4.88E+07	59.1
212	14-Sep-16	21:06:03	60.6	68.2	55.8	84.8	60.6	---	---	60.6	6.89E+07	60.6
213	14-Sep-16	21:07:03	59	64.4	54.2	86.3	59	---	---	59	4.77E+07	59.0
214	14-Sep-16	21:08:03	59	61.7	54.9	88.9	59	---	---	59	4.77E+07	59.0
215	14-Sep-16	21:09:03	58.2	62.9	52.2	85.8	58.2	---	---	58.2	3.96E+07	58.2
216	14-Sep-16	21:10:03	59.5	64.3	54.2	88.5	59.5	---	---	59.5	5.35E+07	59.5
217	14-Sep-16	21:11:03	59.4	65.5	53.6	84.1	59.4	---	---	59.4	5.23E+07	59.4
218	14-Sep-16	21:12:03	58.6	61.7	55.4	86.3	58.6	---	---	58.6	4.35E+07	58.6
219	14-Sep-16	21:13:03	59.5	63.1	54.9	84.8	59.5	---	---	59.5	5.35E+07	59.5
220	14-Sep-16	21:14:03	58.7	63.3	54	84.1	58.7	---	---	58.7	4.45E+07	58.7
221	14-Sep-16	21:15:03	58.7	63.4	55.2	84.1	58.7	---	---	58.7	4.45E+07	58.7
222	14-Sep-16	21:16:03	56.8	60	49.5	84.8	56.8	---	---	56.8	2.87E+07	56.8
223	14-Sep-16	21:17:03	58.7	63.9	52.4	88.1	58.7	---	---	58.7	4.45E+07	58.7
224	14-Sep-16	21:18:03	58.6	64.2	51.6	84.1	58.6	---	---	58.6	4.35E+07	58.6
225	14-Sep-16	21:19:03	61.5	70.7	55	88.5	61.5	---	---	61.5	8.48E+07	61.5
226	14-Sep-16	21:20:03	59.1	64.4	52	91.1	59.1	---	---	59.1	4.88E+07	59.1
227	14-Sep-16	21:21:03	59.5	65.8	52.1	86.8	59.5	---	---	59.5	5.35E+07	59.5
228	14-Sep-16	21:22:03	57.9	62.8	52.8	85.3	57.9	---	---	57.9	3.70E+07	57.9
229	14-Sep-16	21:23:03	59.9	64.7	55.1	87.3	59.9	---	---	59.9	5.86E+07	59.9
230	14-Sep-16	21:24:03	59.9	64.1	52.9	85.8	59.9	---	---	59.9	5.86E+07	59.9
231	14-Sep-16	21:25:03	59.2	63.3	54.2	86.8	59.2	---	---	59.2	4.99E+07	59.2
232	14-Sep-16	21:26:03	59.4	68.8	50.7	85.8	59.4	---	---	59.4	5.23E+07	59.4
233	14-Sep-16	21:27:03	58.4	63.1	54.2	87.7	58.4	---	---	58.4	4.15E+07	58.4
234	14-Sep-16	21:28:03	57.5	62.8	52	84.8	57.5	---	---	57.5	3.37E+07	57.5
235	14-Sep-16	21:29:03	57.7	65.9	50.8	84.1	57.7	---	---	57.7	3.53E+07	57.7
236	14-Sep-16	21:30:03	59.7	64.6	54.5	86.3	59.7	---	---	59.7	5.60E+07	59.7
237	14-Sep-16	21:31:03	57.8	63.7	53.9	85.8	57.8	---	---	57.8	3.62E+07	57.8
238	14-Sep-16	21:32:03	59.5	65.3	51.7	84.8	59.5	---	---	59.5	5.35E+07	59.5
239	14-Sep-16	21:33:03	59.5	65.9	51.7	85.8	59.5	---	---	59.5	5.35E+07	59.5
240	14-Sep-16	21:34:03	57	59.3	54.3	82.8	57	---	---	57	3.01E+07	57.0
241	14-Sep-16	21:35:03	57.9	63.4	53.9	84.8	57.9	---	---	57.9	3.70E+07	57.9
242	14-Sep-16	21:36:03	58.4	63.6	52.9	86.3	58.4	---	---	58.4	4.15E+07	58.4
243	14-Sep-16	21:37:03	58.6	63.4	49.7	82.8	58.6	---	---	58.6	4.35E+07	58.6
244	14-Sep-16	21:38:03	58.4	63.9	53.3	86.8	58.4	---	---	58.4	4.15E+07	58.4
245	14-Sep-16	21:39:03	59.8	65.1	50.8	86.3	59.8	---	---	59.8	5.73E+07	59.8
246	14-Sep-16	21:40:03	59.5	67.1	54.7	85.8	59.5	---	---	59.5	5.35E+07	59.5
247	14-Sep-16	21:41:03	57.5	62.7	52.6	85.8	57.5	---	---	57.5	3.37E+07	57.5
248	14-Sep-16	21:42:03	59.4	68.5	51.8	86.3	59.4	---	---	59.4	5.23E+07	59.4
249	14-Sep-16	21:43:03	57.9	63.5	46.8	86.3	57.9	---	---	57.9	3.70E+07	57.9
250	14-Sep-16	21:44:03	57.6	65.6	46.5	83.5	57.6	---	---	57.6	3.45E+07	57.6
251	14-Sep-16	21:45:03	59.8	65.4	53.1	89.2	59.8	---	---	59.8	5.73E+07	59.8
252	14-Sep-16	21:46:03	58.9	64.5	53.6	88.1	58.9	---	---	58.9	4.66E+07	58.9
253	14-Sep-16	21:47:03	58.4	63.5	53.9	83.5	58.4	---	---	58.4	4.15E+07	58.4
254	14-Sep-16	21:48:03	58	62.8	52.7	83.5	58	---	---	58	3.79E+07	58.0
255	14-Sep-16	21:49:03	59.5	64.6	54.1	86.3	59.5	---	---	59.5	5.35E+07	59.5
256	14-Sep-16	21:50:03	59.1	63.5	54.6	84.1	59.1	---	---	59.1	4.88E+07	59.1
257	14-Sep-16	21:51:03	58	62.4	51.9	81.2	58	---	---	58	3.79E+07	58.0
258	14-Sep-16	21:52:03	57.7	63.1	52.6	84.8	57.7	---	---	57.7	3.53E+07	57.7
259	14-Sep-16	21:53:03	56.6	59.8	50	82.1	56.6	---	---	56.6	2.74E+07	56.6
260	14-Sep-16	21:54:03	57.6	60.4	52	78.1	57.6	---	---	57.6	3.45E+07	57.6
261	14-Sep-16	21:55:03	61	71.2	55.8	87.7	61	---	---	61	7.55E+07	61.0
262	14-Sep-16	21:56:03	60.3	64.8	53.2	86.3	60.3	---	---	60.3	6.43E+07	60.3
263	14-Sep-16	21:57:03	59.1	64.7	55.7	83.5	59.1	---	---	59.1	4.88E+07	59.1
264	14-Sep-16	21:58:03	57.6	61.1	52.8	81.2	57.6	---	---	57.6	3.45E+07	57.6
265	14-Sep-16	21:59:03	57.7	62.3	52.3	88.1	57.7	---	---	57.7	3.53E+07	57.7
											2.78E+09	58.9
266	14-Sep-16	22:00:03	58	61.5	52.6	82.1	58	---	---	58	3.79E+07	58.0
267	14-Sep-16	22:01:03	60.2	68	54.8	86.3	60.2	---	---	60.2	6.28E+07	60.2
268	14-Sep-16	22:02:03	58.3	63.5	55	82.8	58.3	---	---	58.3	4.06E+07	58.3
269	14-Sep-16	22:03:03	59	64.2	53.2	83.5	59	---	---	59	4.77E+07	59.0
270	14-Sep-16	22:04:03	59.2	64.2	55	88.9	59.2	---	---	59.2	4.99E+07	59.2
271	14-Sep-16	22:05:03	59.6	63.3	55.2	87.3	59.6	---	---	59.6	5.47E+07	59.6
272	14-Sep-16	22:06:03	60.2	65.7	53.2	85.8	60.2	---	---	60.2	6.28E+07	60.2
273	14-Sep-16	22:07:03	59.5	63.1	55.3	89.2	59.5	---	---	59.5	5.35E+07	59.5
274	14-Sep-16	22:08:03	58.1	63.3	52.9	81.2	58.1	---	---	58.1	3.87E+07	58.1
275	14-Sep-16	22:09:03	60.6	68.1	54.5	86.3	60.6	---	---	60.6	6.89E+07	60.6
276	14-Sep-16	22:10:03	59.1	61.9	54.2	82.1	59.1	---	---	59.1	4.88E+07	59.1
277	14-Sep-16	22:11:03	60	65.6	54.5	82.1	60	---	---	60	6.00E+07	60.0
278	14-Sep-16	22:12:03	61.7	66.9	55	86.3	61.7	---	---	61.7	8.87E+07	61.7
279	14-Sep-16	22:13:03	58.7	60.5	53.9	80.3	58.7	---	---	58.7	4.45E+07	58.7
280	14-Sep-16	22:14:03	60.7	65.1	53.6	85.3	60.7	---	---	60.7	7.05E+07	60.7

281	14-Sep-16	22:15:03	60.3	64.6	54.3	82.1	60.3	---	---	60.3	6.43E+07	60.3
282	14-Sep-16	22:16:03	59.6	63.9	56.1	83.5	59.6	---	---	59.6	5.47E+07	59.6
283	14-Sep-16	22:17:03	60.6	64.3	55.6	82.1	60.6	---	---	60.6	6.89E+07	60.6
284	14-Sep-16	22:18:03	65.2	74.4	57.8	89.5	65.2	---	---	65.2	1.99E+08	65.2
285	14-Sep-16	22:19:03	59.7	65.2	54.1	84.1	59.7	---	---	59.7	5.60E+07	59.7
286	14-Sep-16	22:20:03	61.1	63.3	56.7	82.8	61.1	---	---	61.1	7.73E+07	61.1
287	14-Sep-16	22:21:03	61.3	65.7	55.5	86.8	61.3	---	---	61.3	8.09E+07	61.3
288	14-Sep-16	22:22:03	58.4	60.9	54	82.1	58.4	---	---	58.4	4.15E+07	58.4
289	14-Sep-16	22:23:03	61.3	68	54.6	87.7	61.3	---	---	61.3	8.09E+07	61.3
290	14-Sep-16	22:24:03	60	68.7	52.8	85.3	60	---	---	60	6.00E+07	60.0
291	14-Sep-16	22:25:03	59.1	64	50.8	81.2	59.1	---	---	59.1	4.88E+07	59.1
292	14-Sep-16	22:26:03	60.7	65.7	49.4	86.8	60.7	---	---	60.7	7.05E+07	60.7
293	14-Sep-16	22:27:03	59.6	65.7	54.2	88.1	59.6	---	---	59.6	5.47E+07	59.6
294	14-Sep-16	22:28:03	58	60.9	53.9	84.1	58	---	---	58	3.79E+07	58.0
295	14-Sep-16	22:29:03	59	63	53.6	82.1	59	---	---	59	4.77E+07	59.0
296	14-Sep-16	22:30:03	58.3	62.1	48.6	85.3	58.3	---	---	58.3	4.06E+07	58.3
297	14-Sep-16	22:31:03	58.4	60.9	48	81.2	58.4	---	---	58.4	4.15E+07	58.4
298	14-Sep-16	22:32:03	57.9	61.6	50.9	85.3	57.9	---	---	57.9	3.70E+07	57.9
299	14-Sep-16	22:33:03	56.7	60.7	49.8	82.1	56.7	---	---	56.7	2.81E+07	56.7
300	14-Sep-16	22:34:03	55.6	60.1	48.4	81.2	55.6	---	---	55.6	2.18E+07	55.6
301	14-Sep-16	22:35:03	57.7	62	54.3	82.8	57.7	---	---	57.7	3.53E+07	57.7
302	14-Sep-16	22:36:03	58.4	62.8	51.9	85.8	58.4	---	---	58.4	4.15E+07	58.4
303	14-Sep-16	22:37:03	59.1	63.8	54.5	82.1	59.1	---	---	59.1	4.88E+07	59.1
304	14-Sep-16	22:38:03	59.7	64.9	52.1	82.8	59.7	---	---	59.7	5.60E+07	59.7
305	14-Sep-16	22:39:03	56.8	63.4	52.5	84.1	56.8	---	---	56.8	2.87E+07	56.8
306	14-Sep-16	22:40:03	58.3	64.7	52.7	82.8	58.3	---	---	58.3	4.06E+07	58.3
307	14-Sep-16	22:41:03	59	66.1	55.2	88.9	59	---	---	59	4.77E+07	59.0
308	14-Sep-16	22:42:03	56.8	60.1	49.6	81.2	56.8	---	---	56.8	2.87E+07	56.8
309	14-Sep-16	22:43:03	55.6	60.4	49.7	80.3	55.6	---	---	55.6	2.18E+07	55.6
310	14-Sep-16	22:44:03	57.1	60.5	52.6	88.5	57.1	---	---	57.1	3.08E+07	57.1
311	14-Sep-16	22:45:03	57.9	61.6	54.4	84.8	57.9	---	---	57.9	3.70E+07	57.9
312	14-Sep-16	22:46:03	58.1	61.5	53.4	83.5	58.1	---	---	58.1	3.87E+07	58.1
313	14-Sep-16	22:47:03	57	62.3	47.1	83.5	57	---	---	57	3.01E+07	57.0
314	14-Sep-16	22:48:03	57.9	64.1	48.4	88.1	57.9	---	---	57.9	3.70E+07	57.9
315	14-Sep-16	22:49:03	57.9	63.8	51.7	84.1	57.9	---	---	57.9	3.70E+07	57.9
316	14-Sep-16	22:50:03	57	63.2	48	82.1	57	---	---	57	3.01E+07	57.0
317	14-Sep-16	22:51:03	62.8	74.8	51.7	91.6	62.8	---	---	62.8	1.14E+08	62.8
318	14-Sep-16	22:52:03	57.3	61.3	53.3	82.8	57.3	---	---	57.3	3.22E+07	57.3
319	14-Sep-16	22:53:03	58.1	60.7	52	79.3	58.1	---	---	58.1	3.87E+07	58.1
320	14-Sep-16	22:54:03	56.9	61.3	53.1	82.1	56.9	---	---	56.9	2.94E+07	56.9
321	14-Sep-16	22:55:03	61.3	72.2	50.3	91.6	61.3	---	---	61.3	8.09E+07	61.3
322	14-Sep-16	22:56:03	57	62.8	50	84.1	57	---	---	57	3.01E+07	57.0
323	14-Sep-16	22:57:03	55.1	61	45.6	86.3	55.1	---	---	55.1	1.94E+07	55.1
324	14-Sep-16	22:58:03	57.3	63.1	48.7	85.3	57.3	---	---	57.3	3.22E+07	57.3
325	14-Sep-16	22:59:03	55.9	60.4	51.1	82.1	55.9	---	---	55.9	2.33E+07	55.9
											3.03E+09	59.3
326	14-Sep-16	23:00:03	59.1	62.9	53.2	90.2	59.1	---	---	59.1	4.88E+07	59.1
327	14-Sep-16	23:01:03	58.6	66.2	52.2	82.8	58.6	---	---	58.6	4.35E+07	58.6
328	14-Sep-16	23:02:03	57.2	61.7	53.9	81.2	57.2	---	---	57.2	3.15E+07	57.2
329	14-Sep-16	23:03:03	62.3	74.3	48.5	91.3	62.3	---	---	62.3	1.02E+08	62.3
330	14-Sep-16	23:04:03	57.7	62.4	51.2	82.8	57.7	---	---	57.7	3.53E+07	57.7
331	14-Sep-16	23:05:03	55	58.5	49.9	78.1	55	---	---	55	1.90E+07	55.0
332	14-Sep-16	23:06:03	56.4	61.9	46.3	86.8	56.4	---	---	56.4	2.62E+07	56.4
333	14-Sep-16	23:07:03	58.2	67	53	87.7	58.2	---	---	58.2	3.96E+07	58.2
334	14-Sep-16	23:08:03	55.1	60.8	51.6	85.3	55.1	---	---	55.1	1.94E+07	55.1
335	14-Sep-16	23:09:03	57.3	64.4	46.3	84.8	57.3	---	---	57.3	3.22E+07	57.3
336	14-Sep-16	23:10:03	56.8	62.9	50.5	85.3	56.8	---	---	56.8	2.87E+07	56.8
337	14-Sep-16	23:11:03	56.1	59.4	52.4	81.2	56.1	---	---	56.1	2.44E+07	56.1
338	14-Sep-16	23:12:03	55.4	60.5	50.6	84.8	55.4	---	---	55.4	2.08E+07	55.4
339	14-Sep-16	23:13:03	56	61.3	48.8	81.2	56	---	---	56	2.39E+07	56.0
340	14-Sep-16	23:14:03	54.9	60.3	46.4	86.3	54.9	---	---	54.9	1.85E+07	54.9
341	14-Sep-16	23:15:03	54.7	57.7	51.2	76.8	54.7	---	---	54.7	1.77E+07	54.7
342	14-Sep-16	23:16:03	56.3	61.6	48.5	81.2	56.3	---	---	56.3	2.56E+07	56.3
343	14-Sep-16	23:17:03	55.8	58.6	51.1	78.1	55.8	---	---	55.8	2.28E+07	55.8
344	14-Sep-16	23:18:03	56.7	60.7	50	82.8	56.7	---	---	56.7	2.81E+07	56.7
345	14-Sep-16	23:19:03	57.6	61.6	49.7	80.3	57.6	---	---	57.6	3.45E+07	57.6
346	14-Sep-16	23:20:03	56.9	61.4	51.3	80.3	56.9	---	---	56.9	2.94E+07	56.9
347	14-Sep-16	23:21:03	55.8	59.6	51.3	82.1	55.8	---	---	55.8	2.28E+07	55.8
348	14-Sep-16	23:22:03	57.7	63.8	51.6	86.3	57.7	---	---	57.7	3.53E+07	57.7
349	14-Sep-16	23:23:03	56.4	60.7	52.7	84.8	56.4	---	---	56.4	2.62E+07	56.4
350	14-Sep-16	23:24:03	55	60.1	43.8	82.8	55	---	---	55	1.90E+07	55.0
351	14-Sep-16	23:25:03	55.9	60.5	45.2	82.8	55.9	---	---	55.9	2.33E+07	55.9
352	14-Sep-16	23:26:03	57.9	64.7	49.3	84.1	57.9	---	---	57.9	3.70E+07	57.9
353	14-Sep-16	23:27:03	54.5	58.8	46.1	78.1	54.5	---	---	54.5	1.69E+07	54.5
354	14-Sep-16	23:28:03	55.6	61.6	50.8	82.8	55.6	---	---	55.6	2.18E+07	55.6
355	14-Sep-16	23:29:03	55.5	60.8	49.9	83.5	55.5	---	---	55.5	2.13E+07	55.5
356	14-Sep-16	23:30:03	53.9	59.5	44.4	79.3	53.9	---	---	53.9	1.47E+07	53.9
357	14-Sep-16	23:31:03	57.3	62.3	45.2	84.8	57.3	---	---	57.3	3.22E+07	57.3
358	14-Sep-16	23:32:03	54	59	44.2	79.3	54	---	---	54	1.51E+07	54.0
359	14-Sep-16	23:33:03	56.5	60.7	49	84.1	56.5	---	---	56.5	2.68E+07	56.5
360	14-Sep-16	23:34:03	55.4	61.5	46.7	79.3	55.4	---	---	55.4	2.08E+07	55.4
361	14-Sep-16	23:35:03	56.4	59.7	52.3	79.3	56.4	---	---	56.4	2.62E+07	56.4
362	14-Sep-16	23:36:03	55.9	64.5	47.7	81.2	55.9	---	---	55.9	2.33E+07	55.9
363	14-Sep-16	23:37:03	55.3	58.3	47.9	79.3	55.3	---	---	55.3	2.03E+07	55.3

364	14-Sep-16	23:38:03	56.8	63.4	46.2	81.2	56.8	---	---	56.8	2.87E+07	56.8
365	14-Sep-16	23:39:03	55.6	62.3	46.5	86.8	55.6	---	---	55.6	2.18E+07	55.6
366	14-Sep-16	23:40:03	58.8	65	49	84.8	58.8	---	---	58.8	4.55E+07	58.8
367	14-Sep-16	23:41:03	56.1	60.5	48.7	85.3	56.1	---	---	56.1	2.44E+07	56.1
368	14-Sep-16	23:42:03	55.9	59.5	49.9	86.8	55.9	---	---	55.9	2.33E+07	55.9
369	14-Sep-16	23:43:03	56.3	62.1	50.8	82.1	56.3	---	---	56.3	2.56E+07	56.3
370	14-Sep-16	23:44:03	56.1	61.8	46.3	79.3	56.1	---	---	56.1	2.44E+07	56.1
371	14-Sep-16	23:45:03	54.3	59.7	46.8	82.8	54.3	---	---	54.3	1.61E+07	54.3
372	14-Sep-16	23:46:03	55.6	60.5	47.1	80.3	55.6	---	---	55.6	2.18E+07	55.6
373	14-Sep-16	23:47:03	56.9	62.8	51.7	82.1	56.9	---	---	56.9	2.94E+07	56.9
374	14-Sep-16	23:48:03	54.5	58.8	48.3	81.2	54.5	---	---	54.5	1.69E+07	54.5
375	14-Sep-16	23:49:03	55.9	60.9	47.6	83.5	55.9	---	---	55.9	2.33E+07	55.9
376	14-Sep-16	23:50:03	54.8	59.4	46.7	82.1	54.8	---	---	54.8	1.81E+07	54.8
377	14-Sep-16	23:51:03	55	59.9	44.2	82.8	55	---	---	55	1.90E+07	55.0
378	14-Sep-16	23:52:03	56.1	61.9	51.3	82.8	56.1	---	---	56.1	2.44E+07	56.1
379	14-Sep-16	23:53:03	56.8	63.3	48.2	84.1	56.8	---	---	56.8	2.87E+07	56.8
380	14-Sep-16	23:54:03	51.2	57.1	43.3	75.2	51.2	---	---	51.2	7.91E+06	51.2
381	14-Sep-16	23:55:03	55.4	59.4	47.1	83.5	55.4	---	---	55.4	2.08E+07	55.4
382	14-Sep-16	23:56:03	56.3	63.3	43.7	84.1	56.3	---	---	56.3	2.56E+07	56.3
383	14-Sep-16	23:57:03	57.5	63.2	50.4	82.8	57.5	---	---	57.5	3.37E+07	57.5
384	14-Sep-16	23:58:03	54.4	62	47.8	83.5	54.4	---	---	54.4	1.65E+07	54.4
385	14-Sep-16	23:59:03	55.8	59.5	52.9	82.8	55.8	---	---	55.8	2.28E+07	55.8
											1.59E+09	56.5
386	15-Sep-16	0:00:03	56.2	61	46.9	83.5	56.2	---	---	56.2	2.50E+07	56.2
387	15-Sep-16	0:01:03	53.3	58.5	47.7	78.1	53.3	---	---	53.3	1.28E+07	53.3
388	15-Sep-16	0:02:03	56.3	60.9	50.3	82.1	56.3	---	---	56.3	2.56E+07	56.3
389	15-Sep-16	0:03:03	58.4	64.9	53.2	81.2	58.4	---	---	58.4	4.15E+07	58.4
390	15-Sep-16	0:04:03	56.7	60.5	53.1	81.2	56.7	---	---	56.7	2.81E+07	56.7
391	15-Sep-16	0:05:03	54.5	58.7	43.5	85.3	54.5	---	---	54.5	1.69E+07	54.5
392	15-Sep-16	0:06:03	56.9	64.6	49.5	85.8	56.9	---	---	56.9	2.94E+07	56.9
393	15-Sep-16	0:07:03	55.9	62.2	46.2	86.3	55.9	---	---	55.9	2.33E+07	55.9
394	15-Sep-16	0:08:03	55.6	60	48.8	82.8	55.6	---	---	55.6	2.18E+07	55.6
395	15-Sep-16	0:09:03	54.1	58.5	48.7	82.8	54.1	---	---	54.1	1.54E+07	54.1
396	15-Sep-16	0:10:03	54.5	58.3	49.9	76.8	54.5	---	---	54.5	1.69E+07	54.5
397	15-Sep-16	0:11:03	54.2	59.7	48.7	79.3	54.2	---	---	54.2	1.58E+07	54.2
398	15-Sep-16	0:12:03	54.7	59.9	45.1	83.5	54.7	---	---	54.7	1.77E+07	54.7
399	15-Sep-16	0:13:03	55.9	59.8	51.3	82.8	55.9	---	---	55.9	2.33E+07	55.9
400	15-Sep-16	0:14:03	58.2	66.3	49.6	88.1	58.2	---	---	58.2	3.96E+07	58.2
401	15-Sep-16	0:15:03	57.1	64.4	45.8	87.7	57.1	---	---	57.1	3.08E+07	57.1
402	15-Sep-16	0:16:03	56.9	63.7	43.9	84.8	56.9	---	---	56.9	2.94E+07	56.9
403	15-Sep-16	0:17:03	55.4	60.4	47.3	83.5	55.4	---	---	55.4	2.08E+07	55.4
404	15-Sep-16	0:18:03	55	59	48.1	85.3	55	---	---	55	1.90E+07	55.0
405	15-Sep-16	0:19:03	54.9	59	44.6	80.3	54.9	---	---	54.9	1.85E+07	54.9
406	15-Sep-16	0:20:03	57	64	45.6	86.3	57	---	---	57	3.01E+07	57.0
407	15-Sep-16	0:21:03	53.6	59	46.8	76.8	53.6	---	---	53.6	1.37E+07	53.6
408	15-Sep-16	0:22:03	54.1	59.9	48.3	83.5	54.1	---	---	54.1	1.54E+07	54.1
409	15-Sep-16	0:23:03	55.6	63.6	46.4	80.3	55.6	---	---	55.6	2.18E+07	55.6
410	15-Sep-16	0:24:03	57.4	64.9	47.7	82.1	57.4	---	---	57.4	3.30E+07	57.4
411	15-Sep-16	0:25:03	54.9	60.8	43.6	82.1	54.9	---	---	54.9	1.85E+07	54.9
412	15-Sep-16	0:26:03	53.6	60.2	46.4	82.1	53.6	---	---	53.6	1.37E+07	53.6
413	15-Sep-16	0:27:03	54.3	61.3	45.5	80.3	54.3	---	---	54.3	1.61E+07	54.3
414	15-Sep-16	0:28:03	55.2	63.6	44.7	83.5	55.2	---	---	55.2	1.99E+07	55.2
415	15-Sep-16	0:29:03	51.6	56.3	47.7	73.3	51.6	---	---	51.6	8.67E+06	51.6
416	15-Sep-16	0:30:03	56.2	59.3	49.8	83.5	56.2	---	---	56.2	2.50E+07	56.2
417	15-Sep-16	0:31:03	54.7	62.3	45.5	83.5	54.7	---	---	54.7	1.77E+07	54.7
418	15-Sep-16	0:32:03	54	60.8	45.6	79.3	54	---	---	54	1.51E+07	54.0
419	15-Sep-16	0:33:03	56.1	62.8	47.7	82.1	56.1	---	---	56.1	2.44E+07	56.1
420	15-Sep-16	0:34:03	53.2	59.6	45.1	86.3	53.2	---	---	53.2	1.25E+07	53.2
421	15-Sep-16	0:35:03	58.6	70.3	46.6	85.8	58.6	---	---	58.6	4.35E+07	58.6
422	15-Sep-16	0:36:03	50.4	55.6	42	73.3	50.4	---	---	50.4	6.58E+06	50.4
423	15-Sep-16	0:37:03	54.8	59.4	45.7	83.5	54.8	---	---	54.8	1.81E+07	54.8
424	15-Sep-16	0:38:03	55.4	63.5	45.3	84.8	55.4	---	---	55.4	2.08E+07	55.4
425	15-Sep-16	0:39:03	55.7	63.3	46.4	84.1	55.7	---	---	55.7	2.23E+07	55.7
426	15-Sep-16	0:40:03	53.7	59.3	43.4	80.3	53.7	---	---	53.7	1.41E+07	53.7
427	15-Sep-16	0:41:03	54.3	64.2	46.1	80.3	54.3	---	---	54.3	1.61E+07	54.3
428	15-Sep-16	0:42:03	55.2	62.8	42.3	84.8	55.2	---	---	55.2	1.99E+07	55.2
429	15-Sep-16	0:43:03	54.5	58.7	46	81.2	54.5	---	---	54.5	1.69E+07	54.5
430	15-Sep-16	0:44:03	55	61.1	47.6	83.5	55	---	---	55	1.90E+07	55.0
431	15-Sep-16	0:45:03	58.8	66.1	51	86.3	58.8	---	---	58.8	4.55E+07	58.8
432	15-Sep-16	0:46:03	57.4	64.6	48.2	82.1	57.4	---	---	57.4	3.30E+07	57.4
433	15-Sep-16	0:47:03	53.7	60.1	47.3	82.8	53.7	---	---	53.7	1.41E+07	53.7
434	15-Sep-16	0:48:03	54.8	60.6	47.5	85.8	54.8	---	---	54.8	1.81E+07	54.8
435	15-Sep-16	0:49:03	54.4	59	46.5	78.1	54.4	---	---	54.4	1.65E+07	54.4
436	15-Sep-16	0:50:03	52.1	58.6	41.2	76.8	52.1	---	---	52.1	9.73E+06	52.1
437	15-Sep-16	0:51:03	54.4	59.6	45.2	82.8	54.4	---	---	54.4	1.65E+07	54.4
438	15-Sep-16	0:52:03	54.5	61.5	41.6	84.1	54.5	---	---	54.5	1.69E+07	54.5
439	15-Sep-16	0:53:03	54.9	63.5	42.8	79.3	54.9	---	---	54.9	1.85E+07	54.9
440	15-Sep-16	0:54:03	52.4	58.3	40.4	80.3	52.4	---	---	52.4	1.04E+07	52.4
441	15-Sep-16	0:55:03	55.9	58.9	49.9	79.3	55.9	---	---	55.9	2.33E+07	55.9
442	15-Sep-16	0:56:03	57.9	66.5	49.7	81.2	57.9	---	---	57.9	3.70E+07	57.9
443	15-Sep-16	0:57:03	56.2	61.3	50	85.8	56.2	---	---	56.2	2.50E+07	56.2
444	15-Sep-16	0:58:03	57.1	63.5	46.8	83.5	57.1	---	---	57.1	3.08E+07	57.1
445	15-Sep-16	0:59:03	52.3	60.3	42.2	78.1	52.3	---	---	52.3	1.02E+07	52.3
											1.28E+09	55.5

446	15-Sep-16	1:00:03	57.3	64.5	44.3	87.7	57.3	---	---	57.3	3.22E+07	57.3
447	15-Sep-16	1:01:03	55.7	63.9	44.5	84.1	55.7	---	---	55.7	2.23E+07	55.7
448	15-Sep-16	1:02:03	54	61.6	47.6	83.5	54	---	---	54	1.51E+07	54.0
449	15-Sep-16	1:03:03	55	61.1	45.8	83.5	55	---	---	55	1.90E+07	55.0
450	15-Sep-16	1:04:03	52.2	60.4	42.8	78.1	52.2	---	---	52.2	9.96E+06	52.2
451	15-Sep-16	1:05:03	54	59.7	42.7	81.2	54	---	---	54	1.51E+07	54.0
452	15-Sep-16	1:06:03	54.5	60.7	42.4	85.3	54.5	---	---	54.5	1.69E+07	54.5
453	15-Sep-16	1:07:03	54.1	58.5	46.7	81.2	54.1	---	---	54.1	1.54E+07	54.1
454	15-Sep-16	1:08:03	55.4	64.7	43.6	87.3	55.4	---	---	55.4	2.08E+07	55.4
455	15-Sep-16	1:09:03	53.1	58.2	42.6	79.3	53.1	---	---	53.1	1.23E+07	53.1
456	15-Sep-16	1:10:03	55.6	61.7	42.4	84.8	55.6	---	---	55.6	2.18E+07	55.6
457	15-Sep-16	1:11:03	53.4	57.3	46.9	84.8	53.4	---	---	53.4	1.31E+07	53.4
458	15-Sep-16	1:12:03	51.5	56	42.3	76.8	51.5	---	---	51.5	8.48E+06	51.5
459	15-Sep-16	1:13:03	55.6	64.2	44.3	85.8	55.6	---	---	55.6	2.18E+07	55.6
460	15-Sep-16	1:14:03	53.8	59.2	44.3	78.1	53.8	---	---	53.8	1.44E+07	53.8
461	15-Sep-16	1:15:03	56.7	63	45.1	82.1	56.7	---	---	56.7	2.81E+07	56.7
462	15-Sep-16	1:16:03	56.6	64.4	43.7	82.1	56.6	---	---	56.6	2.74E+07	56.6
463	15-Sep-16	1:17:03	54.2	58.2	45.3	82.1	54.2	---	---	54.2	1.58E+07	54.2
464	15-Sep-16	1:18:03	53.2	58.9	41.6	80.3	53.2	---	---	53.2	1.25E+07	53.2
465	15-Sep-16	1:19:03	53.7	60.9	45.8	79.3	53.7	---	---	53.7	1.41E+07	53.7
466	15-Sep-16	1:20:03	54.1	60.7	42.6	79.3	54.1	---	---	54.1	1.54E+07	54.1
467	15-Sep-16	1:21:03	54.8	60.5	41	81.2	54.8	---	---	54.8	1.81E+07	54.8
468	15-Sep-16	1:22:03	50.5	56.5	41	73.3	50.5	---	---	50.5	6.73E+06	50.5
469	15-Sep-16	1:23:03	56.5	62.9	42.3	88.9	56.5	---	---	56.5	2.68E+07	56.5
470	15-Sep-16	1:24:03	54.2	62.9	41.4	79.3	54.2	---	---	54.2	1.58E+07	54.2
471	15-Sep-16	1:25:03	53	61.9	38.1	85.8	53	---	---	53	1.20E+07	53.0
472	15-Sep-16	1:26:03	50.9	58.3	41.3	80.3	50.9	---	---	50.9	7.38E+06	50.9
473	15-Sep-16	1:27:03	53.5	57.9	41.8	79.3	53.5	---	---	53.5	1.34E+07	53.5
474	15-Sep-16	1:28:03	54.8	63	42.5	82.1	54.8	---	---	54.8	1.81E+07	54.8
475	15-Sep-16	1:29:03	50.6	56	42.6	73.3	50.6	---	---	50.6	6.89E+06	50.6
476	15-Sep-16	1:30:03	49.5	55.7	38.9	79.3	49.5	---	---	49.5	5.35E+06	49.5
477	15-Sep-16	1:31:03	57.7	63.3	49.1	85.3	57.7	---	---	57.7	3.53E+07	57.7
478	15-Sep-16	1:32:03	54.7	59.4	43.2	88.1	54.7	---	---	54.7	1.77E+07	54.7
479	15-Sep-16	1:33:03	56.1	63.5	42.3	84.8	56.1	---	---	56.1	2.44E+07	56.1
480	15-Sep-16	1:34:03	52.2	58.2	43	78.1	52.2	---	---	52.2	9.96E+06	52.2
481	15-Sep-16	1:35:03	49.9	57.5	39.5	81.2	49.9	---	---	49.9	5.86E+06	49.9
482	15-Sep-16	1:36:03	52.8	61.3	43.9	82.1	52.8	---	---	52.8	1.14E+07	52.8
483	15-Sep-16	1:37:03	52.7	61.7	40.1	82.1	52.7	---	---	52.7	1.12E+07	52.7
484	15-Sep-16	1:38:03	52.1	60.4	43.4	83.5	52.1	---	---	52.1	9.73E+06	52.1
485	15-Sep-16	1:39:03	53.3	59.5	45.6	80.3	53.3	---	---	53.3	1.28E+07	53.3
486	15-Sep-16	1:40:03	52.8	61.8	41.9	79.3	52.8	---	---	52.8	1.14E+07	52.8
487	15-Sep-16	1:41:03	55.8	66.5	43.5	84.1	55.8	---	---	55.8	2.28E+07	55.8
488	15-Sep-16	1:42:03	53.7	59.2	44.9	80.3	53.7	---	---	53.7	1.41E+07	53.7
489	15-Sep-16	1:43:03	54.4	62.9	41.4	79.3	54.4	---	---	54.4	1.65E+07	54.4
490	15-Sep-16	1:44:03	49.4	57.4	38.2	84.8	49.4	---	---	49.4	5.23E+06	49.4
491	15-Sep-16	1:45:03	54	60.4	46.6	81.2	54	---	---	54	1.51E+07	54.0
492	15-Sep-16	1:46:03	53	60.3	43.5	83.5	53	---	---	53	1.20E+07	53.0
493	15-Sep-16	1:47:03	55.1	62.6	41.4	83.5	55.1	---	---	55.1	1.94E+07	55.1
494	15-Sep-16	1:48:03	54.3	59.3	46.8	80.3	54.3	---	---	54.3	1.61E+07	54.3
495	15-Sep-16	1:49:03	54	60.7	44.9	79.3	54	---	---	54	1.51E+07	54.0
496	15-Sep-16	1:50:03	55.7	61.5	41.3	82.8	55.7	---	---	55.7	2.23E+07	55.7
497	15-Sep-16	1:51:03	53.4	59.9	40.9	81.2	53.4	---	---	53.4	1.31E+07	53.4
498	15-Sep-16	1:52:03	59.9	68.2	48.1	83.5	59.9	---	---	59.9	5.86E+07	59.9
499	15-Sep-16	1:53:03	52.4	57.6	41.2	80.3	52.4	---	---	52.4	1.04E+07	52.4
500	15-Sep-16	1:54:03	54.3	59.6	44.9	83.5	54.3	---	---	54.3	1.61E+07	54.3
501	15-Sep-16	1:55:03	53.5	60.3	47.1	87.3	53.5	---	---	53.5	1.34E+07	53.5
502	15-Sep-16	1:56:03	54.5	63.2	46.1	81.2	54.5	---	---	54.5	1.69E+07	54.5
503	15-Sep-16	1:57:03	55	60.9	45	84.1	55	---	---	55	1.90E+07	55.0
504	15-Sep-16	1:58:03	54.3	58.3	46.3	81.2	54.3	---	---	54.3	1.61E+07	54.3
505	15-Sep-16	1:59:03	55.6	60.6	45.5	83.5	55.6	---	---	55.6	2.18E+07	55.6
											9.96E+08	54.4
506	15-Sep-16	2:00:03	57.7	66.5	40	84.1	57.7	---	---	57.7	3.53E+07	57.7
507	15-Sep-16	2:01:03	52.6	60.2	40.5	81.2	52.6	---	---	52.6	1.09E+07	52.6
508	15-Sep-16	2:02:03	56	64.8	46.7	81.2	56	---	---	56	2.39E+07	56.0
509	15-Sep-16	2:03:03	55.2	59.4	44.3	84.1	55.2	---	---	55.2	1.99E+07	55.2
510	15-Sep-16	2:04:03	49	56.6	39.3	85.3	49	---	---	49	4.77E+06	49.0
511	15-Sep-16	2:05:03	51.2	59	38.8	76.8	51.2	---	---	51.2	7.91E+06	51.2
512	15-Sep-16	2:06:03	53.9	60.3	40.6	83.5	53.9	---	---	53.9	1.47E+07	53.9
513	15-Sep-16	2:07:03	51.8	58.5	41.9	84.1	51.8	---	---	51.8	9.08E+06	51.8
514	15-Sep-16	2:08:03	51.3	58.2	40.8	76.8	51.3	---	---	51.3	8.09E+06	51.3
515	15-Sep-16	2:09:03	54	59.3	39	79.3	54	---	---	54	1.51E+07	54.0
516	15-Sep-16	2:10:03	57.9	67.2	48.5	85.3	57.9	---	---	57.9	3.70E+07	57.9
517	15-Sep-16	2:11:03	52.9	60.5	40.5	84.1	52.9	---	---	52.9	1.17E+07	52.9
518	15-Sep-16	2:12:03	54.3	60.2	41.5	82.8	54.3	---	---	54.3	1.61E+07	54.3
519	15-Sep-16	2:13:03	53	59.6	42.4	81.2	53	---	---	53	1.20E+07	53.0
520	15-Sep-16	2:14:03	51.4	60.8	42	84.1	51.4	---	---	51.4	8.28E+06	51.4
521	15-Sep-16	2:15:03	51.9	58.3	39.4	78.1	51.9	---	---	51.9	9.29E+06	51.9
522	15-Sep-16	2:16:03	55.9	65.5	41.1	79.3	55.9	---	---	55.9	2.33E+07	55.9
523	15-Sep-16	2:17:03	54.7	65	39.2	86.8	54.7	---	---	54.7	1.77E+07	54.7
524	15-Sep-16	2:18:03	52	57.4	40.5	81.2	52	---	---	52	9.51E+06	52.0
525	15-Sep-16	2:19:03	55.1	63.8	42.1	79.3	55.1	---	---	55.1	1.94E+07	55.1
526	15-Sep-16	2:20:03	57.6	62.5	49.4	83.5	57.6	---	---	57.6	3.45E+07	57.6

527	15-Sep-16	2:21:03	54.8	61.5	42.1	88.5	54.8	---	---	54.8	1.81E+07	54.8
528	15-Sep-16	2:22:03	57.2	63.5	45.4	85.8	57.2	---	---	57.2	3.15E+07	57.2
529	15-Sep-16	2:23:03	54.6	61.7	44.1	80.3	54.6	---	---	54.6	1.73E+07	54.6
530	15-Sep-16	2:24:03	54	58.2	44.4	80.3	54	---	---	54	1.51E+07	54.0
531	15-Sep-16	2:25:03	54	61.4	44.2	80.3	54	---	---	54	1.51E+07	54.0
532	15-Sep-16	2:26:03	54	63.9	39.6	82.8	54	---	---	54	1.51E+07	54.0
533	15-Sep-16	2:27:03	50.8	57	38.8	84.1	50.8	---	---	50.8	7.21E+06	50.8
534	15-Sep-16	2:28:03	54.2	61.6	44	85.3	54.2	---	---	54.2	1.58E+07	54.2
535	15-Sep-16	2:29:03	58.1	62.7	52.2	86.8	58.1	---	---	58.1	3.87E+07	58.1
536	15-Sep-16	2:30:03	53.1	61.3	42.4	82.8	53.1	---	---	53.1	1.23E+07	53.1
537	15-Sep-16	2:31:03	54	60.8	41	84.1	54	---	---	54	1.51E+07	54.0
538	15-Sep-16	2:32:03	54.4	63.1	44.5	86.8	54.4	---	---	54.4	1.65E+07	54.4
539	15-Sep-16	2:33:03	52.2	56.3	42.6	78.1	52.2	---	---	52.2	9.96E+06	52.2
540	15-Sep-16	2:34:03	52.2	57.6	39.8	81.2	52.2	---	---	52.2	9.96E+06	52.2
541	15-Sep-16	2:35:03	52.6	59.4	44.2	80.3	52.6	---	---	52.6	1.09E+07	52.6
542	15-Sep-16	2:36:03	53.7	62.7	42.1	82.1	53.7	---	---	53.7	1.41E+07	53.7
543	15-Sep-16	2:37:03	51.6	56.3	43.5	76.8	51.6	---	---	51.6	8.67E+06	51.6
544	15-Sep-16	2:38:03	53.4	60.4	39.2	83.5	53.4	---	---	53.4	1.31E+07	53.4
545	15-Sep-16	2:39:03	52.3	61.2	41.5	82.1	52.3	---	---	52.3	1.02E+07	52.3
546	15-Sep-16	2:40:03	55	60.4	46.5	84.8	55	---	---	55	1.90E+07	55.0
547	15-Sep-16	2:41:03	54.4	60.5	44.7	82.8	54.4	---	---	54.4	1.65E+07	54.4
548	15-Sep-16	2:42:03	54.2	61.1	44.1	84.1	54.2	---	---	54.2	1.58E+07	54.2
549	15-Sep-16	2:43:03	60.1	67	48.4	84.1	60.1	---	---	60.1	6.14E+07	60.1
550	15-Sep-16	2:44:03	55.8	60.4	44.8	81.2	55.8	---	---	55.8	2.28E+07	55.8
551	15-Sep-16	2:45:03	57.2	68.5	43.7	91.3	57.2	---	---	57.2	3.15E+07	57.2
552	15-Sep-16	2:46:03	55.8	62.1	40.7	81.2	55.8	---	---	55.8	2.28E+07	55.8
553	15-Sep-16	2:47:03	55.1	58.9	42.5	78.1	55.1	---	---	55.1	1.94E+07	55.1
554	15-Sep-16	2:48:03	56.5	63.1	41.4	85.8	56.5	---	---	56.5	2.68E+07	56.5
555	15-Sep-16	2:49:03	54.9	58.9	46.6	84.1	54.9	---	---	54.9	1.85E+07	54.9
556	15-Sep-16	2:50:03	56.3	62	47.7	84.8	56.3	---	---	56.3	2.56E+07	56.3
557	15-Sep-16	2:51:03	55.9	62.3	41.8	85.3	55.9	---	---	55.9	2.33E+07	55.9
558	15-Sep-16	2:52:03	57.6	66.8	45.9	90.5	57.6	---	---	57.6	3.45E+07	57.6
559	15-Sep-16	2:53:03	53	58.2	45	83.5	53	---	---	53	1.20E+07	53.0
560	15-Sep-16	2:54:03	53.9	58.7	44.1	86.3	53.9	---	---	53.9	1.47E+07	53.9
561	15-Sep-16	2:55:03	55.9	62.8	46.7	85.8	55.9	---	---	55.9	2.33E+07	55.9
562	15-Sep-16	2:56:03	53.1	59.3	45.3	80.3	53.1	---	---	53.1	1.23E+07	53.1
563	15-Sep-16	2:57:03	57.7	65.7	44.8	84.1	57.7	---	---	57.7	3.53E+07	57.7
564	15-Sep-16	2:58:03	56.3	64.1	42.9	84.1	56.3	---	---	56.3	2.56E+07	56.3
565	15-Sep-16	2:59:03	55.5	62.7	43.9	86.3	55.5	---	---	55.5	2.13E+07	55.5
											1.13E+09	55.0
566	15-Sep-16	3:00:03	53.5	59.6	42.5	83.5	53.5	---	---	53.5	1.34E+07	53.5
567	15-Sep-16	3:01:03	51.6	58.4	43.2	79.3	51.6	---	---	51.6	8.67E+06	51.6
568	15-Sep-16	3:02:03	58.7	65.9	46.6	88.5	58.7	---	---	58.7	4.45E+07	58.7
569	15-Sep-16	3:03:03	50.9	56	41.4	85.3	50.9	---	---	50.9	7.38E+06	50.9
570	15-Sep-16	3:04:03	52.1	58.3	40.9	78.1	52.1	---	---	52.1	9.73E+06	52.1
571	15-Sep-16	3:05:03	54	59	45.1	83.5	54	---	---	54	1.51E+07	54.0
572	15-Sep-16	3:06:03	50.9	58.3	42	78.1	50.9	---	---	50.9	7.38E+06	50.9
573	15-Sep-16	3:07:03	56.2	61.4	43.9	87.3	56.2	---	---	56.2	2.50E+07	56.2
574	15-Sep-16	3:08:03	59.5	71.1	43.4	92.4	59.5	---	---	59.5	5.35E+07	59.5
575	15-Sep-16	3:09:03	55.8	63.7	46.3	84.1	55.8	---	---	55.8	2.28E+07	55.8
576	15-Sep-16	3:10:03	58.3	64.5	48	85.3	58.3	---	---	58.3	4.06E+07	58.3
577	15-Sep-16	3:11:03	56.8	62.7	46.4	85.3	56.8	---	---	56.8	2.87E+07	56.8
578	15-Sep-16	3:12:03	54.5	62.5	41.7	79.3	54.5	---	---	54.5	1.69E+07	54.5
579	15-Sep-16	3:13:03	47.3	54.9	38.9	73.3	47.3	---	---	47.3	3.22E+06	47.3
580	15-Sep-16	3:14:03	55.8	61.2	39.2	85.3	55.8	---	---	55.8	2.28E+07	55.8
581	15-Sep-16	3:15:03	50.9	56.6	40.4	80.3	50.9	---	---	50.9	7.38E+06	50.9
582	15-Sep-16	3:16:03	52.4	59.9	40.2	85.3	52.4	---	---	52.4	1.04E+07	52.4
583	15-Sep-16	3:17:03	55.3	63.9	39.4	87.7	55.3	---	---	55.3	2.03E+07	55.3
584	15-Sep-16	3:18:03	55.3	62.6	44	82.8	55.3	---	---	55.3	2.03E+07	55.3
585	15-Sep-16	3:19:03	55.5	63.2	41.7	82.1	55.5	---	---	55.5	2.13E+07	55.5
586	15-Sep-16	3:20:03	50.8	58.3	40	76.8	50.8	---	---	50.8	7.21E+06	50.8
587	15-Sep-16	3:21:03	57.5	63.9	46.1	82.8	57.5	---	---	57.5	3.37E+07	57.5
588	15-Sep-16	3:22:03	56.6	60.6	51.7	80.3	56.6	---	---	56.6	2.74E+07	56.6
589	15-Sep-16	3:23:03	56.8	63.7	46.2	84.8	56.8	---	---	56.8	2.87E+07	56.8
590	15-Sep-16	3:24:03	57.2	65.8	42.1	82.1	57.2	---	---	57.2	3.15E+07	57.2
591	15-Sep-16	3:25:03	55.2	64	41.9	79.3	55.2	---	---	55.2	1.99E+07	55.2
592	15-Sep-16	3:26:03	55	62.8	41	85.3	55	---	---	55	1.90E+07	55.0
593	15-Sep-16	3:27:03	55.5	62.9	40.9	85.8	55.5	---	---	55.5	2.13E+07	55.5
594	15-Sep-16	3:28:03	59.5	68.6	44.1	86.8	59.5	---	---	59.5	5.35E+07	59.5
595	15-Sep-16	3:29:03	53.1	58.4	40.4	80.3	53.1	---	---	53.1	1.23E+07	53.1
596	15-Sep-16	3:30:03	59.7	65	49.3	88.9	59.7	---	---	59.7	5.60E+07	59.7
597	15-Sep-16	3:31:03	55.6	61.8	40.4	84.1	55.6	---	---	55.6	2.18E+07	55.6
598	15-Sep-16	3:32:03	58.2	64.1	43.5	83.5	58.2	---	---	58.2	3.96E+07	58.2
599	15-Sep-16	3:33:03	58.7	68.6	48.4	84.1	58.7	---	---	58.7	4.45E+07	58.7
600	15-Sep-16	3:34:03	55.7	63.6	40.6	85.3	55.7	---	---	55.7	2.23E+07	55.7
601	15-Sep-16	3:35:03	57.3	63.4	46.2	85.8	57.3	---	---	57.3	3.22E+07	57.3
602	15-Sep-16	3:36:03	55.1	63.6	42.6	88.5	55.1	---	---	55.1	1.94E+07	55.1
603	15-Sep-16	3:37:03	55.3	61.2	41.9	85.8	55.3	---	---	55.3	2.03E+07	55.3
604	15-Sep-16	3:38:03	50.8	56.6	37.2	76.8	50.8	---	---	50.8	7.21E+06	50.8
605	15-Sep-16	3:39:03	58.3	64.7	39.2	84.1	58.3	---	---	58.3	4.06E+07	58.3
606	15-Sep-16	3:40:03	52.9	58.1	40.3	84.1	52.9	---	---	52.9	1.17E+07	52.9
607	15-Sep-16	3:41:03	50.4	54.7	40.6	78.1	50.4	---	---	50.4	6.58E+06	50.4
608	15-Sep-16	3:42:03	54.1	60.4	41.4	81.2	54.1	---	---	54.1	1.54E+07	54.1
609	15-Sep-16	3:43:03	55.1	61.3	41.8	83.5	55.1	---	---	55.1	1.94E+07	55.1

610	15-Sep-16	3:44:03	60.5	67	51.3	85.8	60.5	---	---	60.5	6.73E+07	60.5
611	15-Sep-16	3:45:03	57.7	62.4	47.8	85.8	57.7	---	---	57.7	3.53E+07	57.7
612	15-Sep-16	3:46:03	56.3	63.2	47.5	83.5	56.3	---	---	56.3	2.56E+07	56.3
613	15-Sep-16	3:47:03	58.6	65.5	44.5	86.3	58.6	---	---	58.6	4.35E+07	58.6
614	15-Sep-16	3:48:03	56.8	62.6	46.6	85.3	56.8	---	---	56.8	2.87E+07	56.8
615	15-Sep-16	3:49:03	53.2	58.9	45.9	76.8	53.2	---	---	53.2	1.25E+07	53.2
616	15-Sep-16	3:50:03	55.9	63.5	39.4	85.8	55.9	---	---	55.9	2.33E+07	55.9
617	15-Sep-16	3:51:03	56.9	64.2	39.2	86.8	56.9	---	---	56.9	2.94E+07	56.9
618	15-Sep-16	3:52:03	57.3	65.9	46.3	87.7	57.3	---	---	57.3	3.22E+07	57.3
619	15-Sep-16	3:53:03	58	63	49.4	85.8	58	---	---	58	3.79E+07	58.0
620	15-Sep-16	3:54:03	55.7	63.3	45	86.3	55.7	---	---	55.7	2.23E+07	55.7
621	15-Sep-16	3:55:03	57.7	65	48.3	88.1	57.7	---	---	57.7	3.53E+07	57.7
622	15-Sep-16	3:56:03	58.3	64	47.8	87.3	58.3	---	---	58.3	4.06E+07	58.3
623	15-Sep-16	3:57:03	55.1	61.4	44.9	81.2	55.1	---	---	55.1	1.94E+07	55.1
624	15-Sep-16	3:58:03	56.2	61.9	48.3	83.5	56.2	---	---	56.2	2.50E+07	56.2
625	15-Sep-16	3:59:03	59.7	64.6	45.6	85.3	59.7	---	---	59.7	5.60E+07	59.7
											1.55E+09	56.3
626	15-Sep-16	4:00:03	57.2	64.3	48.1	84.8	57.2	---	---	57.2	3.15E+07	57.2
627	15-Sep-16	4:01:03	55.5	59.3	43.9	84.1	55.5	---	---	55.5	2.13E+07	55.5
628	15-Sep-16	4:02:03	56.3	60.7	48.2	85.3	56.3	---	---	56.3	2.56E+07	56.3
629	15-Sep-16	4:03:03	57.9	62.7	44.3	85.3	57.9	---	---	57.9	3.70E+07	57.9
630	15-Sep-16	4:04:03	57.9	61.9	40.6	85.3	57.9	---	---	57.9	3.70E+07	57.9
631	15-Sep-16	4:05:03	56.9	62.5	47	83.5	56.9	---	---	56.9	2.94E+07	56.9
632	15-Sep-16	4:06:03	57	63.2	44.5	84.8	57	---	---	57	3.01E+07	57.0
633	15-Sep-16	4:07:03	57.9	65.9	44.1	84.8	57.9	---	---	57.9	3.70E+07	57.9
634	15-Sep-16	4:08:03	55	60.9	49	86.8	55	---	---	55	1.90E+07	55.0
635	15-Sep-16	4:09:03	58.1	66.5	41.3	85.8	58.1	---	---	58.1	3.87E+07	58.1
636	15-Sep-16	4:10:03	59.9	67.6	51	87.3	59.9	---	---	59.9	5.86E+07	59.9
637	15-Sep-16	4:11:03	57.3	62.2	46.8	83.5	57.3	---	---	57.3	3.22E+07	57.3
638	15-Sep-16	4:12:03	60.2	68.6	45.9	87.7	60.2	---	---	60.2	6.28E+07	60.2
639	15-Sep-16	4:13:03	57.2	61.2	49.4	81.2	57.2	---	---	57.2	3.15E+07	57.2
640	15-Sep-16	4:14:03	55.5	63.2	47.4	82.1	55.5	---	---	55.5	2.13E+07	55.5
641	15-Sep-16	4:15:03	56	62.5	46.5	88.5	56	---	---	56	2.39E+07	56.0
642	15-Sep-16	4:16:03	57	61.2	52	81.2	57	---	---	57	3.01E+07	57.0
643	15-Sep-16	4:17:03	57.7	63.7	44.5	82.8	57.7	---	---	57.7	3.53E+07	57.7
644	15-Sep-16	4:18:03	57	61.9	49.1	85.8	57	---	---	57	3.01E+07	57.0
645	15-Sep-16	4:19:03	56.2	62	47.6	85.3	56.2	---	---	56.2	2.50E+07	56.2
646	15-Sep-16	4:20:03	56.6	61.1	50.5	83.5	56.6	---	---	56.6	2.74E+07	56.6
647	15-Sep-16	4:21:03	55.3	59.1	51.1	82.8	55.3	---	---	55.3	2.03E+07	55.3
648	15-Sep-16	4:22:03	57.9	62	46.6	85.3	57.9	---	---	57.9	3.70E+07	57.9
649	15-Sep-16	4:23:03	59.5	65.1	49.7	86.3	59.5	---	---	59.5	5.35E+07	59.5
650	15-Sep-16	4:24:03	59	65	45.3	82.8	59	---	---	59	4.77E+07	59.0
651	15-Sep-16	4:25:03	59.1	64.3	46.2	82.8	59.1	---	---	59.1	4.88E+07	59.1
652	15-Sep-16	4:26:03	58.4	63	52.5	84.8	58.4	---	---	58.4	4.15E+07	58.4
653	15-Sep-16	4:27:03	60.6	65.3	52.3	85.3	60.6	---	---	60.6	6.89E+07	60.6
654	15-Sep-16	4:28:03	57.2	62.5	50.1	86.3	57.2	---	---	57.2	3.15E+07	57.2
655	15-Sep-16	4:29:03	58.3	64.3	52.7	84.8	58.3	---	---	58.3	4.06E+07	58.3
656	15-Sep-16	4:30:03	56.5	61.6	46.1	84.1	56.5	---	---	56.5	2.68E+07	56.5
657	15-Sep-16	4:31:03	56.7	60.8	48.3	84.8	56.7	---	---	56.7	2.81E+07	56.7
658	15-Sep-16	4:32:03	58.8	65.1	50.4	85.3	58.8	---	---	58.8	4.55E+07	58.8
659	15-Sep-16	4:33:03	56.3	62.9	48.7	82.1	56.3	---	---	56.3	2.56E+07	56.3
660	15-Sep-16	4:34:03	57.9	63.3	50.2	83.5	57.9	---	---	57.9	3.70E+07	57.9
661	15-Sep-16	4:35:03	57.2	60.9	51.6	82.8	57.2	---	---	57.2	3.15E+07	57.2
662	15-Sep-16	4:36:03	58.2	61.8	53.4	82.8	58.2	---	---	58.2	3.96E+07	58.2
663	15-Sep-16	4:37:03	59.3	65.1	53.2	89.5	59.3	---	---	59.3	5.11E+07	59.3
664	15-Sep-16	4:38:03	58.7	63.9	53.3	82.1	58.7	---	---	58.7	4.45E+07	58.7
665	15-Sep-16	4:39:03	61.5	67.4	53	85.3	61.5	---	---	61.5	8.48E+07	61.5
666	15-Sep-16	4:40:03	57.8	61.1	52.5	82.8	57.8	---	---	57.8	3.62E+07	57.8
667	15-Sep-16	4:41:03	59.3	63.9	50.6	86.3	59.3	---	---	59.3	5.11E+07	59.3
668	15-Sep-16	4:42:03	56.9	60.8	53.2	84.8	56.9	---	---	56.9	2.94E+07	56.9
669	15-Sep-16	4:43:03	60.1	65.2	54.5	87.3	60.1	---	---	60.1	6.14E+07	60.1
670	15-Sep-16	4:44:03	58	63.6	53	91.6	58	---	---	58	3.79E+07	58.0
671	15-Sep-16	4:45:03	59.7	64.4	52.5	86.8	59.7	---	---	59.7	5.60E+07	59.7
672	15-Sep-16	4:46:03	58.5	65.9	53.5	86.3	58.5	---	---	58.5	4.25E+07	58.5
673	15-Sep-16	4:47:03	58.4	63.6	50.7	81.2	58.4	---	---	58.4	4.15E+07	58.4
674	15-Sep-16	4:48:03	57.9	64.8	52.5	84.8	57.9	---	---	57.9	3.70E+07	57.9
675	15-Sep-16	4:49:03	60.5	67.2	51.6	85.8	60.5	---	---	60.5	6.73E+07	60.5
676	15-Sep-16	4:50:03	58.9	64.2	50.2	88.5	58.9	---	---	58.9	4.66E+07	58.9
677	15-Sep-16	4:51:03	61.1	66.5	53.8	89.2	61.1	---	---	61.1	7.73E+07	61.1
678	15-Sep-16	4:52:03	61.2	67.8	54.4	88.9	61.2	---	---	61.2	7.91E+07	61.2
679	15-Sep-16	4:53:03	57.2	62.9	48.6	88.1	57.2	---	---	57.2	3.15E+07	57.2
680	15-Sep-16	4:54:03	60.8	65.3	55.1	85.3	60.8	---	---	60.8	7.21E+07	60.8
681	15-Sep-16	4:55:03	59.9	65.4	52.7	85.8	59.9	---	---	59.9	5.86E+07	59.9
682	15-Sep-16	4:56:03	58.1	64	50.6	85.8	58.1	---	---	58.1	3.87E+07	58.1
683	15-Sep-16	4:57:03	58.3	62.6	52.8	84.8	58.3	---	---	58.3	4.06E+07	58.3
684	15-Sep-16	4:58:03	58.7	62.2	53.3	84.1	58.7	---	---	58.7	4.45E+07	58.7
685	15-Sep-16	4:59:03	60.3	67.3	56.1	88.1	60.3	---	---	60.3	6.43E+07	60.3
											2.50E+09	58.4
686	15-Sep-16	5:00:03	60.6	67.8	51.2	89.5	60.6	---	---	60.6	6.89E+07	60.6
687	15-Sep-16	5:01:03	61.8	65.2	57.2	85.3	61.8	---	---	61.8	9.08E+07	61.8
688	15-Sep-16	5:02:03	61.8	69.1	55.6	88.1	61.8	---	---	61.8	9.08E+07	61.8
689	15-Sep-16	5:03:03	60.7	65.1	54.7	89.9	60.7	---	---	60.7	7.05E+07	60.7

690	15-Sep-16	5:04:03	62.1	65.7	57.5	87.7	62.1	---	---	62.1	9.73E+07	62.1
691	15-Sep-16	5:05:03	61.2	65.4	56.9	84.1	61.2	---	---	61.2	7.91E+07	61.2
692	15-Sep-16	5:06:03	60.9	64.7	54.7	88.1	60.9	---	---	60.9	7.38E+07	60.9
693	15-Sep-16	5:07:03	60.3	64.7	53.1	88.1	60.3	---	---	60.3	6.43E+07	60.3
694	15-Sep-16	5:08:03	59.1	62.6	54.6	84.1	59.1	---	---	59.1	4.88E+07	59.1
695	15-Sep-16	5:09:03	62.6	68.2	57.3	88.9	62.6	---	---	62.6	1.09E+08	62.6
696	15-Sep-16	5:10:03	59.4	64.2	56.3	84.8	59.4	---	---	59.4	5.23E+07	59.4
697	15-Sep-16	5:11:03	60.6	63.4	57.3	82.1	60.6	---	---	60.6	6.89E+07	60.6
698	15-Sep-16	5:12:03	61.1	69.4	56.2	84.8	61.1	---	---	61.1	7.73E+07	61.1
699	15-Sep-16	5:13:03	59.7	63.1	55.2	86.8	59.7	---	---	59.7	5.60E+07	59.7
700	15-Sep-16	5:14:03	59.6	63.5	55.5	85.8	59.6	---	---	59.6	5.47E+07	59.6
701	15-Sep-16	5:15:03	60.5	64.7	54.4	86.8	60.5	---	---	60.5	6.73E+07	60.5
702	15-Sep-16	5:16:03	60.3	65.2	52	87.7	60.3	---	---	60.3	6.43E+07	60.3
703	15-Sep-16	5:17:03	61.3	67.4	53.2	86.3	61.3	---	---	61.3	8.09E+07	61.3
704	15-Sep-16	5:18:03	60	68.6	55	85.3	60	---	---	60	6.00E+07	60.0
705	15-Sep-16	5:19:03	63.1	67.6	55	89.2	63.1	---	---	63.1	1.23E+08	63.1
706	15-Sep-16	5:20:03	60.1	65.3	52.6	88.1	60.1	---	---	60.1	6.14E+07	60.1
707	15-Sep-16	5:21:03	61.5	66.3	54.8	87.7	61.5	---	---	61.5	8.48E+07	61.5
708	15-Sep-16	5:22:03	59.2	65.1	52.5	86.8	59.2	---	---	59.2	4.99E+07	59.2
709	15-Sep-16	5:23:03	59	63.4	54	84.8	59	---	---	59	4.77E+07	59.0
710	15-Sep-16	5:24:03	60.9	64.7	57.1	87.7	60.9	---	---	60.9	7.38E+07	60.9
711	15-Sep-16	5:25:03	60.7	64.4	52.8	89.5	60.7	---	---	60.7	7.05E+07	60.7
712	15-Sep-16	5:26:03	60	64.9	53.8	89.2	60	---	---	60	6.00E+07	60.0
713	15-Sep-16	5:27:03	62	69.5	55	87.3	62	---	---	62	9.51E+07	62.0
714	15-Sep-16	5:28:03	60.9	66	53.3	85.3	60.9	---	---	60.9	7.38E+07	60.9
715	15-Sep-16	5:29:03	59.6	63.5	54.4	85.3	59.6	---	---	59.6	5.47E+07	59.6
716	15-Sep-16	5:30:03	61.3	64.7	57.2	85.3	61.3	---	---	61.3	8.09E+07	61.3
717	15-Sep-16	5:31:03	60.3	63.6	56.6	86.8	60.3	---	---	60.3	6.43E+07	60.3
718	15-Sep-16	5:32:03	60.8	63.8	55.6	85.8	60.8	---	---	60.8	7.21E+07	60.8
719	15-Sep-16	5:33:03	62.6	65.6	57.7	87.3	62.6	---	---	62.6	1.09E+08	62.6
720	15-Sep-16	5:34:03	63.7	69.6	59.3	88.9	63.7	---	---	63.7	1.41E+08	63.7
721	15-Sep-16	5:35:03	60.3	63.8	55.5	85.3	60.3	---	---	60.3	6.43E+07	60.3
722	15-Sep-16	5:36:03	63.1	67.6	58.6	87.7	63.1	---	---	63.1	1.23E+08	63.1
723	15-Sep-16	5:37:03	63.3	67.2	57.7	87.7	63.3	---	---	63.3	1.28E+08	63.3
724	15-Sep-16	5:38:03	63	67.4	56	87.3	63	---	---	63	1.20E+08	63.0
725	15-Sep-16	5:39:03	62.4	65.8	57	89.2	62.4	---	---	62.4	1.04E+08	62.4
726	15-Sep-16	5:40:03	63.5	67.5	57.3	88.1	63.5	---	---	63.5	1.34E+08	63.5
727	15-Sep-16	5:41:03	62.9	66	60.4	86.8	62.9	---	---	62.9	1.17E+08	62.9
728	15-Sep-16	5:42:03	64.1	68.3	59.8	89.2	64.1	---	---	64.1	1.54E+08	64.1
729	15-Sep-16	5:43:03	62.3	64.8	59.4	86.8	62.3	---	---	62.3	1.02E+08	62.3
730	15-Sep-16	5:44:03	62.4	67.4	59	88.5	62.4	---	---	62.4	1.04E+08	62.4
731	15-Sep-16	5:45:03	62.1	64.3	58.8	89.2	62.1	---	---	62.1	9.73E+07	62.1
732	15-Sep-16	5:46:03	62.7	66.5	60	89.5	62.7	---	---	62.7	1.12E+08	62.7
733	15-Sep-16	5:47:03	63.3	67.2	60.1	89.2	63.3	---	---	63.3	1.28E+08	63.3
734	15-Sep-16	5:48:03	62.9	65.3	58.7	86.3	62.9	---	---	62.9	1.17E+08	62.9
735	15-Sep-16	5:49:03	64.1	67.5	60.6	89.9	64.1	---	---	64.1	1.54E+08	64.1
736	15-Sep-16	5:50:03	62.9	65.1	59.1	88.5	62.9	---	---	62.9	1.17E+08	62.9
737	15-Sep-16	5:51:03	63.4	67.8	59.1	87.7	63.4	---	---	63.4	1.31E+08	63.4
738	15-Sep-16	5:52:03	63.8	68.7	59.7	88.9	63.8	---	---	63.8	1.44E+08	63.8
739	15-Sep-16	5:53:03	64.2	69	60.1	88.9	64.2	---	---	64.2	1.58E+08	64.2
740	15-Sep-16	5:54:03	63.6	67.5	59	88.1	63.6	---	---	63.6	1.37E+08	63.6
741	15-Sep-16	5:55:03	63.1	69.5	59	86.8	63.1	---	---	63.1	1.23E+08	63.1
742	15-Sep-16	5:56:03	62.4	66.1	57.9	88.1	62.4	---	---	62.4	1.04E+08	62.4
743	15-Sep-16	5:57:03	62.3	65.7	60	88.5	62.3	---	---	62.3	1.02E+08	62.3
744	15-Sep-16	5:58:03	62.2	65.4	59.1	88.1	62.2	---	---	62.2	9.96E+07	62.2
745	15-Sep-16	5:59:03	61.5	64	57.9	87.3	61.5	---	---	61.5	8.48E+07	61.5
											5.60E+09	61.9
746	15-Sep-16	6:00:03	62.7	66.7	58.8	91.6	62.7	---	---	62.7	1.12E+08	62.7
747	15-Sep-16	6:01:03	61.5	65.3	57	88.9	61.5	---	---	61.5	8.48E+07	61.5
748	15-Sep-16	6:02:03	63.3	67	59.3	90.8	63.3	---	---	63.3	1.28E+08	63.3
749	15-Sep-16	6:03:03	61.9	67.4	58.5	85.8	61.9	---	---	61.9	9.29E+07	61.9
750	15-Sep-16	6:04:03	62.6	65.1	59.2	87.3	62.6	---	---	62.6	1.09E+08	62.6
751	15-Sep-16	6:05:03	62.4	65.5	59.9	87.3	62.4	---	---	62.4	1.04E+08	62.4
752	15-Sep-16	6:06:03	61.8	65	59	87.3	61.8	---	---	61.8	9.08E+07	61.8
753	15-Sep-16	6:07:03	60.4	63.4	57.8	88.1	60.4	---	---	60.4	6.58E+07	60.4
754	15-Sep-16	6:08:03	63.5	67.4	59	89.5	63.5	---	---	63.5	1.34E+08	63.5
755	15-Sep-16	6:09:03	61.4	63.9	58.3	85.8	61.4	---	---	61.4	8.28E+07	61.4
756	15-Sep-16	6:10:03	60.8	62.9	56.9	85.3	60.8	---	---	60.8	7.21E+07	60.8
757	15-Sep-16	6:11:03	62.2	66.4	59.7	89.5	62.2	---	---	62.2	9.96E+07	62.2
758	15-Sep-16	6:12:03	62.2	65.1	58.1	89.9	62.2	---	---	62.2	9.96E+07	62.2
759	15-Sep-16	6:13:03	63	65.8	60.3	87.7	63	---	---	63	1.20E+08	63.0
760	15-Sep-16	6:14:03	64.2	68.6	60.1	86.8	64.2	---	---	64.2	1.58E+08	64.2
761	15-Sep-16	6:15:03	63.3	66.3	60.1	88.1	63.3	---	---	63.3	1.28E+08	63.3
762	15-Sep-16	6:16:03	63.6	65.7	60.7	88.1	63.6	---	---	63.6	1.37E+08	63.6
763	15-Sep-16	6:17:03	63.5	66.9	61.7	85.3	63.5	---	---	63.5	1.34E+08	63.5
764	15-Sep-16	6:18:03	64.5	67.1	61	88.9	64.5	---	---	64.5	1.69E+08	64.5
765	15-Sep-16	6:19:03	62	65.3	57.4	86.3	62	---	---	62	9.51E+07	62.0
766	15-Sep-16	6:20:03	63.7	66.7	60.2	89.9	63.7	---	---	63.7	1.41E+08	63.7
767	15-Sep-16	6:21:03	61.1	70.1	56.6	86.3	61.1	---	---	61.1	7.73E+07	61.1
768	15-Sep-16	6:22:03	61.7	69.1	58	90.8	61.7	---	---	61.7	8.87E+07	61.7
769	15-Sep-16	6:23:03	60.7	63.2	56.7	87.3	60.7	---	---	60.7	7.05E+07	60.7
770	15-Sep-16	6:24:03	62.2	65.3	58.8	88.1	62.2	---	---	62.2	9.96E+07	62.2
771	15-Sep-16	6:25:03	64.3	68.2	58.9	88.9	64.3	---	---	64.3	1.61E+08	64.3
772	15-Sep-16	6:26:03	62.9	67.5	60.1	91.9	62.9	---	---	62.9	1.17E+08	62.9

773	15-Sep-16	6:27:03	62.5	65.4	59.1	84.1	62.5	---	---	62.5	1.07E+08	62.5
774	15-Sep-16	6:28:03	64.8	71.6	61.4	91.9	64.8	---	---	64.8	1.81E+08	64.8
775	15-Sep-16	6:29:03	64.2	67.2	61.5	89.5	64.2	---	---	64.2	1.58E+08	64.2
776	15-Sep-16	6:30:03	62.7	67.7	59.9	88.1	62.7	---	---	62.7	1.12E+08	62.7
777	15-Sep-16	6:31:03	63.6	66.2	60.3	87.7	63.6	---	---	63.6	1.37E+08	63.6
778	15-Sep-16	6:32:03	63	65.5	60.7	86.3	63	---	---	63	1.20E+08	63.0
779	15-Sep-16	6:33:03	62.1	66.6	58.9	85.3	62.1	---	---	62.1	9.73E+07	62.1
780	15-Sep-16	6:34:03	62.1	64.6	59.5	86.8	62.1	---	---	62.1	9.73E+07	62.1
781	15-Sep-16	6:35:03	62.4	67.4	59.2	88.5	62.4	---	---	62.4	1.04E+08	62.4
782	15-Sep-16	6:36:03	65.8	76.7	60.5	91.6	65.8	---	---	65.8	2.28E+08	65.8
783	15-Sep-16	6:37:03	61.5	65.2	60.1	89.5	61.5	---	---	61.5	8.48E+07	61.5
784	15-Sep-16	6:38:03	63.2	67.5	59.6	88.9	63.2	---	---	63.2	1.25E+08	63.2
785	15-Sep-16	6:39:03	61.6	65.5	58.9	87.7	61.6	---	---	61.6	8.67E+07	61.6
786	15-Sep-16	6:40:03	62.4	66.2	59.5	86.3	62.4	---	---	62.4	1.04E+08	62.4
787	15-Sep-16	6:41:03	63.1	68.5	59.6	85.8	63.1	---	---	63.1	1.23E+08	63.1
788	15-Sep-16	6:42:03	62.4	65.1	58.7	86.3	62.4	---	---	62.4	1.04E+08	62.4
789	15-Sep-16	6:43:03	62.4	66.8	58.8	91.3	62.4	---	---	62.4	1.04E+08	62.4
790	15-Sep-16	6:44:03	62.2	65.8	58.3	89.5	62.2	---	---	62.2	9.96E+07	62.2
791	15-Sep-16	6:45:03	62.6	69.2	58.8	92.1	62.6	---	---	62.6	1.09E+08	62.6
792	15-Sep-16	6:46:03	62.6	64.8	59.9	90.2	62.6	---	---	62.6	1.09E+08	62.6
793	15-Sep-16	6:47:03	63.4	67.6	60.3	92.8	63.4	---	---	63.4	1.31E+08	63.4
794	15-Sep-16	6:48:03	63.1	65.8	60.8	88.5	63.1	---	---	63.1	1.23E+08	63.1
795	15-Sep-16	6:49:03	62.5	68.1	58.4	88.5	62.5	---	---	62.5	1.07E+08	62.5
796	15-Sep-16	6:50:03	63.6	67	61	88.5	63.6	---	---	63.6	1.37E+08	63.6
797	15-Sep-16	6:51:03	62.8	67.1	59.7	87.7	62.8	---	---	62.8	1.14E+08	62.8
798	15-Sep-16	6:52:03	61.3	63.6	58.6	84.8	61.3	---	---	61.3	8.09E+07	61.3
799	15-Sep-16	6:53:03	62.3	67	59.8	90.2	62.3	---	---	62.3	1.02E+08	62.3
800	15-Sep-16	6:54:03	62.4	66.9	59.1	84.8	62.4	---	---	62.4	1.04E+08	62.4
801	15-Sep-16	6:55:03	62.7	66.5	59.2	88.1	62.7	---	---	62.7	1.12E+08	62.7
802	15-Sep-16	6:56:03	63.5	71.3	57.2	91.1	63.5	---	---	63.5	1.34E+08	63.5
803	15-Sep-16	6:57:03	62.6	65.3	59.5	88.1	62.6	---	---	62.6	1.09E+08	62.6
804	15-Sep-16	6:58:03	61.9	64	58.8	86.8	61.9	---	---	61.9	9.29E+07	61.9
805	15-Sep-16	6:59:03	61.7	64.9	58.1	90.2	61.7	---	---	61.7	8.87E+07	61.7
											6.80E+09	62.8
806	15-Sep-16	7:00:03	61.6	65.1	59.1	90.5	61.6	---	---	61.6	8.67E+07	61.6
807	15-Sep-16	7:01:03	62.8	64.7	60.4	87.7	62.8	---	---	62.8	1.14E+08	62.8
808	15-Sep-16	7:02:03	63.1	66.3	59.6	85.8	63.1	---	---	63.1	1.23E+08	63.1
809	15-Sep-16	7:03:03	62.9	65.2	60.1	88.5	62.9	---	---	62.9	1.17E+08	62.9
810	15-Sep-16	7:04:03	62.8	64.5	58.9	89.2	62.8	---	---	62.8	1.14E+08	62.8
811	15-Sep-16	7:05:03	63.2	66.8	61.1	88.1	63.2	---	---	63.2	1.25E+08	63.2
812	15-Sep-16	7:06:03	62.5	67.5	59.4	90.5	62.5	---	---	62.5	1.07E+08	62.5
813	15-Sep-16	7:07:03	62.5	65.6	58.8	90.5	62.5	---	---	62.5	1.07E+08	62.5
814	15-Sep-16	7:08:03	61.2	64.9	58.4	85.3	61.2	---	---	61.2	7.91E+07	61.2
815	15-Sep-16	7:09:03	60.4	62.9	58	84.1	60.4	---	---	60.4	6.58E+07	60.4
816	15-Sep-16	7:10:03	61.7	64.3	58.3	86.8	61.7	---	---	61.7	8.87E+07	61.7
817	15-Sep-16	7:11:03	62.3	67.3	58.9	89.2	62.3	---	---	62.3	1.02E+08	62.3
818	15-Sep-16	7:12:03	62	65.8	58	86.3	62	---	---	62	9.51E+07	62.0
819	15-Sep-16	7:13:03	63.9	69.7	60.1	88.5	63.9	---	---	63.9	1.47E+08	63.9
820	15-Sep-16	7:14:03	61.4	64.5	57.5	85.3	61.4	---	---	61.4	8.28E+07	61.4
821	15-Sep-16	7:15:03	63.9	67.7	60.4	89.2	63.9	---	---	63.9	1.47E+08	63.9
822	15-Sep-16	7:16:03	62.5	65.3	59.2	89.5	62.5	---	---	62.5	1.07E+08	62.5
823	15-Sep-16	7:17:03	62.6	69.1	59.8	94.5	62.6	---	---	62.6	1.09E+08	62.6
824	15-Sep-16	7:18:03	63.4	69.8	58.9	92.1	63.4	---	---	63.4	1.31E+08	63.4
825	15-Sep-16	7:19:03	63.3	66.9	57.4	88.5	63.3	---	---	63.3	1.28E+08	63.3
826	15-Sep-16	7:20:03	63.4	68.2	60.7	86.8	63.4	---	---	63.4	1.31E+08	63.4
827	15-Sep-16	7:21:03	61.9	64.1	59.3	85.8	61.9	---	---	61.9	9.29E+07	61.9
828	15-Sep-16	7:22:03	62.3	65.7	59.5	88.1	62.3	---	---	62.3	1.02E+08	62.3
829	15-Sep-16	7:23:03	61.4	64.9	57.3	85.3	61.4	---	---	61.4	8.28E+07	61.4
830	15-Sep-16	7:24:03	62.7	65.3	60.3	82.8	62.7	---	---	62.7	1.12E+08	62.7
831	15-Sep-16	7:25:03	63.2	66.4	60	85.8	63.2	---	---	63.2	1.25E+08	63.2
832	15-Sep-16	7:26:03	64.3	68.3	61.6	92.4	64.3	---	---	64.3	1.61E+08	64.3
833	15-Sep-16	7:27:03	65	67.4	62.4	88.9	65	---	---	65	1.90E+08	65.0
834	15-Sep-16	7:28:03	64.9	68.1	61.1	88.5	64.9	---	---	64.9	1.85E+08	64.9
835	15-Sep-16	7:29:03	65.3	72.2	60.9	88.1	65.3	---	---	65.3	2.03E+08	65.3
836	15-Sep-16	7:30:03	65.9	72.5	62.4	88.1	65.9	---	---	65.9	2.33E+08	65.9
837	15-Sep-16	7:31:03	64.8	67.6	61	87.7	64.8	---	---	64.8	1.81E+08	64.8
838	15-Sep-16	7:32:03	63.7	65.9	61.5	86.8	63.7	---	---	63.7	1.41E+08	63.7
839	15-Sep-16	7:33:03	64.9	69.5	59.9	85.8	64.9	---	---	64.9	1.85E+08	64.9
840	15-Sep-16	7:34:03	64.3	68.7	59.7	87.7	64.3	---	---	64.3	1.61E+08	64.3
841	15-Sep-16	7:35:03	65	68.6	61.7	91.6	65	---	---	65	1.90E+08	65.0
842	15-Sep-16	7:36:03	64.3	70	58.1	86.8	64.3	---	---	64.3	1.61E+08	64.3
843	15-Sep-16	7:37:03	63.9	67.9	60.2	88.5	63.9	---	---	63.9	1.47E+08	63.9
844	15-Sep-16	7:38:03	63.3	66.4	60.1	87.3	63.3	---	---	63.3	1.28E+08	63.3
845	15-Sep-16	7:39:03	64.4	68.5	61.5	89.5	64.4	---	---	64.4	1.65E+08	64.4
846	15-Sep-16	7:40:03	63.1	66.6	60.5	89.5	63.1	---	---	63.1	1.23E+08	63.1
847	15-Sep-16	7:41:03	65.1	71.2	61.1	90.2	65.1	---	---	65.1	1.94E+08	65.1
848	15-Sep-16	7:42:03	63.7	67.7	61.1	87.7	63.7	---	---	63.7	1.41E+08	63.7
849	15-Sep-16	7:43:03	63.4	67.2	60.7	86.3	63.4	---	---	63.4	1.31E+08	63.4
850	15-Sep-16	7:44:03	63.5	67.9	59.8	88.1	63.5	---	---	63.5	1.34E+08	63.5
851	15-Sep-16	7:45:03	64.5	68.2	61.9	89.9	64.5	---	---	64.5	1.69E+08	64.5
852	15-Sep-16	7:46:03	64.2	68.2	62.2	92.8	64.2	---	---	64.2	1.58E+08	64.2
853	15-Sep-16	7:47:03	63.9	66.9	61.6	87.7	63.9	---	---	63.9	1.47E+08	63.9
854	15-Sep-16	7:48:03	63.1	67.2	58.8	86.3	63.1	---	---	63.1	1.23E+08	63.1
855	15-Sep-16	7:49:03	65.2	70.5	61.4	92.8	65.2	---	---	65.2	1.99E+08	65.2

856	15-Sep-16	7:50:03	64.8	71.4	60.4	92.4	64.8	---	---	64.8	1.81E+08	64.8
857	15-Sep-16	7:51:03	64.3	69.7	61.3	95	64.3	---	---	64.3	1.61E+08	64.3
858	15-Sep-16	7:52:03	64.6	70.2	59.5	93.3	64.6	---	---	64.6	1.73E+08	64.6
859	15-Sep-16	7:53:03	63.5	66.6	59.8	86.3	63.5	---	---	63.5	1.34E+08	63.5
860	15-Sep-16	7:54:03	63.9	69.5	61.3	87.3	63.9	---	---	63.9	1.47E+08	63.9
861	15-Sep-16	7:55:03	63.5	67.8	59.8	84.8	63.5	---	---	63.5	1.34E+08	63.5
862	15-Sep-16	7:56:03	64.6	67.7	59.8	88.9	64.6	---	---	64.6	1.73E+08	64.6
863	15-Sep-16	7:57:03	64	68.1	60.3	88.5	64	---	---	64	1.51E+08	64.0
864	15-Sep-16	7:58:03	63.3	66.5	60.5	85.8	63.3	---	---	63.3	1.28E+08	63.3
865	15-Sep-16	7:59:03	66.1	72.5	61.5	89.5	66.1	---	---	66.1	2.44E+08	66.1
											8.40E+09	63.7
866	15-Sep-16	8:00:03	64.1	69.9	61.1	86.8	64.1	---	---	64.1	1.54E+08	64.1
867	15-Sep-16	8:01:03	64.8	68.9	61.4	88.5	64.8	---	---	64.8	1.81E+08	64.8
868	15-Sep-16	8:02:03	64.1	67.7	61.4	85.8	64.1	---	---	64.1	1.54E+08	64.1
869	15-Sep-16	8:03:03	64.5	69.3	60.8	85.8	64.5	---	---	64.5	1.69E+08	64.5
870	15-Sep-16	8:04:03	66.8	74.6	62.8	91.3	66.8	---	---	66.8	2.87E+08	66.8
871	15-Sep-16	8:05:03	63.4	65.3	59.6	84.8	63.4	---	---	63.4	1.31E+08	63.4
872	15-Sep-16	8:06:03	64.7	67.8	61.9	87.3	64.7	---	---	64.7	1.77E+08	64.7
873	15-Sep-16	8:07:03	62.1	65.7	60.1	85.3	62.1	---	---	62.1	9.73E+07	62.1
874	15-Sep-16	8:08:03	64.3	68.2	61.5	89.9	64.3	---	---	64.3	1.61E+08	64.3
875	15-Sep-16	8:09:03	63.7	68.4	60.7	91.3	63.7	---	---	63.7	1.41E+08	63.7
876	15-Sep-16	8:10:03	62.7	67.8	60.3	85.8	62.7	---	---	62.7	1.12E+08	62.7
877	15-Sep-16	8:11:03	63.9	66.6	59.9	88.5	63.9	---	---	63.9	1.47E+08	63.9
878	15-Sep-16	8:12:03	64.9	73	61	89.2	64.9	---	---	64.9	1.85E+08	64.9
879	15-Sep-16	8:13:03	62.4	64.8	59.3	83.5	62.4	---	---	62.4	1.04E+08	62.4
880	15-Sep-16	8:14:03	63.9	67.4	60	84.8	63.9	---	---	63.9	1.47E+08	63.9
881	15-Sep-16	8:15:03	63.4	66.2	60.6	86.3	63.4	---	---	63.4	1.31E+08	63.4
882	15-Sep-16	8:16:03	63	67.4	60	88.1	63	---	---	63	1.20E+08	63.0
883	15-Sep-16	8:17:03	62.5	66	59.6	85.3	62.5	---	---	62.5	1.07E+08	62.5
884	15-Sep-16	8:18:03	62.4	66.3	58.6	88.1	62.4	---	---	62.4	1.04E+08	62.4
885	15-Sep-16	8:19:03	62.9	66.9	60.7	84.8	62.9	---	---	62.9	1.17E+08	62.9
886	15-Sep-16	8:20:03	63.1	67.6	60.1	88.5	63.1	---	---	63.1	1.23E+08	63.1
887	15-Sep-16	8:21:03	62.2	64.7	58	88.5	62.2	---	---	62.2	9.96E+07	62.2
888	15-Sep-16	8:22:03	61.9	64.7	58.5	86.3	61.9	---	---	61.9	9.29E+07	61.9
889	15-Sep-16	8:23:03	61.4	63.4	59.1	84.8	61.4	---	---	61.4	8.28E+07	61.4
890	15-Sep-16	8:24:03	62.1	65.6	58.7	91.1	62.1	---	---	62.1	9.73E+07	62.1
891	15-Sep-16	8:25:03	61.3	64	57.4	85.3	61.3	---	---	61.3	8.09E+07	61.3
892	15-Sep-16	8:26:03	63.4	70.8	60.3	93.3	63.4	---	---	63.4	1.31E+08	63.4
893	15-Sep-16	8:27:03	64.7	75	58.6	96.9	64.7	---	---	64.7	1.77E+08	64.7
894	15-Sep-16	8:28:03	62.2	65.8	59	84.8	62.2	---	---	62.2	9.96E+07	62.2
895	15-Sep-16	8:29:03	62.4	66.4	60.3	85.3	62.4	---	---	62.4	1.04E+08	62.4
896	15-Sep-16	8:30:03	62	64.4	59.6	85.3	62	---	---	62	9.51E+07	62.0
897	15-Sep-16	8:31:03	61.5	64	57.9	88.1	61.5	---	---	61.5	8.48E+07	61.5
898	15-Sep-16	8:32:03	63.1	66.8	59.8	88.1	63.1	---	---	63.1	1.23E+08	63.1
899	15-Sep-16	8:33:03	61.7	64.1	59.9	84.8	61.7	---	---	61.7	8.87E+07	61.7
900	15-Sep-16	8:34:03	63.2	67.3	60.1	86.3	63.2	---	---	63.2	1.25E+08	63.2
901	15-Sep-16	8:35:03	62.8	65.5	60.6	86.3	62.8	---	---	62.8	1.14E+08	62.8
902	15-Sep-16	8:36:03	61.5	64.6	59.7	85.8	61.5	---	---	61.5	8.48E+07	61.5
903	15-Sep-16	8:37:03	62.1	64.4	60.4	83.5	62.1	---	---	62.1	9.73E+07	62.1
904	15-Sep-16	8:38:03	61.7	65.7	57.4	88.1	61.7	---	---	61.7	8.87E+07	61.7
905	15-Sep-16	8:39:03	61.1	64.6	58	87.3	61.1	---	---	61.1	7.73E+07	61.1
906	15-Sep-16	8:40:03	61.4	64.6	58.9	84.1	61.4	---	---	61.4	8.28E+07	61.4
907	15-Sep-16	8:41:03	62	65.1	59.1	87.3	62	---	---	62	9.51E+07	62.0
908	15-Sep-16	8:42:03	63.4	69.8	58.9	87.7	63.4	---	---	63.4	1.31E+08	63.4
909	15-Sep-16	8:43:03	61.9	66.9	58.6	87.3	61.9	---	---	61.9	9.29E+07	61.9
910	15-Sep-16	8:44:03	62	66.5	59	84.8	62	---	---	62	9.51E+07	62.0
911	15-Sep-16	8:45:03	61.1	63	57.2	86.8	61.1	---	---	61.1	7.73E+07	61.1
912	15-Sep-16	8:46:03	61.7	65.2	59.3	86.8	61.7	---	---	61.7	8.87E+07	61.7
913	15-Sep-16	8:47:03	61.8	67.1	56.8	90.2	61.8	---	---	61.8	9.08E+07	61.8
914	15-Sep-16	8:48:03	63.1	66.4	60.3	87.7	63.1	---	---	63.1	1.23E+08	63.1
915	15-Sep-16	8:49:03	62.6	65.4	59.4	85.8	62.6	---	---	62.6	1.09E+08	62.6
916	15-Sep-16	8:50:03	62.6	68.9	59.3	88.5	62.6	---	---	62.6	1.09E+08	62.6
917	15-Sep-16	8:51:03	62.2	65.2	59.1	87.3	62.2	---	---	62.2	9.96E+07	62.2
918	15-Sep-16	8:52:03	61.1	64.8	57.4	88.1	61.1	---	---	61.1	7.73E+07	61.1
919	15-Sep-16	8:53:03	62.6	65.7	58.7	85.3	62.6	---	---	62.6	1.09E+08	62.6
920	15-Sep-16	8:54:03	62.7	66.6	58.4	90.2	62.7	---	---	62.7	1.12E+08	62.7
921	15-Sep-16	8:55:03	64.4	70.8	60	95.6	64.4	---	---	64.4	1.65E+08	64.4
922	15-Sep-16	8:56:03	61.7	65	57.9	86.8	61.7	---	---	61.7	8.87E+07	61.7
923	15-Sep-16	8:57:03	62	65.1	59.1	86.3	62	---	---	62	9.51E+07	62.0
924	15-Sep-16	8:58:03	62.8	71.2	56.2	92.8	62.8	---	---	62.8	1.14E+08	62.8
925	15-Sep-16	8:59:03	61.4	68	56.4	88.5	61.4	---	---	61.4	8.28E+07	61.4
											7.03E+09	62.9
926	15-Sep-16	9:00:03	63.2	68	58.5	88.1	63.2	---	---	63.2	1.25E+08	63.2
927	15-Sep-16	9:01:03	60.7	65.7	57.3	85.3	60.7	---	---	60.7	7.05E+07	60.7
928	15-Sep-16	9:02:03	61.8	67.9	55.8	84.8	61.8	---	---	61.8	9.08E+07	61.8
929	15-Sep-16	9:03:03	60.3	65	51.6	84.8	60.3	---	---	60.3	6.43E+07	60.3
930	15-Sep-16	9:04:03	61.8	66	58	88.1	61.8	---	---	61.8	9.08E+07	61.8
931	15-Sep-16	9:05:03	60.8	63.3	57.6	88.5	60.8	---	---	60.8	7.21E+07	60.8
932	15-Sep-16	9:06:03	61.8	64.7	57.5	86.8	61.8	---	---	61.8	9.08E+07	61.8
933	15-Sep-16	9:07:03	63	71.2	56.6	95.6	63	---	---	63	1.20E+08	63.0
934	15-Sep-16	9:08:03	62.2	68.4	58.5	92.6	62.2	---	---	62.2	9.96E+07	62.2
935	15-Sep-16	9:09:03	61	66.6	57.1	86.8	61	---	---	61	7.55E+07	61.0

936	15-Sep-16	9:10:03	61.3	64.7	58.3	86.8	61.3	---	---	61.3	8.09E+07	61.3
937	15-Sep-16	9:11:03	61.9	66.8	58.5	88.1	61.9	---	---	61.9	9.29E+07	61.9
938	15-Sep-16	9:12:03	61.1	65.1	57.6	84.8	61.1	---	---	61.1	7.73E+07	61.1
939	15-Sep-16	9:13:03	60.8	64.4	57.5	89.2	60.8	---	---	60.8	7.21E+07	60.8
940	15-Sep-16	9:14:03	62.8	66.9	59.7	87.7	62.8	---	---	62.8	1.14E+08	62.8
941	15-Sep-16	9:15:03	63	66.9	58.6	89.9	63	---	---	63	1.20E+08	63.0
942	15-Sep-16	9:16:03	62.1	70.9	57.2	86.3	62.1	---	---	62.1	9.73E+07	62.1
943	15-Sep-16	9:17:03	61.7	66.5	54.8	88.5	61.7	---	---	61.7	8.87E+07	61.7
944	15-Sep-16	9:18:03	61.9	65.1	58.8	85.8	61.9	---	---	61.9	9.29E+07	61.9
945	15-Sep-16	9:19:03	62.7	67.7	59.9	88.5	62.7	---	---	62.7	1.12E+08	62.7
946	15-Sep-16	9:20:03	61.6	64.5	58.1	86.8	61.6	---	---	61.6	8.67E+07	61.6
947	15-Sep-16	9:21:03	62	65.5	58.8	86.8	62	---	---	62	9.51E+07	62.0
948	15-Sep-16	9:22:03	62	65.8	59.3	88.5	62	---	---	62	9.51E+07	62.0
949	15-Sep-16	9:23:03	62.4	66.3	56.8	89.5	62.4	---	---	62.4	1.04E+08	62.4
950	15-Sep-16	9:24:03	61.2	64.9	57.8	87.7	61.2	---	---	61.2	7.91E+07	61.2
951	15-Sep-16	9:25:03	61.7	66.6	56.4	88.9	61.7	---	---	61.7	8.87E+07	61.7
952	15-Sep-16	9:26:03	63.8	68.9	60.9	89.2	63.8	---	---	63.8	1.44E+08	63.8
953	15-Sep-16	9:27:03	62.2	68.1	59.2	86.8	62.2	---	---	62.2	9.96E+07	62.2
954	15-Sep-16	9:28:03	61.5	64.1	58.2	88.9	61.5	---	---	61.5	8.48E+07	61.5
955	15-Sep-16	9:29:03	63	65.2	60	86.3	63	---	---	63	1.20E+08	63.0
956	15-Sep-16	9:30:03	62.9	65.9	59.7	86.8	62.9	---	---	62.9	1.17E+08	62.9
957	15-Sep-16	9:31:03	62.7	65.8	59.6	86.3	62.7	---	---	62.7	1.12E+08	62.7
958	15-Sep-16	9:32:03	62.8	66	58.1	86.8	62.8	---	---	62.8	1.14E+08	62.8
959	15-Sep-16	9:33:03	65.3	72.5	60.2	91.1	65.3	---	---	65.3	2.03E+08	65.3
960	15-Sep-16	9:34:03	62.1	65.1	58.3	87.3	62.1	---	---	62.1	9.73E+07	62.1
961	15-Sep-16	9:35:03	63.2	67	60.5	89.9	63.2	---	---	63.2	1.25E+08	63.2
962	15-Sep-16	9:36:03	62.3	66.3	59.6	84.8	62.3	---	---	62.3	1.02E+08	62.3
963	15-Sep-16	9:37:03	65.3	75.3	59.2	91.1	65.3	---	---	65.3	2.03E+08	65.3
964	15-Sep-16	9:38:03	62.4	67.2	59.5	87.3	62.4	---	---	62.4	1.04E+08	62.4
965	15-Sep-16	9:39:03	63.3	67.8	59.7	90.2	63.3	---	---	63.3	1.28E+08	63.3
966	15-Sep-16	9:40:03	61.6	64	58.9	88.1	61.6	---	---	61.6	8.67E+07	61.6
967	15-Sep-16	9:41:03	62.5	65.3	60	88.9	62.5	---	---	62.5	1.07E+08	62.5
968	15-Sep-16	9:42:03	62.2	65.3	59.6	86.3	62.2	---	---	62.2	9.96E+07	62.2
969	15-Sep-16	9:43:03	61.9	66.9	58.8	88.5	61.9	---	---	61.9	9.29E+07	61.9
970	15-Sep-16	9:44:03	63.6	66.3	59.7	88.1	63.6	---	---	63.6	1.37E+08	63.6
971	15-Sep-16	9:45:03	63.5	68.1	60.2	89.2	63.5	---	---	63.5	1.34E+08	63.5
972	15-Sep-16	9:46:03	62.1	65.9	59.1	86.8	62.1	---	---	62.1	9.73E+07	62.1
973	15-Sep-16	9:47:03	61.7	63.7	59.5	87.7	61.7	---	---	61.7	8.87E+07	61.7
974	15-Sep-16	9:48:03	63.5	67.9	59.8	89.9	63.5	---	---	63.5	1.34E+08	63.5
975	15-Sep-16	9:49:03	62.6	66.2	59.8	86.8	62.6	---	---	62.6	1.09E+08	62.6
976	15-Sep-16	9:50:03	62.8	66.2	58.5	86.8	62.8	---	---	62.8	1.14E+08	62.8
977	15-Sep-16	9:51:03	62.2	65.2	58.6	87.7	62.2	---	---	62.2	9.96E+07	62.2
978	15-Sep-16	9:52:03	61.9	65.6	59.4	85.8	61.9	---	---	61.9	9.29E+07	61.9
979	15-Sep-16	9:53:03	62.1	65.7	59.3	88.9	62.1	---	---	62.1	9.73E+07	62.1
980	15-Sep-16	9:54:03	61.7	64.7	59.3	85.3	61.7	---	---	61.7	8.87E+07	61.7
981	15-Sep-16	9:55:03	62.9	68	59.4	85.3	62.9	---	---	62.9	1.17E+08	62.9
982	15-Sep-16	9:56:03	62.1	65.1	59.1	84.1	62.1	---	---	62.1	9.73E+07	62.1
983	15-Sep-16	9:57:03	61.4	65.1	59	85.3	61.4	---	---	61.4	8.28E+07	61.4
984	15-Sep-16	9:58:03	62.3	65.5	59.6	87.7	62.3	---	---	62.3	1.02E+08	62.3
985	15-Sep-16	9:59:03	62	65	60.2	85.8	62	---	---	62	9.51E+07	62.0
											6.23E+09	62.4
986	15-Sep-16	10:00:03	62.7	66.8	60	90.2	62.7	---	---	62.7	1.12E+08	62.7
987	15-Sep-16	10:01:03	61.7	65.5	59.4	87.3	61.7	---	---	61.7	8.87E+07	61.7
988	15-Sep-16	10:02:03	61.7	65.1	58.2	86.3	61.7	---	---	61.7	8.87E+07	61.7
989	15-Sep-16	10:03:03	61.5	64.5	58.8	89.9	61.5	---	---	61.5	8.48E+07	61.5
990	15-Sep-16	10:04:03	61.6	64.5	59.8	87.3	61.6	---	---	61.6	8.67E+07	61.6
991	15-Sep-16	10:05:03	62.9	68.2	59.3	85.8	62.9	---	---	62.9	1.17E+08	62.9
992	15-Sep-16	10:06:03	61.8	65	55.3	88.1	61.8	---	---	61.8	9.08E+07	61.8
993	15-Sep-16	10:07:03	61.5	64.1	59.6	84.1	61.5	---	---	61.5	8.48E+07	61.5
994	15-Sep-16	10:08:03	62.2	66.8	59.1	89.2	62.2	---	---	62.2	9.96E+07	62.2
995	15-Sep-16	10:09:03	63	67.1	58.6	90.2	63	---	---	63	1.20E+08	63.0
996	15-Sep-16	10:10:03	63	66.7	60.1	89.2	63	---	---	63	1.20E+08	63.0
997	15-Sep-16	10:11:03	62.5	66.7	59	87.3	62.5	---	---	62.5	1.07E+08	62.5
998	15-Sep-16	10:12:03	62.1	65.1	59.6	85.8	62.1	---	---	62.1	9.73E+07	62.1
999	15-Sep-16	10:13:03	62.4	67.3	56.1	87.3	62.4	---	---	62.4	1.04E+08	62.4
1000	15-Sep-16	10:14:03	61.4	64.1	57.8	86.3	61.4	---	---	61.4	8.28E+07	61.4
1001	15-Sep-16	10:15:03	62.2	66.8	58.8	89.2	62.2	---	---	62.2	9.96E+07	62.2
1002	15-Sep-16	10:16:03	61.6	63.9	56.9	88.5	61.6	---	---	61.6	8.67E+07	61.6
1003	15-Sep-16	10:17:03	62.3	66.3	57.9	89.9	62.3	---	---	62.3	1.02E+08	62.3
1004	15-Sep-16	10:18:03	61.8	65	59	88.9	61.8	---	---	61.8	9.08E+07	61.8
1005	15-Sep-16	10:19:03	62.7	65.9	59.1	90.5	62.7	---	---	62.7	1.12E+08	62.7
1006	15-Sep-16	10:20:03	62.5	66.8	57.5	88.5	62.5	---	---	62.5	1.07E+08	62.5
1007	15-Sep-16	10:21:03	61.9	65.3	59.9	87.3	61.9	---	---	61.9	9.29E+07	61.9
1008	15-Sep-16	10:22:03	63	66.2	59.8	86.3	63	---	---	63	1.20E+08	63.0
1009	15-Sep-16	10:23:03	63.3	67	59.2	85.8	63.3	---	---	63.3	1.28E+08	63.3
1010	15-Sep-16	10:24:03	63	65.8	57.9	87.3	63	---	---	63	1.20E+08	63.0
1011	15-Sep-16	10:25:03	61.7	64.8	59.1	86.3	61.7	---	---	61.7	8.87E+07	61.7
1012	15-Sep-16	10:26:03	62.7	65.5	58.4	87.3	62.7	---	---	62.7	1.12E+08	62.7
1013	15-Sep-16	10:27:03	61.3	64.8	58	84.1	61.3	---	---	61.3	8.09E+07	61.3
1014	15-Sep-16	10:28:03	62.3	65.7	58	91.3	62.3	---	---	62.3	1.02E+08	62.3
1015	15-Sep-16	10:29:03	61.9	68.2	57.9	88.5	61.9	---	---	61.9	9.29E+07	61.9
1016	15-Sep-16	10:30:03	63.1	66.9	59.9	89.5	63.1	---	---	63.1	1.23E+08	63.1
1017	15-Sep-16	10:31:03	62.5	66.2	59.7	87.3	62.5	---	---	62.5	1.07E+08	62.5
1018	15-Sep-16	10:32:03	61.9	65.9	58.6	88.9	61.9	---	---	61.9	9.29E+07	61.9

1019	15-Sep-16	10:33:03	62.4	67.5	58.2	89.5	62.4	---	---	62.4	1.04E+08	62.4
1020	15-Sep-16	10:34:03	62.6	66.2	58.3	87.7	62.6	---	---	62.6	1.09E+08	62.6
1021	15-Sep-16	10:35:03	62	66.1	57.5	89.2	62	---	---	62	9.51E+07	62.0
1022	15-Sep-16	10:36:03	62.1	64.4	59.1	87.7	62.1	---	---	62.1	9.73E+07	62.1
1023	15-Sep-16	10:37:03	61.3	64	59	85.8	61.3	---	---	61.3	8.09E+07	61.3
1024	15-Sep-16	10:38:03	62	65.5	58.5	89.5	62	---	---	62	9.51E+07	62.0
1025	15-Sep-16	10:39:03	62.3	68.7	58.1	88.5	62.3	---	---	62.3	1.02E+08	62.3
1026	15-Sep-16	10:40:03	63	67.8	58.7	85.8	63	---	---	63	1.20E+08	63.0
1027	15-Sep-16	10:41:03	61.4	64.1	59	86.8	61.4	---	---	61.4	8.28E+07	61.4
1028	15-Sep-16	10:42:03	61.2	63.9	57.8	87.7	61.2	---	---	61.2	7.91E+07	61.2
1029	15-Sep-16	10:43:03	61.6	64.6	59	90.8	61.6	---	---	61.6	8.67E+07	61.6
1030	15-Sep-16	10:44:03	62.6	65.6	57.9	90.5	62.6	---	---	62.6	1.09E+08	62.6
1031	15-Sep-16	10:45:03	61.2	65.8	58.2	84.8	61.2	---	---	61.2	7.91E+07	61.2
1032	15-Sep-16	10:46:03	64.2	74.8	59.1	94.7	64.2	---	---	64.2	1.58E+08	64.2
1033	15-Sep-16	10:47:03	64	68	60.7	89.9	64	---	---	64	1.51E+08	64.0
1034	15-Sep-16	10:48:03	62.6	65.7	59.9	87.7	62.6	---	---	62.6	1.09E+08	62.6
1035	15-Sep-16	10:49:03	62.9	67.5	58.8	85.8	62.9	---	---	62.9	1.17E+08	62.9
1036	15-Sep-16	10:50:03	62.4	66.1	60.1	87.3	62.4	---	---	62.4	1.04E+08	62.4
1037	15-Sep-16	10:51:03	63	67.1	59.9	91.9	63	---	---	63	1.20E+08	63.0
1038	15-Sep-16	10:52:03	63.2	67.5	59.8	88.1	63.2	---	---	63.2	1.25E+08	63.2
1039	15-Sep-16	10:53:03	64.5	73	60.3	90.2	64.5	---	---	64.5	1.69E+08	64.5
1040	15-Sep-16	10:54:03	62.2	66.9	58.6	88.9	62.2	---	---	62.2	9.96E+07	62.2
1041	15-Sep-16	10:55:03	63.5	68.9	59.2	86.8	63.5	---	---	63.5	1.34E+08	63.5
1042	15-Sep-16	10:56:03	61.7	65.8	58.5	88.5	61.7	---	---	61.7	8.87E+07	61.7
1043	15-Sep-16	10:57:03	61.8	68.1	58.2	87.7	61.8	---	---	61.8	9.08E+07	61.8
1044	15-Sep-16	10:58:03	63.7	67	61	90.8	63.7	---	---	63.7	1.41E+08	63.7
1045	15-Sep-16	10:59:03	61.9	65.2	59	89.2	61.9	---	---	61.9	9.29E+07	61.9
											6.28E+09	62.4
1046	15-Sep-16	11:00:03	62.5	65.5	60.6	91.1	62.5	---	---	62.5	1.07E+08	62.5
1047	15-Sep-16	11:01:03	62.7	67.5	59.3	92.4	62.7	---	---	62.7	1.12E+08	62.7
1048	15-Sep-16	11:02:03	62.7	67.7	57.2	89.2	62.7	---	---	62.7	1.12E+08	62.7
1049	15-Sep-16	11:03:03	62.9	66.2	59	89.5	62.9	---	---	62.9	1.17E+08	62.9
1050	15-Sep-16	11:04:03	62.9	66.9	59.9	90.2	62.9	---	---	62.9	1.17E+08	62.9
1051	15-Sep-16	11:05:03	64.2	71.3	59.7	89.9	64.2	---	---	64.2	1.58E+08	64.2
1052	15-Sep-16	11:06:03	61.9	64.6	59.3	89.2	61.9	---	---	61.9	9.29E+07	61.9
1053	15-Sep-16	11:07:03	61.4	64	55.6	87.7	61.4	---	---	61.4	8.28E+07	61.4
1054	15-Sep-16	11:08:03	60.8	63.7	57.1	88.5	60.8	---	---	60.8	7.21E+07	60.8
1055	15-Sep-16	11:09:03	61.7	64.6	59	88.1	61.7	---	---	61.7	8.87E+07	61.7
1056	15-Sep-16	11:10:03	61.4	65.2	56	88.5	61.4	---	---	61.4	8.28E+07	61.4
1057	15-Sep-16	11:11:03	62.6	64.7	60.2	85.8	62.6	---	---	62.6	1.09E+08	62.6
1058	15-Sep-16	11:12:03	62.9	70.4	57.1	89.5	62.9	---	---	62.9	1.17E+08	62.9
1059	15-Sep-16	11:13:03	62.8	66.4	57.9	86.3	62.8	---	---	62.8	1.14E+08	62.8
1060	15-Sep-16	11:14:03	63.7	66.4	59.9	89.9	63.7	---	---	63.7	1.41E+08	63.7
1061	15-Sep-16	11:15:03	63.7	65.9	60.9	88.1	63.7	---	---	63.7	1.41E+08	63.7
1062	15-Sep-16	11:16:03	63.2	65.9	59.4	89.2	63.2	---	---	63.2	1.25E+08	63.2
1063	15-Sep-16	11:17:03	63.8	69.2	60.2	88.5	63.8	---	---	63.8	1.44E+08	63.8
1064	15-Sep-16	11:18:03	63.6	65.8	61.9	87.7	63.6	---	---	63.6	1.37E+08	63.6
1065	15-Sep-16	11:19:03	63.2	65.4	57.1	87.3	63.2	---	---	63.2	1.25E+08	63.2
1066	15-Sep-16	11:20:03	61.6	64.2	59	90.8	61.6	---	---	61.6	8.67E+07	61.6
1067	15-Sep-16	11:21:03	62.8	66	60	86.8	62.8	---	---	62.8	1.14E+08	62.8
1068	15-Sep-16	11:22:03	63.2	67.6	60.3	88.1	63.2	---	---	63.2	1.25E+08	63.2
1069	15-Sep-16	11:23:03	60.9	64.1	57.9	85.3	60.9	---	---	60.9	7.38E+07	60.9
1070	15-Sep-16	11:24:03	60.7	63.1	58.3	87.7	60.7	---	---	60.7	7.05E+07	60.7
1071	15-Sep-16	11:25:03	61.7	66.2	58.2	88.1	61.7	---	---	61.7	8.87E+07	61.7
1072	15-Sep-16	11:26:03	63.2	67.9	58.9	87.7	63.2	---	---	63.2	1.25E+08	63.2
1073	15-Sep-16	11:27:03	62.7	65.8	58.3	88.5	62.7	---	---	62.7	1.12E+08	62.7
1074	15-Sep-16	11:28:03	62.1	65.2	58.6	88.1	62.1	---	---	62.1	9.73E+07	62.1
1075	15-Sep-16	11:29:03	61.6	64.7	57.8	87.7	61.6	---	---	61.6	8.67E+07	61.6
1076	15-Sep-16	11:30:03	62.9	66.9	59	89.2	62.9	---	---	62.9	1.17E+08	62.9
1077	15-Sep-16	11:31:03	63.2	65.8	60.3	89.9	63.2	---	---	63.2	1.25E+08	63.2
1078	15-Sep-16	11:32:03	63.7	66.7	59.7	95.2	63.7	---	---	63.7	1.41E+08	63.7
1079	15-Sep-16	11:33:03	63.2	70.2	58.2	89.5	63.2	---	---	63.2	1.25E+08	63.2
1080	15-Sep-16	11:34:03	62.4	65.2	58.2	87.7	62.4	---	---	62.4	1.04E+08	62.4
1081	15-Sep-16	11:35:03	63.7	66.6	60.2	91.3	63.7	---	---	63.7	1.41E+08	63.7
1082	15-Sep-16	11:36:03	63	68.3	57.6	88.1	63	---	---	63	1.20E+08	63.0
1083	15-Sep-16	11:37:03	63.1	67.2	60.5	91.3	63.1	---	---	63.1	1.23E+08	63.1
1084	15-Sep-16	11:38:03	62.2	65.9	58.5	90.2	62.2	---	---	62.2	9.96E+07	62.2
1085	15-Sep-16	11:39:03	63.6	68.8	60.9	89.9	63.6	---	---	63.6	1.37E+08	63.6
1086	15-Sep-16	11:40:03	64.5	69	59.8	90.8	64.5	---	---	64.5	1.69E+08	64.5
1087	15-Sep-16	11:41:03	63.7	67.1	59.3	88.1	63.7	---	---	63.7	1.41E+08	63.7
1088	15-Sep-16	11:42:03	63.3	68.1	59.9	88.1	63.3	---	---	63.3	1.28E+08	63.3
1089	15-Sep-16	11:43:03	65.9	74.7	61.1	93.7	65.9	---	---	65.9	2.33E+08	65.9
1090	15-Sep-16	11:44:03	62.7	64.6	59.4	88.5	62.7	---	---	62.7	1.12E+08	62.7
1091	15-Sep-16	11:45:03	62.8	66.2	59.1	87.7	62.8	---	---	62.8	1.14E+08	62.8
1092	15-Sep-16	11:46:03	63.3	68.5	60.2	86.3	63.3	---	---	63.3	1.28E+08	63.3
1093	15-Sep-16	11:47:03	63.8	67.2	61.7	87.3	63.8	---	---	63.8	1.44E+08	63.8
1094	15-Sep-16	11:48:03	64.5	67.6	61.4	89.2	64.5	---	---	64.5	1.69E+08	64.5
1095	15-Sep-16	11:49:03	63.4	66.2	60.5	85.3	63.4	---	---	63.4	1.31E+08	63.4
1096	15-Sep-16	11:50:03	64.8	67.4	63	89.5	64.8	---	---	64.8	1.81E+08	64.8
1097	15-Sep-16	11:51:03	62.2	65.3	57.9	88.1	62.2	---	---	62.2	9.96E+07	62.2
1098	15-Sep-16	11:52:03	63.8	66.7	61	88.1	63.8	---	---	63.8	1.44E+08	63.8
1099	15-Sep-16	11:53:03	63.9	68.5	60.9	88.9	63.9	---	---	63.9	1.47E+08	63.9
1100	15-Sep-16	11:54:03	62.6	66.5	60.4	88.1	62.6	---	---	62.6	1.09E+08	62.6
1101	15-Sep-16	11:55:03	63.5	66.5	59.6	89.9	63.5	---	---	63.5	1.34E+08	63.5

1102	15-Sep-16	11:56:03	63.7	66.8	59.1	88.1	63.7	---	---	63.7	1.41E+08	63.7
1103	15-Sep-16	11:57:03	62.7	68.9	59	86.3	62.7	---	---	62.7	1.12E+08	62.7
1104	15-Sep-16	11:58:03	62	64.3	60	85.3	62	---	---	62	9.51E+07	62.0
1105	15-Sep-16	11:59:03	63.3	66.3	60.3	90.2	63.3	---	---	63.3	1.28E+08	63.3
											7.27E+09	63.1
1106	15-Sep-16	12:00:03	64.5	68.2	59.7	89.2	64.5	---	---	64.5	1.69E+08	64.5
1107	15-Sep-16	12:01:03	64.8	72.7	58.9	91.1	64.8	---	---	64.8	1.81E+08	64.8
1108	15-Sep-16	12:02:03	64.5	71.5	60.9	87.7	64.5	---	---	64.5	1.69E+08	64.5
1109	15-Sep-16	12:03:03	64.1	68.1	61.6	91.1	64.1	---	---	64.1	1.54E+08	64.1
1110	15-Sep-16	12:04:03	63.6	66.3	60.5	88.5	63.6	---	---	63.6	1.37E+08	63.6
1111	15-Sep-16	12:05:03	63.9	68.3	59.7	89.5	63.9	---	---	63.9	1.47E+08	63.9
1112	15-Sep-16	12:06:03	63.2	66.7	59.6	88.1	63.2	---	---	63.2	1.25E+08	63.2
1113	15-Sep-16	12:07:03	63.1	68.8	58.8	90.8	63.1	---	---	63.1	1.23E+08	63.1
1114	15-Sep-16	12:08:03	63.3	68.3	59.6	87.7	63.3	---	---	63.3	1.28E+08	63.3
1115	15-Sep-16	12:09:03	64.5	70.6	58.7	88.9	64.5	---	---	64.5	1.69E+08	64.5
1116	15-Sep-16	12:10:03	62.3	68.2	58.1	89.2	62.3	---	---	62.3	1.02E+08	62.3
1117	15-Sep-16	12:11:03	62.5	64.2	59.5	86.8	62.5	---	---	62.5	1.07E+08	62.5
1118	15-Sep-16	12:12:03	64	66.9	61.4	89.2	64	---	---	64	1.51E+08	64.0
1119	15-Sep-16	12:13:03	62.6	65.9	59.7	84.8	62.6	---	---	62.6	1.09E+08	62.6
1120	15-Sep-16	12:14:03	63.4	69.2	59.5	87.7	63.4	---	---	63.4	1.31E+08	63.4
1121	15-Sep-16	12:15:03	62.8	68	57.1	89.5	62.8	---	---	62.8	1.14E+08	62.8
1122	15-Sep-16	12:16:03	63.2	69.8	59.2	90.5	63.2	---	---	63.2	1.25E+08	63.2
1123	15-Sep-16	12:17:03	63.5	65.5	60.6	88.9	63.5	---	---	63.5	1.34E+08	63.5
1124	15-Sep-16	12:18:03	64.3	67.4	62	92.6	64.3	---	---	64.3	1.61E+08	64.3
1125	15-Sep-16	12:19:03	63.9	67.4	61.2	87.7	63.9	---	---	63.9	1.47E+08	63.9
1126	15-Sep-16	12:20:03	63.9	67.6	60.4	88.9	63.9	---	---	63.9	1.47E+08	63.9
1127	15-Sep-16	12:21:03	63.7	68.4	59.5	89.5	63.7	---	---	63.7	1.41E+08	63.7
1128	15-Sep-16	12:22:03	62.2	64.7	60.2	89.2	62.2	---	---	62.2	9.96E+07	62.2
1129	15-Sep-16	12:23:03	62	66.6	58.2	88.9	62	---	---	62	9.51E+07	62.0
1130	15-Sep-16	12:24:03	62.2	65.6	58.4	85.3	62.2	---	---	62.2	9.96E+07	62.2
1131	15-Sep-16	12:25:03	62.2	65.5	58.9	88.1	62.2	---	---	62.2	9.96E+07	62.2
1132	15-Sep-16	12:26:03	62.9	66.6	59.8	87.3	62.9	---	---	62.9	1.17E+08	62.9
1133	15-Sep-16	12:27:03	61.8	66.8	56.5	87.7	61.8	---	---	61.8	9.08E+07	61.8
1134	15-Sep-16	12:28:03	62.7	66	58.9	90.8	62.7	---	---	62.7	1.12E+08	62.7
1135	15-Sep-16	12:29:03	62.3	65.3	55.8	88.1	62.3	---	---	62.3	1.02E+08	62.3
1136	15-Sep-16	12:30:03	63.5	66.3	60.3	88.9	63.5	---	---	63.5	1.34E+08	63.5
1137	15-Sep-16	12:31:03	63.8	67.6	61	86.8	63.8	---	---	63.8	1.44E+08	63.8
1138	15-Sep-16	12:32:03	63.9	66.9	61	86.8	63.9	---	---	63.9	1.47E+08	63.9
1139	15-Sep-16	12:33:03	62.9	67	57.3	86.3	62.9	---	---	62.9	1.17E+08	62.9
1140	15-Sep-16	12:34:03	63.9	69	60.3	89.2	63.9	---	---	63.9	1.47E+08	63.9
1141	15-Sep-16	12:35:03	61.5	64.3	58.7	85.8	61.5	---	---	61.5	8.48E+07	61.5
1142	15-Sep-16	12:36:03	63.2	70.5	59.4	96	63.2	---	---	63.2	1.25E+08	63.2
1143	15-Sep-16	12:37:03	61.7	66.9	58	89.9	61.7	---	---	61.7	8.87E+07	61.7
1144	15-Sep-16	12:38:03	63.6	66.8	59.4	87.3	63.6	---	---	63.6	1.37E+08	63.6
1145	15-Sep-16	12:39:03	63.9	69	60	87.7	63.9	---	---	63.9	1.47E+08	63.9
1146	15-Sep-16	12:40:03	65	70.6	61.1	87.7	65	---	---	65	1.90E+08	65.0
1147	15-Sep-16	12:41:03	65.3	70.7	62.2	90.2	65.3	---	---	65.3	2.03E+08	65.3
1148	15-Sep-16	12:42:03	64.8	68.5	61.1	90.5	64.8	---	---	64.8	1.81E+08	64.8
1149	15-Sep-16	12:43:03	64.9	69.5	61.3	88.9	64.9	---	---	64.9	1.85E+08	64.9
1150	15-Sep-16	12:44:03	63.8	69	60.7	88.1	63.8	---	---	63.8	1.44E+08	63.8
1151	15-Sep-16	12:45:03	64.6	67.2	60.6	87.7	64.6	---	---	64.6	1.73E+08	64.6
1152	15-Sep-16	12:46:03	63.4	67.4	59.3	88.5	63.4	---	---	63.4	1.31E+08	63.4
1153	15-Sep-16	12:47:03	64.4	67.9	59.3	88.1	64.4	---	---	64.4	1.65E+08	64.4
1154	15-Sep-16	12:48:03	64.1	68.8	60.2	88.5	64.1	---	---	64.1	1.54E+08	64.1
1155	15-Sep-16	12:49:03	62.6	64.7	57.3	87.3	62.6	---	---	62.6	1.09E+08	62.6
1156	15-Sep-16	12:50:03	64.6	68.2	62.3	89.5	64.6	---	---	64.6	1.73E+08	64.6
1157	15-Sep-16	12:51:03	63.5	66.7	60.7	88.5	63.5	---	---	63.5	1.34E+08	63.5
1158	15-Sep-16	12:52:03	63.7	66.1	60.8	88.5	63.7	---	---	63.7	1.41E+08	63.7
1159	15-Sep-16	12:53:03	64.8	72	60.8	91.3	64.8	---	---	64.8	1.81E+08	64.8
1160	15-Sep-16	12:54:03	63.8	67.7	60	87.3	63.8	---	---	63.8	1.44E+08	63.8
1161	15-Sep-16	12:55:03	63	68.1	59.6	90.5	63	---	---	63	1.20E+08	63.0
1162	15-Sep-16	12:56:03	62.6	66.3	59.6	90.8	62.6	---	---	62.6	1.09E+08	62.6
1163	15-Sep-16	12:57:03	62.5	66.1	59.6	89.2	62.5	---	---	62.5	1.07E+08	62.5
1164	15-Sep-16	12:58:03	64	67	61.1	89.2	64	---	---	64	1.51E+08	64.0
1165	15-Sep-16	12:59:03	63.4	70.4	59.4	92.4	63.4	---	---	63.4	1.31E+08	63.4
											8.19E+09	63.6
1166	15-Sep-16	13:00:03	62.5	65.7	60.4	86.3	62.5	---	---	62.5	1.07E+08	62.5
1167	15-Sep-16	13:01:03	62.3	64.8	59	89.5	62.3	---	---	62.3	1.02E+08	62.3
1168	15-Sep-16	13:02:03	65.2	71.4	60.6	91.9	65.2	---	---	65.2	1.99E+08	65.2
1169	15-Sep-16	13:03:03	64.2	68.1	60.2	89.5	64.2	---	---	64.2	1.58E+08	64.2
1170	15-Sep-16	13:04:03	62.8	66.9	59.4	87.7	62.8	---	---	62.8	1.14E+08	62.8
1171	15-Sep-16	13:05:03	63.8	70.3	59.7	95	63.8	---	---	63.8	1.44E+08	63.8
1172	15-Sep-16	13:06:03	63.8	66.3	61.3	86.3	63.8	---	---	63.8	1.44E+08	63.8
1173	15-Sep-16	13:07:03	62.8	66.2	58.2	89.2	62.8	---	---	62.8	1.14E+08	62.8
1174	15-Sep-16	13:08:03	62	64.7	58.4	89.2	62	---	---	62	9.51E+07	62.0
1175	15-Sep-16	13:09:03	62.4	65.9	58.7	90.2	62.4	---	---	62.4	1.04E+08	62.4
1176	15-Sep-16	13:10:03	61.5	64.4	58.4	87.3	61.5	---	---	61.5	8.48E+07	61.5
1177	15-Sep-16	13:11:03	63	66.9	60.1	88.1	63	---	---	63	1.20E+08	63.0
1178	15-Sep-16	13:12:03	64	69.3	60.3	90.5	64	---	---	64	1.51E+08	64.0
1179	15-Sep-16	13:13:03	62.7	65.2	59.1	88.5	62.7	---	---	62.7	1.12E+08	62.7
1180	15-Sep-16	13:14:03	61.6	65.5	58.8	86.3	61.6	---	---	61.6	8.67E+07	61.6
1181	15-Sep-16	13:15:03	63.8	68.3	60.6	88.9	63.8	---	---	63.8	1.44E+08	63.8

1182	15-Sep-16	13:16:03	64	68.8	59.6	87.7	64	---	---	64	1.51E+08	64.0
1183	15-Sep-16	13:17:03	61.8	65.8	59.6	89.2	61.8	---	---	61.8	9.08E+07	61.8
1184	15-Sep-16	13:18:03	63.4	65.9	60.4	87.3	63.4	---	---	63.4	1.31E+08	63.4
1185	15-Sep-16	13:19:03	64	68.3	60.2	87.7	64	---	---	64	1.51E+08	64.0
1186	15-Sep-16	13:20:03	62.7	65.8	60.7	86.8	62.7	---	---	62.7	1.12E+08	62.7
1187	15-Sep-16	13:21:03	62.8	66.7	59.2	88.5	62.8	---	---	62.8	1.14E+08	62.8
1188	15-Sep-16	13:22:03	62.1	64.6	58.7	88.9	62.1	---	---	62.1	9.73E+07	62.1
1189	15-Sep-16	13:23:03	61.7	66.1	58.6	85.8	61.7	---	---	61.7	8.87E+07	61.7
1190	15-Sep-16	13:24:03	63	65.9	60.4	86.8	63	---	---	63	1.20E+08	63.0
1191	15-Sep-16	13:25:03	63.9	71.5	59.9	90.2	63.9	---	---	63.9	1.47E+08	63.9
1192	15-Sep-16	13:26:03	63	67.7	59.4	89.5	63	---	---	63	1.20E+08	63.0
1193	15-Sep-16	13:27:03	62.9	67.8	59.7	86.3	62.9	---	---	62.9	1.17E+08	62.9
1194	15-Sep-16	13:28:03	62.9	65.6	60.1	86.8	62.9	---	---	62.9	1.17E+08	62.9
1195	15-Sep-16	13:29:03	63.6	68.6	60.1	89.5	63.6	---	---	63.6	1.37E+08	63.6
1196	15-Sep-16	13:30:03	63.3	67.9	58.3	89.2	63.3	---	---	63.3	1.28E+08	63.3
1197	15-Sep-16	13:31:03	62.6	67.5	59.2	87.7	62.6	---	---	62.6	1.09E+08	62.6
1198	15-Sep-16	13:32:03	62	65.1	58.9	86.8	62	---	---	62	9.51E+07	62.0
1199	15-Sep-16	13:33:03	64.2	67.1	61.3	88.1	64.2	---	---	64.2	1.58E+08	64.2
1200	15-Sep-16	13:34:03	62.8	65.5	60	87.3	62.8	---	---	62.8	1.14E+08	62.8
1201	15-Sep-16	13:35:03	62.6	65.9	57.5	86.8	62.6	---	---	62.6	1.09E+08	62.6
1202	15-Sep-16	13:36:03	62.5	67.6	59.5	88.5	62.5	---	---	62.5	1.07E+08	62.5
1203	15-Sep-16	13:37:03	64.1	69.8	60.4	91.1	64.1	---	---	64.1	1.54E+08	64.1
1204	15-Sep-16	13:38:03	63.5	68.7	60.1	91.1	63.5	---	---	63.5	1.34E+08	63.5
1205	15-Sep-16	13:39:03	63.9	68.3	60.7	89.2	63.9	---	---	63.9	1.47E+08	63.9
1206	15-Sep-16	13:40:03	63.6	65.9	60.1	89.9	63.6	---	---	63.6	1.37E+08	63.6
1207	15-Sep-16	13:41:03	63.4	67.5	61.5	91.3	63.4	---	---	63.4	1.31E+08	63.4
1208	15-Sep-16	13:42:03	63.8	67.1	59.9	86.8	63.8	---	---	63.8	1.44E+08	63.8
1209	15-Sep-16	13:43:03	64.4	68.5	61.4	88.1	64.4	---	---	64.4	1.65E+08	64.4
1210	15-Sep-16	13:44:03	62.9	67.4	59.4	87.3	62.9	---	---	62.9	1.17E+08	62.9
1211	15-Sep-16	13:45:03	61.5	64.5	58	89.2	61.5	---	---	61.5	8.48E+07	61.5
1212	15-Sep-16	13:46:03	63.9	68.6	60.4	90.5	63.9	---	---	63.9	1.47E+08	63.9
1213	15-Sep-16	13:47:03	63	67.8	59.3	86.8	63	---	---	63	1.20E+08	63.0
1214	15-Sep-16	13:48:03	62.7	66.3	59.9	88.1	62.7	---	---	62.7	1.12E+08	62.7
1215	15-Sep-16	13:49:03	63.5	66.3	58.8	92.1	63.5	---	---	63.5	1.34E+08	63.5
1216	15-Sep-16	13:50:03	62.9	65.5	61.1	87.7	62.9	---	---	62.9	1.17E+08	62.9
1217	15-Sep-16	13:51:03	63.1	67.1	59	88.9	63.1	---	---	63.1	1.23E+08	63.1
1218	15-Sep-16	13:52:03	62.9	66.2	61	87.7	62.9	---	---	62.9	1.17E+08	62.9
1219	15-Sep-16	13:53:03	63.5	69.1	60.1	85.3	63.5	---	---	63.5	1.34E+08	63.5
1220	15-Sep-16	13:54:03	64.9	68.5	61.8	88.5	64.9	---	---	64.9	1.85E+08	64.9
1221	15-Sep-16	13:55:03	63.9	69.8	60.3	89.2	63.9	---	---	63.9	1.47E+08	63.9
1222	15-Sep-16	13:56:03	63.2	66.7	60.3	86.3	63.2	---	---	63.2	1.25E+08	63.2
1223	15-Sep-16	13:57:03	64.4	67.3	61.6	88.5	64.4	---	---	64.4	1.65E+08	64.4
1224	15-Sep-16	13:58:03	64.6	68	61.5	88.1	64.6	---	---	64.6	1.73E+08	64.6
1225	15-Sep-16	13:59:03	63.4	65.7	60.5	88.5	63.4	---	---	63.4	1.31E+08	63.4
											7.64E+09	63.3
1226	15-Sep-16	14:00:03	63.4	68.6	60.3	89.9	63.4	---	---	63.4	1.31E+08	63.4
1227	15-Sep-16	14:01:03	62	66.5	58.3	86.3	62	---	---	62	9.51E+07	62.0
1228	15-Sep-16	14:02:03	62.5	69.1	59.2	88.9	62.5	---	---	62.5	1.07E+08	62.5
1229	15-Sep-16	14:03:03	64.2	71	61	89.5	64.2	---	---	64.2	1.58E+08	64.2
1230	15-Sep-16	14:04:03	62.4	66.4	59.2	85.3	62.4	---	---	62.4	1.04E+08	62.4
1231	15-Sep-16	14:05:03	64.2	67.4	58.5	86.3	64.2	---	---	64.2	1.58E+08	64.2
1232	15-Sep-16	14:06:03	62.3	64.7	59.4	84.8	62.3	---	---	62.3	1.02E+08	62.3
1233	15-Sep-16	14:07:03	63.5	69.1	60.7	89.5	63.5	---	---	63.5	1.34E+08	63.5
1234	15-Sep-16	14:08:03	63.2	65.3	60.7	89.5	63.2	---	---	63.2	1.25E+08	63.2
1235	15-Sep-16	14:09:03	64.7	69.7	60.7	89.2	64.7	---	---	64.7	1.77E+08	64.7
1236	15-Sep-16	14:10:03	62.3	66.5	59.2	87.3	62.3	---	---	62.3	1.02E+08	62.3
1237	15-Sep-16	14:11:03	60.8	62.6	58.4	85.8	60.8	---	---	60.8	7.21E+07	60.8
1238	15-Sep-16	14:12:03	62.5	65.2	59	87.7	62.5	---	---	62.5	1.07E+08	62.5
1239	15-Sep-16	14:13:03	63.6	66.8	60.8	91.9	63.6	---	---	63.6	1.37E+08	63.6
1240	15-Sep-16	14:14:03	63.5	67.4	59.7	88.5	63.5	---	---	63.5	1.34E+08	63.5
1241	15-Sep-16	14:15:03	61.3	63.7	58.9	86.8	61.3	---	---	61.3	8.09E+07	61.3
1242	15-Sep-16	14:16:03	63.7	67.7	60.6	91.1	63.7	---	---	63.7	1.41E+08	63.7
1243	15-Sep-16	14:17:03	64.6	70.2	61.4	87.7	64.6	---	---	64.6	1.73E+08	64.6
1244	15-Sep-16	14:18:03	63	65.6	60.1	88.9	63	---	---	63	1.20E+08	63.0
1245	15-Sep-16	14:19:03	63.6	67	61.1	86.8	63.6	---	---	63.6	1.37E+08	63.6
1246	15-Sep-16	14:20:03	62.6	64.6	60.3	88.5	62.6	---	---	62.6	1.09E+08	62.6
1247	15-Sep-16	14:21:03	63.3	65.8	60.1	86.8	63.3	---	---	63.3	1.28E+08	63.3
1248	15-Sep-16	14:22:03	63.1	65.2	60.1	87.3	63.1	---	---	63.1	1.23E+08	63.1
1249	15-Sep-16	14:23:03	63.5	70.2	59.8	87.3	63.5	---	---	63.5	1.34E+08	63.5
1250	15-Sep-16	14:24:03	63	69.7	59.8	89.9	63	---	---	63	1.20E+08	63.0
1251	15-Sep-16	14:25:03	62.7	66.2	60.7	85.3	62.7	---	---	62.7	1.12E+08	62.7
1252	15-Sep-16	14:26:03	63.2	66	60	88.1	63.2	---	---	63.2	1.25E+08	63.2
1253	15-Sep-16	14:27:03	63	66.2	59.3	89.2	63	---	---	63	1.20E+08	63.0
1254	15-Sep-16	14:28:03	62.3	65.6	58.6	86.8	62.3	---	---	62.3	1.02E+08	62.3
1255	15-Sep-16	14:29:03	62.8	66.8	59.8	89.9	62.8	---	---	62.8	1.14E+08	62.8
1256	15-Sep-16	14:30:03	64	70.2	60	87.7	64	---	---	64	1.51E+08	64.0
1257	15-Sep-16	14:31:03	62.5	65.9	58.7	89.2	62.5	---	---	62.5	1.07E+08	62.5
1258	15-Sep-16	14:32:03	62.6	65	60.5	86.8	62.6	---	---	62.6	1.09E+08	62.6
1259	15-Sep-16	14:33:03	62.8	65.3	59.7	91.1	62.8	---	---	62.8	1.14E+08	62.8
1260	15-Sep-16	14:34:03	64.3	72.2	59.9	90.5	64.3	---	---	64.3	1.61E+08	64.3
1261	15-Sep-16	14:35:03	63.7	66.6	60.7	88.1	63.7	---	---	63.7	1.41E+08	63.7
1262	15-Sep-16	14:36:03	62.5	66.2	58.8	88.5	62.5	---	---	62.5	1.07E+08	62.5
1263	15-Sep-16	14:37:03	60.6	63.5	57	88.5	60.6	---	---	60.6	6.89E+07	60.6
1264	15-Sep-16	14:38:03	59.9	63.1	56.9	85.3	59.9	---	---	59.9	5.86E+07	59.9

1265	15-Sep-16	14:39:03	62.3	66.9	58.6	89.5	62.3	---	---	62.3	1.02E+08	62.3
1266	15-Sep-16	14:40:03	59.4	64.7	56.6	89.9	59.4	---	---	59.4	5.23E+07	59.4
1267	15-Sep-16	14:41:03	57.7	59.9	55.3	84.8	57.7	---	---	57.7	3.53E+07	57.7
1268	15-Sep-16	14:42:03	60.4	69.3	56.6	92.6	60.4	---	---	60.4	6.58E+07	60.4
1269	15-Sep-16	14:43:03	59.4	62.3	57	85.8	59.4	---	---	59.4	5.23E+07	59.4
1270	15-Sep-16	14:44:03	59.5	62.9	57.6	84.8	59.5	---	---	59.5	5.35E+07	59.5
1271	15-Sep-16	14:45:03	59.5	61.5	57.5	85.8	59.5	---	---	59.5	5.35E+07	59.5
1272	15-Sep-16	14:46:03	58.3	61.4	54.2	84.8	58.3	---	---	58.3	4.06E+07	58.3
1273	15-Sep-16	14:47:03	58.5	64.6	55.1	88.5	58.5	---	---	58.5	4.25E+07	58.5
1274	15-Sep-16	14:48:03	59.2	62.2	57.4	85.8	59.2	---	---	59.2	4.99E+07	59.2
1275	15-Sep-16	14:49:03	60.4	64.7	57.7	86.8	60.4	---	---	60.4	6.58E+07	60.4
1276	15-Sep-16	14:50:03	59.9	62.4	57.2	85.3	59.9	---	---	59.9	5.86E+07	59.9
1277	15-Sep-16	14:51:03	57	60.3	53.7	83.5	57	---	---	57	3.01E+07	57.0
1278	15-Sep-16	14:52:03	55.5	57.7	52.3	88.1	55.5	---	---	55.5	2.13E+07	55.5
1279	15-Sep-16	14:53:03	58.3	62.7	54.9	86.3	58.3	---	---	58.3	4.06E+07	58.3
1280	15-Sep-16	14:54:03	58.6	61.4	54.7	85.3	58.6	---	---	58.6	4.35E+07	58.6
1281	15-Sep-16	14:55:03	58	62.7	54.9	88.1	58	---	---	58	3.79E+07	58.0
1282	15-Sep-16	14:56:03	57.6	61.5	54.5	85.8	57.6	---	---	57.6	3.45E+07	57.6
1283	15-Sep-16	14:57:03	56.1	58.8	53.7	84.1	56.1	---	---	56.1	2.44E+07	56.1
1284	15-Sep-16	14:58:03	58.4	70	51.4	91.3	58.4	---	---	58.4	4.15E+07	58.4
1285	15-Sep-16	14:59:03	56.6	61.1	53.3	87.3	56.6	---	---	56.6	2.74E+07	56.6
											5.67E+09	62.0
1286	15-Sep-16	15:00:03	56.6	62	53.2	89.5	56.6	---	---	56.6	2.74E+07	56.6
1287	15-Sep-16	15:01:03	56.4	59.9	53.1	85.3	56.4	---	---	56.4	2.62E+07	56.4
1288	15-Sep-16	15:02:03	57.2	59.5	53.8	87.3	57.2	---	---	57.2	3.15E+07	57.2
1289	15-Sep-16	15:03:03	55.6	59.7	52.8	85.8	55.6	---	---	55.6	2.18E+07	55.6
1290	15-Sep-16	15:04:03	56.9	62.3	53.7	85.8	56.9	---	---	56.9	2.94E+07	56.9
1291	15-Sep-16	15:05:03	58.8	62.2	55.5	87.3	58.8	---	---	58.8	4.55E+07	58.8
1292	15-Sep-16	15:06:03	56.3	60.7	53.7	89.2	56.3	---	---	56.3	2.56E+07	56.3
1293	15-Sep-16	15:07:03	56.7	60.8	54.3	84.8	56.7	---	---	56.7	2.81E+07	56.7
1294	15-Sep-16	15:08:03	56.3	59.6	54.6	85.8	56.3	---	---	56.3	2.56E+07	56.3
1295	15-Sep-16	15:09:03	55.3	57.9	52.9	85.8	55.3	---	---	55.3	2.03E+07	55.3
1296	15-Sep-16	15:10:03	55.8	57.2	54	84.1	55.8	---	---	55.8	2.28E+07	55.8
1297	15-Sep-16	15:11:03	55.9	58.8	53.5	85.3	55.9	---	---	55.9	2.33E+07	55.9
1298	15-Sep-16	15:12:03	59.2	67.3	54.7	89.9	59.2	---	---	59.2	4.99E+07	59.2
1299	15-Sep-16	15:13:03	54.1	56	51.6	85.3	54.1	---	---	54.1	1.54E+07	54.1
1300	15-Sep-16	15:14:03	56.8	66	52.8	90.8	56.8	---	---	56.8	2.87E+07	56.8
1301	15-Sep-16	15:15:03	56.3	58.3	53.9	84.1	56.3	---	---	56.3	2.56E+07	56.3
1302	15-Sep-16	15:16:03	57.1	63.6	54.1	87.3	57.1	---	---	57.1	3.08E+07	57.1
1303	15-Sep-16	15:17:03	60.3	66.4	58.2	86.3	60.3	---	---	60.3	6.43E+07	60.3
1304	15-Sep-16	15:18:03	58.7	60.2	56.3	84.8	58.7	---	---	58.7	4.45E+07	58.7
1305	15-Sep-16	15:19:03	60.2	62.9	57.2	87.3	60.2	---	---	60.2	6.28E+07	60.2
1306	15-Sep-16	15:20:03	59.8	62.4	57	87.7	59.8	---	---	59.8	5.73E+07	59.8
1307	15-Sep-16	15:21:03	58.1	61.4	55.1	84.8	58.1	---	---	58.1	3.87E+07	58.1
1308	15-Sep-16	15:22:03	59.4	65.5	56.8	86.8	59.4	---	---	59.4	5.23E+07	59.4
1309	15-Sep-16	15:23:03	59.8	63.5	57.6	84.8	59.8	---	---	59.8	5.73E+07	59.8
1310	15-Sep-16	15:24:03	61.5	71.5	55.7	98.8	61.5	---	---	61.5	8.48E+07	61.5
1311	15-Sep-16	15:25:03	58.4	61.4	55.2	86.3	58.4	---	---	58.4	4.15E+07	58.4
1312	15-Sep-16	15:26:03	58.4	61.4	56.3	85.3	58.4	---	---	58.4	4.15E+07	58.4
1313	15-Sep-16	15:27:03	61.8	72.7	57.1	96.4	61.8	---	---	61.8	9.08E+07	61.8
1314	15-Sep-16	15:28:03	57.3	61.6	54.5	91.1	57.3	---	---	57.3	3.22E+07	57.3
1315	15-Sep-16	15:29:03	58.3	62.1	55.8	88.1	58.3	---	---	58.3	4.06E+07	58.3
1316	15-Sep-16	15:30:03	59.8	63.7	57.4	85.3	59.8	---	---	59.8	5.73E+07	59.8
1317	15-Sep-16	15:31:03	61.1	65.8	58.4	86.8	61.1	---	---	61.1	7.73E+07	61.1
1318	15-Sep-16	15:32:03	61.2	65.4	57.7	88.1	61.2	---	---	61.2	7.91E+07	61.2
1319	15-Sep-16	15:33:03	61.1	68.6	56.6	90.8	61.1	---	---	61.1	7.73E+07	61.1
1320	15-Sep-16	15:34:03	59.6	68.7	55.4	88.9	59.6	---	---	59.6	5.47E+07	59.6
1321	15-Sep-16	15:35:03	58.6	61.7	56.7	86.8	58.6	---	---	58.6	4.35E+07	58.6
1322	15-Sep-16	15:36:03	59	60.8	57.4	85.8	59	---	---	59	4.77E+07	59.0
1323	15-Sep-16	15:37:03	58.5	60.1	56.6	82.8	58.5	---	---	58.5	4.25E+07	58.5
1324	15-Sep-16	15:38:03	58.7	62.7	56.4	88.9	58.7	---	---	58.7	4.45E+07	58.7
1325	15-Sep-16	15:39:03	59.5	69.2	54.1	95.2	59.5	---	---	59.5	5.35E+07	59.5
1326	15-Sep-16	15:40:03	56.1	58.6	53.2	85.3	56.1	---	---	56.1	2.44E+07	56.1
1327	15-Sep-16	15:41:03	59.3	66.2	55.3	89.2	59.3	---	---	59.3	5.11E+07	59.3
1328	15-Sep-16	15:42:03	57.5	60.2	54.9	90.2	57.5	---	---	57.5	3.37E+07	57.5
1329	15-Sep-16	15:43:03	57	59.8	52.6	84.8	57	---	---	57	3.01E+07	57.0
1330	15-Sep-16	15:44:03	56.7	59.8	54.8	88.5	56.7	---	---	56.7	2.81E+07	56.7
1331	15-Sep-16	15:45:03	58.2	65.8	55	87.3	58.2	---	---	58.2	3.96E+07	58.2
1332	15-Sep-16	15:46:03	60.1	70.5	54.7	94.1	60.1	---	---	60.1	6.14E+07	60.1
1333	15-Sep-16	15:47:03	60.8	65.1	57.7	85.8	60.8	---	---	60.8	7.21E+07	60.8
1334	15-Sep-16	15:48:03	59	62	55.9	84.1	59	---	---	59	4.77E+07	59.0
1335	15-Sep-16	15:49:03	56.6	59.2	53.8	83.5	56.6	---	---	56.6	2.74E+07	56.6
1336	15-Sep-16	15:50:03	57.2	61.4	54.2	85.8	57.2	---	---	57.2	3.15E+07	57.2
1337	15-Sep-16	15:51:03	55.4	57.3	53.2	83.5	55.4	---	---	55.4	2.08E+07	55.4
1338	15-Sep-16	15:52:03	56.7	61.3	52.9	86.8	56.7	---	---	56.7	2.81E+07	56.7
1339	15-Sep-16	15:53:03	56.2	58.9	54.1	86.8	56.2	---	---	56.2	2.50E+07	56.2
1340	15-Sep-16	15:54:03	55.8	59.7	51.8	84.1	55.8	---	---	55.8	2.28E+07	55.8
1341	15-Sep-16	15:55:03	58.4	62.2	54.8	88.9	58.4	---	---	58.4	4.15E+07	58.4
1342	15-Sep-16	15:56:03	58.2	62.9	54.5	84.8	58.2	---	---	58.2	3.96E+07	58.2
1343	15-Sep-16	15:57:03	58.1	63.7	53.8	90.2	58.1	---	---	58.1	3.87E+07	58.1
1344	15-Sep-16	15:58:03	58.2	62.7	54.8	85.8	58.2	---	---	58.2	3.96E+07	58.2
1345	15-Sep-16	15:59:03	58.5	64.4	55.5	84.8	58.5	---	---	58.5	4.25E+07	58.5
											2.51E+09	58.4

1346	15-Sep-16	16:00:03	57.6	59.1	55.9	85.8	57.6	---	---	57.6	3.45E+07	57.6
1347	15-Sep-16	16:01:03	57.1	58.3	55.4	85.3	57.1	---	---	57.1	3.08E+07	57.1
1348	15-Sep-16	16:02:03	57.7	63.4	55	86.3	57.7	---	---	57.7	3.53E+07	57.7
1349	15-Sep-16	16:03:03	58.3	68.1	54.7	91.3	58.3	---	---	58.3	4.06E+07	58.3
1350	15-Sep-16	16:04:03	56.3	58.2	54.3	84.1	56.3	---	---	56.3	2.56E+07	56.3
1351	15-Sep-16	16:05:03	55.8	57.7	53.6	82.1	55.8	---	---	55.8	2.28E+07	55.8
1352	15-Sep-16	16:06:03	57.3	63.4	53.6	84.8	57.3	---	---	57.3	3.22E+07	57.3
1353	15-Sep-16	16:07:03	56.9	60.4	54.6	84.1	56.9	---	---	56.9	2.94E+07	56.9
1354	15-Sep-16	16:08:03	57	61.8	54.1	83.5	57	---	---	57	3.01E+07	57.0
1355	15-Sep-16	16:09:03	58.9	65.4	54.8	88.5	58.9	---	---	58.9	4.66E+07	58.9
1356	15-Sep-16	16:10:03	59.7	66.3	55.9	90.2	59.7	---	---	59.7	5.60E+07	59.7
1357	15-Sep-16	16:11:03	59.1	65.2	55.4	85.8	59.1	---	---	59.1	4.88E+07	59.1
1358	15-Sep-16	16:12:03	57.3	60.3	55.8	87.7	57.3	---	---	57.3	3.22E+07	57.3
1359	15-Sep-16	16:13:03	58.3	62.6	55	85.3	58.3	---	---	58.3	4.06E+07	58.3
1360	15-Sep-16	16:14:03	57.3	60.4	54.5	85.8	57.3	---	---	57.3	3.22E+07	57.3
1361	15-Sep-16	16:15:03	57.5	60.9	54.7	86.3	57.5	---	---	57.5	3.37E+07	57.5
1362	15-Sep-16	16:16:03	56.9	60.7	53.4	88.1	56.9	---	---	56.9	2.94E+07	56.9
1363	15-Sep-16	16:17:03	58.3	61.5	55.3	84.1	58.3	---	---	58.3	4.06E+07	58.3
1364	15-Sep-16	16:18:03	58.9	64.6	56.2	88.5	58.9	---	---	58.9	4.66E+07	58.9
1365	15-Sep-16	16:19:03	58.9	61.9	56.5	86.8	58.9	---	---	58.9	4.66E+07	58.9
1366	15-Sep-16	16:20:03	60	68.6	55.7	91.6	60	---	---	60	6.00E+07	60.0
1367	15-Sep-16	16:21:03	57.2	61.6	52.6	84.1	57.2	---	---	57.2	3.15E+07	57.2
1368	15-Sep-16	16:22:03	56	61.8	52.6	84.1	56	---	---	56	2.39E+07	56.0
1369	15-Sep-16	16:23:03	57.1	59.8	55.5	86.3	57.1	---	---	57.1	3.08E+07	57.1
1370	15-Sep-16	16:24:03	57.8	60.3	55.3	86.3	57.8	---	---	57.8	3.62E+07	57.8
1371	15-Sep-16	16:25:03	59.6	61.8	57.5	88.5	59.6	---	---	59.6	5.47E+07	59.6
1372	15-Sep-16	16:26:03	58.8	63.5	56	85.8	58.8	---	---	58.8	4.55E+07	58.8
1373	15-Sep-16	16:27:03	58.3	63.7	54.5	87.3	58.3	---	---	58.3	4.06E+07	58.3
1374	15-Sep-16	16:28:03	57.8	63.8	54.6	90.2	57.8	---	---	57.8	3.62E+07	57.8
1375	15-Sep-16	16:29:03	57.8	60.7	55.4	89.9	57.8	---	---	57.8	3.62E+07	57.8
1376	15-Sep-16	16:30:03	56.8	59.5	53.3	86.3	56.8	---	---	56.8	2.87E+07	56.8
1377	15-Sep-16	16:31:03	56.3	58.4	54.2	84.1	56.3	---	---	56.3	2.56E+07	56.3
1378	15-Sep-16	16:32:03	55.4	59.8	52.2	85.8	55.4	---	---	55.4	2.08E+07	55.4
1379	15-Sep-16	16:33:03	54.2	57.6	51.4	82.1	54.2	---	---	54.2	1.58E+07	54.2
1380	15-Sep-16	16:34:03	56.2	65	51.5	90.5	56.2	---	---	56.2	2.50E+07	56.2
1381	15-Sep-16	16:35:03	55.8	60.3	53.4	85.8	55.8	---	---	55.8	2.28E+07	55.8
1382	15-Sep-16	16:36:03	55.2	57.9	53.2	87.3	55.2	---	---	55.2	1.99E+07	55.2
1383	15-Sep-16	16:37:03	56.2	62.7	53	90.2	56.2	---	---	56.2	2.50E+07	56.2
1384	15-Sep-16	16:38:03	56.9	62.4	53.1	82.8	56.9	---	---	56.9	2.94E+07	56.9
1385	15-Sep-16	16:39:03	54.9	58.1	52.1	83.5	54.9	---	---	54.9	1.85E+07	54.9
1386	15-Sep-16	16:40:03	56.2	57.9	54.5	85.3	56.2	---	---	56.2	2.50E+07	56.2
1387	15-Sep-16	16:41:03	62.8	72.2	54.7	90.8	62.8	---	---	62.8	1.14E+08	62.8
1388	15-Sep-16	16:42:03	58.2	61.1	56.1	85.8	58.2	---	---	58.2	3.96E+07	58.2
1389	15-Sep-16	16:43:03	57.1	59.1	55.4	87.3	57.1	---	---	57.1	3.08E+07	57.1
1390	15-Sep-16	16:44:03	58.3	61	54.2	88.9	58.3	---	---	58.3	4.06E+07	58.3
1391	15-Sep-16	16:45:03	57.8	62	54.1	86.8	57.8	---	---	57.8	3.62E+07	57.8
1392	15-Sep-16	16:46:03	57.4	59.8	54.2	88.1	57.4	---	---	57.4	3.30E+07	57.4
1393	15-Sep-16	16:47:03	56.6	61.6	53.8	84.8	56.6	---	---	56.6	2.74E+07	56.6
1394	15-Sep-16	16:48:03	57.2	60.9	53.6	85.8	57.2	---	---	57.2	3.15E+07	57.2
1395	15-Sep-16	16:49:03	57.6	63	53.4	88.1	57.6	---	---	57.6	3.45E+07	57.6
1396	15-Sep-16	16:50:03	58.6	61.5	54.9	91.1	58.6	---	---	58.6	4.35E+07	58.6
1397	15-Sep-16	16:51:03	55.3	58.7	52.2	83.5	55.3	---	---	55.3	2.03E+07	55.3
1398	15-Sep-16	16:52:03	54.3	56.6	51.5	82.8	54.3	---	---	54.3	1.61E+07	54.3
1399	15-Sep-16	16:53:03	57.7	61.9	54.5	85.3	57.7	---	---	57.7	3.53E+07	57.7
1400	15-Sep-16	16:54:03	56.3	59.1	53.7	84.1	56.3	---	---	56.3	2.56E+07	56.3
1401	15-Sep-16	16:55:03	54	56.5	51.8	85.8	54	---	---	54	1.51E+07	54.0
1402	15-Sep-16	16:56:03	55.4	60.6	51.2	89.5	55.4	---	---	55.4	2.08E+07	55.4
1403	15-Sep-16	16:57:03	58.7	60.9	56.4	86.3	58.7	---	---	58.7	4.45E+07	58.7
1404	15-Sep-16	16:58:03	58.9	63.5	54.8	85.3	58.9	---	---	58.9	4.66E+07	58.9
1405	15-Sep-16	16:59:03	57.1	59.4	55.1	84.1	57.1	---	---	57.1	3.08E+07	57.1
											2.07E+09	57.6
1406	15-Sep-16	17:00:03	56.5	62.8	53.7	82.8	56.5	---	---	56.5	2.68E+07	56.5
1407	15-Sep-16	17:01:03	60.9	71	53	93.5	60.9	---	---	60.9	7.38E+07	60.9
1408	15-Sep-16	17:02:03	54.9	58.5	51.5	82.8	54.9	---	---	54.9	1.85E+07	54.9
1409	15-Sep-16	17:03:03	55.2	59.6	51.7	86.3	55.2	---	---	55.2	1.99E+07	55.2
1410	15-Sep-16	17:04:03	58.4	62	54.2	88.5	58.4	---	---	58.4	4.15E+07	58.4
1411	15-Sep-16	17:05:03	55.6	58.7	52.7	84.1	55.6	---	---	55.6	2.18E+07	55.6
1412	15-Sep-16	17:06:03	55.6	58.3	53.2	84.1	55.6	---	---	55.6	2.18E+07	55.6
1413	15-Sep-16	17:07:03	55.5	59.4	52.4	87.3	55.5	---	---	55.5	2.13E+07	55.5
1414	15-Sep-16	17:08:03	56.6	58.4	54.6	85.3	56.6	---	---	56.6	2.74E+07	56.6
1415	15-Sep-16	17:09:03	58.1	60.2	55.9	88.5	58.1	---	---	58.1	3.87E+07	58.1
1416	15-Sep-16	17:10:03	57.7	62	52.4	85.3	57.7	---	---	57.7	3.53E+07	57.7
1417	15-Sep-16	17:11:03	56.9	60.6	53.4	85.8	56.9	---	---	56.9	2.94E+07	56.9
1418	15-Sep-16	17:12:03	57	60.6	53.8	88.5	57	---	---	57	3.01E+07	57.0
1419	15-Sep-16	17:13:03	56	58.8	54.1	86.3	56	---	---	56	2.39E+07	56.0
1420	15-Sep-16	17:14:03	55.7	59.6	52.4	84.8	55.7	---	---	55.7	2.23E+07	55.7
1421	15-Sep-16	17:15:03	62.3	74.6	54.4	91.1	62.3	---	---	62.3	1.02E+08	62.3
1422	15-Sep-16	17:16:03	59	72	54.3	85.8	59	---	---	59	4.77E+07	59.0
1423	15-Sep-16	17:17:03	57.1	59.8	54.6	83.5	57.1	---	---	57.1	3.08E+07	57.1
1424	15-Sep-16	17:18:03	56.2	59.7	53	87.3	56.2	---	---	56.2	2.50E+07	56.2
1425	15-Sep-16	17:19:03	57.1	60.3	52.4	84.8	57.1	---	---	57.1	3.08E+07	57.1
1426	15-Sep-16	17:20:03	58.3	60.5	56.7	85.8	58.3	---	---	58.3	4.06E+07	58.3
1427	15-Sep-16	17:21:03	56.8	58.9	54.4	85.3	56.8	---	---	56.8	2.87E+07	56.8

1428	15-Sep-16	17:22:03	56.1	59.9	52.8	82.8	56.1	---	---	56.1	2.44E+07	56.1
1429	15-Sep-16	17:23:03	56	58.4	53.5	83.5	56	---	---	56	2.39E+07	56.0
1430	15-Sep-16	17:24:03	55.8	58.3	54.3	82.1	55.8	---	---	55.8	2.28E+07	55.8
1431	15-Sep-16	17:25:03	56.2	58.6	54.7	82.8	56.2	---	---	56.2	2.50E+07	56.2
1432	15-Sep-16	17:26:03	56.5	59.2	54	85.8	56.5	---	---	56.5	2.68E+07	56.5
1433	15-Sep-16	17:27:03	57.9	62.9	54.4	83.5	57.9	---	---	57.9	3.70E+07	57.9
1434	15-Sep-16	17:28:03	59.2	64.3	54.2	87.3	59.2	---	---	59.2	4.99E+07	59.2
1435	15-Sep-16	17:29:03	59.2	67.7	54.3	91.9	59.2	---	---	59.2	4.99E+07	59.2
1436	15-Sep-16	17:30:03	57.8	59.9	55.8	84.8	57.8	---	---	57.8	3.62E+07	57.8
1437	15-Sep-16	17:31:03	58.5	65.8	53.3	84.8	58.5	---	---	58.5	4.25E+07	58.5
1438	15-Sep-16	17:32:03	58.2	61.9	54.9	87.7	58.2	---	---	58.2	3.96E+07	58.2
1439	15-Sep-16	17:33:03	57.8	60.7	54.9	88.5	57.8	---	---	57.8	3.62E+07	57.8
1440	15-Sep-16	17:34:03	57.5	63.7	54.7	89.2	57.5	---	---	57.5	3.37E+07	57.5
1441	15-Sep-16	17:35:03	58.1	60.5	55.3	84.8	58.1	---	---	58.1	3.87E+07	58.1
1442	15-Sep-16	17:36:03	55.6	57.9	51.6	85.8	55.6	---	---	55.6	2.18E+07	55.6
1443	15-Sep-16	17:37:03	56.7	60.6	54.2	84.8	56.7	---	---	56.7	2.81E+07	56.7
1444	15-Sep-16	17:38:03	59.4	66.3	54.9	87.3	59.4	---	---	59.4	5.23E+07	59.4
1445	15-Sep-16	17:39:03	57	61.7	52.9	83.5	57	---	---	57	3.01E+07	57.0
1446	15-Sep-16	17:40:03	56.5	63.8	52.2	84.1	56.5	---	---	56.5	2.68E+07	56.5
1447	15-Sep-16	17:41:03	55.6	58.6	52.5	84.1	55.6	---	---	55.6	2.18E+07	55.6
1448	15-Sep-16	17:42:03	56.1	58.1	53.7	87.7	56.1	---	---	56.1	2.44E+07	56.1
1449	15-Sep-16	17:43:03	56.6	59.3	54.2	86.3	56.6	---	---	56.6	2.74E+07	56.6
1450	15-Sep-16	17:44:03	56.6	59.6	53.5	84.1	56.6	---	---	56.6	2.74E+07	56.6
1451	15-Sep-16	17:45:03	59.9	67.8	53.4	88.9	59.9	---	---	59.9	5.86E+07	59.9
1452	15-Sep-16	17:46:03	56	58.4	52	83.5	56	---	---	56	2.39E+07	56.0
1453	15-Sep-16	17:47:03	56	58.4	54.2	82.1	56	---	---	56	2.39E+07	56.0
1454	15-Sep-16	17:48:03	56.5	59	54.3	86.3	56.5	---	---	56.5	2.68E+07	56.5
1455	15-Sep-16	17:49:03	58.1	61.4	54.9	84.1	58.1	---	---	58.1	3.87E+07	58.1
1456	15-Sep-16	17:50:03	55	57.5	51.8	83.5	55	---	---	55	1.90E+07	55.0
1457	15-Sep-16	17:51:03	57.5	60.1	53.7	86.8	57.5	---	---	57.5	3.37E+07	57.5
1458	15-Sep-16	17:52:03	57.9	60.6	55.1	87.3	57.9	---	---	57.9	3.70E+07	57.9
1459	15-Sep-16	17:53:03	58	60.2	55.4	86.3	58	---	---	58	3.79E+07	58.0
1460	15-Sep-16	17:54:03	58.4	66.1	52.8	86.8	58.4	---	---	58.4	4.15E+07	58.4
1461	15-Sep-16	17:55:03	56.6	60.6	53.8	86.8	56.6	---	---	56.6	2.74E+07	56.6
1462	15-Sep-16	17:56:03	55.4	58.3	53.1	85.3	55.4	---	---	55.4	2.08E+07	55.4
1463	15-Sep-16	17:57:03	55.1	58.2	51.7	82.8	55.1	---	---	55.1	1.94E+07	55.1
1464	15-Sep-16	17:58:03	56	58	54.1	83.5	56	---	---	56	2.39E+07	56.0
1465	15-Sep-16	17:59:03	57.3	60	54.3	88.5	57.3	---	---	57.3	3.22E+07	57.3
											1.97E+09	57.4
1466	15-Sep-16	18:00:03	56.2	60.2	53.2	87.7	56.2	---	---	56.2	2.50E+07	56.2
1467	15-Sep-16	18:01:03	58.3	60.7	55.6	87.3	58.3	---	---	58.3	4.06E+07	58.3
1468	15-Sep-16	18:02:03	59.1	63.1	54.6	88.9	59.1	---	---	59.1	4.88E+07	59.1
1469	15-Sep-16	18:03:03	57.5	60.7	51.5	88.9	57.5	---	---	57.5	3.37E+07	57.5
1470	15-Sep-16	18:04:03	58	66.5	52	89.9	58	---	---	58	3.79E+07	58.0
1471	15-Sep-16	18:05:03	55.6	60.3	52.3	84.1	55.6	---	---	55.6	2.18E+07	55.6
1472	15-Sep-16	18:06:03	65.6	75.1	51.2	98.7	65.6	---	---	65.6	2.18E+08	65.6
1473	15-Sep-16	18:07:03	61.3	74.3	54.3	95.4	61.3	---	---	61.3	8.09E+07	61.3
1474	15-Sep-16	18:08:03	56.6	58.7	54.4	85.3	56.6	---	---	56.6	2.74E+07	56.6
1475	15-Sep-16	18:09:03	56.8	61.6	53.3	88.5	56.8	---	---	56.8	2.87E+07	56.8
1476	15-Sep-16	18:10:03	56.6	60.9	54.1	85.8	56.6	---	---	56.6	2.74E+07	56.6
1477	15-Sep-16	18:11:03	57.2	59.5	54.6	84.8	57.2	---	---	57.2	3.15E+07	57.2
1478	15-Sep-16	18:12:03	57	62.6	53.4	85.3	57	---	---	57	3.01E+07	57.0
1479	15-Sep-16	18:13:03	57.6	66.6	53.6	86.3	57.6	---	---	57.6	3.45E+07	57.6
1480	15-Sep-16	18:14:03	53.5	56.7	51.8	82.1	53.5	---	---	53.5	1.34E+07	53.5
1481	15-Sep-16	18:15:03	54.7	59.3	51.7	84.8	54.7	---	---	54.7	1.77E+07	54.7
1482	15-Sep-16	18:16:03	53.3	55.6	50.4	81.2	53.3	---	---	53.3	1.28E+07	53.3
1483	15-Sep-16	18:17:03	56	63.1	52.8	82.8	56	---	---	56	2.39E+07	56.0
1484	15-Sep-16	18:18:03	57.5	62.5	53.4	84.8	57.5	---	---	57.5	3.37E+07	57.5
1485	15-Sep-16	18:19:03	59.4	66.4	54	90.2	59.4	---	---	59.4	5.23E+07	59.4
1486	15-Sep-16	18:20:03	59.9	64.1	57.2	90.2	59.9	---	---	59.9	5.86E+07	59.9
1487	15-Sep-16	18:21:03	58.9	63.5	55.6	87.7	58.9	---	---	58.9	4.66E+07	58.9
1488	15-Sep-16	18:22:03	56.2	57.5	54.6	86.8	56.2	---	---	56.2	2.50E+07	56.2
1489	15-Sep-16	18:23:03	54.9	57.1	52.7	86.3	54.9	---	---	54.9	1.85E+07	54.9
1490	15-Sep-16	18:24:03	54.7	58.6	51.9	87.3	54.7	---	---	54.7	1.77E+07	54.7
1491	15-Sep-16	18:25:03	54.6	58.7	52.9	84.1	54.6	---	---	54.6	1.73E+07	54.6
1492	15-Sep-16	18:26:03	54.2	57.6	52.1	82.8	54.2	---	---	54.2	1.58E+07	54.2
1493	15-Sep-16	18:27:03	56.3	64.2	53.4	86.3	56.3	---	---	56.3	2.56E+07	56.3
1494	15-Sep-16	18:28:03	57.9	65.1	54.2	88.5	57.9	---	---	57.9	3.70E+07	57.9
1495	15-Sep-16	18:29:03	56.1	58.5	53.6	86.3	56.1	---	---	56.1	2.44E+07	56.1
1496	15-Sep-16	18:30:03	56.3	60.5	53	85.8	56.3	---	---	56.3	2.56E+07	56.3
1497	15-Sep-16	18:31:03	58.8	63.5	55.3	86.8	58.8	---	---	58.8	4.55E+07	58.8
1498	15-Sep-16	18:32:03	57.4	60.7	54.7	84.8	57.4	---	---	57.4	3.30E+07	57.4
1499	15-Sep-16	18:33:03	56.3	58.8	53.5	85.8	56.3	---	---	56.3	2.56E+07	56.3
1500	15-Sep-16	18:34:03	56.7	59.5	53.8	87.3	56.7	---	---	56.7	2.81E+07	56.7
1501	15-Sep-16	18:35:03	57.7	62.7	55.3	84.1	57.7	---	---	57.7	3.53E+07	57.7
1502	15-Sep-16	18:36:03	57.2	58.6	55.3	85.8	57.2	---	---	57.2	3.15E+07	57.2
1503	15-Sep-16	18:37:03	60.4	66	55.3	88.1	60.4	---	---	60.4	6.58E+07	60.4
1504	15-Sep-16	18:38:03	55.5	59.3	50.7	85.3	55.5	---	---	55.5	2.13E+07	55.5
1505	15-Sep-16	18:39:03	56.4	64.7	52.9	86.8	56.4	---	---	56.4	2.62E+07	56.4
1506	15-Sep-16	18:40:03	57	61.6	53.3	84.1	57	---	---	57	3.01E+07	57.0
1507	15-Sep-16	18:41:03	58.7	61.3	56.3	86.8	58.7	---	---	58.7	4.45E+07	58.7
1508	15-Sep-16	18:42:03	58.6	62.2	56.2	89.2	58.6	---	---	58.6	4.35E+07	58.6
1509	15-Sep-16	18:43:03	56.1	57.9	54.4	83.5	56.1	---	---	56.1	2.44E+07	56.1
1510	15-Sep-16	18:44:03	55.4	57.7	52.5	85.3	55.4	---	---	55.4	2.08E+07	55.4

1511	15-Sep-16	18:45:03	57.6	60.1	55.4	82.8	57.6	---	---	57.6	3.45E+07	57.6
1512	15-Sep-16	18:46:03	58.1	62.3	55.4	85.8	58.1	---	---	58.1	3.87E+07	58.1
1513	15-Sep-16	18:47:03	57.3	59.2	54.7	84.1	57.3	---	---	57.3	3.22E+07	57.3
1514	15-Sep-16	18:48:03	57	59	54.8	84.8	57	---	---	57	3.01E+07	57.0
1515	15-Sep-16	18:49:03	55.6	59.4	53	86.8	55.6	---	---	55.6	2.18E+07	55.6
1516	15-Sep-16	18:50:03	57.9	60.9	55.7	86.3	57.8	---	---	57.8	3.70E+07	57.9
1517	15-Sep-16	18:51:03	57	61.2	53.1	89.5	57	---	---	57	3.01E+07	57.0
1518	15-Sep-16	18:52:03	56.4	59.7	54.7	84.8	56.4	---	---	56.4	2.62E+07	56.4
1519	15-Sep-16	18:53:03	57.5	60.9	55.2	85.8	57.5	---	---	57.5	3.37E+07	57.5
1520	15-Sep-16	18:54:03	57.2	60.7	54.6	83.5	57.2	---	---	57.2	3.15E+07	57.2
1521	15-Sep-16	18:55:03	59.5	65.7	55.3	91.3	59.5	---	---	59.5	5.35E+07	59.5
1522	15-Sep-16	18:56:03	57.7	60.5	55.5	88.9	57.7	---	---	57.7	3.53E+07	57.7
1523	15-Sep-16	18:57:03	57.9	65.6	54.7	87.3	57.9	---	---	57.9	3.70E+07	57.9
1524	15-Sep-16	18:58:03	58.2	60.7	56.3	86.8	58.2	---	---	58.2	3.96E+07	58.2
1525	15-Sep-16	18:59:03	57	60	54.8	84.8	57	---	---	57	3.01E+07	57.0
											2.14E+09	57.7
1526	15-Sep-16	19:00:03	57.8	63.4	54.7	89.9	57.8	---	---	57.8	3.62E+07	57.8
1527	15-Sep-16	19:01:03	58.2	60.8	55.8	83.5	58.2	---	---	58.2	3.96E+07	58.2
1528	15-Sep-16	19:02:03	57.5	62.1	54.1	82.8	57.5	---	---	57.5	3.37E+07	57.5
1529	15-Sep-16	19:03:03	57.1	60.1	53.6	85.8	57.1	---	---	57.1	3.08E+07	57.1
1530	15-Sep-16	19:04:03	57.9	61.7	55.8	87.7	57.9	---	---	57.9	3.70E+07	57.9
1531	15-Sep-16	19:05:03	58	62	55.5	88.9	58	---	---	58	3.79E+07	58.0
1532	15-Sep-16	19:06:03	59.5	62	57	83.5	59.5	---	---	59.5	5.35E+07	59.5
1533	15-Sep-16	19:07:03	59.9	61.8	58.4	85.3	59.9	---	---	59.9	5.86E+07	59.9
1534	15-Sep-16	19:08:03	59.9	64.2	57.2	84.1	59.9	---	---	59.9	5.86E+07	59.9
1535	15-Sep-16	19:09:03	61.9	72.8	58.3	87.7	61.9	---	---	61.9	9.29E+07	61.9
1536	15-Sep-16	19:10:03	62.8	71.6	58.1	89.9	62.8	---	---	62.8	1.14E+08	62.8
1537	15-Sep-16	19:11:03	59.5	64.9	56	88.5	59.5	---	---	59.5	5.35E+07	59.5
1538	15-Sep-16	19:12:03	59.1	62.1	56.1	86.3	59.1	---	---	59.1	4.88E+07	59.1
1539	15-Sep-16	19:13:03	61	65.4	57.3	85.3	61	---	---	61	7.55E+07	61.0
1540	15-Sep-16	19:14:03	60	62.3	56.9	84.8	60	---	---	60	6.00E+07	60.0
1541	15-Sep-16	19:15:03	60.9	64.3	57.7	85.3	60.9	---	---	60.9	7.38E+07	60.9
1542	15-Sep-16	19:16:03	60.9	64	56.7	85.3	60.9	---	---	60.9	7.38E+07	60.9
1543	15-Sep-16	19:17:03	60.9	64.4	55.1	85.8	60.9	---	---	60.9	7.38E+07	60.9
1544	15-Sep-16	19:18:03	61.1	64.6	58.6	83.5	61.1	---	---	61.1	7.73E+07	61.1
1545	15-Sep-16	19:19:03	61	64.9	57.9	87.7	61	---	---	61	7.55E+07	61.0
1546	15-Sep-16	19:20:03	60	64	56.6	86.3	60	---	---	60	6.00E+07	60.0
1547	15-Sep-16	19:21:03	61.4	66.6	57.8	85.3	61.4	---	---	61.4	8.28E+07	61.4
1548	15-Sep-16	19:22:03	60.4	64.1	56.8	83.5	60.4	---	---	60.4	6.58E+07	60.4
1549	15-Sep-16	19:23:03	61.8	65.1	58.6	86.8	61.8	---	---	61.8	9.08E+07	61.8
1550	15-Sep-16	19:24:03	61	64.1	55.1	86.3	61	---	---	61	7.55E+07	61.0
1551	15-Sep-16	19:25:03	61.5	65.3	57.5	89.2	61.5	---	---	61.5	8.48E+07	61.5
1552	15-Sep-16	19:26:03	62.2	64.6	58.4	88.9	62.2	---	---	62.2	9.96E+07	62.2
1553	15-Sep-16	19:27:03	61.8	64.5	57.4	86.3	61.8	---	---	61.8	9.08E+07	61.8
1554	15-Sep-16	19:28:03	60.8	66.1	55.9	88.5	60.8	---	---	60.8	7.21E+07	60.8
1555	15-Sep-16	19:29:03	59.9	62.5	55.2	88.1	59.9	---	---	59.9	5.86E+07	59.9
1556	15-Sep-16	19:30:03	60.3	62.8	58.4	83.5	60.3	---	---	60.3	6.43E+07	60.3
1557	15-Sep-16	19:31:03	62.6	69.1	57.7	88.1	62.6	---	---	62.6	1.09E+08	62.6
1558	15-Sep-16	19:32:03	60.9	65.1	56.7	86.3	60.9	---	---	60.9	7.38E+07	60.9
1559	15-Sep-16	19:33:03	61.3	64.7	58.3	88.9	61.3	---	---	61.3	8.09E+07	61.3
1560	15-Sep-16	19:34:03	60.4	63.4	56.9	86.8	60.4	---	---	60.4	6.58E+07	60.4
1561	15-Sep-16	19:35:03	61.9	66.3	58.2	89.2	61.9	---	---	61.9	9.29E+07	61.9
1562	15-Sep-16	19:36:03	61	65.1	57.5	86.8	61	---	---	61	7.55E+07	61.0
1563	15-Sep-16	19:37:03	60.6	64.9	56.6	90.2	60.6	---	---	60.6	6.89E+07	60.6
1564	15-Sep-16	19:38:03	60.2	64.2	56.5	83.5	60.2	---	---	60.2	6.28E+07	60.2
1565	15-Sep-16	19:39:03	60.8	63.7	58	88.5	60.8	---	---	60.8	7.21E+07	60.8
1566	15-Sep-16	19:40:03	61.3	68.6	57.7	85.3	61.3	---	---	61.3	8.09E+07	61.3
1567	15-Sep-16	19:41:03	60.8	64.2	58	84.1	60.8	---	---	60.8	7.21E+07	60.8
1568	15-Sep-16	19:42:03	60.7	64.2	56.4	84.1	60.7	---	---	60.7	7.05E+07	60.7
1569	15-Sep-16	19:43:03	60.6	64.7	54.7	86.8	60.6	---	---	60.6	6.89E+07	60.6
1570	15-Sep-16	19:44:03	61.3	64.8	56.5	88.1	61.3	---	---	61.3	8.09E+07	61.3
1571	15-Sep-16	19:45:03	60.6	63.8	58.3	84.1	60.6	---	---	60.6	6.89E+07	60.6
1572	15-Sep-16	19:46:03	60.4	63.3	57.5	85.8	60.4	---	---	60.4	6.58E+07	60.4
1573	15-Sep-16	19:47:03	60.3	62.3	57.9	83.5	60.3	---	---	60.3	6.43E+07	60.3
1574	15-Sep-16	19:48:03	60.6	64.8	56.9	85.8	60.6	---	---	60.6	6.89E+07	60.6
1575	15-Sep-16	19:49:03	61.7	64.5	57.5	86.8	61.7	---	---	61.7	8.87E+07	61.7
1576	15-Sep-16	19:50:03	61.3	64.5	58.7	85.3	61.3	---	---	61.3	8.09E+07	61.3
1577	15-Sep-16	19:51:03	62.6	71.4	55.5	92.4	62.6	---	---	62.6	1.09E+08	62.6
1578	15-Sep-16	19:52:03	61.2	64.7	54	87.3	61.2	---	---	61.2	7.91E+07	61.2
1579	15-Sep-16	19:53:03	61.5	64.9	58.2	86.8	61.5	---	---	61.5	8.48E+07	61.5
1580	15-Sep-16	19:54:03	60.3	64.6	55.3	84.1	60.3	---	---	60.3	6.43E+07	60.3
1581	15-Sep-16	19:55:03	62.6	71.1	57.6	90.2	62.6	---	---	62.6	1.09E+08	62.6
1582	15-Sep-16	19:56:03	60.4	64	57.6	85.8	60.4	---	---	60.4	6.58E+07	60.4
1583	15-Sep-16	19:57:03	61.3	67.2	56.5	88.1	61.3	---	---	61.3	8.09E+07	61.3
1584	15-Sep-16	19:58:03	60.8	64.3	57.4	88.1	60.8	---	---	60.8	7.21E+07	60.8
1585	15-Sep-16	19:59:03	61	63.8	58.5	87.3	61	---	---	61	7.55E+07	61.0
											4.30E+09	60.8
1586	15-Sep-16	20:00:03	60.7	63.7	57.5	85.8	60.7	---	---	60.7	7.05E+07	60.7
1587	15-Sep-16	20:01:03	59.9	63.9	55.5	88.9	59.9	---	---	59.9	5.86E+07	59.9
1588	15-Sep-16	20:02:03	60	65	56.4	87.3	60	---	---	60	6.00E+07	60.0
1589	15-Sep-16	20:03:03	61	64.3	54.6	88.1	61	---	---	61	7.55E+07	61.0
1590	15-Sep-16	20:04:03	60.7	63.4	57.7	88.1	60.7	---	---	60.7	7.05E+07	60.7

1591	15-Sep-16	20:05:03	59.7	64.8	54.3	87.7	59.7	---	---	59.7	5.60E+07	59.7
1592	15-Sep-16	20:06:03	61	67.9	53.8	87.3	61	---	---	61	7.55E+07	61.0
1593	15-Sep-16	20:07:03	63.1	69.5	56.4	88.1	63.1	---	---	63.1	1.23E+08	63.1
1594	15-Sep-16	20:08:03	60.1	62.5	57.6	82.1	60.1	---	---	60.1	6.14E+07	60.1
1595	15-Sep-16	20:09:03	59.2	63.2	56.3	84.8	59.2	---	---	59.2	4.99E+07	59.2
1596	15-Sep-16	20:10:03	60.9	65.8	56.2	93.5	60.9	---	---	60.9	7.38E+07	60.9
1597	15-Sep-16	20:11:03	61.5	64.6	57.7	84.8	61.5	---	---	61.5	8.48E+07	61.5
1598	15-Sep-16	20:12:03	60.6	65.3	56.4	84.8	60.6	---	---	60.6	6.89E+07	60.6
1599	15-Sep-16	20:13:03	59.8	63	56.9	86.8	59.8	---	---	59.8	5.73E+07	59.8
1600	15-Sep-16	20:14:03	60.5	64.3	55.2	87.3	60.5	---	---	60.5	6.73E+07	60.5
1601	15-Sep-16	20:15:03	60.6	64	57.6	90.2	60.6	---	---	60.6	6.89E+07	60.6
1602	15-Sep-16	20:16:03	61.3	67.8	56.4	87.7	61.3	---	---	61.3	8.09E+07	61.3
1603	15-Sep-16	20:17:03	63.7	74.4	55.6	93.7	63.7	---	---	63.7	1.41E+08	63.7
1604	15-Sep-16	20:18:03	60.8	63.5	54.7	87.3	60.8	---	---	60.8	7.21E+07	60.8
1605	15-Sep-16	20:19:03	61.6	66.4	58.3	86.3	61.6	---	---	61.6	8.67E+07	61.6
1606	15-Sep-16	20:20:03	60.3	63.4	54.6	84.1	60.3	---	---	60.3	6.43E+07	60.3
1607	15-Sep-16	20:21:03	60.7	64.7	58.1	84.1	60.7	---	---	60.7	7.05E+07	60.7
1608	15-Sep-16	20:22:03	61	63.9	57.4	89.2	61	---	---	61	7.55E+07	61.0
1609	15-Sep-16	20:23:03	60.4	65.1	56.3	86.8	60.4	---	---	60.4	6.58E+07	60.4
1610	15-Sep-16	20:24:03	60.5	65.1	55.2	88.5	60.5	---	---	60.5	6.73E+07	60.5
1611	15-Sep-16	20:25:03	60.2	62.4	55.8	84.8	60.2	---	---	60.2	6.28E+07	60.2
1612	15-Sep-16	20:26:03	60.6	64	54.2	88.1	60.6	---	---	60.6	6.89E+07	60.6
1613	15-Sep-16	20:27:03	60.4	63.8	56.6	88.9	60.4	---	---	60.4	6.58E+07	60.4
1614	15-Sep-16	20:28:03	61.3	65.2	56.7	84.8	61.3	---	---	61.3	8.09E+07	61.3
1615	15-Sep-16	20:29:03	61.1	64.8	58	82.8	61.1	---	---	61.1	7.73E+07	61.1
1616	15-Sep-16	20:30:03	61.9	65.3	58.1	85.8	61.9	---	---	61.9	9.29E+07	61.9
1617	15-Sep-16	20:31:03	61.8	65.6	57.7	86.8	61.8	---	---	61.8	9.08E+07	61.8
1618	15-Sep-16	20:32:03	60.4	63.9	57.1	84.1	60.4	---	---	60.4	6.58E+07	60.4
1619	15-Sep-16	20:33:03	60.3	63.2	56.4	85.8	60.3	---	---	60.3	6.43E+07	60.3
1620	15-Sep-16	20:34:03	61	64.1	57.1	85.8	61	---	---	61	7.55E+07	61.0
1621	15-Sep-16	20:35:03	60	64.9	55.1	88.1	60	---	---	60	6.00E+07	60.0
1622	15-Sep-16	20:36:03	61.1	65.1	57.6	84.1	61.1	---	---	61.1	7.73E+07	61.1
1623	15-Sep-16	20:37:03	60.2	63.4	54.9	85.8	60.2	---	---	60.2	6.28E+07	60.2
1624	15-Sep-16	20:38:03	60.2	63.7	55.6	85.8	60.2	---	---	60.2	6.28E+07	60.2
1625	15-Sep-16	20:39:03	60.3	64.2	55.6	84.1	60.3	---	---	60.3	6.43E+07	60.3
1626	15-Sep-16	20:40:03	60.3	63.9	52.1	85.3	60.3	---	---	60.3	6.43E+07	60.3
1627	15-Sep-16	20:41:03	61.1	65.9	56.6	86.8	61.1	---	---	61.1	7.73E+07	61.1
1628	15-Sep-16	20:42:03	60.3	63.6	56.6	86.8	60.3	---	---	60.3	6.43E+07	60.3
1629	15-Sep-16	20:43:03	61.5	66.2	57.1	88.5	61.5	---	---	61.5	8.48E+07	61.5
1630	15-Sep-16	20:44:03	60.4	63.8	56.4	86.3	60.4	---	---	60.4	6.58E+07	60.4
1631	15-Sep-16	20:45:03	58.8	61.7	56.2	85.8	58.8	---	---	58.8	4.55E+07	58.8
1632	15-Sep-16	20:46:03	61.7	67.8	56.4	88.5	61.7	---	---	61.7	8.87E+07	61.7
1633	15-Sep-16	20:47:03	60.2	64.4	57.6	87.3	60.2	---	---	60.2	6.28E+07	60.2
1634	15-Sep-16	20:48:03	59.9	64.4	54.4	88.1	59.9	---	---	59.9	5.86E+07	59.9
1635	15-Sep-16	20:49:03	58.9	61.9	56.1	85.8	58.9	---	---	58.9	4.66E+07	58.9
1636	15-Sep-16	20:50:03	60.1	63.1	55.2	89.9	60.1	---	---	60.1	6.14E+07	60.1
1637	15-Sep-16	20:51:03	59.4	63	56.3	85.8	59.4	---	---	59.4	5.23E+07	59.4
1638	15-Sep-16	20:52:03	59.7	63.2	56.5	89.2	59.7	---	---	59.7	5.60E+07	59.7
1639	15-Sep-16	20:53:03	60.9	64.8	56.3	85.3	60.9	---	---	60.9	7.38E+07	60.9
1640	15-Sep-16	20:54:03	60.2	65.4	56.2	85.3	60.2	---	---	60.2	6.28E+07	60.2
1641	15-Sep-16	20:55:03	59.9	64.7	56.4	86.3	59.9	---	---	59.9	5.86E+07	59.9
1642	15-Sep-16	20:56:03	61.1	64.8	56.8	85.3	61.1	---	---	61.1	7.73E+07	61.1
1643	15-Sep-16	20:57:03	60.2	69.4	54.9	89.2	60.2	---	---	60.2	6.28E+07	60.2
1644	15-Sep-16	20:58:03	60.5	64.7	53.8	86.3	60.5	---	---	60.5	6.73E+07	60.5
1645	15-Sep-16	20:59:03	59.7	64.8	53.8	88.1	59.7	---	---	59.7	5.60E+07	59.7
											4.20E+09	60.7
1646	15-Sep-16	21:00:03	60.2	64.7	56.1	86.8	60.2	---	---	60.2	6.28E+07	60.2
1647	15-Sep-16	21:01:03	60.7	68	54.1	86.3	60.7	---	---	60.7	7.05E+07	60.7
1648	15-Sep-16	21:02:03	61.6	66.6	55.8	87.7	61.6	---	---	61.6	8.67E+07	61.6
1649	15-Sep-16	21:03:03	61.1	64.3	57.1	88.1	61.1	---	---	61.1	7.73E+07	61.1
1650	15-Sep-16	21:04:03	60.2	64.7	55.7	86.8	60.2	---	---	60.2	6.28E+07	60.2
1651	15-Sep-16	21:05:03	60.5	70.7	53.3	88.5	60.5	---	---	60.5	6.73E+07	60.5
1652	15-Sep-16	21:06:03	59.9	64.6	54.1	85.8	59.9	---	---	59.9	5.86E+07	59.9
1653	15-Sep-16	21:07:03	59.3	64.6	54	89.2	59.3	---	---	59.3	5.11E+07	59.3
1654	15-Sep-16	21:08:03	58.3	64.7	55.1	84.1	58.3	---	---	58.3	4.06E+07	58.3
1655	15-Sep-16	21:09:03	60.2	63.8	55.3	87.3	60.2	---	---	60.2	6.28E+07	60.2
1656	15-Sep-16	21:10:03	60.8	65.3	56.9	88.5	60.8	---	---	60.8	7.21E+07	60.8
1657	15-Sep-16	21:11:03	59.8	63.9	57.5	84.8	59.8	---	---	59.8	5.73E+07	59.8
1658	15-Sep-16	21:12:03	60.8	65.4	56.9	89.5	60.8	---	---	60.8	7.21E+07	60.8
1659	15-Sep-16	21:13:03	59.7	63.6	55.9	85.3	59.7	---	---	59.7	5.60E+07	59.7
1660	15-Sep-16	21:14:03	61	68	53.9	92.6	61	---	---	61	7.55E+07	61.0
1661	15-Sep-16	21:15:03	60.3	64.4	55.4	85.3	60.3	---	---	60.3	6.43E+07	60.3
1662	15-Sep-16	21:16:03	58.8	62.3	55.1	84.8	58.8	---	---	58.8	4.55E+07	58.8
1663	15-Sep-16	21:17:03	60.8	64.7	55.9	85.8	60.8	---	---	60.8	7.21E+07	60.8
1664	15-Sep-16	21:18:03	58.1	62.9	54.2	88.9	58.1	---	---	58.1	3.87E+07	58.1
1665	15-Sep-16	21:19:03	60.3	66.5	55.3	86.8	60.3	---	---	60.3	6.43E+07	60.3
1666	15-Sep-16	21:20:03	56.9	61.5	53.9	83.5	56.9	---	---	56.9	2.94E+07	56.9
1667	15-Sep-16	21:21:03	57.9	61.6	54.7	85.8	57.9	---	---	57.9	3.70E+07	57.9
1668	15-Sep-16	21:22:03	59	61.4	55.6	84.8	59	---	---	59	4.77E+07	59.0
1669	15-Sep-16	21:23:03	57.8	63.1	49.7	84.8	57.8	---	---	57.8	3.62E+07	57.8
1670	15-Sep-16	21:24:03	59.7	63.7	56.1	86.3	59.7	---	---	59.7	5.60E+07	59.7
1671	15-Sep-16	21:25:03	59.5	63.1	55.3	84.1	59.5	---	---	59.5	5.35E+07	59.5
1672	15-Sep-16	21:26:03	59.8	63.5	56.5	84.1	59.8	---	---	59.8	5.73E+07	59.8
1673	15-Sep-16	21:27:03	59	63.2	54.1	86.8	59	---	---	59	4.77E+07	59.0

1674	15-Sep-16	21:28:03	58.6	61.1	54.6	83.5	58.6	---	---	58.6	4.35E+07	58.6
1675	15-Sep-16	21:29:03	59.4	68	54	88.5	59.4	---	---	59.4	5.23E+07	59.4
1676	15-Sep-16	21:30:03	59.6	63.3	53.6	87.3	59.6	---	---	59.6	5.47E+07	59.6
1677	15-Sep-16	21:31:03	57.7	63.5	51	86.3	57.7	---	---	57.7	3.53E+07	57.7
1678	15-Sep-16	21:32:03	59.1	64.6	52.8	84.8	59.1	---	---	59.1	4.88E+07	59.1
1679	15-Sep-16	21:33:03	58.4	61.3	54.4	85.8	58.4	---	---	58.4	4.15E+07	58.4
1680	15-Sep-16	21:34:03	58.8	61.5	55.9	83.5	58.8	---	---	58.8	4.55E+07	58.8
1681	15-Sep-16	21:35:03	59.6	65.4	55.4	88.1	59.6	---	---	59.6	5.47E+07	59.6
1682	15-Sep-16	21:36:03	57.8	61.1	53.2	85.3	57.8	---	---	57.8	3.62E+07	57.8
1683	15-Sep-16	21:37:03	57.9	62.1	53.4	84.8	57.9	---	---	57.9	3.70E+07	57.9
1684	15-Sep-16	21:38:03	59.6	63.1	55.9	85.8	59.6	---	---	59.6	5.47E+07	59.6
1685	15-Sep-16	21:39:03	60.2	65.4	55.3	85.8	60.2	---	---	60.2	6.28E+07	60.2
1686	15-Sep-16	21:40:03	60.7	67.9	56.5	87.3	60.7	---	---	60.7	7.05E+07	60.7
1687	15-Sep-16	21:41:03	60.6	66.2	55.4	88.1	60.6	---	---	60.6	6.89E+07	60.6
1688	15-Sep-16	21:42:03	59.9	65	56	88.9	59.9	---	---	59.9	5.86E+07	59.9
1689	15-Sep-16	21:43:03	57.9	61	52.8	82.8	57.9	---	---	57.9	3.70E+07	57.9
1690	15-Sep-16	21:44:03	57.7	60.3	52.4	81.2	57.7	---	---	57.7	3.53E+07	57.7
1691	15-Sep-16	21:45:03	59.4	62.9	55.6	83.5	59.4	---	---	59.4	5.23E+07	59.4
1692	15-Sep-16	21:46:03	59.2	64	52.6	85.8	59.2	---	---	59.2	4.99E+07	59.2
1693	15-Sep-16	21:47:03	57	62.1	54	85.8	57	---	---	57	3.01E+07	57.0
1694	15-Sep-16	21:48:03	58.1	63.2	52	83.5	58.1	---	---	58.1	3.87E+07	58.1
1695	15-Sep-16	21:49:03	57.6	61	54	84.8	57.6	---	---	57.6	3.45E+07	57.6
1696	15-Sep-16	21:50:03	57.9	61.4	52.7	81.2	57.9	---	---	57.9	3.70E+07	57.9
1697	15-Sep-16	21:51:03	58.1	62.4	52	84.8	58.1	---	---	58.1	3.87E+07	58.1
1698	15-Sep-16	21:52:03	58.1	65.4	52.9	83.5	58.1	---	---	58.1	3.87E+07	58.1
1699	15-Sep-16	21:53:03	57.2	59.8	54.7	81.2	57.2	---	---	57.2	3.15E+07	57.2
1700	15-Sep-16	21:54:03	59.4	66.2	53.5	88.5	59.4	---	---	59.4	5.23E+07	59.4
1701	15-Sep-16	21:55:03	58.2	63.2	52.2	85.3	58.2	---	---	58.2	3.96E+07	58.2
1702	15-Sep-16	21:56:03	57.7	62.4	48.8	87.3	57.7	---	---	57.7	3.53E+07	57.7
1703	15-Sep-16	21:57:03	59.9	65	53.5	85.8	59.9	---	---	59.9	5.86E+07	59.9
1704	15-Sep-16	21:58:03	60.2	68.2	54.9	89.5	60.2	---	---	60.2	6.28E+07	60.2
1705	15-Sep-16	21:59:03	57.6	60.7	54.2	81.2	57.6	---	---	57.6	3.45E+07	57.6
											3.10E+09	59.3
1706	15-Sep-16	22:00:03	59.7	63.3	56.1	87.7	59.7	---	---	59.7	5.60E+07	59.7
1707	15-Sep-16	22:01:03	58.5	63.8	53.9	82.1	58.5	---	---	58.5	4.25E+07	58.5
1708	15-Sep-16	22:02:03	58.7	62.3	55.1	84.1	58.7	---	---	58.7	4.45E+07	58.7
1709	15-Sep-16	22:03:03	60.1	66.8	53.5	85.8	60.1	---	---	60.1	6.14E+07	60.1
1710	15-Sep-16	22:04:03	57.5	63.2	53.3	81.2	57.5	---	---	57.5	3.37E+07	57.5
1711	15-Sep-16	22:05:03	59.4	64.7	54.1	82.8	59.4	---	---	59.4	5.23E+07	59.4
1712	15-Sep-16	22:06:03	57.7	61.5	52	84.1	57.7	---	---	57.7	3.53E+07	57.7
1713	15-Sep-16	22:07:03	58.9	62.4	52.7	82.8	58.9	---	---	58.9	4.66E+07	58.9
1714	15-Sep-16	22:08:03	60.6	69.2	52	88.1	60.6	---	---	60.6	6.89E+07	60.6
1715	15-Sep-16	22:09:03	58	61.7	51.8	82.1	58	---	---	58	3.79E+07	58.0
1716	15-Sep-16	22:10:03	58.8	63.1	54.8	85.3	58.8	---	---	58.8	4.55E+07	58.8
1717	15-Sep-16	22:11:03	59.4	63.4	54.5	83.5	59.4	---	---	59.4	5.23E+07	59.4
1718	15-Sep-16	22:12:03	57.9	63.2	48.1	86.8	57.9	---	---	57.9	3.70E+07	57.9
1719	15-Sep-16	22:13:03	60.1	65.2	56.6	87.3	60.1	---	---	60.1	6.14E+07	60.1
1720	15-Sep-16	22:14:03	57.9	63.2	53.3	83.5	57.9	---	---	57.9	3.70E+07	57.9
1721	15-Sep-16	22:15:03	57	61.4	53	79.3	57	---	---	57	3.01E+07	57.0
1722	15-Sep-16	22:16:03	59.6	64.3	55.5	89.2	59.6	---	---	59.6	5.47E+07	59.6
1723	15-Sep-16	22:17:03	58.7	65	53.9	88.9	58.7	---	---	58.7	4.45E+07	58.7
1724	15-Sep-16	22:18:03	60.2	65.4	53.2	85.3	60.2	---	---	60.2	6.28E+07	60.2
1725	15-Sep-16	22:19:03	59	62	55	82.8	59	---	---	59	4.77E+07	59.0
1726	15-Sep-16	22:20:03	59.6	63.8	55.1	90.8	59.6	---	---	59.6	5.47E+07	59.6
1727	15-Sep-16	22:21:03	57.9	62.1	51.3	84.8	57.9	---	---	57.9	3.70E+07	57.9
1728	15-Sep-16	22:22:03	58.2	63.5	54.2	83.5	58.2	---	---	58.2	3.96E+07	58.2
1729	15-Sep-16	22:23:03	57.3	62.2	53	82.8	57.3	---	---	57.3	3.22E+07	57.3
1730	15-Sep-16	22:24:03	57.4	60.2	52.3	80.3	57.4	---	---	57.4	3.30E+07	57.4
1731	15-Sep-16	22:25:03	57.9	60.9	52.9	82.8	57.9	---	---	57.9	3.70E+07	57.9
1732	15-Sep-16	22:26:03	57.9	62.1	51.8	81.2	57.9	---	---	57.9	3.70E+07	57.9
1733	15-Sep-16	22:27:03	59.2	64.7	53.2	87.3	59.2	---	---	59.2	4.99E+07	59.2
1734	15-Sep-16	22:28:03	57.5	60.1	49.4	83.5	57.5	---	---	57.5	3.37E+07	57.5
1735	15-Sep-16	22:29:03	59	65.2	54.6	87.3	59	---	---	59	4.77E+07	59.0
1736	15-Sep-16	22:30:03	59.2	62.8	53.2	84.8	59.2	---	---	59.2	4.99E+07	59.2
1737	15-Sep-16	22:31:03	58.4	62.9	52.6	84.1	58.4	---	---	58.4	4.15E+07	58.4
1738	15-Sep-16	22:32:03	60.5	63.7	57.4	85.3	60.5	---	---	60.5	6.73E+07	60.5
1739	15-Sep-16	22:33:03	59.4	62.8	56.7	87.7	59.4	---	---	59.4	5.23E+07	59.4
1740	15-Sep-16	22:34:03	58.3	61.5	54.3	87.3	58.3	---	---	58.3	4.06E+07	58.3
1741	15-Sep-16	22:35:03	57.6	60.4	54.1	80.3	57.6	---	---	57.6	3.45E+07	57.6
1742	15-Sep-16	22:36:03	57.4	60.5	50.3	81.2	57.4	---	---	57.4	3.30E+07	57.4
1743	15-Sep-16	22:37:03	56.2	60.7	47.5	82.8	56.2	---	---	56.2	2.50E+07	56.2
1744	15-Sep-16	22:38:03	57.4	62	52.8	83.5	57.4	---	---	57.4	3.30E+07	57.4
1745	15-Sep-16	22:39:03	59.6	64.9	51.8	85.8	59.6	---	---	59.6	5.47E+07	59.6
1746	15-Sep-16	22:40:03	58.8	67	50.3	86.3	58.8	---	---	58.8	4.55E+07	58.8
1747	15-Sep-16	22:41:03	57.6	61.7	53.1	81.2	57.6	---	---	57.6	3.45E+07	57.6
1748	15-Sep-16	22:42:03	59.1	64.6	53.1	85.8	59.1	---	---	59.1	4.88E+07	59.1
1749	15-Sep-16	22:43:03	57.1	60.6	53.7	86.3	57.1	---	---	57.1	3.08E+07	57.1
1750	15-Sep-16	22:44:03	58.2	61.7	54.9	85.3	58.2	---	---	58.2	3.96E+07	58.2
1751	15-Sep-16	22:45:03	59.9	64.7	52.8	85.8	59.9	---	---	59.9	5.86E+07	59.9
1752	15-Sep-16	22:46:03	57	61	51.4	81.2	57	---	---	57	3.01E+07	57.0
1753	15-Sep-16	22:47:03	58.7	64.4	52.7	85.3	58.7	---	---	58.7	4.45E+07	58.7
1754	15-Sep-16	22:48:03	57.6	66.7	51.5	87.7	57.6	---	---	57.6	3.45E+07	57.6
1755	15-Sep-16	22:49:03	57.9	61.4	54	80.3	57.9	---	---	57.9	3.70E+07	57.9
1756	15-Sep-16	22:50:03	56.8	59.9	51.9	86.8	56.8	---	---	56.8	2.87E+07	56.8

1757	15-Sep-16	22:51:03	56.6	60.2	52.5	79.3	56.6	---	---	56.6	2.74E+07	56.6
1758	15-Sep-16	22:52:03	56.6	60.1	48.8	82.1	56.6	---	---	56.6	2.74E+07	56.6
1759	15-Sep-16	22:53:03	57.9	62.2	53.8	84.1	57.9	---	---	57.9	3.70E+07	57.9
1760	15-Sep-16	22:54:03	57.5	60.8	53.2	81.2	57.5	---	---	57.5	3.37E+07	57.5
1761	15-Sep-16	22:55:03	59.1	65.3	51.4	88.9	59.1	---	---	59.1	4.88E+07	59.1
1762	15-Sep-16	22:56:03	56.9	62.3	51.6	82.1	56.9	---	---	56.9	2.94E+07	56.9
1763	15-Sep-16	22:57:03	56.4	59.7	51.5	81.2	56.4	---	---	56.4	2.62E+07	56.4
1764	15-Sep-16	22:58:03	58.3	67.8	53.5	85.3	58.3	---	---	58.3	4.06E+07	58.3
1765	15-Sep-16	22:59:03	58.6	68	53.6	84.8	58.6	---	---	58.6	4.35E+07	58.6
											2.53E+09	58.5
1766	15-Sep-16	23:00:03	55.3	58.6	48.1	78.1	55.3	---	---	55.3	2.03E+07	55.3
1767	15-Sep-16	23:01:03	56.3	59.9	50.4	86.8	56.3	---	---	56.3	2.56E+07	56.3
1768	15-Sep-16	23:02:03	57.6	61.5	52.2	83.5	57.6	---	---	57.6	3.45E+07	57.6
1769	15-Sep-16	23:03:03	58.4	64.5	52.7	84.1	58.4	---	---	58.4	4.15E+07	58.4
1770	15-Sep-16	23:04:03	58.7	62.1	52.8	84.8	58.7	---	---	58.7	4.45E+07	58.7
1771	15-Sep-16	23:05:03	56.9	62.5	51.6	82.1	56.9	---	---	56.9	2.94E+07	56.9
1772	15-Sep-16	23:06:03	57.5	62.8	50.2	84.1	57.5	---	---	57.5	3.37E+07	57.5
1773	15-Sep-16	23:07:03	58.6	65.9	53	84.8	58.6	---	---	58.6	4.35E+07	58.6
1774	15-Sep-16	23:08:03	55.3	60.9	51.7	82.8	55.3	---	---	55.3	2.03E+07	55.3
1775	15-Sep-16	23:09:03	57.8	63.5	51.5	84.8	57.8	---	---	57.8	3.62E+07	57.8
1776	15-Sep-16	23:10:03	56.6	60.3	49.6	84.1	56.6	---	---	56.6	2.74E+07	56.6
1777	15-Sep-16	23:11:03	54.3	57.9	47.3	86.8	54.3	---	---	54.3	1.61E+07	54.3
1778	15-Sep-16	23:12:03	56.4	59.1	49.8	84.1	56.4	---	---	56.4	2.62E+07	56.4
1779	15-Sep-16	23:13:03	56.1	62.1	49.5	80.3	56.1	---	---	56.1	2.44E+07	56.1
1780	15-Sep-16	23:14:03	56.7	58.8	52.2	82.1	56.7	---	---	56.7	2.81E+07	56.7
1781	15-Sep-16	23:15:03	57	60.9	51.5	85.3	57	---	---	57	3.01E+07	57.0
1782	15-Sep-16	23:16:03	57.7	62.3	49.8	84.8	57.7	---	---	57.7	3.53E+07	57.7
1783	15-Sep-16	23:17:03	58.2	61.7	52.7	83.5	58.2	---	---	58.2	3.96E+07	58.2
1784	15-Sep-16	23:18:03	56.7	62.3	50.8	86.3	56.7	---	---	56.7	2.81E+07	56.7
1785	15-Sep-16	23:19:03	58.5	65.4	50.9	82.8	58.5	---	---	58.5	4.25E+07	58.5
1786	15-Sep-16	23:20:03	58.4	62	54.8	82.1	58.4	---	---	58.4	4.15E+07	58.4
1787	15-Sep-16	23:21:03	59.4	64.3	56.3	83.5	59.4	---	---	59.4	5.23E+07	59.4
1788	15-Sep-16	23:22:03	59	63.8	57.1	86.8	59	---	---	59	4.77E+07	59.0
1789	15-Sep-16	23:23:03	58.1	63.8	49.7	87.3	58.1	---	---	58.1	3.87E+07	58.1
1790	15-Sep-16	23:24:03	56.8	59	52.6	84.1	56.8	---	---	56.8	2.87E+07	56.8
1791	15-Sep-16	23:25:03	56.9	62.8	52.4	86.3	56.9	---	---	56.9	2.94E+07	56.9
1792	15-Sep-16	23:26:03	58.1	63.9	50.1	87.3	58.1	---	---	58.1	3.87E+07	58.1
1793	15-Sep-16	23:27:03	56.5	60.7	51.9	82.1	56.5	---	---	56.5	2.68E+07	56.5
1794	15-Sep-16	23:28:03	56.4	60.8	51.6	80.3	56.4	---	---	56.4	2.62E+07	56.4
1795	15-Sep-16	23:29:03	57.8	61.3	51	82.1	57.8	---	---	57.8	3.62E+07	57.8
1796	15-Sep-16	23:30:03	56.6	62.6	47.9	84.1	56.6	---	---	56.6	2.74E+07	56.6
1797	15-Sep-16	23:31:03	63.7	76.2	53.1	93.3	63.7	---	---	63.7	1.41E+08	63.7
1798	15-Sep-16	23:32:03	58.9	64.4	51.1	84.1	58.9	---	---	58.9	4.66E+07	58.9
1799	15-Sep-16	23:33:03	57.7	63.2	52	81.2	57.7	---	---	57.7	3.53E+07	57.7
1800	15-Sep-16	23:34:03	56.2	58.1	53.2	85.8	56.2	---	---	56.2	2.50E+07	56.2
1801	15-Sep-16	23:35:03	57.5	62.3	50.7	84.1	57.5	---	---	57.5	3.37E+07	57.5
1802	15-Sep-16	23:36:03	59.3	63.2	51.2	90.2	59.3	---	---	59.3	5.11E+07	59.3
1803	15-Sep-16	23:37:03	57.7	61.3	53.6	82.8	57.7	---	---	57.7	3.53E+07	57.7
1804	15-Sep-16	23:38:03	59.4	65.6	52	86.3	59.4	---	---	59.4	5.23E+07	59.4
1805	15-Sep-16	23:39:03	58	61.2	54	88.1	58	---	---	58	3.79E+07	58.0
1806	15-Sep-16	23:40:03	56.7	62.2	51.3	80.3	56.7	---	---	56.7	2.81E+07	56.7
1807	15-Sep-16	23:41:03	57.6	61.2	50.5	84.8	57.6	---	---	57.6	3.45E+07	57.6
1808	15-Sep-16	23:42:03	58.3	66	48.7	83.5	58.3	---	---	58.3	4.06E+07	58.3
1809	15-Sep-16	23:43:03	55.7	59	52	79.3	55.7	---	---	55.7	2.23E+07	55.7
1810	15-Sep-16	23:44:03	54.8	58.4	49.2	84.8	54.8	---	---	54.8	1.81E+07	54.8
1811	15-Sep-16	23:45:03	56.4	63	46.2	86.3	56.4	---	---	56.4	2.62E+07	56.4
1812	15-Sep-16	23:46:03	55.9	60.7	49.1	86.3	55.9	---	---	55.9	2.33E+07	55.9
1813	15-Sep-16	23:47:03	58	64.2	51	84.1	58	---	---	58	3.79E+07	58.0
1814	15-Sep-16	23:48:03	58	63.5	52	82.1	58	---	---	58	3.79E+07	58.0
1815	15-Sep-16	23:49:03	54.9	59.3	49	80.3	54.9	---	---	54.9	1.85E+07	54.9
1816	15-Sep-16	23:50:03	55.1	58.2	45.7	87.3	55.1	---	---	55.1	1.94E+07	55.1
1817	15-Sep-16	23:51:03	53.6	60.4	46.5	83.5	53.6	---	---	53.6	1.37E+07	53.6
1818	15-Sep-16	23:52:03	57.3	63.1	51.9	82.1	57.3	---	---	57.3	3.22E+07	57.3
1819	15-Sep-16	23:53:03	56.7	61.4	50.4	79.3	56.7	---	---	56.7	2.81E+07	56.7
1820	15-Sep-16	23:54:03	55.6	63.5	46.3	86.3	55.6	---	---	55.6	2.18E+07	55.6
1821	15-Sep-16	23:55:03	56.7	63.9	52.1	83.5	56.7	---	---	56.7	2.81E+07	56.7
1822	15-Sep-16	23:56:03	57	59.4	52.1	83.5	57	---	---	57	3.01E+07	57.0
1823	15-Sep-16	23:57:03	58.6	64.2	49.5	83.5	58.6	---	---	58.6	4.35E+07	58.6
1824	15-Sep-16	23:58:03	55.9	59.2	49.5	82.1	55.9	---	---	55.9	2.33E+07	55.9
1825	15-Sep-16	23:59:03	57.1	61.8	49.6	85.8	57.1	---	---	57.1	3.08E+07	57.1
											2.04E+09	57.5
1826	16-Sep-16	0:00:03	57.3	62.5	48.2	83.5	57.3	---	---	57.3	3.22E+07	57.3
1827	16-Sep-16	0:01:03	58.4	62.7	53.5	86.8	58.4	---	---	58.4	4.15E+07	58.4
1828	16-Sep-16	0:02:03	57.2	62.5	49.1	82.1	57.2	---	---	57.2	3.15E+07	57.2
1829	16-Sep-16	0:03:03	57.1	60.1	50	84.1	57.1	---	---	57.1	3.08E+07	57.1
1830	16-Sep-16	0:04:03	57.5	62.1	50	85.3	57.5	---	---	57.5	3.37E+07	57.5
1831	16-Sep-16	0:05:03	58.3	63.1	52.6	82.8	58.3	---	---	58.3	4.06E+07	58.3
1832	16-Sep-16	0:06:03	58.7	63.2	48.1	85.3	58.7	---	---	58.7	4.45E+07	58.7
1833	16-Sep-16	0:07:03	58.5	62	54.9	82.1	58.5	---	---	58.5	4.25E+07	58.5
1834	16-Sep-16	0:08:03	56.7	61.9	51.4	80.3	56.7	---	---	56.7	2.81E+07	56.7
1835	16-Sep-16	0:09:03	59.6	64.5	50.8	87.3	59.6	---	---	59.6	5.47E+07	59.6
1836	16-Sep-16	0:10:03	59.7	65.6	55.5	87.3	59.7	---	---	59.7	5.60E+07	59.7

1837	16-Sep-16	0:11:03	56.7	60.4	50.3	83.5	56.7	---	---	56.7	2.81E+07	56.7
1838	16-Sep-16	0:12:03	58.4	64.6	52.7	82.1	58.4	---	---	58.4	4.15E+07	58.4
1839	16-Sep-16	0:13:03	56.8	59.9	51.7	76.8	56.8	---	---	56.8	2.87E+07	56.8
1840	16-Sep-16	0:14:03	59.5	64.1	54.8	85.3	59.5	---	---	59.5	5.35E+07	59.5
1841	16-Sep-16	0:15:03	60.2	65.5	52	83.5	60.2	---	---	60.2	6.28E+07	60.2
1842	16-Sep-16	0:16:03	56.7	60.8	48.5	81.2	56.7	---	---	56.7	2.81E+07	56.7
1843	16-Sep-16	0:17:03	59.6	64.3	53.1	84.8	59.6	---	---	59.6	5.47E+07	59.6
1844	16-Sep-16	0:18:03	59.1	63.7	51.2	81.2	59.1	---	---	59.1	4.88E+07	59.1
1845	16-Sep-16	0:19:03	58.8	64.1	48.5	80.3	58.8	---	---	58.8	4.55E+07	58.8
1846	16-Sep-16	0:20:03	57.2	62.4	44.4	78.1	57.2	---	---	57.2	3.15E+07	57.2
1847	16-Sep-16	0:21:03	55.1	59.2	49.9	75.2	55.1	---	---	55.1	1.94E+07	55.1
1848	16-Sep-16	0:22:03	56.9	62.1	51.7	86.3	56.9	---	---	56.9	2.94E+07	56.9
1849	16-Sep-16	0:23:03	56.3	62.1	46	83.5	56.3	---	---	56.3	2.56E+07	56.3
1850	16-Sep-16	0:24:03	56.1	59.7	51.1	89.2	56.1	---	---	56.1	2.44E+07	56.1
1851	16-Sep-16	0:25:03	56.9	63.6	49.7	86.8	56.9	---	---	56.9	2.94E+07	56.9
1852	16-Sep-16	0:26:03	57.4	63.6	47.6	88.5	57.4	---	---	57.4	3.30E+07	57.4
1853	16-Sep-16	0:27:03	53.4	58.3	48.5	78.1	53.4	---	---	53.4	1.31E+07	53.4
1854	16-Sep-16	0:28:03	55.1	61.5	48	76.8	55.1	---	---	55.1	1.94E+07	55.1
1855	16-Sep-16	0:29:03	55.4	60	47	81.2	55.4	---	---	55.4	2.08E+07	55.4
1856	16-Sep-16	0:30:03	58.2	63.7	51.9	85.8	58.2	---	---	58.2	3.96E+07	58.2
1857	16-Sep-16	0:31:03	54.5	60.7	41.4	82.8	54.5	---	---	54.5	1.69E+07	54.5
1858	16-Sep-16	0:32:03	55.7	64.7	44	84.8	55.7	---	---	55.7	2.23E+07	55.7
1859	16-Sep-16	0:33:03	54	61.8	45.6	81.2	54	---	---	54	1.51E+07	54.0
1860	16-Sep-16	0:34:03	57.1	63.1	48.5	86.3	57.1	---	---	57.1	3.08E+07	57.1
1861	16-Sep-16	0:35:03	56.6	62.4	49.6	81.2	56.6	---	---	56.6	2.74E+07	56.6
1862	16-Sep-16	0:36:03	55.9	64.4	48.2	82.1	55.9	---	---	55.9	2.33E+07	55.9
1863	16-Sep-16	0:37:03	55.7	63.1	44.6	85.3	55.7	---	---	55.7	2.23E+07	55.7
1864	16-Sep-16	0:38:03	52.1	59.5	44.5	88.5	52.1	---	---	52.1	9.73E+06	52.1
1865	16-Sep-16	0:39:03	53.7	60.4	47.3	84.1	53.7	---	---	53.7	1.41E+07	53.7
1866	16-Sep-16	0:40:03	54.4	61.4	45.2	85.8	54.4	---	---	54.4	1.65E+07	54.4
1867	16-Sep-16	0:41:03	53.1	56.6	48.3	79.3	53.1	---	---	53.1	1.23E+07	53.1
1868	16-Sep-16	0:42:03	52.5	58	46.4	75.2	52.5	---	---	52.5	1.07E+07	52.5
1869	16-Sep-16	0:43:03	55.6	60.7	51	81.2	55.6	---	---	55.6	2.18E+07	55.6
1870	16-Sep-16	0:44:03	57.8	68.8	48.5	88.5	57.8	---	---	57.8	3.62E+07	57.8
1871	16-Sep-16	0:45:03	56.7	64	45.9	86.3	56.7	---	---	56.7	2.81E+07	56.7
1872	16-Sep-16	0:46:03	54	57.8	47.6	76.8	54	---	---	54	1.51E+07	54.0
1873	16-Sep-16	0:47:03	54.8	61.5	43.1	87.7	54.8	---	---	54.8	1.81E+07	54.8
1874	16-Sep-16	0:48:03	56.3	64.9	48.6	82.8	56.3	---	---	56.3	2.56E+07	56.3
1875	16-Sep-16	0:49:03	56	61.7	49.7	84.8	56	---	---	56	2.39E+07	56.0
1876	16-Sep-16	0:50:03	55.1	61.6	49.3	76.8	55.1	---	---	55.1	1.94E+07	55.1
1877	16-Sep-16	0:51:03	53.9	59.6	45.4	83.5	53.9	---	---	53.9	1.47E+07	53.9
1878	16-Sep-16	0:52:03	56.3	60.5	45.5	84.1	56.3	---	---	56.3	2.56E+07	56.3
1879	16-Sep-16	0:53:03	56.3	61.2	48.1	82.1	56.3	---	---	56.3	2.56E+07	56.3
1880	16-Sep-16	0:54:03	56	62.5	49	83.5	56	---	---	56	2.39E+07	56.0
1881	16-Sep-16	0:55:03	57.9	63.6	52	82.8	57.9	---	---	57.9	3.70E+07	57.9
1882	16-Sep-16	0:56:03	55.5	61	44.8	82.8	55.5	---	---	55.5	2.13E+07	55.5
1883	16-Sep-16	0:57:03	54.5	59.1	46.7	75.2	54.5	---	---	54.5	1.69E+07	54.5
1884	16-Sep-16	0:58:03	57.2	63.9	48.9	84.1	57.2	---	---	57.2	3.15E+07	57.2
1885	16-Sep-16	0:59:03	56.5	62.7	42.2	84.8	56.5	---	---	56.5	2.68E+07	56.5
											1.75E+09	56.9
1886	16-Sep-16	1:00:03	51.6	58.3	39.7	79.3	51.6	---	---	51.6	8.67E+06	51.6
1887	16-Sep-16	1:01:03	54.2	58.7	43.8	84.1	54.2	---	---	54.2	1.58E+07	54.2
1888	16-Sep-16	1:02:03	56.6	63.6	47.4	82.8	56.6	---	---	56.6	2.74E+07	56.6
1889	16-Sep-16	1:03:03	54.5	60.7	45.5	80.3	54.5	---	---	54.5	1.69E+07	54.5
1890	16-Sep-16	1:04:03	54.7	59.8	47.6	82.8	54.7	---	---	54.7	1.77E+07	54.7
1891	16-Sep-16	1:05:03	58.7	65.4	52.1	86.3	58.7	---	---	58.7	4.45E+07	58.7
1892	16-Sep-16	1:06:03	55.1	58.5	48.7	83.5	55.1	---	---	55.1	1.94E+07	55.1
1893	16-Sep-16	1:07:03	53.6	58	43.5	78.1	53.6	---	---	53.6	1.37E+07	53.6
1894	16-Sep-16	1:08:03	54.2	60.3	44.4	84.1	54.2	---	---	54.2	1.58E+07	54.2
1895	16-Sep-16	1:09:03	56.1	62.8	45	82.1	56.1	---	---	56.1	2.44E+07	56.1
1896	16-Sep-16	1:10:03	57.1	62	48.9	83.5	57.1	---	---	57.1	3.08E+07	57.1
1897	16-Sep-16	1:11:03	50.6	57.3	43	75.2	50.6	---	---	50.6	6.89E+06	50.6
1898	16-Sep-16	1:12:03	55.8	59.8	50.6	87.7	55.8	---	---	55.8	2.28E+07	55.8
1899	16-Sep-16	1:13:03	56.8	62	50.9	85.8	56.8	---	---	56.8	2.87E+07	56.8
1900	16-Sep-16	1:14:03	53.4	58.4	40.6	84.1	53.4	---	---	53.4	1.31E+07	53.4
1901	16-Sep-16	1:15:03	54.9	62.7	40.8	81.2	54.9	---	---	54.9	1.85E+07	54.9
1902	16-Sep-16	1:16:03	57	62.8	42.1	84.8	57	---	---	57	3.01E+07	57.0
1903	16-Sep-16	1:17:03	56.2	63.8	46.7	88.5	56.2	---	---	56.2	2.50E+07	56.2
1904	16-Sep-16	1:18:03	52.7	57.8	42.9	76.8	52.7	---	---	52.7	1.12E+07	52.7
1905	16-Sep-16	1:19:03	57.5	66.3	46.1	84.1	57.5	---	---	57.5	3.37E+07	57.5
1906	16-Sep-16	1:20:03	54.9	62.2	46.9	81.2	54.9	---	---	54.9	1.85E+07	54.9
1907	16-Sep-16	1:21:03	58.3	65.3	47.6	82.8	58.3	---	---	58.3	4.06E+07	58.3
1908	16-Sep-16	1:22:03	55	61.9	47.7	81.2	55	---	---	55	1.90E+07	55.0
1909	16-Sep-16	1:23:03	53.9	63.2	43.9	86.8	53.9	---	---	53.9	1.47E+07	53.9
1910	16-Sep-16	1:24:03	55.4	60.3	44.4	89.9	55.4	---	---	55.4	2.08E+07	55.4
1911	16-Sep-16	1:25:03	55.3	60.5	48.1	84.1	55.3	---	---	55.3	2.03E+07	55.3
1912	16-Sep-16	1:26:03	56.2	64.7	47.3	85.3	56.2	---	---	56.2	2.50E+07	56.2
1913	16-Sep-16	1:27:03	55.1	59	51.3	85.8	55.1	---	---	55.1	1.94E+07	55.1
1914	16-Sep-16	1:28:03	57.1	62.9	46.4	86.3	57.1	---	---	57.1	3.08E+07	57.1
1915	16-Sep-16	1:29:03	55	61.5	41.6	82.1	55	---	---	55	1.90E+07	55.0
1916	16-Sep-16	1:30:03	55.6	58.6	48.2	86.3	55.6	---	---	55.6	2.18E+07	55.6
1917	16-Sep-16	1:31:03	52.5	56.8	41.5	85.3	52.5	---	---	52.5	1.07E+07	52.5
1918	16-Sep-16	1:32:03	54	60.2	39.5	78.1	54	---	---	54	1.51E+07	54.0
1919	16-Sep-16	1:33:03	53.3	62	40.1	76.8	53.3	---	---	53.3	1.28E+07	53.3

1920	16-Sep-16	1:34:03	52.5	56.6	43.5	75.2	52.5	---	---	52.5	1.07E+07	52.5
1921	16-Sep-16	1:35:03	52.5	59.9	41.8	79.3	52.5	---	---	52.5	1.07E+07	52.5
1922	16-Sep-16	1:36:03	53.9	59.9	45.6	78.1	53.9	---	---	53.9	1.47E+07	53.9
1923	16-Sep-16	1:37:03	54.1	59.9	44.7	84.8	54.1	---	---	54.1	1.54E+07	54.1
1924	16-Sep-16	1:38:03	50.7	58.5	40.8	73.3	50.7	---	---	50.7	7.05E+06	50.7
1925	16-Sep-16	1:39:03	56.6	63.4	46.6	84.1	56.6	---	---	56.6	2.74E+07	56.6
1926	16-Sep-16	1:40:03	56	62.9	43.2	84.1	56	---	---	56	2.39E+07	56.0
1927	16-Sep-16	1:41:03	58	62.8	42.8	88.5	58	---	---	58	3.79E+07	58.0
1928	16-Sep-16	1:42:03	55.7	61.6	41.8	85.8	55.7	---	---	55.7	2.23E+07	55.7
1929	16-Sep-16	1:43:03	55.4	62.6	44.4	87.7	55.4	---	---	55.4	2.08E+07	55.4
1930	16-Sep-16	1:44:03	54.9	59.9	40.9	78.1	54.9	---	---	54.9	1.85E+07	54.9
1931	16-Sep-16	1:45:03	56	63.8	41.3	80.3	56	---	---	56	2.39E+07	56.0
1932	16-Sep-16	1:46:03	55.1	62.4	40.8	79.3	55.1	---	---	55.1	1.94E+07	55.1
1933	16-Sep-16	1:47:03	55.9	60.9	43.8	76.8	55.9	---	---	55.9	2.33E+07	55.9
1934	16-Sep-16	1:48:03	53.2	61.5	41.5	80.3	53.2	---	---	53.2	1.25E+07	53.2
1935	16-Sep-16	1:49:03	56	62.6	45.9	86.3	56	---	---	56	2.39E+07	56.0
1936	16-Sep-16	1:50:03	55.3	63.1	46.5	87.7	55.3	---	---	55.3	2.03E+07	55.3
1937	16-Sep-16	1:51:03	52.8	61.4	42	81.2	52.8	---	---	52.8	1.14E+07	52.8
1938	16-Sep-16	1:52:03	53.4	58.4	42.4	82.1	53.4	---	---	53.4	1.31E+07	53.4
1939	16-Sep-16	1:53:03	52.7	58.9	40.2	82.8	52.7	---	---	52.7	1.12E+07	52.7
1940	16-Sep-16	1:54:03	55.1	62.2	39.7	86.3	55.1	---	---	55.1	1.94E+07	55.1
1941	16-Sep-16	1:55:03	53.2	58.6	41.6	78.1	53.2	---	---	53.2	1.25E+07	53.2
1942	16-Sep-16	1:56:03	54.7	60.4	41.7	79.3	54.7	---	---	54.7	1.77E+07	54.7
1943	16-Sep-16	1:57:03	54.4	61.3	41.6	81.2	54.4	---	---	54.4	1.65E+07	54.4
1944	16-Sep-16	1:58:03	54.5	62.7	39.7	87.3	54.5	---	---	54.5	1.69E+07	54.5
1945	16-Sep-16	1:59:03	55	62.6	47.3	82.1	55	---	---	55	1.90E+07	55.0
											1.18E+09	55.2
1946	16-Sep-16	2:00:03	55.3	62.2	45.6	87.7	55.3	---	---	55.3	2.03E+07	55.3
1947	16-Sep-16	2:01:03	55.9	62.6	44	87.7	55.9	---	---	55.9	2.33E+07	55.9
1948	16-Sep-16	2:02:03	55.2	58.7	49.1	86.3	55.2	---	---	55.2	1.99E+07	55.2
1949	16-Sep-16	2:03:03	55.5	61.3	44.8	84.1	55.5	---	---	55.5	2.13E+07	55.5
1950	16-Sep-16	2:04:03	53.2	60.8	48.2	78.1	53.2	---	---	53.2	1.25E+07	53.2
1951	16-Sep-16	2:05:03	53.1	56.5	45.1	78.1	53.1	---	---	53.1	1.23E+07	53.1
1952	16-Sep-16	2:06:03	54.2	61.5	42.8	88.1	54.2	---	---	54.2	1.58E+07	54.2
1953	16-Sep-16	2:07:03	55.8	61.6	46.6	81.2	55.8	---	---	55.8	2.28E+07	55.8
1954	16-Sep-16	2:08:03	55	63.8	44.3	82.1	55	---	---	55	1.90E+07	55.0
1955	16-Sep-16	2:09:03	53.5	61.1	41.3	84.1	53.5	---	---	53.5	1.34E+07	53.5
1956	16-Sep-16	2:10:03	53	60.3	41.2	82.1	53	---	---	53	1.20E+07	53.0
1957	16-Sep-16	2:11:03	50.6	55.5	42.6	82.1	50.6	---	---	50.6	6.89E+06	50.6
1958	16-Sep-16	2:12:03	52.3	60.2	42.1	82.1	52.3	---	---	52.3	1.02E+07	52.3
1959	16-Sep-16	2:13:03	54	60.7	41.7	84.8	54	---	---	54	1.51E+07	54.0
1960	16-Sep-16	2:14:03	58.8	69.7	42.1	84.8	58.8	---	---	58.8	4.55E+07	58.8
1961	16-Sep-16	2:15:03	53.9	60.9	42	84.8	53.9	---	---	53.9	1.47E+07	53.9
1962	16-Sep-16	2:16:03	53.9	60.6	47.4	82.1	53.9	---	---	53.9	1.47E+07	53.9
1963	16-Sep-16	2:17:03	52.5	55.7	45.8	85.3	52.5	---	---	52.5	1.07E+07	52.5
1964	16-Sep-16	2:18:03	56.4	64.3	45.7	82.8	56.4	---	---	56.4	2.62E+07	56.4
1965	16-Sep-16	2:19:03	52.1	56.7	42.8	78.1	52.1	---	---	52.1	9.73E+06	52.1
1966	16-Sep-16	2:20:03	56.6	63.1	44	82.8	56.6	---	---	56.6	2.74E+07	56.6
1967	16-Sep-16	2:21:03	57.3	65.4	42.7	84.8	57.3	---	---	57.3	3.22E+07	57.3
1968	16-Sep-16	2:22:03	54.9	63.2	45.1	81.2	54.9	---	---	54.9	1.85E+07	54.9
1969	16-Sep-16	2:23:03	55.2	60.8	47.3	83.5	55.2	---	---	55.2	1.99E+07	55.2
1970	16-Sep-16	2:24:03	51.9	56.7	41.7	76.8	51.9	---	---	51.9	9.29E+06	51.9
1971	16-Sep-16	2:25:03	56.3	62.3	49.9	80.3	56.3	---	---	56.3	2.56E+07	56.3
1972	16-Sep-16	2:26:03	56.8	60.7	45.6	82.8	56.8	---	---	56.8	2.87E+07	56.8
1973	16-Sep-16	2:27:03	54.7	60.2	44.7	81.2	54.7	---	---	54.7	1.77E+07	54.7
1974	16-Sep-16	2:28:03	56.1	60.1	45	80.3	56.1	---	---	56.1	2.44E+07	56.1
1975	16-Sep-16	2:29:03	53.5	59.5	41.2	84.1	53.5	---	---	53.5	1.34E+07	53.5
1976	16-Sep-16	2:30:03	57.5	63.1	41.5	84.1	57.5	---	---	57.5	3.37E+07	57.5
1977	16-Sep-16	2:31:03	54.4	60.7	40.4	88.5	54.4	---	---	54.4	1.65E+07	54.4
1978	16-Sep-16	2:32:03	55.8	61.9	41.8	80.3	55.8	---	---	55.8	2.28E+07	55.8
1979	16-Sep-16	2:33:03	56.2	63.1	43.5	87.3	56.2	---	---	56.2	2.50E+07	56.2
1980	16-Sep-16	2:34:03	57	65.2	44.2	82.1	57	---	---	57	3.01E+07	57.0
1981	16-Sep-16	2:35:03	55.3	59.5	48.1	80.3	55.3	---	---	55.3	2.03E+07	55.3
1982	16-Sep-16	2:36:03	55.5	60.1	45	81.2	55.5	---	---	55.5	2.13E+07	55.5
1983	16-Sep-16	2:37:03	59.7	65.8	49.1	84.8	59.7	---	---	59.7	5.60E+07	59.7
1984	16-Sep-16	2:38:03	54.3	61.2	41	80.3	54.3	---	---	54.3	1.61E+07	54.3
1985	16-Sep-16	2:39:03	52.8	59.5	45	75.2	52.8	---	---	52.8	1.14E+07	52.8
1986	16-Sep-16	2:40:03	57.7	63.1	46.9	83.5	57.7	---	---	57.7	3.53E+07	57.7
1987	16-Sep-16	2:41:03	58.3	65.6	46.8	84.1	58.3	---	---	58.3	4.06E+07	58.3
1988	16-Sep-16	2:42:03	55.6	62.1	40.3	79.3	55.6	---	---	55.6	2.18E+07	55.6
1989	16-Sep-16	2:43:03	56.5	62.6	46.4	83.5	56.5	---	---	56.5	2.68E+07	56.5
1990	16-Sep-16	2:44:03	59.7	68.2	38.7	89.9	59.7	---	---	59.7	5.60E+07	59.7
1991	16-Sep-16	2:45:03	56.5	67.4	45.1	87.3	56.5	---	---	56.5	2.68E+07	56.5
1992	16-Sep-16	2:46:03	52.8	60.9	39.4	81.2	52.8	---	---	52.8	1.14E+07	52.8
1993	16-Sep-16	2:47:03	56.2	64.7	40.9	82.1	56.2	---	---	56.2	2.50E+07	56.2
1994	16-Sep-16	2:48:03	55.4	62.5	47.4	79.3	55.4	---	---	55.4	2.08E+07	55.4
1995	16-Sep-16	2:49:03	58.4	64.7	45.2	81.2	58.4	---	---	58.4	4.15E+07	58.4
1996	16-Sep-16	2:50:03	52.2	56.1	38.6	85.8	52.2	---	---	52.2	9.96E+06	52.2
1997	16-Sep-16	2:51:03	58.1	66.5	47.6	82.8	58.1	---	---	58.1	3.87E+07	58.1
1998	16-Sep-16	2:52:03	55.9	62	41.6	81.2	55.9	---	---	55.9	2.33E+07	55.9
1999	16-Sep-16	2:53:03	50.9	55.7	37.3	78.1	50.9	---	---	50.9	7.38E+06	50.9
2000	16-Sep-16	2:54:03	52.8	58.5	41.6	84.8	52.8	---	---	52.8	1.14E+07	52.8
2001	16-Sep-16	2:55:03	56.7	63.1	45.6	86.8	56.7	---	---	56.7	2.81E+07	56.7
2002	16-Sep-16	2:56:03	51.7	56.2	43.1	76.8	51.7	---	---	51.7	8.87E+06	51.7

2003	16-Sep-16	2:57:03	56.4	65	39.9	81.2	56.4	---	---	56.4	2.62E+07	56.4
2004	16-Sep-16	2:58:03	55.3	61.6	41.2	84.8	55.3	---	---	55.3	2.03E+07	55.3
2005	16-Sep-16	2:59:03	54.7	63.7	42.1	81.2	54.7	---	---	54.7	1.77E+07	54.7
											1.31E+09	55.6
2006	16-Sep-16	3:00:03	55.1	59.6	41.7	82.8	55.1	---	---	55.1	1.94E+07	55.1
2007	16-Sep-16	3:01:03	55.7	64.2	43	84.1	55.7	---	---	55.7	2.23E+07	55.7
2008	16-Sep-16	3:02:03	51.6	57.3	45.9	83.5	51.6	---	---	51.6	8.67E+06	51.6
2009	16-Sep-16	3:03:03	53.4	58.8	42.5	84.1	53.4	---	---	53.4	1.31E+07	53.4
2010	16-Sep-16	3:04:03	53.8	59.3	46.9	82.1	53.8	---	---	53.8	1.44E+07	53.8
2011	16-Sep-16	3:05:03	51.2	59	43.4	82.1	51.2	---	---	51.2	7.91E+06	51.2
2012	16-Sep-16	3:06:03	51.5	55.8	43.5	78.1	51.5	---	---	51.5	8.48E+06	51.5
2013	16-Sep-16	3:07:03	56.5	60.7	49.3	85.8	56.5	---	---	56.5	2.68E+07	56.5
2014	16-Sep-16	3:08:03	51.1	57	42.3	82.8	51.1	---	---	51.1	7.73E+06	51.1
2015	16-Sep-16	3:09:03	55.9	63.1	41.1	81.2	55.9	---	---	55.9	2.33E+07	55.9
2016	16-Sep-16	3:10:03	56.4	62.5	41.7	85.3	56.4	---	---	56.4	2.62E+07	56.4
2017	16-Sep-16	3:11:03	58.4	65.6	47.9	83.5	58.4	---	---	58.4	4.15E+07	58.4
2018	16-Sep-16	3:12:03	58.6	67.5	40	84.8	58.6	---	---	58.6	4.35E+07	58.6
2019	16-Sep-16	3:13:03	57.3	63.7	51.2	80.3	57.3	---	---	57.3	3.22E+07	57.3
2020	16-Sep-16	3:14:03	56.2	63	46.2	82.1	56.2	---	---	56.2	2.50E+07	56.2
2021	16-Sep-16	3:15:03	58.9	63.4	44.3	87.7	58.9	---	---	58.9	4.66E+07	58.9
2022	16-Sep-16	3:16:03	53.6	59.6	44.2	82.1	53.6	---	---	53.6	1.37E+07	53.6
2023	16-Sep-16	3:17:03	55.8	60.7	46.1	83.5	55.8	---	---	55.8	2.28E+07	55.8
2024	16-Sep-16	3:18:03	55	60.9	39.8	84.8	55	---	---	55	1.90E+07	55.0
2025	16-Sep-16	3:19:03	54.8	60.5	44	80.3	54.8	---	---	54.8	1.81E+07	54.8
2026	16-Sep-16	3:20:03	54.1	57.6	44.6	80.3	54.1	---	---	54.1	1.54E+07	54.1
2027	16-Sep-16	3:21:03	58.6	63.2	47.2	88.1	58.6	---	---	58.6	4.35E+07	58.6
2028	16-Sep-16	3:22:03	57.4	64.9	49.1	88.5	57.4	---	---	57.4	3.30E+07	57.4
2029	16-Sep-16	3:23:03	55.3	58.6	48	76.8	55.3	---	---	55.3	2.03E+07	55.3
2030	16-Sep-16	3:24:03	59.1	66.1	47.2	84.1	59.1	---	---	59.1	4.88E+07	59.1
2031	16-Sep-16	3:25:03	58.1	64.3	47	82.1	58.1	---	---	58.1	3.87E+07	58.1
2032	16-Sep-16	3:26:03	55	64.5	38.7	83.5	55	---	---	55	1.90E+07	55.0
2033	16-Sep-16	3:27:03	53.3	58	43.6	78.1	53.3	---	---	53.3	1.28E+07	53.3
2034	16-Sep-16	3:28:03	55.3	62.7	46.9	83.5	55.3	---	---	55.3	2.03E+07	55.3
2035	16-Sep-16	3:29:03	49.8	54.6	44.1	76.8	49.8	---	---	49.8	5.73E+06	49.8
2036	16-Sep-16	3:30:03	52.4	57.9	44.5	82.8	52.4	---	---	52.4	1.04E+07	52.4
2037	16-Sep-16	3:31:03	52.9	60.4	37.3	86.3	52.9	---	---	52.9	1.17E+07	52.9
2038	16-Sep-16	3:32:03	58	64.4	49.8	85.8	58	---	---	58	3.79E+07	58.0
2039	16-Sep-16	3:33:03	57.3	62.7	43.4	85.8	57.3	---	---	57.3	3.22E+07	57.3
2040	16-Sep-16	3:34:03	53.3	59.2	42.2	79.3	53.3	---	---	53.3	1.28E+07	53.3
2041	16-Sep-16	3:35:03	55.8	60.6	43.2	84.1	55.8	---	---	55.8	2.28E+07	55.8
2042	16-Sep-16	3:36:03	57.9	65	43.7	83.5	57.9	---	---	57.9	3.70E+07	57.9
2043	16-Sep-16	3:37:03	56.7	63.4	39.1	84.8	56.7	---	---	56.7	2.81E+07	56.7
2044	16-Sep-16	3:38:03	55.6	61.2	41	79.3	55.6	---	---	55.6	2.18E+07	55.6
2045	16-Sep-16	3:39:03	57.6	62.3	45.8	84.1	57.6	---	---	57.6	3.45E+07	57.6
2046	16-Sep-16	3:40:03	56.6	62.5	46.3	86.3	56.6	---	---	56.6	2.74E+07	56.6
2047	16-Sep-16	3:41:03	55	60.4	42.6	80.3	55	---	---	55	1.90E+07	55.0
2048	16-Sep-16	3:42:03	55.1	61.7	44	82.8	55.1	---	---	55.1	1.94E+07	55.1
2049	16-Sep-16	3:43:03	56.8	62.8	44.1	82.8	56.8	---	---	56.8	2.87E+07	56.8
2050	16-Sep-16	3:44:03	57.2	62.7	42.8	84.1	57.2	---	---	57.2	3.15E+07	57.2
2051	16-Sep-16	3:45:03	55.6	60.4	42.7	84.1	55.6	---	---	55.6	2.18E+07	55.6
2052	16-Sep-16	3:46:03	57.6	64	43.4	86.3	57.6	---	---	57.6	3.45E+07	57.6
2053	16-Sep-16	3:47:03	53.7	62.1	41.4	87.7	53.7	---	---	53.7	1.41E+07	53.7
2054	16-Sep-16	3:48:03	55.7	61.5	43.9	86.3	55.7	---	---	55.7	2.23E+07	55.7
2055	16-Sep-16	3:49:03	58.9	65.6	46	86.8	58.9	---	---	58.9	4.66E+07	58.9
2056	16-Sep-16	3:50:03	57.4	62	39.8	83.5	57.4	---	---	57.4	3.30E+07	57.4
2057	16-Sep-16	3:51:03	57.9	65.6	43.1	84.1	57.9	---	---	57.9	3.70E+07	57.9
2058	16-Sep-16	3:52:03	59.5	66.3	47.1	86.3	59.5	---	---	59.5	5.35E+07	59.5
2059	16-Sep-16	3:53:03	60	66.6	49.7	87.7	60	---	---	60	6.00E+07	60.0
2060	16-Sep-16	3:54:03	54	60	43.1	78.1	54	---	---	54	1.51E+07	54.0
2061	16-Sep-16	3:55:03	56.7	63.8	44.6	81.2	56.7	---	---	56.7	2.81E+07	56.7
2062	16-Sep-16	3:56:03	59.3	65.8	47.4	88.1	59.3	---	---	59.3	5.11E+07	59.3
2063	16-Sep-16	3:57:03	55.2	59.2	45.4	82.8	55.2	---	---	55.2	1.99E+07	55.2
2064	16-Sep-16	3:58:03	55.2	62.6	42.6	82.1	55.2	---	---	55.2	1.99E+07	55.2
2065	16-Sep-16	3:59:03	56.7	63	47.5	84.8	56.7	---	---	56.7	2.81E+07	56.7
											1.56E+09	56.4
2066	16-Sep-16	4:00:03	54.4	59	47.7	82.1	54.4	---	---	54.4	1.65E+07	54.4
2067	16-Sep-16	4:01:03	57.5	62.4	43.7	85.8	57.5	---	---	57.5	3.37E+07	57.5
2068	16-Sep-16	4:02:03	57.4	63	47.7	81.2	57.4	---	---	57.4	3.30E+07	57.4
2069	16-Sep-16	4:03:03	55.7	62.3	43.7	84.1	55.7	---	---	55.7	2.23E+07	55.7
2070	16-Sep-16	4:04:03	55.8	62.2	43.3	86.8	55.8	---	---	55.8	2.28E+07	55.8
2071	16-Sep-16	4:05:03	55	59.5	42.2	85.3	55	---	---	55	1.90E+07	55.0
2072	16-Sep-16	4:06:03	55.5	58.7	49.6	82.8	55.5	---	---	55.5	2.13E+07	55.5
2073	16-Sep-16	4:07:03	57.3	62.5	50.5	84.8	57.3	---	---	57.3	3.22E+07	57.3
2074	16-Sep-16	4:08:03	53.7	59.8	42.1	83.5	53.7	---	---	53.7	1.41E+07	53.7
2075	16-Sep-16	4:09:03	58.2	63.1	43.1	82.1	58.2	---	---	58.2	3.96E+07	58.2
2076	16-Sep-16	4:10:03	57.5	64.1	42.9	85.8	57.5	---	---	57.5	3.37E+07	57.5
2077	16-Sep-16	4:11:03	58.8	61.4	53.9	86.8	58.8	---	---	58.8	4.55E+07	58.8
2078	16-Sep-16	4:12:03	57.6	61.6	51.1	84.1	57.6	---	---	57.6	3.45E+07	57.6
2079	16-Sep-16	4:13:03	59.7	64.3	54.4	85.3	59.7	---	---	59.7	5.60E+07	59.7
2080	16-Sep-16	4:14:03	60.7	64.8	51.7	86.8	60.7	---	---	60.7	7.05E+07	60.7
2081	16-Sep-16	4:15:03	58.1	63.8	50.4	82.8	58.1	---	---	58.1	3.87E+07	58.1
2082	16-Sep-16	4:16:03	58.9	63.8	46.8	82.8	58.9	---	---	58.9	4.66E+07	58.9

2083	16-Sep-16	4:17:03	59.2	63.1	50.3	84.1	59.2	---	---	59.2	4.99E+07	59.2
2084	16-Sep-16	4:18:03	60.2	65.8	48.8	84.1	60.2	---	---	60.2	6.28E+07	60.2
2085	16-Sep-16	4:19:03	60.4	66.2	51.6	88.5	60.4	---	---	60.4	6.58E+07	60.4
2086	16-Sep-16	4:20:03	58.8	63.7	47.5	86.8	58.8	---	---	58.8	4.55E+07	58.8
2087	16-Sep-16	4:21:03	59.9	65	50.5	87.7	59.9	---	---	59.9	5.86E+07	59.9
2088	16-Sep-16	4:22:03	59.2	64.7	49.2	84.8	59.2	---	---	59.2	4.99E+07	59.2
2089	16-Sep-16	4:23:03	58.8	65.3	46.6	84.1	58.8	---	---	58.8	4.55E+07	58.8
2090	16-Sep-16	4:24:03	58	64.7	51.1	84.8	58	---	---	58	3.79E+07	58.0
2091	16-Sep-16	4:25:03	53.9	61.5	45.6	83.5	53.9	---	---	53.9	1.47E+07	53.9
2092	16-Sep-16	4:26:03	58.4	65.7	47.5	83.5	58.4	---	---	58.4	4.15E+07	58.4
2093	16-Sep-16	4:27:03	56.7	61.9	51.6	84.1	56.7	---	---	56.7	2.81E+07	56.7
2094	16-Sep-16	4:28:03	58.3	63.2	51.8	87.7	58.3	---	---	58.3	4.06E+07	58.3
2095	16-Sep-16	4:29:03	57.4	61.8	51.5	84.8	57.4	---	---	57.4	3.30E+07	57.4
2096	16-Sep-16	4:30:03	54.6	58.2	49.2	81.2	54.6	---	---	54.6	1.73E+07	54.6
2097	16-Sep-16	4:31:03	58.2	65.5	49.6	82.8	58.2	---	---	58.2	3.96E+07	58.2
2098	16-Sep-16	4:32:03	60.3	66.2	51.2	86.8	60.3	---	---	60.3	6.43E+07	60.3
2099	16-Sep-16	4:33:03	58.2	63.8	51.4	86.3	58.2	---	---	58.2	3.96E+07	58.2
2100	16-Sep-16	4:34:03	57.9	61.1	52.3	81.2	57.9	---	---	57.9	3.70E+07	57.9
2101	16-Sep-16	4:35:03	59.2	62.7	54.2	85.3	59.2	---	---	59.2	4.99E+07	59.2
2102	16-Sep-16	4:36:03	57.8	62.2	51.2	84.8	57.8	---	---	57.8	3.62E+07	57.8
2103	16-Sep-16	4:37:03	59.4	64.3	51.4	84.8	59.4	---	---	59.4	5.23E+07	59.4
2104	16-Sep-16	4:38:03	59.1	64.3	50	86.8	59.1	---	---	59.1	4.88E+07	59.1
2105	16-Sep-16	4:39:03	58.5	65.2	48.2	85.3	58.5	---	---	58.5	4.25E+07	58.5
2106	16-Sep-16	4:40:03	59.4	66	53.8	85.8	59.4	---	---	59.4	5.23E+07	59.4
2107	16-Sep-16	4:41:03	58.6	62.5	52.5	86.3	58.6	---	---	58.6	4.35E+07	58.6
2108	16-Sep-16	4:42:03	58.4	62.7	50.8	80.3	58.4	---	---	58.4	4.15E+07	58.4
2109	16-Sep-16	4:43:03	61.2	66.4	55.3	83.5	61.2	---	---	61.2	7.91E+07	61.2
2110	16-Sep-16	4:44:03	60.9	64.4	55.7	85.3	60.9	---	---	60.9	7.38E+07	60.9
2111	16-Sep-16	4:45:03	59.1	62.4	54.3	83.5	59.1	---	---	59.1	4.88E+07	59.1
2112	16-Sep-16	4:46:03	59.4	63.5	52	85.8	59.4	---	---	59.4	5.23E+07	59.4
2113	16-Sep-16	4:47:03	57.8	61.9	52.2	80.3	57.8	---	---	57.8	3.62E+07	57.8
2114	16-Sep-16	4:48:03	60.6	66.5	52.4	86.3	60.6	---	---	60.6	6.89E+07	60.6
2115	16-Sep-16	4:49:03	60.6	67	49.8	87.3	60.6	---	---	60.6	6.89E+07	60.6
2116	16-Sep-16	4:50:03	56.8	60.7	49.7	84.1	56.8	---	---	56.8	2.87E+07	56.8
2117	16-Sep-16	4:51:03	60.2	64.9	49.5	86.8	60.2	---	---	60.2	6.28E+07	60.2
2118	16-Sep-16	4:52:03	60.2	64.9	55	84.1	60.2	---	---	60.2	6.28E+07	60.2
2119	16-Sep-16	4:53:03	58.5	64.8	52.6	82.8	58.5	---	---	58.5	4.25E+07	58.5
2120	16-Sep-16	4:54:03	60.8	64	56.6	88.5	60.8	---	---	60.8	7.21E+07	60.8
2121	16-Sep-16	4:55:03	58.7	62	54.1	82.8	58.7	---	---	58.7	4.45E+07	58.7
2122	16-Sep-16	4:56:03	57.4	62.7	49.8	85.8	57.4	---	---	57.4	3.30E+07	57.4
2123	16-Sep-16	4:57:03	60.8	65.9	52.6	86.3	60.8	---	---	60.8	7.21E+07	60.8
2124	16-Sep-16	4:58:03	56.6	60.8	49	82.8	56.6	---	---	56.6	2.74E+07	56.6
2125	16-Sep-16	4:59:03	60.8	68	49.4	85.3	60.8	---	---	60.8	7.21E+07	60.8
											2.66E+09	58.7
2126	16-Sep-16	5:00:03	59.1	64.8	52.3	86.8	59.1	---	---	59.1	4.88E+07	59.1
2127	16-Sep-16	5:01:03	59.9	64.6	53.2	85.3	59.9	---	---	59.9	5.86E+07	59.9
2128	16-Sep-16	5:02:03	60.4	65.5	48.1	85.8	60.4	---	---	60.4	6.58E+07	60.4
2129	16-Sep-16	5:03:03	61.8	66.9	57.3	87.3	61.8	---	---	61.8	9.08E+07	61.8
2130	16-Sep-16	5:04:03	59.9	64.1	53.6	85.3	59.9	---	---	59.9	5.86E+07	59.9
2131	16-Sep-16	5:05:03	60.1	64	53	91.9	60.1	---	---	60.1	6.14E+07	60.1
2132	16-Sep-16	5:06:03	58.2	64.7	46.7	83.5	58.2	---	---	58.2	3.96E+07	58.2
2133	16-Sep-16	5:07:03	61	67.8	53.4	86.3	61	---	---	61	7.55E+07	61.0
2134	16-Sep-16	5:08:03	59.7	64.4	50.5	85.8	59.7	---	---	59.7	5.60E+07	59.7
2135	16-Sep-16	5:09:03	60.6	66.7	49.7	87.7	60.6	---	---	60.6	6.89E+07	60.6
2136	16-Sep-16	5:10:03	59.6	65.4	52.6	84.1	59.6	---	---	59.6	5.47E+07	59.6
2137	16-Sep-16	5:11:03	62.5	69.9	53.4	86.3	62.5	---	---	62.5	1.07E+08	62.5
2138	16-Sep-16	5:12:03	61	67.3	53.3	87.7	61	---	---	61	7.55E+07	61.0
2139	16-Sep-16	5:13:03	61.5	65.8	54.8	87.3	61.5	---	---	61.5	8.48E+07	61.5
2140	16-Sep-16	5:14:03	60.2	67.4	54.5	88.1	60.2	---	---	60.2	6.28E+07	60.2
2141	16-Sep-16	5:15:03	60.3	63.6	56.3	88.1	60.3	---	---	60.3	6.43E+07	60.3
2142	16-Sep-16	5:16:03	61.6	67	56.4	91.9	61.6	---	---	61.6	8.67E+07	61.6
2143	16-Sep-16	5:17:03	62.3	69.1	55.4	86.3	62.3	---	---	62.3	1.02E+08	62.3
2144	16-Sep-16	5:18:03	60.5	65.1	50.2	86.3	60.5	---	---	60.5	6.73E+07	60.5
2145	16-Sep-16	5:19:03	61.6	67.3	56.6	88.5	61.6	---	---	61.6	8.67E+07	61.6
2146	16-Sep-16	5:20:03	60.3	64.7	56.4	86.3	60.3	---	---	60.3	6.43E+07	60.3
2147	16-Sep-16	5:21:03	60.3	65.3	56.2	85.3	60.3	---	---	60.3	6.43E+07	60.3
2148	16-Sep-16	5:22:03	59.9	64.1	55.5	85.8	59.9	---	---	59.9	5.86E+07	59.9
2149	16-Sep-16	5:23:03	61.4	66.6	53.9	88.9	61.4	---	---	61.4	8.28E+07	61.4
2150	16-Sep-16	5:24:03	62	66.7	58.9	93.1	62	---	---	62	9.51E+07	62.0
2151	16-Sep-16	5:25:03	60.2	66.8	55.9	84.8	60.2	---	---	60.2	6.28E+07	60.2
2152	16-Sep-16	5:26:03	62.6	69.3	57.4	87.3	62.6	---	---	62.6	1.09E+08	62.6
2153	16-Sep-16	5:27:03	62.6	67.7	57.9	89.2	62.6	---	---	62.6	1.09E+08	62.6
2154	16-Sep-16	5:28:03	60.8	64.7	55.7	86.8	60.8	---	---	60.8	7.21E+07	60.8
2155	16-Sep-16	5:29:03	60.9	70.2	54.6	87.3	60.9	---	---	60.9	7.38E+07	60.9
2156	16-Sep-16	5:30:03	60.1	66.6	54.7	90.2	60.1	---	---	60.1	6.14E+07	60.1
2157	16-Sep-16	5:31:03	61.1	64.1	56.2	86.3	61.1	---	---	61.1	7.73E+07	61.1
2158	16-Sep-16	5:32:03	60.6	65.3	53.7	88.1	60.6	---	---	60.6	6.89E+07	60.6
2159	16-Sep-16	5:33:03	60.6	65.3	56.3	82.8	60.6	---	---	60.6	6.89E+07	60.6
2160	16-Sep-16	5:34:03	61.8	69.4	55.1	89.9	61.8	---	---	61.8	9.08E+07	61.8
2161	16-Sep-16	5:35:03	61.2	65.2	56.5	89.9	61.2	---	---	61.2	7.91E+07	61.2
2162	16-Sep-16	5:36:03	61.5	66.8	53.7	88.5	61.5	---	---	61.5	8.48E+07	61.5
2163	16-Sep-16	5:37:03	61.5	64.5	57.2	84.8	61.5	---	---	61.5	8.48E+07	61.5
2164	16-Sep-16	5:38:03	61.6	65.9	57.6	87.3	61.6	---	---	61.6	8.67E+07	61.6
2165	16-Sep-16	5:39:03	60.5	66.4	56.3	84.1	60.5	---	---	60.5	6.73E+07	60.5

2166	16-Sep-16	5:40:03	60.9	66.4	58.3	90.5	60.9	---	---	60.9	7.38E+07	60.9
2167	16-Sep-16	5:41:03	61.1	64.1	56.4	85.3	61.1	---	---	61.1	7.73E+07	61.1
2168	16-Sep-16	5:42:03	60.8	63.7	57.3	85.8	60.8	---	---	60.8	7.21E+07	60.8
2169	16-Sep-16	5:43:03	61	67.1	55.6	91.6	61	---	---	61	7.55E+07	61.0
2170	16-Sep-16	5:44:03	61.8	67.2	58.9	89.5	61.8	---	---	61.8	9.08E+07	61.8
2171	16-Sep-16	5:45:03	61.6	66.9	56.3	85.3	61.6	---	---	61.6	8.67E+07	61.6
2172	16-Sep-16	5:46:03	60.6	66.5	56	85.3	60.6	---	---	60.6	6.89E+07	60.6
2173	16-Sep-16	5:47:03	60.3	64.6	54.7	88.1	60.3	---	---	60.3	6.43E+07	60.3
2174	16-Sep-16	5:48:03	61.9	69	57	87.7	61.9	---	---	61.9	9.29E+07	61.9
2175	16-Sep-16	5:49:03	61.5	65.9	56.8	88.5	61.5	---	---	61.5	8.48E+07	61.5
2176	16-Sep-16	5:50:03	60.9	66.2	55.1	85.8	60.9	---	---	60.9	7.38E+07	60.9
2177	16-Sep-16	5:51:03	61.3	64.1	55.1	87.7	61.3	---	---	61.3	8.09E+07	61.3
2178	16-Sep-16	5:52:03	61.9	65.7	57.2	88.5	61.9	---	---	61.9	9.29E+07	61.9
2179	16-Sep-16	5:53:03	61.5	65.3	56	88.1	61.5	---	---	61.5	8.48E+07	61.5
2180	16-Sep-16	5:54:03	61.6	67.1	57.5	87.3	61.6	---	---	61.6	8.67E+07	61.6
2181	16-Sep-16	5:55:03	62.2	65.3	58.9	89.5	62.2	---	---	62.2	9.96E+07	62.2
2182	16-Sep-16	5:56:03	60.5	63	58	82.8	60.5	---	---	60.5	6.73E+07	60.5
2183	16-Sep-16	5:57:03	62.8	65.4	59.7	88.5	62.8	---	---	62.8	1.14E+08	62.8
2184	16-Sep-16	5:58:03	61.7	65.2	57.6	85.8	61.7	---	---	61.7	8.87E+07	61.7
2185	16-Sep-16	5:59:03	62.9	67.7	58.1	87.3	62.9	---	---	62.9	1.17E+08	62.9
											4.67E+09	61.1
2186	16-Sep-16	6:00:03	63.1	66.7	60.1	89.9	63.1	---	---	63.1	1.23E+08	63.1
2187	16-Sep-16	6:01:03	63.9	65.4	60.7	89.2	63.9	---	---	63.9	1.47E+08	63.9
2188	16-Sep-16	6:02:03	63.4	66.3	59.5	89.9	63.4	---	---	63.4	1.31E+08	63.4
2189	16-Sep-16	6:03:03	63	66.8	59	88.1	63	---	---	63	1.20E+08	63.0
2190	16-Sep-16	6:04:03	64.7	68.3	61.3	92.1	64.7	---	---	64.7	1.77E+08	64.7
2191	16-Sep-16	6:05:03	62.5	65.5	57.9	86.3	62.5	---	---	62.5	1.07E+08	62.5
2192	16-Sep-16	6:06:03	63.3	68.3	58.7	91.9	63.3	---	---	63.3	1.28E+08	63.3
2193	16-Sep-16	6:07:03	63.8	67.3	59.6	90.5	63.8	---	---	63.8	1.44E+08	63.8
2194	16-Sep-16	6:08:03	63.7	68.9	59.5	90.8	63.7	---	---	63.7	1.41E+08	63.7
2195	16-Sep-16	6:09:03	62.5	64.8	59.2	89.9	62.5	---	---	62.5	1.07E+08	62.5
2196	16-Sep-16	6:10:03	62	66	57	89.2	62	---	---	62	9.51E+07	62.0
2197	16-Sep-16	6:11:03	63.7	70.2	58.8	87.3	63.7	---	---	63.7	1.41E+08	63.7
2198	16-Sep-16	6:12:03	64.2	73.4	56.9	90.2	64.2	---	---	64.2	1.58E+08	64.2
2199	16-Sep-16	6:13:03	62.9	69.7	59.1	85.8	62.9	---	---	62.9	1.17E+08	62.9
2200	16-Sep-16	6:14:03	64.7	69.2	61	89.9	64.7	---	---	64.7	1.77E+08	64.7
2201	16-Sep-16	6:15:03	63.1	65.3	59.3	86.8	63.1	---	---	63.1	1.23E+08	63.1
2202	16-Sep-16	6:16:03	62.3	65.4	60	88.1	62.3	---	---	62.3	1.02E+08	62.3
2203	16-Sep-16	6:17:03	62.1	68.5	57.3	86.3	62.1	---	---	62.1	9.73E+07	62.1
2204	16-Sep-16	6:18:03	61.6	64.9	57.5	85.8	61.6	---	---	61.6	8.67E+07	61.6
2205	16-Sep-16	6:19:03	63.2	67.7	57.4	86.3	63.2	---	---	63.2	1.25E+08	63.2
2206	16-Sep-16	6:20:03	61.7	65.2	57	85.3	61.7	---	---	61.7	8.87E+07	61.7
2207	16-Sep-16	6:21:03	62.9	68.4	57.6	92.6	62.9	---	---	62.9	1.17E+08	62.9
2208	16-Sep-16	6:22:03	63.4	67.9	58.5	88.1	63.4	---	---	63.4	1.31E+08	63.4
2209	16-Sep-16	6:23:03	63.4	67.1	58.4	87.7	63.4	---	---	63.4	1.31E+08	63.4
2210	16-Sep-16	6:24:03	62.6	65.6	59.5	86.3	62.6	---	---	62.6	1.09E+08	62.6
2211	16-Sep-16	6:25:03	63.4	68.9	59.9	88.1	63.4	---	---	63.4	1.31E+08	63.4
2212	16-Sep-16	6:26:03	62.2	67.6	58	86.3	62.2	---	---	62.2	9.96E+07	62.2
2213	16-Sep-16	6:27:03	61.5	65.5	57.7	85.3	61.5	---	---	61.5	8.48E+07	61.5
2214	16-Sep-16	6:28:03	62.2	69	56.2	87.3	62.2	---	---	62.2	9.96E+07	62.2
2215	16-Sep-16	6:29:03	62.4	67.1	59.6	90.5	62.4	---	---	62.4	1.04E+08	62.4
2216	16-Sep-16	6:30:03	63.4	70.1	60.2	90.2	63.4	---	---	63.4	1.31E+08	63.4
2217	16-Sep-16	6:31:03	63.2	66.4	59.5	89.5	63.2	---	---	63.2	1.25E+08	63.2
2218	16-Sep-16	6:32:03	62.9	69.4	59.6	88.9	62.9	---	---	62.9	1.17E+08	62.9
2219	16-Sep-16	6:33:03	63.2	66.6	59.8	87.7	63.2	---	---	63.2	1.25E+08	63.2
2220	16-Sep-16	6:34:03	62.7	65.9	59.8	87.3	62.7	---	---	62.7	1.12E+08	62.7
2221	16-Sep-16	6:35:03	63.2	69.8	59.2	86.8	63.2	---	---	63.2	1.25E+08	63.2
2222	16-Sep-16	6:36:03	62.1	64.5	58.8	83.5	62.1	---	---	62.1	9.73E+07	62.1
2223	16-Sep-16	6:37:03	61.4	65.3	58.3	87.7	61.4	---	---	61.4	8.28E+07	61.4
2224	16-Sep-16	6:38:03	62.9	66.5	59.1	85.8	62.9	---	---	62.9	1.17E+08	62.9
2225	16-Sep-16	6:39:03	63	65.9	60.5	88.5	63	---	---	63	1.20E+08	63.0
2226	16-Sep-16	6:40:03	62.3	68.5	56.5	88.9	62.3	---	---	62.3	1.02E+08	62.3
2227	16-Sep-16	6:41:03	64	70.6	58.6	90.2	64	---	---	64	1.51E+08	64.0
2228	16-Sep-16	6:42:03	64.6	71.4	59.7	90.5	64.6	---	---	64.6	1.73E+08	64.6
2229	16-Sep-16	6:43:03	61.6	64.9	57.7	86.8	61.6	---	---	61.6	8.67E+07	61.6
2230	16-Sep-16	6:44:03	63.5	66	59.1	88.5	63.5	---	---	63.5	1.34E+08	63.5
2231	16-Sep-16	6:45:03	62.4	65.9	59.1	90.5	62.4	---	---	62.4	1.04E+08	62.4
2232	16-Sep-16	6:46:03	61.9	66	58.6	85.3	61.9	---	---	61.9	9.29E+07	61.9
2233	16-Sep-16	6:47:03	62.4	66	57.4	88.1	62.4	---	---	62.4	1.04E+08	62.4
2234	16-Sep-16	6:48:03	63.8	66.3	60.9	86.3	63.8	---	---	63.8	1.44E+08	63.8
2235	16-Sep-16	6:49:03	63.7	69.3	59.6	88.9	63.7	---	---	63.7	1.41E+08	63.7
2236	16-Sep-16	6:50:03	65.5	75.5	61	90.5	65.5	---	---	65.5	2.13E+08	65.5
2237	16-Sep-16	6:51:03	62.5	64.6	59.1	86.8	62.5	---	---	62.5	1.07E+08	62.5
2238	16-Sep-16	6:52:03	62.9	66.4	60.6	89.5	62.9	---	---	62.9	1.17E+08	62.9
2239	16-Sep-16	6:53:03	62.8	65.7	59.8	87.7	62.8	---	---	62.8	1.14E+08	62.8
2240	16-Sep-16	6:54:03	61.6	63.7	58.7	84.1	61.6	---	---	61.6	8.67E+07	61.6
2241	16-Sep-16	6:55:03	61.3	63.9	57.4	84.1	61.3	---	---	61.3	8.09E+07	61.3
2242	16-Sep-16	6:56:03	62.1	67.1	58.2	88.9	62.1	---	---	62.1	9.73E+07	62.1
2243	16-Sep-16	6:57:03	63.4	67.8	58.4	87.3	63.4	---	---	63.4	1.31E+08	63.4
2244	16-Sep-16	6:58:03	61.8	65	58.9	86.8	61.8	---	---	61.8	9.08E+07	61.8
2245	16-Sep-16	6:59:03	61.7	65.4	58.2	87.3	61.7	---	---	61.7	8.87E+07	61.7
											7.15E+09	63.0

2246	16-Sep-16	7:00:03	62.5	67.1	58.3	90.5	62.5	---	---	62.5	1.07E+08	62.5
2247	16-Sep-16	7:01:03	63.6	69.1	60	87.7	63.6	---	---	63.6	1.37E+08	63.6
2248	16-Sep-16	7:02:03	63.1	67	59.8	88.5	63.1	---	---	63.1	1.23E+08	63.1
2249	16-Sep-16	7:03:03	62.7	68.9	59.4	87.7	62.7	---	---	62.7	1.12E+08	62.7
2250	16-Sep-16	7:04:03	63.1	66.1	59.8	88.1	63.1	---	---	63.1	1.23E+08	63.1
2251	16-Sep-16	7:05:03	62.7	66.1	58.6	86.8	62.7	---	---	62.7	1.12E+08	62.7
2252	16-Sep-16	7:06:03	62.2	65.8	58.6	87.7	62.2	---	---	62.2	9.96E+07	62.2
2253	16-Sep-16	7:07:03	63	65.7	60.5	87.3	63	---	---	63	1.20E+08	63.0
2254	16-Sep-16	7:08:03	62.8	67.8	58	90.5	62.8	---	---	62.8	1.14E+08	62.8
2255	16-Sep-16	7:09:03	62.4	70.7	56.8	85.8	62.4	---	---	62.4	1.04E+08	62.4
2256	16-Sep-16	7:10:03	62.4	66.6	59.9	89.2	62.4	---	---	62.4	1.04E+08	62.4
2257	16-Sep-16	7:11:03	61	64.8	56.5	83.5	61	---	---	61	7.55E+07	61.0
2258	16-Sep-16	7:12:03	63.7	67.5	59.9	90.5	63.7	---	---	63.7	1.41E+08	63.7
2259	16-Sep-16	7:13:03	62.5	65.1	59.8	85.8	62.5	---	---	62.5	1.07E+08	62.5
2260	16-Sep-16	7:14:03	63.5	67.2	60.5	86.8	63.5	---	---	63.5	1.34E+08	63.5
2261	16-Sep-16	7:15:03	63.1	66.3	60.1	85.3	63.1	---	---	63.1	1.23E+08	63.1
2262	16-Sep-16	7:16:03	64.8	72.4	60.2	89.9	64.8	---	---	64.8	1.81E+08	64.8
2263	16-Sep-16	7:17:03	63.6	68.8	59.6	87.7	63.6	---	---	63.6	1.37E+08	63.6
2264	16-Sep-16	7:18:03	62.1	64.9	60.1	86.8	62.1	---	---	62.1	9.73E+07	62.1
2265	16-Sep-16	7:19:03	62.2	65.2	59.5	90.8	62.2	---	---	62.2	9.96E+07	62.2
2266	16-Sep-16	7:20:03	62.7	65.6	59.4	89.2	62.7	---	---	62.7	1.12E+08	62.7
2267	16-Sep-16	7:21:03	63.6	68.8	59.2	92.4	63.6	---	---	63.6	1.37E+08	63.6
2268	16-Sep-16	7:22:03	61.2	64.5	56.7	87.7	61.2	---	---	61.2	7.91E+07	61.2
2269	16-Sep-16	7:23:03	61.5	64.2	58.6	86.8	61.5	---	---	61.5	8.48E+07	61.5
2270	16-Sep-16	7:24:03	62	66.4	58.3	87.3	62	---	---	62	9.51E+07	62.0
2271	16-Sep-16	7:25:03	61.7	67.6	55.1	90.2	61.7	---	---	61.7	8.87E+07	61.7
2272	16-Sep-16	7:26:03	63.8	69.2	57.8	91.3	63.8	---	---	63.8	1.44E+08	63.8
2273	16-Sep-16	7:27:03	62.1	69.4	58.2	92.6	62.1	---	---	62.1	9.73E+07	62.1
2274	16-Sep-16	7:28:03	63.9	72.5	60.1	93.9	63.9	---	---	63.9	1.47E+08	63.9
2275	16-Sep-16	7:29:03	61.9	67.5	55.8	86.8	61.9	---	---	61.9	9.29E+07	61.9
2276	16-Sep-16	7:30:03	62.8	68.8	58.6	88.5	62.8	---	---	62.8	1.14E+08	62.8
2277	16-Sep-16	7:31:03	61.2	65.4	55	85.3	61.2	---	---	61.2	7.91E+07	61.2
2278	16-Sep-16	7:32:03	63.3	67.7	57.9	88.5	63.3	---	---	63.3	1.28E+08	63.3
2279	16-Sep-16	7:33:03	64.3	71.3	59.7	93.3	64.3	---	---	64.3	1.61E+08	64.3
2280	16-Sep-16	7:34:03	62.5	64.8	60.3	87.7	62.5	---	---	62.5	1.07E+08	62.5
2281	16-Sep-16	7:35:03	63.1	66.2	60.4	93.5	63.1	---	---	63.1	1.23E+08	63.1
2282	16-Sep-16	7:36:03	63.1	66.5	59.9	88.1	63.1	---	---	63.1	1.23E+08	63.1
2283	16-Sep-16	7:37:03	64.2	69.5	60.1	90.5	64.2	---	---	64.2	1.58E+08	64.2
2284	16-Sep-16	7:38:03	64.8	70.9	61.5	89.2	64.8	---	---	64.8	1.81E+08	64.8
2285	16-Sep-16	7:39:03	64.8	67.7	62	90.2	64.8	---	---	64.8	1.81E+08	64.8
2286	16-Sep-16	7:40:03	64.4	68.8	61.1	89.9	64.4	---	---	64.4	1.65E+08	64.4
2287	16-Sep-16	7:41:03	64.3	68.8	60.2	102.5	64.3	---	---	64.3	1.61E+08	64.3
2288	16-Sep-16	7:42:03	63.9	69	60.4	87.7	63.9	---	---	63.9	1.47E+08	63.9
2289	16-Sep-16	7:43:03	64.1	68.3	59.2	89.9	64.1	---	---	64.1	1.54E+08	64.1
2290	16-Sep-16	7:44:03	63.9	65.5	61.4	89.5	63.9	---	---	63.9	1.47E+08	63.9
2291	16-Sep-16	7:45:03	64.7	67.2	62.5	89.2	64.7	---	---	64.7	1.77E+08	64.7
2292	16-Sep-16	7:46:03	63.4	65.5	61.1	86.3	63.4	---	---	63.4	1.31E+08	63.4
2293	16-Sep-16	7:47:03	63.4	67	60.7	96.4	63.4	---	---	63.4	1.31E+08	63.4
2294	16-Sep-16	7:48:03	64.5	68	61.1	88.1	64.5	---	---	64.5	1.69E+08	64.5
2295	16-Sep-16	7:49:03	63.8	69.3	60.1	88.1	63.8	---	---	63.8	1.44E+08	63.8
2296	16-Sep-16	7:50:03	63.8	66.6	59.9	91.9	63.8	---	---	63.8	1.44E+08	63.8
2297	16-Sep-16	7:51:03	63.3	65.9	60.7	88.9	63.3	---	---	63.3	1.28E+08	63.3
2298	16-Sep-16	7:52:03	63.6	68.8	60.2	89.9	63.6	---	---	63.6	1.37E+08	63.6
2299	16-Sep-16	7:53:03	64.9	69.3	60.2	87.3	64.9	---	---	64.9	1.85E+08	64.9
2300	16-Sep-16	7:54:03	62.3	65.4	59.2	90.2	62.3	---	---	62.3	1.02E+08	62.3
2301	16-Sep-16	7:55:03	62.2	65.8	58.3	87.3	62.2	---	---	62.2	9.96E+07	62.2
2302	16-Sep-16	7:56:03	64.2	67.1	60.6	91.1	64.2	---	---	64.2	1.58E+08	64.2
2303	16-Sep-16	7:57:03	62.7	64.9	59.2	89.2	62.7	---	---	62.7	1.12E+08	62.7
2304	16-Sep-16	7:58:03	63.8	68.2	59.6	87.3	63.8	---	---	63.8	1.44E+08	63.8
2305	16-Sep-16	7:59:03	63.7	68.2	57.9	88.1	63.7	---	---	63.7	1.41E+08	63.7
											7.66E+09	63.3
2306	16-Sep-16	8:00:03	63.5	69.2	60.4	92.8	63.5	---	---	63.5	1.34E+08	63.5
2307	16-Sep-16	8:01:03	62.3	65.6	59	87.7	62.3	---	---	62.3	1.02E+08	62.3
2308	16-Sep-16	8:02:03	63.9	70	60.6	93.7	63.9	---	---	63.9	1.47E+08	63.9
2309	16-Sep-16	8:03:03	61.4	68.5	56.6	92.4	61.4	---	---	61.4	8.28E+07	61.4
2310	16-Sep-16	8:04:03	60.2	62.6	55	85.3	60.2	---	---	60.2	6.28E+07	60.2
2311	16-Sep-16	8:05:03	62.7	66.9	57.5	85.8	62.7	---	---	62.7	1.12E+08	62.7
2312	16-Sep-16	8:06:03	62.5	65.1	60.1	85.8	62.5	---	---	62.5	1.07E+08	62.5
2313	16-Sep-16	8:07:03	62.4	65.9	60.1	86.8	62.4	---	---	62.4	1.04E+08	62.4
2314	16-Sep-16	8:08:03	64.8	70.6	60	90.8	64.8	---	---	64.8	1.81E+08	64.8
2315	16-Sep-16	8:09:03	62.4	65	60.4	84.1	62.4	---	---	62.4	1.04E+08	62.4
2316	16-Sep-16	8:10:03	63	67.4	60	85.3	63	---	---	63	1.20E+08	63.0
2317	16-Sep-16	8:11:03	62.7	68.2	59.7	84.1	62.7	---	---	62.7	1.12E+08	62.7
2318	16-Sep-16	8:12:03	63.1	67.4	59.8	88.1	63.1	---	---	63.1	1.23E+08	63.1
2319	16-Sep-16	8:13:03	62.8	66.4	60.7	86.3	62.8	---	---	62.8	1.14E+08	62.8
2320	16-Sep-16	8:14:03	62.7	67.1	57.7	88.5	62.7	---	---	62.7	1.12E+08	62.7
2321	16-Sep-16	8:15:03	62	65.2	58.6	84.8	62	---	---	62	9.51E+07	62.0
2322	16-Sep-16	8:16:03	62.5	65.1	60.4	86.3	62.5	---	---	62.5	1.07E+08	62.5
2323	16-Sep-16	8:17:03	63.1	65.7	61.1	85.3	63.1	---	---	63.1	1.23E+08	63.1
2324	16-Sep-16	8:18:03	63.9	68.7	61.1	86.3	63.9	---	---	63.9	1.47E+08	63.9
2325	16-Sep-16	8:19:03	62.1	64	58.7	86.3	62.1	---	---	62.1	9.73E+07	62.1
2326	16-Sep-16	8:20:03	62.6	65.7	59.3	87.3	62.6	---	---	62.6	1.09E+08	62.6
2327	16-Sep-16	8:21:03	61.6	63.3	58.5	86.8	61.6	---	---	61.6	8.67E+07	61.6
2328	16-Sep-16	8:22:03	63.2	66.3	60.8	87.7	63.2	---	---	63.2	1.25E+08	63.2

2329	16-Sep-16	8:23:03	63.3	66.7	59.1	90.2	63.3	---	---	63.3	1.28E+08	63.3
2330	16-Sep-16	8:24:03	64	69	58.8	89.5	64	---	---	64	1.51E+08	64.0
2331	16-Sep-16	8:25:03	62.6	66	60.7	85.8	62.6	---	---	62.6	1.09E+08	62.6
2332	16-Sep-16	8:26:03	62.8	66.8	60.4	86.8	62.8	---	---	62.8	1.14E+08	62.8
2333	16-Sep-16	8:27:03	62.5	68	58	86.8	62.5	---	---	62.5	1.07E+08	62.5
2334	16-Sep-16	8:28:03	61.9	66	58.4	86.3	61.9	---	---	61.9	9.29E+07	61.9
2335	16-Sep-16	8:29:03	62.4	65.5	59.8	86.3	62.4	---	---	62.4	1.04E+08	62.4
2336	16-Sep-16	8:30:03	62.3	66.8	59.7	84.8	62.3	---	---	62.3	1.02E+08	62.3
2337	16-Sep-16	8:31:03	63.9	68.2	61	86.3	63.9	---	---	63.9	1.47E+08	63.9
2338	16-Sep-16	8:32:03	63.6	69.2	60.4	92.8	63.6	---	---	63.6	1.37E+08	63.6
2339	16-Sep-16	8:33:03	61.9	66.1	59	86.3	61.9	---	---	61.9	9.29E+07	61.9
2340	16-Sep-16	8:34:03	61.9	67.5	59.9	89.5	61.9	---	---	61.9	9.29E+07	61.9
2341	16-Sep-16	8:35:03	61.9	67.6	58.7	88.9	61.9	---	---	61.9	9.29E+07	61.9
2342	16-Sep-16	8:36:03	62.3	66.3	58.8	87.3	62.3	---	---	62.3	1.02E+08	62.3
2343	16-Sep-16	8:37:03	63	66.5	59.6	89.2	63	---	---	63	1.20E+08	63.0
2344	16-Sep-16	8:38:03	62.1	64.8	59.8	86.8	62.1	---	---	62.1	9.73E+07	62.1
2345	16-Sep-16	8:39:03	62.5	64.8	57	84.1	62.5	---	---	62.5	1.07E+08	62.5
2346	16-Sep-16	8:40:03	61.8	64.3	59.3	86.3	61.8	---	---	61.8	9.08E+07	61.8
2347	16-Sep-16	8:41:03	62.1	64.5	58.1	84.1	62.1	---	---	62.1	9.73E+07	62.1
2348	16-Sep-16	8:42:03	62.1	65.6	58.9	88.9	62.1	---	---	62.1	9.73E+07	62.1
2349	16-Sep-16	8:43:03	60.8	62.9	58.3	86.3	60.8	---	---	60.8	7.21E+07	60.8
2350	16-Sep-16	8:44:03	60.3	63.6	57.9	85.3	60.3	---	---	60.3	6.43E+07	60.3
2351	16-Sep-16	8:45:03	62.1	65.9	57.6	85.3	62.1	---	---	62.1	9.73E+07	62.1
2352	16-Sep-16	8:46:03	60.8	64.2	58.3	86.8	60.8	---	---	60.8	7.21E+07	60.8
2353	16-Sep-16	8:47:03	61.5	65.9	58.3	89.2	61.5	---	---	61.5	8.48E+07	61.5
2354	16-Sep-16	8:48:03	63.6	76	58.4	93.9	63.6	---	---	63.6	1.37E+08	63.6
2355	16-Sep-16	8:49:03	60.1	63.8	57.6	83.5	60.1	---	---	60.1	6.14E+07	60.1
2356	16-Sep-16	8:50:03	61.1	66	57.1	85.8	61.1	---	---	61.1	7.73E+07	61.1
2357	16-Sep-16	8:51:03	60.9	65.9	57.5	88.9	60.9	---	---	60.9	7.38E+07	60.9
2358	16-Sep-16	8:52:03	61.6	65.7	57.7	85.3	61.6	---	---	61.6	8.67E+07	61.6
2359	16-Sep-16	8:53:03	62.1	66.5	58.3	85.3	62.1	---	---	62.1	9.73E+07	62.1
2360	16-Sep-16	8:54:03	61.4	65.8	58.4	86.8	61.4	---	---	61.4	8.28E+07	61.4
2361	16-Sep-16	8:55:03	60.9	63.8	57.8	85.3	60.9	---	---	60.9	7.38E+07	60.9
2362	16-Sep-16	8:56:03	62.7	65.6	57.5	87.3	62.7	---	---	62.7	1.12E+08	62.7
2363	16-Sep-16	8:57:03	61.8	66.2	58.9	84.1	61.8	---	---	61.8	9.08E+07	61.8
2364	16-Sep-16	8:58:03	62.6	70.8	57.5	87.3	62.6	---	---	62.6	1.09E+08	62.6
2365	16-Sep-16	8:59:03	63.4	71.2	58.3	87.3	63.4	---	---	63.4	1.31E+08	63.4
											6.31E+09	62.4
2366	16-Sep-16	9:00:03	62.6	66.6	59.1	87.3	62.6	---	---	62.6	1.09E+08	62.6
2367	16-Sep-16	9:01:03	61.1	65.2	58.1	84.1	61.1	---	---	61.1	7.73E+07	61.1
2368	16-Sep-16	9:02:03	61.8	66.3	59.1	86.3	61.8	---	---	61.8	9.08E+07	61.8
2369	16-Sep-16	9:03:03	62.6	65.9	58.2	89.2	62.6	---	---	62.6	1.09E+08	62.6
2370	16-Sep-16	9:04:03	61.4	66	57.2	84.8	61.4	---	---	61.4	8.28E+07	61.4
2371	16-Sep-16	9:05:03	61.9	65	59.5	90.2	61.9	---	---	61.9	9.29E+07	61.9
2372	16-Sep-16	9:06:03	62.3	65.3	57.6	87.7	62.3	---	---	62.3	1.02E+08	62.3
2373	16-Sep-16	9:07:03	63.1	66.6	58.5	86.3	63.1	---	---	63.1	1.23E+08	63.1
2374	16-Sep-16	9:08:03	62.6	65	59.8	86.3	62.6	---	---	62.6	1.09E+08	62.6
2375	16-Sep-16	9:09:03	63.3	66.1	59.8	88.5	63.3	---	---	63.3	1.28E+08	63.3
2376	16-Sep-16	9:10:03	62.7	65.9	57.8	88.1	62.7	---	---	62.7	1.12E+08	62.7
2377	16-Sep-16	9:11:03	63.9	66.8	59.3	88.5	63.9	---	---	63.9	1.47E+08	63.9
2378	16-Sep-16	9:12:03	62.8	66.3	60.3	90.2	62.8	---	---	62.8	1.14E+08	62.8
2379	16-Sep-16	9:13:03	61.3	64.5	57	84.8	61.3	---	---	61.3	8.09E+07	61.3
2380	16-Sep-16	9:14:03	63.2	65.8	59.3	85.8	63.2	---	---	63.2	1.25E+08	63.2
2381	16-Sep-16	9:15:03	62.5	65.6	59.6	88.9	62.5	---	---	62.5	1.07E+08	62.5
2382	16-Sep-16	9:16:03	63.1	66.4	59.5	86.3	63.1	---	---	63.1	1.23E+08	63.1
2383	16-Sep-16	9:17:03	62.4	65.7	59.5	86.8	62.4	---	---	62.4	1.04E+08	62.4
2384	16-Sep-16	9:18:03	63.1	66.3	59.5	95.2	63.1	---	---	63.1	1.23E+08	63.1
2385	16-Sep-16	9:19:03	63.4	67.5	60.9	91.1	63.4	---	---	63.4	1.31E+08	63.4
2386	16-Sep-16	9:20:03	63.1	65.5	60	91.3	63.1	---	---	63.1	1.23E+08	63.1
2387	16-Sep-16	9:21:03	63.5	68.9	58.5	88.9	63.5	---	---	63.5	1.34E+08	63.5
2388	16-Sep-16	9:22:03	63.3	68.2	60.4	89.5	63.3	---	---	63.3	1.28E+08	63.3
2389	16-Sep-16	9:23:03	62.9	64.8	61	87.7	62.9	---	---	62.9	1.17E+08	62.9
2390	16-Sep-16	9:24:03	64.2	67.8	60.5	91.3	64.2	---	---	64.2	1.58E+08	64.2
2391	16-Sep-16	9:25:03	63.3	67.4	59.8	88.1	63.3	---	---	63.3	1.28E+08	63.3
2392	16-Sep-16	9:26:03	61.1	64.4	59.4	87.7	61.1	---	---	61.1	7.73E+07	61.1
2393	16-Sep-16	9:27:03	63.2	65.2	60.2	88.9	63.2	---	---	63.2	1.25E+08	63.2
2394	16-Sep-16	9:28:03	61.4	64.4	58.7	88.1	61.4	---	---	61.4	8.28E+07	61.4
2395	16-Sep-16	9:29:03	62.6	65.3	58.7	86.3	62.6	---	---	62.6	1.09E+08	62.6
2396	16-Sep-16	9:30:03	62.6	64.6	57.9	87.3	62.6	---	---	62.6	1.09E+08	62.6
2397	16-Sep-16	9:31:03	60.2	63.7	56.8	87.3	60.2	---	---	60.2	6.28E+07	60.2
2398	16-Sep-16	9:32:03	60.5	64.2	57	85.8	60.5	---	---	60.5	6.73E+07	60.5
2399	16-Sep-16	9:33:03	61.8	64.1	58.8	89.9	61.8	---	---	61.8	9.08E+07	61.8
2400	16-Sep-16	9:34:03	62.6	65.1	59.9	87.7	62.6	---	---	62.6	1.09E+08	62.6
2401	16-Sep-16	9:35:03	62.3	65.3	56.1	87.3	62.3	---	---	62.3	1.02E+08	62.3
2402	16-Sep-16	9:36:03	61.5	64	58.5	87.3	61.5	---	---	61.5	8.48E+07	61.5
2403	16-Sep-16	9:37:03	61.7	67.4	59.1	85.8	61.7	---	---	61.7	8.87E+07	61.7
2404	16-Sep-16	9:38:03	62.1	65.1	60.2	86.3	62.1	---	---	62.1	9.73E+07	62.1
2405	16-Sep-16	9:39:03	62.3	67.8	55.9	88.5	62.3	---	---	62.3	1.02E+08	62.3
2406	16-Sep-16	9:40:03	62.5	66	58.9	86.3	62.5	---	---	62.5	1.07E+08	62.5
2407	16-Sep-16	9:41:03	63	64.9	61.1	88.1	63	---	---	63	1.20E+08	63.0
2408	16-Sep-16	9:42:03	69.1	82.1	59.4	108.1	69.1	54	54	69.1	4.88E+08	69.1
2409	16-Sep-16	9:43:03	62.9	65.9	59.2	88.1	62.9	---	---	62.9	1.17E+08	62.9
2410	16-Sep-16	9:44:03	62.5	66.2	59.8	88.5	62.5	---	---	62.5	1.07E+08	62.5
2411	16-Sep-16	9:45:03	62.2	64.3	59.8	86.3	62.2	---	---	62.2	9.96E+07	62.2

2412	16-Sep-16	9:46:03	62.3	64.6	58.7	85.8	62.3	---	---	62.3	1.02E+08	62.3
2413	16-Sep-16	9:47:03	63.9	71.4	59.1	87.7	63.9	---	---	63.9	1.47E+08	63.9
2414	16-Sep-16	9:48:03	63.2	65.6	59.8	88.1	63.2	---	---	63.2	1.25E+08	63.2
2415	16-Sep-16	9:49:03	63.1	66.8	60.9	87.7	63.1	---	---	63.1	1.23E+08	63.1
2416	16-Sep-16	9:50:03	62.3	65	59.6	85.3	62.3	---	---	62.3	1.02E+08	62.3
2417	16-Sep-16	9:51:03	61.4	64.1	58.3	85.3	61.4	---	---	61.4	8.28E+07	61.4
2418	16-Sep-16	9:52:03	61	63.8	57.1	85.3	61	---	---	61	7.55E+07	61.0
2419	16-Sep-16	9:53:03	62.7	65.9	58.7	90.8	62.7	---	---	62.7	1.12E+08	62.7
2420	16-Sep-16	9:54:03	61.1	63.8	58.3	84.8	61.1	---	---	61.1	7.73E+07	61.1
2421	16-Sep-16	9:55:03	62.7	67.5	57.9	89.2	62.7	---	---	62.7	1.12E+08	62.7
2422	16-Sep-16	9:56:03	63.2	68.1	59.5	87.3	63.2	---	---	63.2	1.25E+08	63.2
2423	16-Sep-16	9:57:03	62.2	65.1	59.6	85.8	62.2	---	---	62.2	9.96E+07	62.2
2424	16-Sep-16	9:58:03	61.6	64.5	59.2	86.3	61.6	---	---	61.6	8.67E+07	61.6
2425	16-Sep-16	9:59:03	61.7	64.5	59.3	84.8	61.7	---	---	61.7	8.87E+07	61.7
											6.78E+09	62.8
2426	16-Sep-16	10:00:03	61.6	65.1	57.2	85.3	61.6	---	---	61.6	8.67E+07	61.6
2427	16-Sep-16	10:01:03	62.1	66.8	58.1	85.3	62.1	---	---	62.1	9.73E+07	62.1
2428	16-Sep-16	10:02:03	62.2	66.6	58.1	88.9	62.2	---	---	62.2	9.96E+07	62.2
2429	16-Sep-16	10:03:03	62.5	65.9	58.6	86.8	62.5	---	---	62.5	1.07E+08	62.5
2430	16-Sep-16	10:04:03	61.7	65.1	58.2	85.3	61.7	---	---	61.7	8.87E+07	61.7
2431	16-Sep-16	10:05:03	62.2	68.8	57	93.3	62.2	---	---	62.2	9.96E+07	62.2
2432	16-Sep-16	10:06:03	62.9	65.1	59.7	86.3	62.9	---	---	62.9	1.17E+08	62.9
2433	16-Sep-16	10:07:03	61.7	64.1	57.7	84.8	61.7	---	---	61.7	8.87E+07	61.7
2434	16-Sep-16	10:08:03	63.4	66.4	59.3	86.8	63.4	---	---	63.4	1.31E+08	63.4
2435	16-Sep-16	10:09:03	60.6	66.1	55.6	86.3	60.6	---	---	60.6	6.89E+07	60.6
2436	16-Sep-16	10:10:03	60.8	63.7	56.5	85.3	60.8	---	---	60.8	7.21E+07	60.8
2437	16-Sep-16	10:11:03	60.8	65.8	57.5	86.3	60.8	---	---	60.8	7.21E+07	60.8
2438	16-Sep-16	10:12:03	61.9	65.3	59.3	86.8	61.9	---	---	61.9	9.29E+07	61.9
2439	16-Sep-16	10:13:03	62.4	67.7	58.8	86.3	62.4	---	---	62.4	1.04E+08	62.4
2440	16-Sep-16	10:14:03	62.5	65.5	59.5	87.3	62.5	---	---	62.5	1.07E+08	62.5
2441	16-Sep-16	10:15:03	61.7	64.8	58.5	86.8	61.7	---	---	61.7	8.87E+07	61.7
2442	16-Sep-16	10:16:03	61.8	65.6	57	89.9	61.8	---	---	61.8	9.08E+07	61.8
2443	16-Sep-16	10:17:03	61.7	64.7	59.6	86.3	61.7	---	---	61.7	8.87E+07	61.7
2444	16-Sep-16	10:18:03	61.9	65.3	58	86.3	61.9	---	---	61.9	9.29E+07	61.9
2445	16-Sep-16	10:19:03	62.1	65.7	59.5	89.5	62.1	---	---	62.1	9.73E+07	62.1
2446	16-Sep-16	10:20:03	61.6	64.2	58.4	86.3	61.6	---	---	61.6	8.67E+07	61.6
2447	16-Sep-16	10:21:03	63.2	65.5	60	90.2	63.2	---	---	63.2	1.25E+08	63.2
2448	16-Sep-16	10:22:03	62.7	66.5	60.2	92.1	62.7	---	---	62.7	1.12E+08	62.7
2449	16-Sep-16	10:23:03	61.8	65.2	59.2	85.8	61.8	---	---	61.8	9.08E+07	61.8
2450	16-Sep-16	10:24:03	61.5	65.3	59	88.9	61.5	---	---	61.5	8.48E+07	61.5
2451	16-Sep-16	10:25:03	63	69.1	58.3	89.5	63	---	---	63	1.20E+08	63.0
2452	16-Sep-16	10:26:03	63.1	67.5	60	90.5	63.1	---	---	63.1	1.23E+08	63.1
2453	16-Sep-16	10:27:03	60.6	64.3	57.3	88.1	60.6	---	---	60.6	6.89E+07	60.6
2454	16-Sep-16	10:28:03	60.6	66	55	85.3	60.6	---	---	60.6	6.89E+07	60.6
2455	16-Sep-16	10:29:03	61.6	65.2	56.9	85.8	61.6	---	---	61.6	8.67E+07	61.6
2456	16-Sep-16	10:30:03	61.3	64.4	58.3	84.8	61.3	---	---	61.3	8.09E+07	61.3
2457	16-Sep-16	10:31:03	64.3	69.4	59.8	89.9	64.3	---	---	64.3	1.61E+08	64.3
2458	16-Sep-16	10:32:03	62.9	65.9	60.7	88.1	62.9	---	---	62.9	1.17E+08	62.9
2459	16-Sep-16	10:33:03	62.4	65.6	59.9	90.2	62.4	---	---	62.4	1.04E+08	62.4
2460	16-Sep-16	10:34:03	63	67.2	59.8	97.2	63	---	---	63	1.20E+08	63.0
2461	16-Sep-16	10:35:03	62.8	65.5	58.3	87.7	62.8	---	---	62.8	1.14E+08	62.8
2462	16-Sep-16	10:36:03	61.5	66.9	58.1	88.5	61.5	---	---	61.5	8.48E+07	61.5
2463	16-Sep-16	10:37:03	62	65.6	57.7	86.8	62	---	---	62	9.51E+07	62.0
2464	16-Sep-16	10:38:03	61.9	68.1	58	89.2	61.9	---	---	61.9	9.29E+07	61.9
2465	16-Sep-16	10:39:03	61.6	64.7	58.6	85.3	61.6	---	---	61.6	8.67E+07	61.6
2466	16-Sep-16	10:40:03	62.3	65.9	59	88.9	62.3	---	---	62.3	1.02E+08	62.3
2467	16-Sep-16	10:41:03	63.9	67.8	59.9	88.9	63.9	---	---	63.9	1.47E+08	63.9
2468	16-Sep-16	10:42:03	63.6	67	60.5	88.9	63.6	---	---	63.6	1.37E+08	63.6
2469	16-Sep-16	10:43:03	60.3	64.1	56.6	84.8	60.3	---	---	60.3	6.43E+07	60.3
2470	16-Sep-16	10:44:03	62.2	66.1	58.2	87.7	62.2	---	---	62.2	9.96E+07	62.2
2471	16-Sep-16	10:45:03	64.3	75	58.4	91.1	64.3	---	---	64.3	1.61E+08	64.3
2472	16-Sep-16	10:46:03	63.6	67.6	60	91.6	63.6	---	---	63.6	1.37E+08	63.6
2473	16-Sep-16	10:47:03	63.1	67.2	59.3	89.9	63.1	---	---	63.1	1.23E+08	63.1
2474	16-Sep-16	10:48:03	62.3	66.3	59.2	85.8	62.3	---	---	62.3	1.02E+08	62.3
2475	16-Sep-16	10:49:03	61.3	63.9	59.2	89.5	61.3	---	---	61.3	8.09E+07	61.3
2476	16-Sep-16	10:50:03	60.9	64.6	57.9	88.1	60.9	---	---	60.9	7.38E+07	60.9
2477	16-Sep-16	10:51:03	63.3	66.3	58.1	88.5	63.3	---	---	63.3	1.28E+08	63.3
2478	16-Sep-16	10:52:03	62.3	66.1	59.9	85.8	62.3	---	---	62.3	1.02E+08	62.3
2479	16-Sep-16	10:53:03	62.1	68.9	59.9	86.8	62.1	---	---	62.1	9.73E+07	62.1
2480	16-Sep-16	10:54:03	61.1	63.5	58.3	84.8	61.1	---	---	61.1	7.73E+07	61.1
2481	16-Sep-16	10:55:03	63.5	68.1	58.9	88.1	63.5	---	---	63.5	1.34E+08	63.5
2482	16-Sep-16	10:56:03	62.4	66.3	59.6	88.5	62.4	---	---	62.4	1.04E+08	62.4
2483	16-Sep-16	10:57:03	61.8	66.5	58.8	87.7	61.8	---	---	61.8	9.08E+07	61.8
2484	16-Sep-16	10:58:03	61.5	63.8	58.8	89.2	61.5	---	---	61.5	8.48E+07	61.5
2485	16-Sep-16	10:59:03	62.1	65.4	59	85.8	62.1	---	---	62.1	9.73E+07	62.1
											6.06E+09	62.3
2486	16-Sep-16	11:00:03	65.1	75.6	59.7	93.7	65.1	---	---	65.1	1.94E+08	65.1
2487	16-Sep-16	11:01:03	62.3	65.4	59.5	89.5	62.3	---	---	62.3	1.02E+08	62.3
2488	16-Sep-16	11:02:03	63.1	65.7	60.7	89.5	63.1	---	---	63.1	1.23E+08	63.1
2489	16-Sep-16	11:03:03	61.5	64.5	57.3	85.8	61.5	---	---	61.5	8.48E+07	61.5
2490	16-Sep-16	11:04:03	61.7	66	56.8	86.3	61.7	---	---	61.7	8.87E+07	61.7
2491	16-Sep-16	11:05:03	62.6	66	58.8	87.7	62.6	---	---	62.6	1.09E+08	62.6

2492	16-Sep-16	11:06:03	61.7	64.9	58.4	87.7	61.7	---	---	61.7	8.87E+07	61.7
2493	16-Sep-16	11:07:03	61.7	64.4	58.9	85.8	61.7	---	---	61.7	8.87E+07	61.7
2494	16-Sep-16	11:08:03	64.5	73	57.4	95.4	64.5	---	---	64.5	1.69E+08	64.5
2495	16-Sep-16	11:09:03	64	70.7	59.9	88.9	64	---	---	64	1.51E+08	64.0
2496	16-Sep-16	11:10:03	62	65.5	59.2	89.5	62	---	---	62	9.51E+07	62.0
2497	16-Sep-16	11:11:03	61.7	64	58.5	89.5	61.7	---	---	61.7	8.87E+07	61.7
2498	16-Sep-16	11:12:03	61.8	64.6	59.1	87.3	61.8	---	---	61.8	9.08E+07	61.8
2499	16-Sep-16	11:13:03	63	69.3	59.4	86.8	63	---	---	63	1.20E+08	63.0
2500	16-Sep-16	11:14:03	62.5	66.6	59.7	88.5	62.5	---	---	62.5	1.07E+08	62.5
2501	16-Sep-16	11:15:03	61.5	63.7	59.4	87.3	61.5	---	---	61.5	8.48E+07	61.5
2502	16-Sep-16	11:16:03	61.2	66.5	57.7	89.5	61.2	---	---	61.2	7.91E+07	61.2
2503	16-Sep-16	11:17:03	59.7	64.2	56	87.3	59.7	---	---	59.7	5.60E+07	59.7
2504	16-Sep-16	11:18:03	59.2	61.6	57.5	85.8	59.2	---	---	59.2	4.99E+07	59.2
2505	16-Sep-16	11:19:03	59.6	62.3	56.4	85.3	59.6	---	---	59.6	5.47E+07	59.6
2506	16-Sep-16	11:20:03	61.1	67.5	56.4	87.3	61.1	---	---	61.1	7.73E+07	61.1
2507	16-Sep-16	11:21:03	61.8	64.9	59	88.9	61.8	---	---	61.8	9.08E+07	61.8
2508	16-Sep-16	11:22:03	61.4	65	57.6	88.5	61.4	---	---	61.4	8.28E+07	61.4
2509	16-Sep-16	11:23:03	60.4	64.1	58.1	89.2	60.4	---	---	60.4	6.58E+07	60.4
2510	16-Sep-16	11:24:03	59.7	62.2	57.5	86.8	59.7	---	---	59.7	5.60E+07	59.7
2511	16-Sep-16	11:25:03	61.5	64.5	59.3	89.9	61.5	---	---	61.5	8.48E+07	61.5
2512	16-Sep-16	11:26:03	59.9	62.1	58.2	87.3	59.9	---	---	59.9	5.86E+07	59.9
2513	16-Sep-16	11:27:03	62.4	69	58.3	87.7	62.4	---	---	62.4	1.04E+08	62.4
2514	16-Sep-16	11:28:03	61.6	63.6	59.1	86.8	61.6	---	---	61.6	8.67E+07	61.6
2515	16-Sep-16	11:29:03	61	63.5	58.8	87.3	61	---	---	61	7.55E+07	61.0
2516	16-Sep-16	11:30:03	60.9	63.7	58	86.3	60.9	---	---	60.9	7.38E+07	60.9
2517	16-Sep-16	11:31:03	61.5	65.5	58.1	86.3	61.5	---	---	61.5	8.48E+07	61.5
2518	16-Sep-16	11:32:03	61.7	65	57.8	87.3	61.7	---	---	61.7	8.87E+07	61.7
2519	16-Sep-16	11:33:03	61.2	66.7	57.4	91.3	61.2	---	---	61.2	7.91E+07	61.2
2520	16-Sep-16	11:34:03	61.1	65.1	57.3	90.2	61.1	---	---	61.1	7.73E+07	61.1
2521	16-Sep-16	11:35:03	60.8	63	56.8	87.3	60.8	---	---	60.8	7.21E+07	60.8
2522	16-Sep-16	11:36:03	60.9	62.8	58.5	86.3	60.9	---	---	60.9	7.38E+07	60.9
2523	16-Sep-16	11:37:03	61.7	64.6	59.6	86.3	61.7	---	---	61.7	8.87E+07	61.7
2524	16-Sep-16	11:38:03	61.3	63.3	58.7	84.8	61.3	---	---	61.3	8.09E+07	61.3
2525	16-Sep-16	11:39:03	61.4	63.6	59.4	90.2	61.4	---	---	61.4	8.28E+07	61.4
2526	16-Sep-16	11:40:03	60.4	63.1	57.5	84.8	60.4	---	---	60.4	6.58E+07	60.4
2527	16-Sep-16	11:41:03	60	62.8	56.6	84.8	60	---	---	60	6.00E+07	60.0
2528	16-Sep-16	11:42:03	61.4	65.7	58.2	89.2	61.4	---	---	61.4	8.28E+07	61.4
2529	16-Sep-16	11:43:03	60.9	67.4	56.4	90.2	60.9	---	---	60.9	7.38E+07	60.9
2530	16-Sep-16	11:44:03	61.1	65.8	56.5	86.3	61.1	---	---	61.1	7.73E+07	61.1
2531	16-Sep-16	11:45:03	58.9	61.2	56.1	84.8	58.9	---	---	58.9	4.66E+07	58.9
2532	16-Sep-16	11:46:03	60.5	62.8	58.6	84.8	60.5	---	---	60.5	6.73E+07	60.5
2533	16-Sep-16	11:47:03	62.7	65.3	57.8	87.3	62.7	---	---	62.7	1.12E+08	62.7
2534	16-Sep-16	11:48:03	62	64	59.9	87.7	62	---	---	62	9.51E+07	62.0
2535	16-Sep-16	11:49:03	61.2	64.8	57.4	86.8	61.2	---	---	61.2	7.91E+07	61.2
2536	16-Sep-16	11:50:03	60.9	64.3	58	88.5	60.9	---	---	60.9	7.38E+07	60.9
2537	16-Sep-16	11:51:03	62	64.2	60	90.2	62	---	---	62	9.51E+07	62.0
2538	16-Sep-16	11:52:03	60.6	62.6	59	85.8	60.6	---	---	60.6	6.89E+07	60.6
2539	16-Sep-16	11:53:03	62.2	66.6	58.7	89.5	62.2	---	---	62.2	9.96E+07	62.2
2540	16-Sep-16	11:54:03	63.4	70.4	59.8	91.3	63.4	---	---	63.4	1.31E+08	63.4
2541	16-Sep-16	11:55:03	61.9	64.6	59.6	87.7	61.9	---	---	61.9	9.29E+07	61.9
2542	16-Sep-16	11:56:03	62.3	65.2	60.1	89.2	62.3	---	---	62.3	1.02E+08	62.3
2543	16-Sep-16	11:57:03	63.1	66.6	60	88.9	63.1	---	---	63.1	1.23E+08	63.1
2544	16-Sep-16	11:58:03	62.2	66.9	58	87.7	62.2	---	---	62.2	9.96E+07	62.2
2545	16-Sep-16	11:59:03	62.3	65.5	60	86.3	62.3	---	---	62.3	1.02E+08	62.3
											5.36E+09	61.7
2546	16-Sep-16	12:00:03	61.9	65.4	59.5	86.8	61.9	---	---	61.9	9.29E+07	61.9
2547	16-Sep-16	12:01:03	62.5	66.7	58.2	89.2	62.5	---	---	62.5	1.07E+08	62.5
2548	16-Sep-16	12:02:03	61.5	64	58.6	85.3	61.5	---	---	61.5	8.48E+07	61.5
2549	16-Sep-16	12:03:03	62.3	65.6	59.8	86.8	62.3	---	---	62.3	1.02E+08	62.3
2550	16-Sep-16	12:04:03	62.2	64.8	59.5	89.2	62.2	---	---	62.2	9.96E+07	62.2
2551	16-Sep-16	12:05:03	62.2	67.2	59.4	89.2	62.2	---	---	62.2	9.96E+07	62.2
2552	16-Sep-16	12:06:03	63.2	67	60.5	89.9	63.2	---	---	63.2	1.25E+08	63.2
2553	16-Sep-16	12:07:03	62.3	65	59.3	88.1	62.3	---	---	62.3	1.02E+08	62.3
2554	16-Sep-16	12:08:03	63	65.1	60	90.5	63	---	---	63	1.20E+08	63.0
2555	16-Sep-16	12:09:03	62.8	65.1	59.1	89.2	62.8	---	---	62.8	1.14E+08	62.8
2556	16-Sep-16	12:10:03	62.9	65.5	60.5	88.9	62.9	---	---	62.9	1.17E+08	62.9
2557	16-Sep-16	12:11:03	61.4	65	58.5	87.7	61.4	---	---	61.4	8.28E+07	61.4
2558	16-Sep-16	12:12:03	61.7	65.5	59.2	88.1	61.7	---	---	61.7	8.87E+07	61.7
2559	16-Sep-16	12:13:03	61.2	64.2	56.4	88.1	61.2	---	---	61.2	7.91E+07	61.2
2560	16-Sep-16	12:14:03	60.3	62	58	85.3	60.3	---	---	60.3	6.43E+07	60.3
2561	16-Sep-16	12:15:03	61.8	64.8	59.4	86.3	61.8	---	---	61.8	9.08E+07	61.8
2562	16-Sep-16	12:16:03	61.6	65.3	58.2	86.3	61.6	---	---	61.6	8.67E+07	61.6
2563	16-Sep-16	12:17:03	61.7	64.4	58.3	88.1	61.7	---	---	61.7	8.87E+07	61.7
2564	16-Sep-16	12:18:03	61.7	64.7	59.7	88.5	61.7	---	---	61.7	8.87E+07	61.7
2565	16-Sep-16	12:19:03	61.1	64.5	59	88.5	61.1	---	---	61.1	7.73E+07	61.1
2566	16-Sep-16	12:20:03	62.1	65	58.3	88.5	62.1	---	---	62.1	9.73E+07	62.1
2567	16-Sep-16	12:21:03	63.9	67.1	61.2	87.7	63.9	---	---	63.9	1.47E+08	63.9
2568	16-Sep-16	12:22:03	63	66.9	59.6	87.3	63	---	---	63	1.20E+08	63.0
2569	16-Sep-16	12:23:03	61.6	65.3	59.3	86.8	61.6	---	---	61.6	8.67E+07	61.6
2570	16-Sep-16	12:24:03	61.7	67.6	57.8	90.5	61.7	---	---	61.7	8.87E+07	61.7
2571	16-Sep-16	12:25:03	57.2	59.3	55.1	84.8	57.2	---	---	57.2	3.15E+07	57.2
2572	16-Sep-16	12:26:03	57.9	60.6	55.3	89.2	57.9	---	---	57.9	3.70E+07	57.9
2573	16-Sep-16	12:27:03	60.3	62.2	57.7	87.3	60.3	---	---	60.3	6.43E+07	60.3
2574	16-Sep-16	12:28:03	60.5	63.4	58	89.5	60.5	---	---	60.5	6.73E+07	60.5

2575	16-Sep-16	12:29:03	60	61.7	58.5	84.1	60	---	---	60	6.00E+07	60.0
2576	16-Sep-16	12:30:03	60.2	62.9	58.3	85.3	60.2	---	---	60.2	6.28E+07	60.2
2577	16-Sep-16	12:31:03	59.2	62.3	56.7	87.7	59.2	---	---	59.2	4.99E+07	59.2
2578	16-Sep-16	12:32:03	57	59.8	54.3	90.5	57	---	---	57	3.01E+07	57.0
2579	16-Sep-16	12:33:03	59.2	64.3	55.6	85.8	59.2	---	---	59.2	4.99E+07	59.2
2580	16-Sep-16	12:34:03	58.1	60.8	55.2	88.1	58.1	---	---	58.1	3.87E+07	58.1
2581	16-Sep-16	12:35:03	57.8	61.4	53.7	87.3	57.8	---	---	57.8	3.62E+07	57.8
2582	16-Sep-16	12:36:03	57.2	60.3	55.9	84.1	57.2	---	---	57.2	3.15E+07	57.2
2583	16-Sep-16	12:37:03	56.9	60.1	53.3	87.7	56.9	---	---	56.9	2.94E+07	56.9
2584	16-Sep-16	12:38:03	58.2	59.8	56.4	85.3	58.2	---	---	58.2	3.96E+07	58.2
2585	16-Sep-16	12:39:03	59.4	64.7	54.3	90.8	59.4	---	---	59.4	5.23E+07	59.4
2586	16-Sep-16	12:40:03	59.4	64.1	55.1	88.5	59.4	---	---	59.4	5.23E+07	59.4
2587	16-Sep-16	12:41:03	59.1	61.7	57	87.3	59.1	---	---	59.1	4.88E+07	59.1
2588	16-Sep-16	12:42:03	58.6	61.3	54.4	86.8	58.6	---	---	58.6	4.35E+07	58.6
2589	16-Sep-16	12:43:03	58.9	61.2	56.4	85.8	58.9	---	---	58.9	4.66E+07	58.9
2590	16-Sep-16	12:44:03	59.6	63.5	57.5	88.9	59.6	---	---	59.6	5.47E+07	59.6
2591	16-Sep-16	12:45:03	61.4	64.5	58.4	90.2	61.4	---	---	61.4	8.28E+07	61.4
2592	16-Sep-16	12:46:03	59.9	63.4	57.2	86.8	59.9	---	---	59.9	5.86E+07	59.9
2593	16-Sep-16	12:47:03	59.5	62.4	56.5	85.8	59.5	---	---	59.5	5.35E+07	59.5
2594	16-Sep-16	12:48:03	60	65.2	57	89.9	60	---	---	60	6.00E+07	60.0
2595	16-Sep-16	12:49:03	57.8	62.2	54.6	86.8	57.8	---	---	57.8	3.62E+07	57.8
2596	16-Sep-16	12:50:03	57.8	61.3	55.1	88.1	57.8	---	---	57.8	3.62E+07	57.8
2597	16-Sep-16	12:51:03	57.3	60.7	54.5	86.3	57.3	---	---	57.3	3.22E+07	57.3
2598	16-Sep-16	12:52:03	61.2	64.9	57	87.7	61.2	---	---	61.2	7.91E+07	61.2
2599	16-Sep-16	12:53:03	60.5	63.6	58.3	87.7	60.5	---	---	60.5	6.73E+07	60.5
2600	16-Sep-16	12:54:03	58.4	63.9	55.6	85.8	58.4	---	---	58.4	4.15E+07	58.4
2601	16-Sep-16	12:55:03	59.8	62.9	56.4	86.8	59.8	---	---	59.8	5.73E+07	59.8
2602	16-Sep-16	12:56:03	58.7	62.1	55.5	88.5	58.7	---	---	58.7	4.45E+07	58.7
2603	16-Sep-16	12:57:03	57.4	60.6	54.9	87.3	57.4	---	---	57.4	3.30E+07	57.4
2604	16-Sep-16	12:58:03	57.5	59.8	55.2	85.3	57.5	---	---	57.5	3.37E+07	57.5
2605	16-Sep-16	12:59:03	57.9	61.2	54.5	90.2	57.9	---	---	57.9	3.70E+07	57.9
											4.13E+09	60.6
2606	16-Sep-16	13:00:03	57.9	62	54.5	90.5	57.9	---	---	57.9	3.70E+07	57.9
2607	16-Sep-16	13:01:03	57.6	61.1	54.6	86.8	57.6	---	---	57.6	3.45E+07	57.6
2608	16-Sep-16	13:02:03	58.7	62.6	56.6	86.8	58.7	---	---	58.7	4.45E+07	58.7
2609	16-Sep-16	13:03:03	60	64	57.2	88.5	60	---	---	60	6.00E+07	60.0
2610	16-Sep-16	13:04:03	58.4	62.2	55.8	87.7	58.4	---	---	58.4	4.15E+07	58.4
2611	16-Sep-16	13:05:03	56.1	59.9	52.9	86.3	56.1	---	---	56.1	2.44E+07	56.1
2612	16-Sep-16	13:06:03	58.5	61.8	55.6	85.8	58.5	---	---	58.5	4.25E+07	58.5
2613	16-Sep-16	13:07:03	58.6	61.4	55.7	85.3	58.6	---	---	58.6	4.35E+07	58.6
2614	16-Sep-16	13:08:03	59.9	64	56	89.5	59.9	---	---	59.9	5.86E+07	59.9
2615	16-Sep-16	13:09:03	57.3	60.3	55.1	87.3	57.3	---	---	57.3	3.22E+07	57.3
2616	16-Sep-16	13:10:03	57.6	63.1	54.5	91.1	57.6	---	---	57.6	3.45E+07	57.6
2617	16-Sep-16	13:11:03	57	63.5	53.6	88.9	57	---	---	57	3.01E+07	57.0
2618	16-Sep-16	13:12:03	58.9	63.7	56.3	86.3	58.9	---	---	58.9	4.66E+07	58.9
2619	16-Sep-16	13:13:03	59	67.3	56.3	90.8	59	---	---	59	4.77E+07	59.0
2620	16-Sep-16	13:14:03	58.3	65	55.9	91.3	58.3	---	---	58.3	4.06E+07	58.3
2621	16-Sep-16	13:15:03	58.7	60.8	56.8	99.5	58.7	---	---	58.7	4.45E+07	58.7
2622	16-Sep-16	13:16:03	60.6	63.9	56.4	94.5	60.6	---	---	60.6	6.89E+07	60.6
2623	16-Sep-16	13:17:03	60.8	64.3	58.4	88.1	60.8	---	---	60.8	7.21E+07	60.8
2624	16-Sep-16	13:18:03	60.3	65.1	57.4	87.3	60.3	---	---	60.3	6.43E+07	60.3
2625	16-Sep-16	13:19:03	60.1	63.2	57.3	85.8	60.1	---	---	60.1	6.14E+07	60.1
2626	16-Sep-16	13:20:03	58.8	65.8	54.6	86.3	58.8	---	---	58.8	4.55E+07	58.8
2627	16-Sep-16	13:21:03	59.3	64.9	54.4	86.8	59.3	---	---	59.3	5.11E+07	59.3
2628	16-Sep-16	13:22:03	57.5	59.6	56	90.5	57.5	---	---	57.5	3.37E+07	57.5
2629	16-Sep-16	13:23:03	58.9	61.1	56.9	87.3	58.9	---	---	58.9	4.66E+07	58.9
2630	16-Sep-16	13:24:03	58.6	60.5	57.3	86.3	58.6	---	---	58.6	4.35E+07	58.6
2631	16-Sep-16	13:25:03	58.8	60.9	55.9	85.8	58.8	---	---	58.8	4.55E+07	58.8
2632	16-Sep-16	13:26:03	58.5	62.2	55.8	91.3	58.5	---	---	58.5	4.25E+07	58.5
2633	16-Sep-16	13:27:03	59.1	62.8	55.9	93.1	59.1	---	---	59.1	4.88E+07	59.1
2634	16-Sep-16	13:28:03	58.5	61.2	56.2	89.2	58.5	---	---	58.5	4.25E+07	58.5
2635	16-Sep-16	13:29:03	58.8	63.1	56.8	85.8	58.8	---	---	58.8	4.55E+07	58.8
2636	16-Sep-16	13:30:03	57.7	60.2	55.6	84.1	57.7	---	---	57.7	3.53E+07	57.7
2637	16-Sep-16	13:31:03	57.8	62.6	55.6	85.8	57.8	---	---	57.8	3.62E+07	57.8
2638	16-Sep-16	13:32:03	58	59.7	56.3	83.5	58	---	---	58	3.79E+07	58.0
2639	16-Sep-16	13:33:03	60.3	63	57.2	87.7	60.3	---	---	60.3	6.43E+07	60.3
2640	16-Sep-16	13:34:03	58.3	60.8	56.8	85.8	58.3	---	---	58.3	4.06E+07	58.3
2641	16-Sep-16	13:35:03	56.8	64.1	52.1	88.5	56.8	---	---	56.8	2.87E+07	56.8
2642	16-Sep-16	13:36:03	60.1	71.3	53.5	97.6	60.1	---	---	60.1	6.14E+07	60.1
2643	16-Sep-16	13:37:03	59.9	69	55.5	92.6	59.9	---	---	59.9	5.86E+07	59.9
2644	16-Sep-16	13:38:03	58.4	61.8	56.8	88.1	58.4	---	---	58.4	4.15E+07	58.4
2645	16-Sep-16	13:39:03	59.2	61.9	55.9	86.3	59.2	---	---	59.2	4.99E+07	59.2
2646	16-Sep-16	13:40:03	58.8	62.5	56.4	86.8	58.8	---	---	58.8	4.55E+07	58.8
2647	16-Sep-16	13:41:03	57.7	59.2	56.3	86.3	57.7	---	---	57.7	3.53E+07	57.7
2648	16-Sep-16	13:42:03	57.4	59.1	55.8	85.3	57.4	---	---	57.4	3.30E+07	57.4
2649	16-Sep-16	13:43:03	58.1	63	52.7	87.7	58.1	---	---	58.1	3.87E+07	58.1
2650	16-Sep-16	13:44:03	60.9	73.3	53	98.5	60.9	---	---	60.9	7.38E+07	60.9
2651	16-Sep-16	13:45:03	55.8	58	53.9	85.3	55.8	---	---	55.8	2.28E+07	55.8
2652	16-Sep-16	13:46:03	57.6	63.1	54.5	90.2	57.6	---	---	57.6	3.45E+07	57.6
2653	16-Sep-16	13:47:03	58.2	63.3	55.7	84.8	58.2	---	---	58.2	3.96E+07	58.2
2654	16-Sep-16	13:48:03	58.1	62.3	54.8	87.7	58.1	---	---	58.1	3.87E+07	58.1
2655	16-Sep-16	13:49:03	60.4	64.3	57.9	87.7	60.4	---	---	60.4	6.58E+07	60.4
2656	16-Sep-16	13:50:03	58.6	62.5	54.8	91.3	58.6	---	---	58.6	4.35E+07	58.6
2657	16-Sep-16	13:51:03	57.1	61.3	53.5	86.8	57.1	---	---	57.1	3.08E+07	57.1

2658	16-Sep-16	13:52:03	56.9	61.2	54.3	84.1	56.9	---	---	56.9	2.94E+07	56.9
2659	16-Sep-16	13:53:03	58.4	64.7	55.5	84.8	58.4	---	---	58.4	4.15E+07	58.4
2660	16-Sep-16	13:54:03	55.6	57.8	53.4	85.3	55.6	---	---	55.6	2.18E+07	55.6
2661	16-Sep-16	13:55:03	58.6	62.6	54.5	90.5	58.6	---	---	58.6	4.35E+07	58.6
2662	16-Sep-16	13:56:03	60.3	68.2	55.7	96.4	60.3	---	---	60.3	6.43E+07	60.3
2663	16-Sep-16	13:57:03	59.1	68.4	54.7	93.7	59.1	---	---	59.1	4.88E+07	59.1
2664	16-Sep-16	13:58:03	61.6	71.9	55.4	95	61.6	---	---	61.6	8.67E+07	61.6
2665	16-Sep-16	13:59:03	56.6	58.5	54.3	84.1	56.6	---	---	56.6	2.74E+07	56.6
											2.69E+09	58.7
2666	16-Sep-16	14:00:03	56.7	58.7	54.6	85.3	56.7	---	---	56.7	2.81E+07	56.7
2667	16-Sep-16	14:01:03	57.2	59.4	55.4	85.8	57.2	---	---	57.2	3.15E+07	57.2
2668	16-Sep-16	14:02:03	58.3	62.5	55	95.6	58.3	---	---	58.3	4.06E+07	58.3
2669	16-Sep-16	14:03:03	57.6	60.8	55.3	87.3	57.6	---	---	57.6	3.45E+07	57.6
2670	16-Sep-16	14:04:03	58.3	64.3	53.6	86.3	58.3	---	---	58.3	4.06E+07	58.3
2671	16-Sep-16	14:05:03	54.7	57.9	53	85.8	54.7	---	---	54.7	1.77E+07	54.7
2672	16-Sep-16	14:06:03	57.8	61.5	53	88.9	57.8	---	---	57.8	3.62E+07	57.8
2673	16-Sep-16	14:07:03	59.6	62.9	55.8	88.1	59.6	---	---	59.6	5.47E+07	59.6
2674	16-Sep-16	14:08:03	58.1	62.3	54	88.1	58.1	---	---	58.1	3.87E+07	58.1
2675	16-Sep-16	14:09:03	59.5	70.8	53.4	94.5	59.5	---	---	59.5	5.35E+07	59.5
2676	16-Sep-16	14:10:03	56.4	59.9	53.8	85.8	56.4	---	---	56.4	2.62E+07	56.4
2677	16-Sep-16	14:11:03	55.7	58.3	53.3	85.3	55.7	---	---	55.7	2.23E+07	55.7
2678	16-Sep-16	14:12:03	56.1	58.3	53.4	88.1	56.1	---	---	56.1	2.44E+07	56.1
2679	16-Sep-16	14:13:03	58.1	63.1	54.8	86.8	58.1	---	---	58.1	3.87E+07	58.1
2680	16-Sep-16	14:14:03	57.5	64.6	53.2	92.4	57.5	---	---	57.5	3.37E+07	57.5
2681	16-Sep-16	14:15:03	59.1	64.6	56.3	99.4	59.1	---	---	59.1	4.88E+07	59.1
2682	16-Sep-16	14:16:03	58.5	62.6	55.1	86.8	58.5	---	---	58.5	4.25E+07	58.5
2683	16-Sep-16	14:17:03	56	58.4	54.5	84.8	56	---	---	56	2.39E+07	56.0
2684	16-Sep-16	14:18:03	56.1	59.2	52.7	84.8	56.1	---	---	56.1	2.44E+07	56.1
2685	16-Sep-16	14:19:03	58.1	60.5	54.5	85.3	58.1	---	---	58.1	3.87E+07	58.1
2686	16-Sep-16	14:20:03	59.9	67.9	55.7	91.1	59.9	---	---	59.9	5.86E+07	59.9
2687	16-Sep-16	14:21:03	58.3	63.1	54.8	85.3	58.3	---	---	58.3	4.06E+07	58.3
2688	16-Sep-16	14:22:03	57.1	59.2	54.9	86.3	57.1	---	---	57.1	3.08E+07	57.1
2689	16-Sep-16	14:23:03	57	64.7	53.6	86.8	57	---	---	57	3.01E+07	57.0
2690	16-Sep-16	14:24:03	56.4	60.1	53.4	84.1	56.4	---	---	56.4	2.62E+07	56.4
2691	16-Sep-16	14:25:03	57	60.6	53.5	87.3	57	---	---	57	3.01E+07	57.0
2692	16-Sep-16	14:26:03	57.3	62.8	54.5	91.3	57.3	---	---	57.3	3.22E+07	57.3
2693	16-Sep-16	14:27:03	57.8	61.8	55.9	84.8	57.8	---	---	57.8	3.62E+07	57.8
2694	16-Sep-16	14:28:03	57.4	60.7	55.1	92.4	57.4	---	---	57.4	3.30E+07	57.4
2695	16-Sep-16	14:29:03	56.9	59.7	54.1	91.1	56.9	---	---	56.9	2.94E+07	56.9
2696	16-Sep-16	14:30:03	57.4	60.8	54.6	90.5	57.4	---	---	57.4	3.30E+07	57.4
2697	16-Sep-16	14:31:03	58	63	55.3	87.3	58	---	---	58	3.79E+07	58.0
2698	16-Sep-16	14:32:03	56.4	59	54.5	84.1	56.4	---	---	56.4	2.62E+07	56.4
2699	16-Sep-16	14:33:03	55.9	59.7	51.7	91.6	55.9	---	---	55.9	2.33E+07	55.9
2700	16-Sep-16	14:34:03	56.5	60.5	53.5	90.5	56.5	---	---	56.5	2.68E+07	56.5
2701	16-Sep-16	14:35:03	55.8	59.3	52.9	85.8	55.8	---	---	55.8	2.28E+07	55.8
2702	16-Sep-16	14:36:03	56.1	59.9	53.4	84.1	56.1	---	---	56.1	2.44E+07	56.1
2703	16-Sep-16	14:37:03	56.9	60.4	55.1	83.5	56.9	---	---	56.9	2.94E+07	56.9
2704	16-Sep-16	14:38:03	55.7	58.8	52.4	82.8	55.7	---	---	55.7	2.23E+07	55.7
2705	16-Sep-16	14:39:03	55.8	59.7	52.2	84.1	55.8	---	---	55.8	2.28E+07	55.8
2706	16-Sep-16	14:40:03	56.1	58.1	53.1	83.5	56.1	---	---	56.1	2.44E+07	56.1
2707	16-Sep-16	14:41:03	57.5	60.6	55.1	84.1	57.5	---	---	57.5	3.37E+07	57.5
2708	16-Sep-16	14:42:03	56.6	59	55.5	85.3	56.6	---	---	56.6	2.74E+07	56.6
2709	16-Sep-16	14:43:03	57.1	60.6	55.6	85.8	57.1	---	---	57.1	3.08E+07	57.1
2710	16-Sep-16	14:44:03	57.3	62.1	54.8	88.5	57.3	---	---	57.3	3.22E+07	57.3
2711	16-Sep-16	14:45:03	56.5	59.8	53.5	87.3	56.5	---	---	56.5	2.68E+07	56.5
2712	16-Sep-16	14:46:03	58.5	61.5	55.9	86.3	58.5	---	---	58.5	4.25E+07	58.5
2713	16-Sep-16	14:47:03	57.5	61.6	55.3	84.1	57.5	---	---	57.5	3.37E+07	57.5
2714	16-Sep-16	14:48:03	57.1	61	54.2	84.8	57.1	---	---	57.1	3.08E+07	57.1
2715	16-Sep-16	14:49:03	56.8	59.1	54.7	85.8	56.8	---	---	56.8	2.87E+07	56.8
2716	16-Sep-16	14:50:03	57.1	65	52.7	101.7	57.1	---	---	57.1	3.08E+07	57.1
2717	16-Sep-16	14:51:03	55.6	59.2	51.6	87.3	55.6	---	---	55.6	2.18E+07	55.6
2718	16-Sep-16	14:52:03	56	63.2	53.1	84.8	56	---	---	56	2.39E+07	56.0
2719	16-Sep-16	14:53:03	55.4	57.3	53.6	82.8	55.4	---	---	55.4	2.08E+07	55.4
2720	16-Sep-16	14:54:03	56.8	63.6	52.8	86.8	56.8	---	---	56.8	2.87E+07	56.8
2721	16-Sep-16	14:55:03	56.9	59.7	53.8	86.8	56.9	---	---	56.9	2.94E+07	56.9
2722	16-Sep-16	14:56:03	58.5	60.8	55.9	89.2	58.5	---	---	58.5	4.25E+07	58.5
2723	16-Sep-16	14:57:03	56.9	59.9	53.9	83.5	56.9	---	---	56.9	2.94E+07	56.9
2724	16-Sep-16	14:58:03	54.9	57.2	52.8	82.8	54.9	---	---	54.9	1.85E+07	54.9
2725	16-Sep-16	14:59:03	56.2	57.9	53.1	86.3	56.2	---	---	56.2	2.50E+07	56.2
											1.90E+09	57.2
2726	16-Sep-16	15:00:03	57.3	62.9	53.2	86.3	57.3	---	---	57.3	3.22E+07	57.3
2727	16-Sep-16	15:01:03	57.1	60	54.4	85.8	57.1	---	---	57.1	3.08E+07	57.1
2728	16-Sep-16	15:02:03	56.2	58.8	53.9	84.8	56.2	---	---	56.2	2.50E+07	56.2
2729	16-Sep-16	15:03:03	56.9	60.3	55.2	89.2	56.9	---	---	56.9	2.94E+07	56.9
2730	16-Sep-16	15:04:03	56.8	63.1	52.5	85.3	56.8	---	---	56.8	2.87E+07	56.8
2731	16-Sep-16	15:05:03	57.7	60.8	53.9	85.8	57.7	---	---	57.7	3.53E+07	57.7
2732	16-Sep-16	15:06:03	57.7	60.3	54.4	85.8	57.7	---	---	57.7	3.53E+07	57.7
2733	16-Sep-16	15:07:03	59.9	63.9	56.2	93.7	59.9	---	---	59.9	5.86E+07	59.9
2734	16-Sep-16	15:08:03	57.7	64.7	54.2	96	57.7	---	---	57.7	3.53E+07	57.7
2735	16-Sep-16	15:09:03	58.9	63.1	55	87.7	58.9	---	---	58.9	4.66E+07	58.9
2736	16-Sep-16	15:10:03	58.8	67.2	55.6	95.9	58.8	---	---	58.8	4.55E+07	58.8
2737	16-Sep-16	15:11:03	59.7	65.5	55.1	96.4	59.7	---	---	59.7	5.60E+07	59.7

2738	16-Sep-16	15:12:03	57.6	62.8	54.7	89.5	57.6	---	---	57.6	3.45E+07	57.6
2739	16-Sep-16	15:13:03	55.7	57.9	53.3	82.8	55.7	---	---	55.7	2.23E+07	55.7
2740	16-Sep-16	15:14:03	55.1	57.9	52.9	85.8	55.1	---	---	55.1	1.94E+07	55.1
2741	16-Sep-16	15:15:03	56.5	64.1	53.3	88.1	56.5	---	---	56.5	2.68E+07	56.5
2742	16-Sep-16	15:16:03	53.6	55.9	52.1	89.5	53.6	---	---	53.6	1.37E+07	53.6
2743	16-Sep-16	15:17:03	54.4	57.5	52.3	82.1	54.4	---	---	54.4	1.65E+07	54.4
2744	16-Sep-16	15:18:03	54.5	56.7	52.7	82.8	54.5	---	---	54.5	1.69E+07	54.5
2745	16-Sep-16	15:19:03	55.7	61.6	52.2	84.1	55.7	---	---	55.7	2.23E+07	55.7
2746	16-Sep-16	15:20:03	56.3	62.4	53.5	102.9	56.3	---	---	56.3	2.56E+07	56.3
2747	16-Sep-16	15:21:03	56.8	59.7	53.9	84.8	56.8	---	---	56.8	2.87E+07	56.8
2748	16-Sep-16	15:22:03	55.5	59.2	53	85.3	55.5	---	---	55.5	2.13E+07	55.5
2749	16-Sep-16	15:23:03	56.4	59.1	53.9	85.8	56.4	---	---	56.4	2.62E+07	56.4
2750	16-Sep-16	15:24:03	56.8	65.6	51.4	88.1	56.8	---	---	56.8	2.87E+07	56.8
2751	16-Sep-16	15:25:03	56.5	63.4	52	84.1	56.5	---	---	56.5	2.68E+07	56.5
2752	16-Sep-16	15:26:03	58.2	61	55.8	86.3	58.2	---	---	58.2	3.96E+07	58.2
2753	16-Sep-16	15:27:03	55.1	57.9	52.3	88.1	55.1	---	---	55.1	1.94E+07	55.1
2754	16-Sep-16	15:28:03	57.6	60.7	53.8	87.3	57.6	---	---	57.6	3.45E+07	57.6
2755	16-Sep-16	15:29:03	56.5	60.4	54	87.3	56.5	---	---	56.5	2.68E+07	56.5
2756	16-Sep-16	15:30:03	59	67.9	54.8	99	59	---	---	59	4.77E+07	59.0
2757	16-Sep-16	15:31:03	61.6	69.2	55.1	98.1	61.6	---	---	61.6	8.67E+07	61.6
2758	16-Sep-16	15:32:03	56	58.4	53.3	88.5	56	---	---	56	2.39E+07	56.0
2759	16-Sep-16	15:33:03	59.3	66.6	55.7	88.9	59.3	---	---	59.3	5.11E+07	59.3
2760	16-Sep-16	15:34:03	56.6	58.6	55.1	84.8	56.6	---	---	56.6	2.74E+07	56.6
2761	16-Sep-16	15:35:03	57.7	67.4	53.3	86.3	57.7	---	---	57.7	3.53E+07	57.7
2762	16-Sep-16	15:36:03	57.9	64.2	55.5	90.5	57.9	---	---	57.9	3.70E+07	57.9
2763	16-Sep-16	15:37:03	59.9	70.7	54.3	95.4	59.9	---	---	59.9	5.86E+07	59.9
2764	16-Sep-16	15:38:03	56.1	60.2	53.7	84.8	56.1	---	---	56.1	2.44E+07	56.1
2765	16-Sep-16	15:39:03	55.6	58.4	53.3	85.8	55.6	---	---	55.6	2.18E+07	55.6
2766	16-Sep-16	15:40:03	54.6	58	51.9	82.8	54.6	---	---	54.6	1.73E+07	54.6
2767	16-Sep-16	15:41:03	59.4	67.5	53.4	91.3	59.4	---	---	59.4	5.23E+07	59.4
2768	16-Sep-16	15:42:03	60.8	68.1	55.7	95.7	60.8	---	---	60.8	7.21E+07	60.8
2769	16-Sep-16	15:43:03	58	61.1	56.2	90.8	58	---	---	58	3.79E+07	58.0
2770	16-Sep-16	15:44:03	57.5	60	55.5	85.8	57.5	---	---	57.5	3.37E+07	57.5
2771	16-Sep-16	15:45:03	56.1	67.5	53.8	89.9	56.1	---	---	56.1	2.44E+07	56.1
2772	16-Sep-16	15:46:03	56.8	67.5	53.3	89.9	56.8	---	---	56.8	2.87E+07	56.8
2773	16-Sep-16	15:47:03	55.7	58.3	53.9	85.3	55.7	---	---	55.7	2.23E+07	55.7
2774	16-Sep-16	15:48:03	56.4	59.8	53.5	85.3	56.4	---	---	56.4	2.62E+07	56.4
2775	16-Sep-16	15:49:03	56.9	66.5	51.6	88.1	56.9	---	---	56.9	2.94E+07	56.9
2776	16-Sep-16	15:50:03	56.7	59.2	55	89.9	56.7	---	---	56.7	2.81E+07	56.7
2777	16-Sep-16	15:51:03	57.2	62.3	53.8	85.3	57.2	---	---	57.2	3.15E+07	57.2
2778	16-Sep-16	15:52:03	59.1	66.7	56.5	89.9	59.1	---	---	59.1	4.88E+07	59.1
2779	16-Sep-16	15:53:03	57.4	60.3	55.3	98.8	57.4	---	---	57.4	3.30E+07	57.4
2780	16-Sep-16	15:54:03	55.1	58.4	53.2	88.5	55.1	---	---	55.1	1.94E+07	55.1
2781	16-Sep-16	15:55:03	58.2	60.6	55.1	85.3	58.2	---	---	58.2	3.96E+07	58.2
2782	16-Sep-16	15:56:03	57.4	61.1	53.6	89.9	57.4	---	---	57.4	3.30E+07	57.4
2783	16-Sep-16	15:57:03	59.4	68.2	54.8	89.5	59.4	---	---	59.4	5.23E+07	59.4
2784	16-Sep-16	15:58:03	57.6	61.4	55.1	84.1	57.6	---	---	57.6	3.45E+07	57.6
2785	16-Sep-16	15:59:03	56.7	59.5	53.8	84.8	56.7	---	---	56.7	2.81E+07	56.7
											2.02E+09	57.5
2786	16-Sep-16	16:00:03	57.2	65.6	53.7	93.5	57.2	---	---	57.2	3.15E+07	57.2
2787	16-Sep-16	16:01:03	57.6	59.4	54.7	86.8	57.6	---	---	57.6	3.45E+07	57.6
2788	16-Sep-16	16:02:03	57.1	63.5	54.6	86.8	57.1	---	---	57.1	3.08E+07	57.1
2789	16-Sep-16	16:03:03	57.6	62	54.8	87.7	57.6	---	---	57.6	3.45E+07	57.6
2790	16-Sep-16	16:04:03	56.6	59.3	53.7	86.8	56.6	---	---	56.6	2.74E+07	56.6
2791	16-Sep-16	16:05:03	58.1	63.1	54.4	86.8	58.1	---	---	58.1	3.87E+07	58.1
2792	16-Sep-16	16:06:03	55.1	56.5	54.2	84.1	55.1	---	---	55.1	1.94E+07	55.1
2793	16-Sep-16	16:07:03	56.2	59.8	53.4	99.1	56.2	---	---	56.2	2.50E+07	56.2
2794	16-Sep-16	16:08:03	57.5	64.2	53.4	90.5	57.5	---	---	57.5	3.37E+07	57.5
2795	16-Sep-16	16:09:03	56.6	60.4	54	88.1	56.6	---	---	56.6	2.74E+07	56.6
2796	16-Sep-16	16:10:03	56.6	59	55.1	84.8	56.6	---	---	56.6	2.74E+07	56.6
2797	16-Sep-16	16:11:03	57.6	61.1	55.1	87.7	57.6	---	---	57.6	3.45E+07	57.6
2798	16-Sep-16	16:12:03	57.9	60.3	55.9	84.1	57.9	---	---	57.9	3.70E+07	57.9
2799	16-Sep-16	16:13:03	58.3	60.3	56.5	88.1	58.3	---	---	58.3	4.06E+07	58.3
2800	16-Sep-16	16:14:03	57.2	60.9	55.5	87.7	57.2	---	---	57.2	3.15E+07	57.2
2801	16-Sep-16	16:15:03	57.2	61.3	54.2	85.8	57.2	---	---	57.2	3.15E+07	57.2
2802	16-Sep-16	16:16:03	56.1	61.4	52.7	86.3	56.1	---	---	56.1	2.44E+07	56.1
2803	16-Sep-16	16:17:03	56.2	59.3	54.2	85.3	56.2	---	---	56.2	2.50E+07	56.2
2804	16-Sep-16	16:18:03	55.1	57.8	51.9	84.8	55.1	---	---	55.1	1.94E+07	55.1
2805	16-Sep-16	16:19:03	55	58.3	51.6	84.1	55	---	---	55	1.90E+07	55.0
2806	16-Sep-16	16:20:03	56.6	60.6	53.5	84.1	56.6	---	---	56.6	2.74E+07	56.6
2807	16-Sep-16	16:21:03	56.9	59	53.9	84.8	56.9	---	---	56.9	2.94E+07	56.9
2808	16-Sep-16	16:22:03	57.6	63.9	54	90.2	57.6	---	---	57.6	3.45E+07	57.6
2809	16-Sep-16	16:23:03	57.3	61.6	53.8	87.3	57.3	---	---	57.3	3.22E+07	57.3
2810	16-Sep-16	16:24:03	56.2	58.3	53.6	83.5	56.2	---	---	56.2	2.50E+07	56.2
2811	16-Sep-16	16:25:03	57.8	62.3	54.4	85.3	57.8	---	---	57.8	3.62E+07	57.8
2812	16-Sep-16	16:26:03	55.7	58.7	53.2	82.8	55.7	---	---	55.7	2.23E+07	55.7
2813	16-Sep-16	16:27:03	56.9	59.9	54.3	87.3	56.9	---	---	56.9	2.94E+07	56.9
2814	16-Sep-16	16:28:03	55.9	61.1	52	82.8	55.9	---	---	55.9	2.33E+07	55.9
2815	16-Sep-16	16:29:03	58.5	67.6	54.6	89.9	58.5	---	---	58.5	4.25E+07	58.5
2816	16-Sep-16	16:30:03	60.4	66.1	55.1	91.3	60.4	---	---	60.4	6.58E+07	60.4
2817	16-Sep-16	16:31:03	59.7	69.5	55.4	88.9	59.7	---	---	59.7	5.60E+07	59.7
2818	16-Sep-16	16:32:03	61.8	73.5	55.4	88.1	61.8	---	---	61.8	9.08E+07	61.8
2819	16-Sep-16	16:33:03	59.8	69.5	54.2	93.5	59.8	---	---	59.8	5.73E+07	59.8
2820	16-Sep-16	16:34:03	55.9	59.1	53.6	85.8	55.9	---	---	55.9	2.33E+07	55.9

2821	16-Sep-16	16:35:03	56.4	62.4	53.4	84.1	56.4	---	---	56.4	2.62E+07	56.4
2822	16-Sep-16	16:36:03	55.3	59.1	53.2	85.8	55.3	---	---	55.3	2.03E+07	55.3
2823	16-Sep-16	16:37:03	56	58.7	52.9	86.8	56	---	---	56	2.39E+07	56.0
2824	16-Sep-16	16:38:03	55.3	58.2	53.3	84.8	55.3	---	---	55.3	2.03E+07	55.3
2825	16-Sep-16	16:39:03	56.1	58.7	54.3	83.5	56.1	---	---	56.1	2.44E+07	56.1
2826	16-Sep-16	16:40:03	57.9	64	54.7	84.8	57.9	---	---	57.9	3.70E+07	57.9
2827	16-Sep-16	16:41:03	56.4	58.8	53.7	85.8	56.4	---	---	56.4	2.62E+07	56.4
2828	16-Sep-16	16:42:03	56.5	58.9	54.2	85.8	56.5	---	---	56.5	2.68E+07	56.5
2829	16-Sep-16	16:43:03	56.8	60.2	54.5	84.1	56.8	---	---	56.8	2.87E+07	56.8
2830	16-Sep-16	16:44:03	59.6	72.3	53.3	96.2	59.6	---	---	59.6	5.47E+07	59.6
2831	16-Sep-16	16:45:03	56.7	65.8	52.5	86.3	56.7	---	---	56.7	2.81E+07	56.7
2832	16-Sep-16	16:46:03	57.5	63.5	54.7	91.6	57.5	---	---	57.5	3.37E+07	57.5
2833	16-Sep-16	16:47:03	55.9	59.9	53.9	82.8	55.9	---	---	55.9	2.33E+07	55.9
2834	16-Sep-16	16:48:03	55.4	58.1	53.1	82.8	55.4	---	---	55.4	2.08E+07	55.4
2835	16-Sep-16	16:49:03	55.5	61	53	84.1	55.5	---	---	55.5	2.13E+07	55.5
2836	16-Sep-16	16:50:03	57.6	65.7	53.6	91.1	57.6	---	---	57.6	3.45E+07	57.6
2837	16-Sep-16	16:51:03	55.5	59	52.8	84.1	55.5	---	---	55.5	2.13E+07	55.5
2838	16-Sep-16	16:52:03	55.1	59	53.4	86.3	55.1	---	---	55.1	1.94E+07	55.1
2839	16-Sep-16	16:53:03	56.4	61.6	51.8	87.7	56.4	---	---	56.4	2.62E+07	56.4
2840	16-Sep-16	16:54:03	56.7	63.3	52.1	86.8	56.7	---	---	56.7	2.81E+07	56.7
2841	16-Sep-16	16:55:03	57.6	60.6	55.5	85.3	57.6	---	---	57.6	3.45E+07	57.6
2842	16-Sep-16	16:56:03	57.1	62.7	54.8	85.8	57.1	---	---	57.1	3.08E+07	57.1
2843	16-Sep-16	16:57:03	57.3	63.4	52.5	90.5	57.3	---	---	57.3	3.22E+07	57.3
2844	16-Sep-16	16:58:03	56.4	57.7	54.4	85.8	56.4	---	---	56.4	2.62E+07	56.4
2845	16-Sep-16	16:59:03	54.6	57.8	52.1	83.5	54.6	---	---	54.6	1.73E+07	54.6
											1.88E+09	57.2
2846	16-Sep-16	17:00:03	57.1	60.2	53.1	88.9	57.1	---	---	57.1	3.08E+07	57.1
2847	16-Sep-16	17:01:03	57	61.6	54.7	84.8	57	---	---	57	3.01E+07	57.0
2848	16-Sep-16	17:02:03	56.2	58.9	54.7	86.3	56.2	---	---	56.2	2.50E+07	56.2
2849	16-Sep-16	17:03:03	58.4	66.9	55.5	96.8	58.4	---	---	58.4	4.15E+07	58.4
2850	16-Sep-16	17:04:03	57.1	62.5	53.9	92.1	57.1	---	---	57.1	3.08E+07	57.1
2851	16-Sep-16	17:05:03	57.9	64.5	53.6	88.5	57.9	---	---	57.9	3.70E+07	57.9
2852	16-Sep-16	17:06:03	56.9	59.2	53.9	85.3	56.9	---	---	56.9	2.94E+07	56.9
2853	16-Sep-16	17:07:03	56.5	59.6	53.2	85.3	56.5	---	---	56.5	2.68E+07	56.5
2854	16-Sep-16	17:08:03	57	66.5	52.7	90.2	57	---	---	57	3.01E+07	57.0
2855	16-Sep-16	17:09:03	55.5	58.5	52.8	93.9	55.5	---	---	55.5	2.13E+07	55.5
2856	16-Sep-16	17:10:03	57.1	65.5	53.1	90.5	57.1	---	---	57.1	3.08E+07	57.1
2857	16-Sep-16	17:11:03	59.3	69.5	54.6	95	59.3	---	---	59.3	5.11E+07	59.3
2858	16-Sep-16	17:12:03	56.3	63.3	52	89.2	56.3	---	---	56.3	2.56E+07	56.3
2859	16-Sep-16	17:13:03	54.8	57.1	53.5	84.8	54.8	---	---	54.8	1.81E+07	54.8
2860	16-Sep-16	17:14:03	54.7	57.3	52.6	86.3	54.7	---	---	54.7	1.77E+07	54.7
2861	16-Sep-16	17:15:03	55.9	59.7	52	87.7	55.9	---	---	55.9	2.33E+07	55.9
2862	16-Sep-16	17:16:03	56	58.5	54.6	86.3	56	---	---	56	2.39E+07	56.0
2863	16-Sep-16	17:17:03	57.6	64	53.5	88.1	57.6	---	---	57.6	3.45E+07	57.6
2864	16-Sep-16	17:18:03	55.9	59.1	52.6	84.8	55.9	---	---	55.9	2.33E+07	55.9
2865	16-Sep-16	17:19:03	55.9	58	53.8	85.8	55.9	---	---	55.9	2.33E+07	55.9
2866	16-Sep-16	17:20:03	55.7	62.6	53.6	86.3	55.7	---	---	55.7	2.23E+07	55.7
2867	16-Sep-16	17:21:03	56.3	62.3	54.2	85.3	56.3	---	---	56.3	2.56E+07	56.3
2868	16-Sep-16	17:22:03	54.9	57.9	52.8	88.5	54.9	---	---	54.9	1.85E+07	54.9
2869	16-Sep-16	17:23:03	56.6	59.8	54.2	87.7	56.6	---	---	56.6	2.74E+07	56.6
2870	16-Sep-16	17:24:03	55.7	58.2	54.1	85.3	55.7	---	---	55.7	2.23E+07	55.7
2871	16-Sep-16	17:25:03	55.5	57.8	53	86.8	55.5	---	---	55.5	2.13E+07	55.5
2872	16-Sep-16	17:26:03	54.9	56.8	53	86.8	54.9	---	---	54.9	1.85E+07	54.9
2873	16-Sep-16	17:27:03	54.7	59.5	52.4	84.8	54.7	---	---	54.7	1.77E+07	54.7
2874	16-Sep-16	17:28:03	54.6	59.9	52.5	83.5	54.6	---	---	54.6	1.73E+07	54.6
2875	16-Sep-16	17:29:03	54.7	56.6	52.8	83.5	54.7	---	---	54.7	1.77E+07	54.7
2876	16-Sep-16	17:30:03	55.1	57.4	53.6	84.1	55.1	---	---	55.1	1.94E+07	55.1
2877	16-Sep-16	17:31:03	55.9	58.5	53.6	85.8	55.9	---	---	55.9	2.33E+07	55.9
2878	16-Sep-16	17:32:03	55.4	57.2	53.4	86.8	55.4	---	---	55.4	2.08E+07	55.4
2879	16-Sep-16	17:33:03	57.2	66.3	53.5	91.1	57.2	---	---	57.2	3.15E+07	57.2
2880	16-Sep-16	17:34:03	57.5	59.4	55.1	85.3	57.5	---	---	57.5	3.37E+07	57.5
2881	16-Sep-16	17:35:03	54.6	57.1	52.2	85.8	54.6	---	---	54.6	1.73E+07	54.6
2882	16-Sep-16	17:36:03	55	59.4	52.5	84.8	55	---	---	55	1.90E+07	55.0
2883	16-Sep-16	17:37:03	56.4	64.7	53.2	88.5	56.4	---	---	56.4	2.62E+07	56.4
2884	16-Sep-16	17:38:03	57.1	65.1	52.7	88.5	57.1	---	---	57.1	3.08E+07	57.1
2885	16-Sep-16	17:39:03	55.9	57.8	53.9	86.3	55.9	---	---	55.9	2.33E+07	55.9
2886	16-Sep-16	17:40:03	54.4	56.6	52.5	84.1	54.4	---	---	54.4	1.65E+07	54.4
2887	16-Sep-16	17:41:03	56.7	59.9	53.6	88.5	56.7	---	---	56.7	2.81E+07	56.7
2888	16-Sep-16	17:42:03	57	63.6	53.7	91.3	57	---	---	57	3.01E+07	57.0
2889	16-Sep-16	17:43:03	55.8	59.6	53.8	84.1	55.8	---	---	55.8	2.28E+07	55.8
2890	16-Sep-16	17:44:03	56.3	59.2	53.3	86.3	56.3	---	---	56.3	2.56E+07	56.3
2891	16-Sep-16	17:45:03	56.6	58.5	55.1	83.5	56.6	---	---	56.6	2.74E+07	56.6
2892	16-Sep-16	17:46:03	57	61.4	54	85.8	57	---	---	57	3.01E+07	57.0
2893	16-Sep-16	17:47:03	54.5	57.7	51.3	88.1	54.5	---	---	54.5	1.69E+07	54.5
2894	16-Sep-16	17:48:03	55.9	59.2	52.6	87.3	55.9	---	---	55.9	2.33E+07	55.9
2895	16-Sep-16	17:49:03	52.1	55.4	49.9	83.5	52.1	---	---	52.1	9.73E+06	52.1
2896	16-Sep-16	17:50:03	52.8	54.7	50.4	83.5	52.8	---	---	52.8	1.14E+07	52.8
2897	16-Sep-16	17:51:03	57.1	59.9	52.5	86.8	57.1	---	---	57.1	3.08E+07	57.1
2898	16-Sep-16	17:52:03	58.9	69.6	53	93.7	58.9	---	---	58.9	4.66E+07	58.9
2899	16-Sep-16	17:53:03	56.3	60.9	52.4	91.1	56.3	---	---	56.3	2.56E+07	56.3
2900	16-Sep-16	17:54:03	55.3	57.8	51.3	85.3	55.3	---	---	55.3	2.03E+07	55.3
2901	16-Sep-16	17:55:03	53.5	57.2	50.6	84.8	53.5	---	---	53.5	1.34E+07	53.5
2902	16-Sep-16	17:56:03	55.4	57.9	52.7	84.8	55.4	---	---	55.4	2.08E+07	55.4
2903	16-Sep-16	17:57:03	54.8	62.9	50.9	84.1	54.8	---	---	54.8	1.81E+07	54.8

2904	16-Sep-16	17:58:03	52.9	56.4	49.9	82.8	52.9	---	---	52.9	1.17E+07	52.9
											1.46E+09	56.1

Statistics

Level (dB)	Count	Percent
Under	0	0.00%
37	313	0.00%
37.5	443	0.00%
38	596	0.00%
38.5	935	0.00%
39	2020	0.00%
39.5	3437	0.00%
40	3805	0.00%
40.5	4965	0.10%
41	6065	0.10%
41.5	8510	0.10%
42	9650	0.10%
42.5	10061	0.10%
43	11012	0.10%
43.5	12130	0.10%
44	14191	0.20%
44.5	15151	0.20%
45	16952	0.20%
45.5	18613	0.20%
46	22020	0.30%
46.5	25507	0.30%
47	27042	0.30%
47.5	29576	0.30%
48	33908	0.40%
48.5	35405	0.40%
49	37614	0.40%
49.5	42433	0.50%
50	47090	0.50%
50.5	53834	0.60%
51	62448	0.70%
51.5	74385	0.90%
52	91820	1.10%
52.5	107248	1.20%
53	137133	1.60%
53.5	174121	2.00%
54	205372	2.40%
54.5	245107	2.80%
55	288293	3.30%
55.5	324386	3.70%
56	354689	4.10%
56.5	368886	4.20%
57	374990	4.30%
57.5	375545	4.30%
58	367882	4.20%
58.5	354780	4.10%
59	361243	4.10%
59.5	378236	4.30%
60	388512	4.50%
60.5	410791	4.70%
61	424207	4.90%
61.5	420666	4.80%
62	397354	4.60%
62.5	361410	4.10%
63	307385	3.50%
63.5	249086	2.90%
64	188199	2.20%
64.5	138172	1.60%
65	96170	1.10%
65.5	62100	0.70%
66	40686	0.50%
66.5	27412	0.30%
67	17268	0.20%
67.5	12315	0.10%
68	8891	0.10%
68.5	5853	0.10%
69	4083	0.00%
69.5	2785	0.00%
70	2235	0.00%
70.5	1656	0.00%
71	1581	0.00%
71.5	948	0.00%
72	883	0.00%
72.5	679	0.00%
73	514	0.00%
73.5	509	0.00%
74	527	0.00%
74.5	344	0.00%

75	187	0.00%
75.5	161	0.00%
76	178	0.00%
76.5	110	0.00%
77	67	0.00%
77.5	48	0.00%
78	61	0.00%
78.5	56	0.00%
79	32	0.00%
79.5	49	0.00%
80	46	0.00%
80.5	49	0.00%
81	22	0.00%
81.5	31	0.00%
82	25	0.00%
Over	0	0.00%
Total Count	8714185	

Ln Data

Date	Time	L10	L30	L50	L70	L90	Overload?	Mic Discor	Status Code
14-Sep-16	17:35:03	59	57.5	56	55	53.5	No	No	
14-Sep-16	18:35:03	62	60.5	59	58	56.5	No	No	
14-Sep-16	19:35:03	62.5	61	60	59	57.5	No	No	
14-Sep-16	20:35:03	61.5	59.5	58.5	57	55	No	No	
14-Sep-16	21:35:03	62	59.5	58	57	54.5	No	No	
14-Sep-16	22:35:03	59.5	57.5	56	54	52	No	No	
14-Sep-16	23:35:03	58	56	54.5	52.5	49.5	No	No	
15-Sep-16	0:35:03	58	55	52.5	50	45.5	No	No	
15-Sep-16	1:35:03	57.5	54.5	51.5	48	43.5	No	No	
15-Sep-16	2:35:03	59.5	55.5	53	49.5	44.5	No	No	
15-Sep-16	3:35:03	60.5	57.5	55.5	53	48.5	No	No	
15-Sep-16	4:35:03	63	60.5	59	57.5	55	No	No	
15-Sep-16	5:35:03	64.5	63	62	61	59.5	No	No	
15-Sep-16	6:35:03	64.5	63	62	61.5	60	No	No	
15-Sep-16	7:35:03	65.5	63.5	63	62	61	No	No	
15-Sep-16	8:35:03	64	62.5	61.5	60.5	59	No	No	
15-Sep-16	9:35:03	64	62.5	61.5	61	59.5	No	No	
15-Sep-16	10:35:03	64.5	63	62	61	59.5	No	No	
15-Sep-16	11:35:03	65	63.5	62.5	62	60.5	No	No	
15-Sep-16	12:35:03	65	63.5	62.5	61.5	60.5	No	No	
15-Sep-16	13:35:03	65	63.5	62.5	61.5	60.5	No	No	
15-Sep-16	14:35:03	61	59	58	56.5	54.5	No	No	
15-Sep-16	15:35:03	59.5	58	57	56	54.5	No	No	
15-Sep-16	16:35:03	59	57.5	56.5	55.5	54	No	No	
15-Sep-16	17:35:03	59	57	56	55	53.5	No	No	
15-Sep-16	18:35:03	61.5	60	58.5	57	55.5	No	No	
15-Sep-16	19:35:03	62.5	61	60	59	58	No	No	
15-Sep-16	20:35:03	62	60	59	58	56.5	No	No	
15-Sep-16	21:35:03	61	59	58	56.5	55	No	No	
15-Sep-16	22:35:03	60	58	56.5	55.5	53	No	No	
15-Sep-16	23:35:03	60	57.5	56.5	54.5	51.5	No	No	
16-Sep-16	0:35:03	58.5	55.5	53.5	51.5	47.5	No	No	
16-Sep-16	1:35:03	58.5	55	52.5	50	45.5	No	No	
16-Sep-16	2:35:03	59.5	55.5	53.5	50.5	46.5	No	No	
16-Sep-16	3:35:03	61	58	56	53.5	48.5	No	No	
16-Sep-16	4:35:03	63	60.5	59	57.5	55	No	No	
16-Sep-16	5:35:03	64.5	62.5	61.5	60.5	59	No	No	
16-Sep-16	6:35:03	64.5	63	62	61	60	No	No	
16-Sep-16	7:35:03	65	63.5	62.5	61.5	60.5	No	No	
16-Sep-16	8:35:03	64	62.5	61.5	60.5	59.5	No	No	
16-Sep-16	9:35:03	64	62.5	61.5	60.5	59.5	No	No	
16-Sep-16	10:35:03	64	62	61	60	59	No	No	
16-Sep-16	11:35:03	63	62	61	60	58	No	No	
16-Sep-16	12:35:03	60.5	59	58	57	56	No	No	
16-Sep-16	13:35:03	59.5	58	57	56	54.5	No	No	
16-Sep-16	14:35:03	59	57	56	55	54	No	No	
16-Sep-16	15:35:03	59	57.5	56.5	55.5	54	No	No	
16-Sep-16	16:35:03	58	56.5	55.5	54.5	53.5	No	No	

ATTACHMENT B

Calibration and Existing TNM Input and Output Data

Ldn Consulting
J. Louden

6 March 2017
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Senior Housing
RUN: Existing/Calibraton
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
MS-2	25	1	66.3	68.6	65	2.3	12	Snd Lvl	68.6	0.0	5	-5.0
MS-3	26	1	69.0	71.2	65	2.2	12	Snd Lvl	71.2	0.0	5	-5.0
MS-1	27	1	73.9	76.1	65	2.2	12	Snd Lvl	76.1	0.0	5	-5.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	3	0.0	0.0	0.0
All Impacted	3	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Ldn Consulting 6 March 2017
J. Louden TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Senior Housing
RUN: Existing/Calibraton

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
I-SB-OS	36.0	point23	23	6,253,122.5	1,942,302.0	130.00				Average	
		point22	22	6,253,145.5	1,942,106.6	129.00				Average	
		point21	21	6,253,174.0	1,941,871.0	129.00				Average	
		point20	20	6,253,204.0	1,941,617.4	129.00				Average	
		point19	19	6,253,231.0	1,941,392.1	127.00				Average	
		point18	18	6,253,256.0	1,941,210.4	125.00				Average	
		point17	17	6,253,289.0	1,940,969.1	124.00				Average	
		point16	16	6,253,308.5	1,940,821.1	123.00				Average	
		point15	15	6,253,325.0	1,940,692.9	123.00				Average	
		point14	14	6,253,342.0	1,940,561.4	122.00				Average	
		point13	13	6,253,360.0	1,940,426.9	120.00				Average	
		point12	12	6,253,374.0	1,940,316.1	120.00				Average	
		point11	11	6,253,397.0	1,940,140.1	119.00				Average	
		point10	10	6,253,432.0	1,939,875.6	115.00				Average	
		point9	9	6,253,471.0	1,939,580.0	111.00					
I-SB-IS	36.0	point38	38	6,253,162.5	1,942,309.6	130.00				Average	
		point37	37	6,253,186.0	1,942,114.2	129.00				Average	
		point36	36	6,253,214.0	1,941,878.6	129.00				Average	
		point35	35	6,253,244.5	1,941,625.0	129.00				Average	
		point34	34	6,253,271.5	1,941,399.8	127.00				Average	
		point33	33	6,253,296.5	1,941,218.0	125.00				Average	
		point32	32	6,253,329.5	1,940,976.8	124.00				Average	
		point31	31	6,253,348.5	1,940,828.8	123.00				Average	
		point30	30	6,253,365.5	1,940,700.5	123.00				Average	
		point29	29	6,253,382.5	1,940,569.0	122.00				Average	

		point28	28	6,253,400.0	1,940,434.5	120.00				Average	
		point27	27	6,253,414.5	1,940,323.8	120.00				Average	
		point26	26	6,253,437.5	1,940,147.8	119.00				Average	
		point25	25	6,253,472.5	1,939,883.2	115.00				Average	
		point24	24	6,253,511.5	1,939,587.6	111.00					
I-NB-IS	36.0	point39	39	6,253,569.5	1,939,630.6	111.00				Average	
		point40	40	6,253,530.5	1,939,926.4	115.00				Average	
		point41	41	6,253,495.5	1,940,190.9	119.00				Average	
		point42	42	6,253,472.5	1,940,366.9	120.00				Average	
		point43	43	6,253,458.0	1,940,477.6	120.00				Average	
		point44	44	6,253,440.5	1,940,612.1	122.00				Average	
		point45	45	6,253,423.5	1,940,743.6	123.00				Average	
		point46	46	6,253,406.5	1,940,871.9	123.00				Average	
		point47	47	6,253,387.5	1,941,019.9	124.00				Average	
		point48	48	6,253,354.5	1,941,261.1	125.00				Average	
		point49	49	6,253,329.5	1,941,442.9	127.00				Average	
		point50	50	6,253,302.5	1,941,668.1	129.00				Average	
		point51	51	6,253,272.0	1,941,921.8	129.00				Average	
		point52	52	6,253,244.0	1,942,157.4	129.00				Average	
		point53	53	6,253,220.5	1,942,352.8	130.00					
I-NB-OS	36.0	point54	54	6,253,610.0	1,939,593.9	111.00				Average	
		point55	55	6,253,571.0	1,939,889.5	115.00				Average	
		point56	56	6,253,536.0	1,940,154.0	119.00				Average	
		point57	57	6,253,513.0	1,940,330.0	120.00				Average	
		point58	58	6,253,498.5	1,940,440.8	120.00				Average	
		point59	59	6,253,481.0	1,940,575.2	122.00				Average	
		point60	60	6,253,464.0	1,940,706.8	123.00				Average	
		point61	61	6,253,447.5	1,940,835.0	123.00				Average	
		point62	62	6,253,428.0	1,940,983.0	124.00				Average	
		point63	63	6,253,395.0	1,941,224.2	125.00				Average	
		point64	64	6,253,370.0	1,941,406.0	127.00				Average	
		point65	65	6,253,343.0	1,941,631.2	129.00				Average	
		point66	66	6,253,313.0	1,941,884.9	129.00				Average	
		point67	67	6,253,284.5	1,942,120.5	129.00				Average	
		point68	68	6,253,261.0	1,942,315.9	130.00					
Genevieve St	45.0	point69	69	6,253,890.0	1,941,215.0	140.00				Average	
		point70	70	6,253,810.5	1,941,216.2	134.00				Average	
		point71	71	6,253,752.0	1,941,217.1	129.50				Average	
		point72	72	6,253,703.5	1,941,218.0	126.00				Average	

		point73	73	6,253,615.0	1,941,219.4	119.00				Average	
		point74	74	6,253,575.0	1,941,220.0	116.00				Average	
		point75	75	6,253,555.5	1,941,220.2	114.00				Average	
		point76	76	6,253,516.0	1,941,220.9	114.00					
Marine View Ave	45.0	point77	77	6,253,801.0	1,940,160.4	179.00				Average	
		point78	78	6,253,834.0	1,940,222.0	179.00				Average	
		point79	79	6,253,852.5	1,940,273.2	179.00				Average	
		point80	80	6,253,866.0	1,940,352.0	175.00				Average	
		point81	81	6,253,869.0	1,940,446.0	170.00				Average	
		point82	82	6,253,870.0	1,940,604.8	155.00				Average	
		point83	83	6,253,882.0	1,940,913.0	140.00				Average	
		point84	84	6,253,894.0	1,941,361.0	140.00				Average	
		point85	85	6,253,895.0	1,941,552.0	148.50				Average	
		point86	86	6,253,892.0	1,941,572.1	149.00				Average	
		point87	87	6,253,879.0	1,941,595.9	149.00				Average	
		point88	88	6,253,857.0	1,941,612.5	150.00				Average	
		point89	89	6,253,838.0	1,941,618.0	150.00					
SB-HOV	12.0	point105	105	6,253,175.5	1,942,354.5	130.00				Average	
		point104	104	6,253,199.0	1,942,159.1	129.00				Average	
		point103	103	6,253,227.0	1,941,923.5	129.00				Average	
		point102	102	6,253,257.5	1,941,669.9	129.00				Average	
		point101	101	6,253,284.0	1,941,444.6	127.00				Average	
		point100	100	6,253,309.0	1,941,262.9	125.00				Average	
		point99	99	6,253,342.0	1,941,021.6	124.00				Average	
		point98	98	6,253,361.5	1,940,873.6	123.00				Average	
		point97	97	6,253,378.0	1,940,745.4	123.00				Average	
		point96	96	6,253,395.5	1,940,613.9	122.00				Average	
		point95	95	6,253,413.0	1,940,479.4	120.00				Average	
		point94	94	6,253,427.5	1,940,368.6	120.00				Average	
		point93	93	6,253,450.0	1,940,192.6	119.00				Average	
		point92	92	6,253,485.0	1,939,928.1	115.00				Average	
		point91	91	6,253,524.0	1,939,632.4	111.00					
NB-HOV	12.0	point106	106	6,253,553.5	1,939,632.4	111.00				Average	
		point107	107	6,253,514.5	1,939,928.1	115.00				Average	
		point108	108	6,253,479.5	1,940,192.6	119.00				Average	
		point109	109	6,253,457.0	1,940,368.6	120.00				Average	
		point110	110	6,253,442.5	1,940,479.4	120.00				Average	
		point111	111	6,253,425.0	1,940,613.9	122.00				Average	
		point112	112	6,253,407.5	1,940,745.4	123.00				Average	

		point113	113	6,253,391.0	1,940,873.6	123.00				Average	
		point114	114	6,253,371.5	1,941,021.6	124.00				Average	
		point115	115	6,253,338.5	1,941,262.9	125.00				Average	
		point116	116	6,253,313.5	1,941,444.6	127.00				Average	
		point117	117	6,253,287.0	1,941,669.9	129.00				Average	
		point118	118	6,253,256.5	1,941,923.5	129.00				Average	
		point119	119	6,253,228.5	1,942,159.1	129.00				Average	
		point120	120	6,253,205.0	1,942,354.5	130.00					

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J. Louden TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: Senior Housing
RUN: Existing/Calibraton

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
I-SB-OS	point23	23	6583	65	315	65	302	55	0	0	0	0
	point22	22	6583	65	315	65	302	55	0	0	0	0
	point21	21	6583	65	315	65	302	55	0	0	0	0
	point20	20	6583	65	315	65	302	55	0	0	0	0
	point19	19	6583	65	315	65	302	55	0	0	0	0
	point18	18	6583	65	315	65	302	55	0	0	0	0
	point17	17	6583	65	315	65	302	55	0	0	0	0
	point16	16	6583	65	315	65	302	55	0	0	0	0
	point15	15	6583	65	315	65	302	55	0	0	0	0
	point14	14	6583	65	315	65	302	55	0	0	0	0
	point13	13	6583	65	315	65	302	55	0	0	0	0
	point12	12	6583	65	315	65	302	55	0	0	0	0
	point11	11	6583	65	315	65	302	55	0	0	0	0
	point10	10	6583	65	315	65	302	55	0	0	0	0
	point9	9										
I-SB-IS	point38	38	6990	65	210	65	0	0	0	0	0	0
	point37	37	6990	65	210	65	0	0	0	0	0	0
	point36	36	6990	65	210	65	0	0	0	0	0	0
	point35	35	6990	65	210	65	0	0	0	0	0	0
	point34	34	6990	65	210	65	0	0	0	0	0	0
	point33	33	6990	65	210	65	0	0	0	0	0	0
	point32	32	6990	65	210	65	0	0	0	0	0	0
	point31	31	6990	65	210	65	0	0	0	0	0	0

	point30	30	6990	65	210	65	0	0	0	0	0	0
	point29	29	6990	65	210	65	0	0	0	0	0	0
	point28	28	6990	65	210	65	0	0	0	0	0	0
	point27	27	6990	65	210	65	0	0	0	0	0	0
	point26	26	6990	65	210	65	0	0	0	0	0	0
	point25	25	6990	65	210	65	0	0	0	0	0	0
	point24	24										
I-NB-IS	point39	39	6990	65	210	65	0	0	0	0	0	0
	point40	40	6990	65	210	65	0	0	0	0	0	0
	point41	41	6990	65	210	65	0	0	0	0	0	0
	point42	42	6990	65	210	65	0	0	0	0	0	0
	point43	43	6990	65	210	65	0	0	0	0	0	0
	point44	44	6990	65	210	65	0	0	0	0	0	0
	point45	45	6990	65	210	65	0	0	0	0	0	0
	point46	46	6990	65	210	65	0	0	0	0	0	0
	point47	47	6990	65	210	65	0	0	0	0	0	0
	point48	48	6990	65	210	65	0	0	0	0	0	0
	point49	49	6990	65	210	65	0	0	0	0	0	0
	point50	50	6990	65	210	65	0	0	0	0	0	0
	point51	51	6990	65	210	65	0	0	0	0	0	0
	point52	52	6990	65	210	65	0	0	0	0	0	0
	point53	53										
I-NB-OS	point54	54	6583	65	315	65	302	55	0	0	0	0
	point55	55	6583	65	315	65	302	55	0	0	0	0
	point56	56	6583	65	315	65	302	55	0	0	0	0
	point57	57	6583	65	315	65	302	55	0	0	0	0
	point58	58	6583	65	315	65	302	55	0	0	0	0
	point59	59	6583	65	315	65	302	55	0	0	0	0
	point60	60	6583	65	315	65	302	55	0	0	0	0
	point61	61	6583	65	315	65	302	55	0	0	0	0
	point62	62	6583	65	315	65	302	55	0	0	0	0
	point63	63	6583	65	315	65	302	55	0	0	0	0
	point64	64	6583	65	315	65	302	55	0	0	0	0
	point65	65	6583	65	315	65	302	55	0	0	0	0
	point66	66	6583	65	315	65	302	55	0	0	0	0
	point67	67	6583	65	315	65	302	55	0	0	0	0

	point68	68										
Genevieve St	point69	69	3	25	1	25	0	0	0	0	0	0
	point70	70	3	25	1	25	0	0	0	0	0	0
	point71	71	3	25	1	25	0	0	0	0	0	0
	point72	72	3	25	1	25	0	0	0	0	0	0
	point73	73	3	25	1	25	0	0	0	0	0	0
	point74	74	3	25	1	25	0	0	0	0	0	0
	point75	75	3	25	1	25	0	0	0	0	0	0
	point76	76										
Marine View Ave	point77	77	21	25	1	25	1	25	0	0	0	0
	point78	78	21	25	1	25	1	25	0	0	0	0
	point79	79	21	25	1	25	1	25	0	0	0	0
	point80	80	21	25	1	25	1	25	0	0	0	0
	point81	81	21	25	1	25	1	25	0	0	0	0
	point82	82	21	25	1	25	1	25	0	0	0	0
	point83	83	21	25	1	25	1	25	0	0	0	0
	point84	84	21	25	1	25	1	25	0	0	0	0
	point85	85	21	25	1	25	1	25	0	0	0	0
	point86	86	21	25	1	25	1	25	0	0	0	0
	point87	87	21	25	1	25	1	25	0	0	0	0
	point88	88	21	25	1	25	1	25	0	0	0	0
	point89	89										
SB-HOV	point105	105	1500	65	0	0	0	0	0	0	0	0
	point104	104	1500	65	0	0	0	0	0	0	0	0
	point103	103	1500	65	0	0	0	0	0	0	0	0
	point102	102	1500	65	0	0	0	0	0	0	0	0
	point101	101	1500	65	0	0	0	0	0	0	0	0
	point100	100	1500	65	0	0	0	0	0	0	0	0
	point99	99	1500	65	0	0	0	0	0	0	0	0
	point98	98	1500	65	0	0	0	0	0	0	0	0
	point97	97	1500	65	0	0	0	0	0	0	0	0
	point96	96	1500	65	0	0	0	0	0	0	0	0
	point95	95	1500	65	0	0	0	0	0	0	0	0
	point94	94	1500	65	0	0	0	0	0	0	0	0
	point93	93	1500	65	0	0	0	0	0	0	0	0
	point92	92	1500	65	0	0	0	0	0	0	0	0

	point91	91										
NB-HOV	point106	106	1500	65	0	0	0	0	0	0	0	0
	point107	107	1500	65	0	0	0	0	0	0	0	0
	point108	108	1500	65	0	0	0	0	0	0	0	0
	point109	109	1500	65	0	0	0	0	0	0	0	0
	point110	110	1500	65	0	0	0	0	0	0	0	0
	point111	111	1500	65	0	0	0	0	0	0	0	0
	point112	112	1500	65	0	0	0	0	0	0	0	0
	point113	113	1500	65	0	0	0	0	0	0	0	0
	point114	114	1500	65	0	0	0	0	0	0	0	0
	point115	115	1500	65	0	0	0	0	0	0	0	0
	point116	116	1500	65	0	0	0	0	0	0	0	0
	point117	117	1500	65	0	0	0	0	0	0	0	0
	point118	118	1500	65	0	0	0	0	0	0	0	0
	point119	119	1500	65	0	0	0	0	0	0	0	0
	point120	120										

Ldn Consulting			6 March 2017	
J. Louden			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	Senior Housing			
RUN:	Existing/Calibraton			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line2	3	6,253,300.5	1,942,208.6	130.00
	4	6,253,326.5	1,941,993.8	128.00
	5	6,253,359.0	1,941,717.8	126.00
	6	6,253,373.5	1,941,612.2	125.00
	7	6,253,385.0	1,941,523.8	124.00
	8	6,253,398.0	1,941,418.2	124.00
	9	6,253,406.0	1,941,327.1	124.00
	10	6,253,424.0	1,941,230.8	123.00
	11	6,253,434.5	1,941,133.1	122.00
	12	6,253,443.5	1,941,032.9	122.00
	13	6,253,455.5	1,940,945.6	122.00
	14	6,253,465.5	1,940,858.4	122.00
	15	6,253,484.0	1,940,704.8	122.00
	16	6,253,498.5	1,940,605.8	122.00
	17	6,253,511.5	1,940,480.8	120.00
	18	6,253,557.0	1,940,131.8	115.00
	19	6,253,610.0	1,939,741.1	111.00
	20	6,253,624.5	1,939,647.4	111.00
Terrain Line3	21	6,253,641.5	1,940,542.2	145.00
	22	6,253,633.5	1,940,537.9	144.00
	23	6,253,624.5	1,940,535.2	143.00
	24	6,253,611.0	1,940,535.5	142.00
	25	6,253,595.5	1,940,535.2	141.00
	26	6,253,582.5	1,940,536.2	140.00

	27	6,253,575.5	1,940,537.5	139.00
	28	6,253,558.0	1,940,542.9	138.00
	29	6,253,549.0	1,940,546.8	137.00
	30	6,253,542.0	1,940,552.1	136.00
	31	6,253,532.0	1,940,568.4	135.00
	32	6,253,529.5	1,940,603.6	133.00
	33	6,253,524.5	1,940,664.0	131.00
	34	6,253,511.0	1,940,873.6	116.00
	35	6,253,509.0	1,940,941.0	114.00
	36	6,253,499.0	1,941,018.6	111.00
	37	6,253,488.5	1,941,091.6	109.00
	38	6,253,481.5	1,941,164.5	112.00
	39	6,253,477.5	1,941,231.6	112.00
Terrain Line5	46	6,253,653.5	1,940,868.4	121.00
	47	6,253,654.5	1,940,908.8	121.00
	48	6,253,656.0	1,940,980.5	121.00
	49	6,253,658.5	1,941,074.9	121.00
Terrain Line6	50	6,253,647.5	1,940,816.9	122.00
	51	6,253,649.0	1,940,846.0	122.00
	52	6,253,650.5	1,940,867.5	122.00
Terrain Line7	53	6,253,648.0	1,940,818.9	122.00
	54	6,253,648.5	1,940,813.2	122.00
	55	6,253,648.0	1,940,799.8	122.00
	56	6,253,647.0	1,940,780.9	122.00
	57	6,253,645.5	1,940,750.8	122.00
	58	6,253,643.0	1,940,705.9	122.00
	59	6,253,642.0	1,940,673.9	123.00
Terrain Line16	129	6,253,777.5	1,941,106.9	130.00
	130	6,253,785.5	1,941,109.9	130.00
	131	6,253,791.5	1,941,122.4	130.00
	132	6,253,792.5	1,941,152.1	130.00
	133	6,253,788.0	1,941,177.8	130.00
	134	6,253,781.5	1,941,177.4	130.00
	135	6,253,752.0	1,941,177.9	130.00
Terrain Line17	136	6,253,862.5	1,941,186.1	140.00
	137	6,253,840.5	1,941,198.1	138.00

	138	6,253,824.0	1,941,196.1	137.00
	139	6,253,808.5	1,941,191.4	136.00
	140	6,253,802.0	1,941,147.1	136.00
	141	6,253,803.0	1,941,119.9	136.00
	142	6,253,803.5	1,941,116.4	136.00
	143	6,253,806.5	1,941,112.9	136.00
	144	6,253,813.0	1,941,110.1	136.00
	145	6,253,813.5	1,941,108.0	136.00
	146	6,253,812.5	1,941,096.9	136.00
Terrain Line22	204	6,253,526.5	1,940,540.2	122.00
	205	6,253,509.0	1,940,733.4	122.00
	206	6,253,496.0	1,940,959.5	122.00
	207	6,253,470.5	1,941,150.1	122.00
	208	6,253,460.5	1,941,279.8	122.00
	209	6,253,399.5	1,941,620.2	122.00

Ldn Consulting 6 March 2017
J. Louden TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: Senior Housing
RUN: Existing/Calibraton

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
MS-2	25	1	6,253,500.0	1,941,155.5	108.00	5.00	66.30	65	12.0	5.0	Y
MS-3	26	1	6,253,810.5	1,941,154.2	133.00	5.00	69.00	65	12.0	5.0	Y
MS-1	27	1	6,253,586.0	1,940,726.5	120.50	5.00	73.90	65	12.0	5.0	Y

Ldn Consulting 6 March 2017
J. Louden TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: Senior Housing
RUN: Existing/Calibraton

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht Perturbs			On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
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Ldn Consulting 6 March 2017
J. Louden TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: Senior Housing
RUN: Existing/Calibraton
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc LAeq1h	Noise Reduction Calc	Noise Reduction Goal	Noise Reduction Calc-Goal	Barrier Reviewed	Important Segments Name	Important Segments No.	Important Segments Height	Partial LAeq1h
		dBA	dB	dB	dB				ft	dBA
MS-2	25	68.6	0.0	5	-5.0					
MS-3	26	71.2	0.0	5	-5.0					
MS-1	27	76.1	-0.0	5	-5.0					
Total Cost, All Barriers (including additional cost(s))					$0					

Ldn Consulting			6 March 2017		
J. Louden			TNM 2.5		
INPUT: "STRUCTURE" BARRIERS					
PROJECT/CONTRACT:	Senior Housing				
RUN:	Existing/Calibraton				
Barrier	Segments		Shielded Roadways	Segments	
Name	Name	No.	Name	Name	No.
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Ldn Consulting			6 March 2017		
J. Louden			TNM 2.5		
INPUT: RECEIVER ADJUSTMENT FACTORS					
PROJECT/CONTRACT:	Senior Housing				
RUN:	Existing/Calibraton				
Receiver					
Name	No.	Individual Roadway Segment Adjustment Factors			
		Roadway	Segment		
		Name	Name	No.	Adj. Factor
					dB
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ATTACHMENT C

Interim TNM Input and Output Data

LDN 6 March 2017
J. Louden TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F-1	24	1	0.0	70.0	65	70.0	12	Snd Lvl	70.0	0.0	5	-5.0
F-2	25	1	0.0	74.3	65	74.3	12	Snd Lvl	74.3	0.0	5	-5.0
F-3	26	1	0.0	78.1	65	78.1	12	Snd Lvl	78.1	0.0	5	-5.0
F-4	27	1	0.0	78.5	65	78.5	12	Snd Lvl	78.5	0.0	5	-5.0
F-5	28	1	0.0	78.9	65	78.9	12	Snd Lvl	78.9	0.0	5	-5.0
F-6	29	1	0.0	81.2	65	81.2	12	Snd Lvl	81.2	0.0	5	-5.0
F-7	30	1	0.0	77.3	65	77.3	12	Snd Lvl	77.3	0.0	5	-5.0
F-8	31	1	0.0	69.6	65	69.6	12	Snd Lvl	69.6	0.0	5	-5.0
F-9	33	1	0.0	70.2	65	70.2	12	Snd Lvl	65.1	5.1	5	0.1
F-10	34	1	0.0	66.8	65	66.8	12	Snd Lvl	66.2	0.6	5	-4.4
E-1	36	1	0.0	63.2	65	63.2	12	----	63.2	0.0	5	-5.0
E-2	37	1	0.0	63.3	65	63.3	12	----	63.3	0.0	5	-5.0
E-3	38	1	0.0	55.0	65	55.0	12	----	55.0	0.0	5	-5.0
E-4	39	1	0.0	58.1	65	58.1	12	----	58.0	0.1	5	-4.9
E-5	40	1	0.0	63.3	65	63.3	12	----	63.3	0.0	5	-5.0
E-6	41	1	0.0	63.2	65	63.2	12	----	63.2	0.0	5	-5.0
E-7	42	1	0.0	63.0	65	63.0	12	----	63.0	0.0	5	-5.0
E-8	43	1	0.0	58.7	65	58.7	12	----	58.7	0.0	5	-5.0
E-9	44	1	0.0	64.0	65	64.0	12	----	63.9	0.1	5	-4.9
E-10	45	1	0.0	63.9	65	63.9	12	----	63.8	0.1	5	-4.9
E-11	47	1	0.0	73.8	65	73.8	12	Snd Lvl	65.3	8.5	5	3.5
E-12	48	1	0.0	72.1	65	72.1	12	Snd Lvl	65.4	6.7	5	1.7
F-1B	51	1	0.0	75.8	65	75.8	12	Snd Lvl	75.8	0.0	5	-5.0
F-2B	52	1	0.0	79.5	65	79.5	12	Snd Lvl	79.5	0.0	5	-5.0

F-3B	53	1	0.0	81.6	65	81.6	12	Snd Lvl	81.6	0.0	5	-5.0
F-4B	54	1	0.0	81.8	65	81.8	12	Snd Lvl	81.8	0.0	5	-5.0
F-5B	55	1	0.0	81.8	65	81.8	12	Snd Lvl	81.8	0.0	5	-5.0
F-6B	56	1	0.0	82.7	65	82.7	12	Snd Lvl	82.7	0.0	5	-5.0
F-7B	57	1	0.0	84.0	65	84.0	12	Snd Lvl	84.0	0.0	5	-5.0
F-8B	58	1	0.0	83.3	65	83.3	12	Snd Lvl	83.3	0.0	5	-5.0
F-9B	59	1	0.0	72.0	65	72.0	12	Snd Lvl	66.4	5.6	5	0.6
F-10B	60	1	0.0	67.6	65	67.6	12	Snd Lvl	67.0	0.6	5	-4.4

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	32	0.0	0.9	8.5
All Impacted	22	0.0	1.2	8.5
All that meet NR Goal	4	5.1	6.5	8.5

LDN 6 March 2017
J. Louden TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
I-SB-OS	36.0	point23	23	6,253,122.5	1,942,302.0	130.00				Average	
		point22	22	6,253,145.5	1,942,106.6	129.00				Average	
		point21	21	6,253,174.0	1,941,871.0	129.00				Average	
		point20	20	6,253,204.0	1,941,617.4	129.00				Average	
		point19	19	6,253,231.0	1,941,392.1	127.00				Average	
		point18	18	6,253,256.0	1,941,210.4	125.00				Average	
		point17	17	6,253,289.0	1,940,969.1	124.00				Average	
		point16	16	6,253,308.5	1,940,821.1	123.00				Average	
		point15	15	6,253,325.0	1,940,692.9	123.00				Average	
		point14	14	6,253,342.0	1,940,561.4	122.00				Average	
		point13	13	6,253,360.0	1,940,426.9	120.00				Average	
		point12	12	6,253,374.0	1,940,316.1	120.00				Average	
		point11	11	6,253,397.0	1,940,140.1	119.00				Average	
		point10	10	6,253,432.0	1,939,875.6	115.00				Average	
		point9	9	6,253,471.0	1,939,580.0	111.00					
I-SB-IS	36.0	point38	38	6,253,162.5	1,942,309.6	130.00				Average	
		point37	37	6,253,186.0	1,942,114.2	129.00				Average	
		point36	36	6,253,214.0	1,941,878.6	129.00				Average	
		point35	35	6,253,244.5	1,941,625.0	129.00				Average	
		point34	34	6,253,271.5	1,941,399.8	127.00				Average	
		point33	33	6,253,296.5	1,941,218.0	125.00				Average	
		point32	32	6,253,329.5	1,940,976.8	124.00				Average	
		point31	31	6,253,348.5	1,940,828.8	123.00				Average	
		point30	30	6,253,365.5	1,940,700.5	123.00				Average	
		point29	29	6,253,382.5	1,940,569.0	122.00				Average	

		point28	28	6,253,400.0	1,940,434.5	120.00				Average	
		point27	27	6,253,414.5	1,940,323.8	120.00				Average	
		point26	26	6,253,437.5	1,940,147.8	119.00				Average	
		point25	25	6,253,472.5	1,939,883.2	115.00				Average	
		point24	24	6,253,511.5	1,939,587.6	111.00					
I-NB-IS	36.0	point39	39	6,253,569.5	1,939,630.6	111.00				Average	
		point40	40	6,253,530.5	1,939,926.4	115.00				Average	
		point41	41	6,253,495.5	1,940,190.9	119.00				Average	
		point42	42	6,253,472.5	1,940,366.9	120.00				Average	
		point43	43	6,253,458.0	1,940,477.6	120.00				Average	
		point44	44	6,253,440.5	1,940,612.1	122.00				Average	
		point45	45	6,253,423.5	1,940,743.6	123.00				Average	
		point46	46	6,253,406.5	1,940,871.9	123.00				Average	
		point47	47	6,253,387.5	1,941,019.9	124.00				Average	
		point48	48	6,253,354.5	1,941,261.1	125.00				Average	
		point49	49	6,253,329.5	1,941,442.9	127.00				Average	
		point50	50	6,253,302.5	1,941,668.1	129.00				Average	
		point51	51	6,253,272.0	1,941,921.8	129.00				Average	
		point52	52	6,253,244.0	1,942,157.4	129.00				Average	
		point53	53	6,253,220.5	1,942,352.8	130.00					
I-NB-OS	36.0	point54	54	6,253,610.0	1,939,593.9	111.00				Average	
		point55	55	6,253,571.0	1,939,889.5	115.00				Average	
		point56	56	6,253,536.0	1,940,154.0	119.00				Average	
		point57	57	6,253,513.0	1,940,330.0	120.00				Average	
		point58	58	6,253,498.5	1,940,440.8	120.00				Average	
		point59	59	6,253,481.0	1,940,575.2	122.00				Average	
		point60	60	6,253,464.0	1,940,706.8	123.00				Average	
		point61	61	6,253,447.5	1,940,835.0	123.00				Average	
		point62	62	6,253,428.0	1,940,983.0	124.00				Average	
		point63	63	6,253,395.0	1,941,224.2	125.00				Average	
		point64	64	6,253,370.0	1,941,406.0	127.00				Average	
		point65	65	6,253,343.0	1,941,631.2	129.00				Average	
		point66	66	6,253,313.0	1,941,884.9	129.00				Average	
		point67	67	6,253,284.5	1,942,120.5	129.00				Average	
		point68	68	6,253,261.0	1,942,315.9	130.00					
Genevieve St	12.0	point69	69	6,253,890.0	1,941,215.0	140.00				Average	
		point70	70	6,253,810.5	1,941,216.2	134.00				Average	
		point71	71	6,253,752.0	1,941,217.1	129.50				Average	
		point72	72	6,253,703.5	1,941,218.0	126.00				Average	

		point73	73	6,253,615.0	1,941,219.4	119.00				Average	
		point74	74	6,253,575.0	1,941,220.0	116.00				Average	
		point75	75	6,253,555.5	1,941,220.2	114.00				Average	
		point76	76	6,253,516.0	1,941,220.9	114.00					
Marine View Ave	12.0	point77	77	6,253,801.0	1,940,160.4	179.00				Average	
		point78	78	6,253,834.0	1,940,222.0	179.00				Average	
		point79	79	6,253,852.5	1,940,273.2	179.00				Average	
		point80	80	6,253,866.0	1,940,352.0	175.00				Average	
		point81	81	6,253,869.0	1,940,446.0	170.00				Average	
		point82	82	6,253,870.0	1,940,604.8	155.00				Average	
		point83	83	6,253,882.0	1,940,913.0	140.00				Average	
		point84	84	6,253,894.0	1,941,361.0	140.00				Average	
		point85	85	6,253,895.0	1,941,552.0	148.50				Average	
		point86	86	6,253,892.0	1,941,572.1	149.00				Average	
		point87	87	6,253,879.0	1,941,595.9	149.00				Average	
		point88	88	6,253,857.0	1,941,612.5	150.00				Average	
		point89	89	6,253,838.0	1,941,618.0	150.00					
I-5 HOV NB	24.0	point90	90	6,253,553.5	1,939,632.4	111.00				Average	
		point91	91	6,253,514.5	1,939,928.1	115.00				Average	
		point92	92	6,253,479.5	1,940,192.6	119.00				Average	
		point93	93	6,253,457.0	1,940,368.6	120.00				Average	
		point94	94	6,253,442.5	1,940,479.4	120.00				Average	
		point95	95	6,253,425.0	1,940,613.9	122.00				Average	
		point96	96	6,253,407.5	1,940,745.4	123.00				Average	
		point97	97	6,253,391.0	1,940,873.6	123.00				Average	
		point98	98	6,253,371.5	1,941,021.6	124.00				Average	
		point99	99	6,253,338.5	1,941,262.9	125.00				Average	
		point100	100	6,253,313.5	1,941,444.6	127.00				Average	
		point101	101	6,253,287.0	1,941,669.9	129.00				Average	
		point102	102	6,253,256.5	1,941,923.5	129.00				Average	
		point103	103	6,253,228.5	1,942,159.1	129.00				Average	
		point104	104	6,253,205.0	1,942,354.5	130.00					
I-5 HOV SB	24.0	point119	119	6,253,175.5	1,942,354.5	130.00				Average	
		point118	118	6,253,199.0	1,942,159.1	129.00				Average	
		point117	117	6,253,227.0	1,941,923.5	129.00				Average	
		point116	116	6,253,257.5	1,941,669.9	129.00				Average	
		point115	115	6,253,284.0	1,941,444.6	127.00				Average	
		point114	114	6,253,309.0	1,941,262.9	125.00				Average	
		point113	113	6,253,342.0	1,941,021.6	124.00				Average	

		point112	112	6,253,361.5	1,940,873.6	123.00				Average	
		point111	111	6,253,378.0	1,940,745.4	123.00				Average	
		point110	110	6,253,395.5	1,940,613.9	122.00				Average	
		point109	109	6,253,413.0	1,940,479.4	120.00				Average	
		point108	108	6,253,427.5	1,940,368.6	120.00				Average	
		point107	107	6,253,450.0	1,940,192.6	119.00				Average	
		point106	106	6,253,485.0	1,939,928.1	115.00				Average	
		point105	105	6,253,524.0	1,939,632.4	111.00					

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J. Louden TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
I-SB-OS	point23	23	8294	65	394	65	378	55	0	0	0	0
	point22	22	8294	65	394	65	378	55	0	0	0	0
	point21	21	8294	65	394	65	378	55	0	0	0	0
	point20	20	8294	65	394	65	378	55	0	0	0	0
	point19	19	8294	65	394	65	378	55	0	0	0	0
	point18	18	8294	65	394	65	378	55	0	0	0	0
	point17	17	8294	65	394	65	378	55	0	0	0	0
	point16	16	8294	65	394	65	378	55	0	0	0	0
	point15	15	8294	65	394	65	378	55	0	0	0	0
	point14	14	8294	65	394	65	378	55	0	0	0	0
	point13	13	8294	65	394	65	378	55	0	0	0	0
	point12	12	8294	65	394	65	378	55	0	0	0	0
	point11	11	8294	65	394	65	378	55	0	0	0	0
	point10	10	8294	65	394	65	378	55	0	0	0	0
	point9	9										
I-SB-IS	point38	38	8737	65	263	65	0	0	0	0	0	0
	point37	37	8737	65	263	65	0	0	0	0	0	0
	point36	36	8737	65	263	65	0	0	0	0	0	0
	point35	35	8737	65	263	65	0	0	0	0	0	0
	point34	34	8737	65	263	65	0	0	0	0	0	0
	point33	33	8737	65	263	65	0	0	0	0	0	0
	point32	32	8737	65	263	65	0	0	0	0	0	0
	point31	31	8737	65	263	65	0	0	0	0	0	0

	point30	30	8737	65	263	65	0	0	0	0	0	0
	point29	29	8737	65	263	65	0	0	0	0	0	0
	point28	28	8737	65	263	65	0	0	0	0	0	0
	point27	27	8737	65	263	65	0	0	0	0	0	0
	point26	26	8737	65	263	65	0	0	0	0	0	0
	point25	25	8737	65	263	65	0	0	0	0	0	0
	point24	24										
I-NB-IS	point39	39	8737	65	263	65	0	0	0	0	0	0
	point40	40	8737	65	263	65	0	0	0	0	0	0
	point41	41	8737	65	263	65	0	0	0	0	0	0
	point42	42	8737	65	263	65	0	0	0	0	0	0
	point43	43	8737	65	263	65	0	0	0	0	0	0
	point44	44	8737	65	263	65	0	0	0	0	0	0
	point45	45	8737	65	263	65	0	0	0	0	0	0
	point46	46	8737	65	263	65	0	0	0	0	0	0
	point47	47	8737	65	263	65	0	0	0	0	0	0
	point48	48	8737	65	263	65	0	0	0	0	0	0
	point49	49	8737	65	263	65	0	0	0	0	0	0
	point50	50	8737	65	263	65	0	0	0	0	0	0
	point51	51	8737	65	263	65	0	0	0	0	0	0
	point52	52	8737	65	263	65	0	0	0	0	0	0
	point53	53										
I-NB-OS	point54	54	8294	65	394	65	378	55	0	0	0	0
	point55	55	8294	65	394	65	378	55	0	0	0	0
	point56	56	8294	65	394	65	378	55	0	0	0	0
	point57	57	8294	65	394	65	378	55	0	0	0	0
	point58	58	8294	65	394	65	378	55	0	0	0	0
	point59	59	8294	65	394	65	378	55	0	0	0	0
	point60	60	8294	65	394	65	378	55	0	0	0	0
	point61	61	8294	65	394	65	378	55	0	0	0	0
	point62	62	8294	65	394	65	378	55	0	0	0	0
	point63	63	8294	65	394	65	378	55	0	0	0	0
	point64	64	8294	65	394	65	378	55	0	0	0	0
	point65	65	8294	65	394	65	378	55	0	0	0	0
	point66	66	8294	65	394	65	378	55	0	0	0	0
	point67	67	8294	65	394	65	378	55	0	0	0	0

	point68	68										
Genevieve St	point69	69	28	25	1	25	1	25	0	0	0	0
	point70	70	28	25	1	25	1	25	0	0	0	0
	point71	71	28	25	1	25	1	25	0	0	0	0
	point72	72	28	25	1	25	1	25	0	0	0	0
	point73	73	28	25	1	25	1	25	0	0	0	0
	point74	74	28	25	1	25	1	25	0	0	0	0
	point75	75	28	25	1	25	1	25	0	0	0	0
	point76	76										
Marine View Ave	point77	77	48	25	2	25	2	25	0	0	0	0
	point78	78	48	25	2	25	2	25	0	0	0	0
	point79	79	48	25	2	25	2	25	0	0	0	0
	point80	80	48	25	2	25	2	25	0	0	0	0
	point81	81	48	25	2	25	2	25	0	0	0	0
	point82	82	48	25	2	25	2	25	0	0	0	0
	point83	83	48	25	2	25	2	25	0	0	0	0
	point84	84	48	25	2	25	2	25	0	0	0	0
	point85	85	48	25	2	25	2	25	0	0	0	0
	point86	86	48	25	2	25	2	25	0	0	0	0
	point87	87	48	25	2	25	2	25	0	0	0	0
	point88	88	48	25	2	25	2	25	0	0	0	0
	point89	89										
I-5 HOV NB	point90	90	3000	65	0	0	0	0	0	0	0	0
	point91	91	3000	65	0	0	0	0	0	0	0	0
	point92	92	3000	65	0	0	0	0	0	0	0	0
	point93	93	3000	65	0	0	0	0	0	0	0	0
	point94	94	3000	65	0	0	0	0	0	0	0	0
	point95	95	3000	65	0	0	0	0	0	0	0	0
	point96	96	3000	65	0	0	0	0	0	0	0	0
	point97	97	3000	65	0	0	0	0	0	0	0	0
	point98	98	3000	65	0	0	0	0	0	0	0	0
	point99	99	3000	65	0	0	0	0	0	0	0	0
	point100	100	3000	65	0	0	0	0	0	0	0	0
	point101	101	3000	65	0	0	0	0	0	0	0	0
	point102	102	3000	65	0	0	0	0	0	0	0	0
	point103	103	3000	65	0	0	0	0	0	0	0	0

	point104	104										
I-5 HOV SB	point119	119	3000	65	0	0	0	0	0	0	0	0
	point118	118	3000	65	0	0	0	0	0	0	0	0
	point117	117	3000	65	0	0	0	0	0	0	0	0
	point116	116	3000	65	0	0	0	0	0	0	0	0
	point115	115	3000	65	0	0	0	0	0	0	0	0
	point114	114	3000	65	0	0	0	0	0	0	0	0
	point113	113	3000	65	0	0	0	0	0	0	0	0
	point112	112	3000	65	0	0	0	0	0	0	0	0
	point111	111	3000	65	0	0	0	0	0	0	0	0
	point110	110	3000	65	0	0	0	0	0	0	0	0
	point109	109	3000	65	0	0	0	0	0	0	0	0
	point108	108	3000	65	0	0	0	0	0	0	0	0
	point107	107	3000	65	0	0	0	0	0	0	0	0
	point106	106	3000	65	0	0	0	0	0	0	0	0
	point105	105										

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INPUT: RECEIVERS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
F-1	24	1	6,253,651.0	1,941,184.4	116.90	5.00	0.00	65	12.0	5.0	
F-2	25	1	6,253,566.0	1,941,175.5	116.90	5.00	0.00	65	12.0	5.0	
F-3	26	1	6,253,554.0	1,941,113.5	116.90	5.00	0.00	65	12.0	5.0	
F-4	27	1	6,253,563.0	1,941,043.5	116.90	5.00	0.00	65	12.0	5.0	
F-5	28	1	6,253,568.5	1,940,958.5	116.90	5.00	0.00	65	12.0	5.0	
F-6	29	1	6,253,542.0	1,940,834.1	118.00	5.00	0.00	65	12.0	5.0	
F-7	30	1	6,253,538.5	1,940,755.6	118.00	5.00	0.00	65	12.0	5.0	
F-8	31	1	6,253,552.0	1,940,659.9	118.00	5.00	0.00	65	12.0	5.0	
F-9	33	1	6,253,589.5	1,940,609.8	129.50	5.00	0.00	65	12.0	5.0	
F-10	34	1	6,253,633.5	1,940,658.6	129.50	5.00	0.00	65	12.0	5.0	
E-1	36	1	6,253,648.0	1,941,105.5	117.00	5.00	0.00	65	12.0	5.0	
E-2	37	1	6,253,630.0	1,941,095.6	117.00	5.00	0.00	65	12.0	5.0	
E-3	38	1	6,253,824.0	1,941,161.6	117.00	5.00	0.00	65	12.0	5.0	
E-4	39	1	6,253,850.0	1,941,122.8	117.00	5.00	0.00	65	12.0	5.0	
E-5	40	1	6,253,648.0	1,941,065.8	117.00	5.00	0.00	65	12.0	5.0	
E-6	41	1	6,253,649.5	1,941,042.8	117.00	5.00	0.00	65	12.0	5.0	
E-7	42	1	6,253,650.0	1,940,998.5	117.00	5.00	0.00	65	12.0	5.0	
E-8	43	1	6,253,640.5	1,940,880.2	117.50	5.00	0.00	65	12.0	5.0	
E-9	44	1	6,253,629.5	1,940,744.6	117.50	5.00	0.00	65	12.0	5.0	
E-10	45	1	6,253,632.0	1,940,713.0	117.50	5.00	0.00	65	12.0	5.0	
E-11	47	1	6,253,575.5	1,940,595.4	129.00	5.00	0.00	65	12.0	5.0	Y
E-12	48	1	6,253,593.0	1,940,570.8	129.00	5.00	0.00	65	12.0	5.0	Y

F-1B	51	1	6,253,651.5	1,941,183.6	130.90	5.00	0.00	65	12.0	5.0	
F-2B	52	1	6,253,566.0	1,941,176.6	130.90	5.00	0.00	65	12.0	5.0	
F-3B	53	1	6,253,554.0	1,941,112.6	130.90	5.00	0.00	65	12.0	5.0	
F-4B	54	1	6,253,563.5	1,941,044.2	130.90	5.00	0.00	65	12.0	5.0	
F-5B	55	1	6,253,569.5	1,940,959.9	130.90	5.00	0.00	65	12.0	5.0	
F-6B	56	1	6,253,542.5	1,940,835.8	132.00	5.00	0.00	65	12.0	5.0	
F-7B	57	1	6,253,539.0	1,940,754.9	132.00	5.00	0.00	65	12.0	5.0	
F-8B	58	1	6,253,553.0	1,940,660.0	132.00	5.00	0.00	65	12.0	5.0	
F-9B	59	1	6,253,589.5	1,940,608.8	132.00	5.00	0.00	65	12.0	5.0	
F-10B	60	1	6,253,634.0	1,940,658.9	132.00	5.00	0.00	65	12.0	5.0	

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INPUT: BARRIERS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
North Building	W	0.00	99.99	0.00				0.00	point75	75	6,253,659.0	1,941,155.8	116.90	24.00	0.00	0	0		
									point76	76	6,253,649.0	1,941,156.0	116.90	24.00	0.00	0	0		
									point77	77	6,253,649.5	1,941,177.4	116.90	24.00	0.00	0	0		
									point78	78	6,253,601.0	1,941,180.6	116.90	24.00	0.00	0	0		
									point79	79	6,253,602.0	1,941,172.8	116.90	24.00	0.00	0	0		
									point80	80	6,253,544.0	1,941,164.1	116.90	24.00	0.00	0	0		
									point81	81	6,253,549.0	1,941,121.1	116.90	24.00	0.00	0	0		
									point82	82	6,253,557.5	1,941,121.5	116.90	24.00	0.00	0	0		
									point83	83	6,253,579.0	1,940,946.1	116.90	24.00	0.00	0	0		
									point84	84	6,253,582.0	1,940,946.6	116.90	24.00	0.00	0	0		
									point85	85	6,253,582.5	1,940,942.9	116.90	24.00	0.00	0	0		
									point86	86	6,253,591.5	1,940,935.0	116.90	24.00	0.00	0	0		
									point87	87	6,253,597.5	1,940,925.4	116.90	24.00	0.00	0	0		
									point88	88	6,253,601.5	1,940,913.1	116.90	24.00	0.00	0	0		
									point89	89	6,253,606.0	1,940,913.8	116.90	24.00	0.00	0	0		
									point90	90	6,253,606.5	1,940,908.5	116.90	24.00	0.00	0	0		
									point91	91	6,253,643.5	1,940,908.9	116.90	24.00	0.00	0	0		
									point92	92	6,253,641.0	1,940,929.5	116.90	24.00					
South Building	W	0.00	99.99	0.00				0.00	point93	93	6,253,633.0	1,940,850.2	118.00	24.00	0.00	0	0		
									point94	94	6,253,624.0	1,940,849.2	118.00	24.00	0.00	0	0		
									point95	95	6,253,622.5	1,940,863.1	118.00	24.00	0.00	0	0		
									point96	96	6,253,595.5	1,940,862.2	118.00	24.00	0.00	0	0		
									point97	97	6,253,565.0	1,940,858.5	118.00	24.00	0.00	0	0		
									point98	98	6,253,565.0	1,940,861.2	118.00	24.00	0.00	0	0		
									point99	99	6,253,543.5	1,940,858.6	118.00	24.00	0.00	0	0		
									point100	100	6,253,547.0	1,940,829.1	118.00	24.00	0.00	0	0		
									point101	101	6,253,537.0	1,940,827.9	118.00	24.00	0.00	0	0		
									point102	102	6,253,559.5	1,940,657.2	118.00	24.00	0.00	0	0		
									point103	103	6,253,565.5	1,940,608.8	130.00	24.00	0.00	0	0		
									point104	104	6,253,592.0	1,940,612.0	130.00	24.00	0.00	0	0		
									point105	105	6,253,591.5	1,940,617.9	130.00	24.00	0.00	0	0		
									point106	106	6,253,597.5	1,940,618.8	130.00	24.00	0.00	0	0		
									point107	107	6,253,596.0	1,940,631.2	130.00	24.00	0.00	0	0		
									point108	108	6,253,622.0	1,940,634.4	130.00	24.00					
Connecting hallway	W	0.00	99.99	0.00				0.00	point109	109	6,253,613.0	1,940,908.0	118.00	24.00	0.00	0	0		

									point110	110	6,253,612.0	1,940,898.4	118.00	24.00	0.00	0	0		
									point111	111	6,253,609.5	1,940,890.8	118.00	24.00	0.00	0	0		
									point112	112	6,253,606.0	1,940,885.4	118.00	24.00	0.00	0	0		
									point113	113	6,253,601.0	1,940,876.6	118.00	24.00	0.00	0	0		
									point114	114	6,253,596.5	1,940,869.1	118.00	24.00	0.00	0	0		
									point115	115	6,253,594.5	1,940,862.4	118.00	24.00					
Soundwall2	W	0.00	99.99	0.00				0.00	point116	116	6,253,556.0	1,940,623.1	130.00	12.00	1.00	4	4		
									point117	117	6,253,559.5	1,940,599.5	130.00	12.00	1.00	4	4		
									point118	118	6,253,564.5	1,940,599.9	130.00	12.00	1.00	4	4		
									point119	119	6,253,566.0	1,940,597.1	130.00	12.00	1.00	4	4		
									point120	120	6,253,571.0	1,940,566.6	130.00	12.00	1.00	4	4		
									point121	121	6,253,575.0	1,940,560.9	130.00	12.00	1.00	4	4		
									point122	122	6,253,583.5	1,940,559.4	130.00	12.00	1.00	4	4		
									point123	123	6,253,596.0	1,940,560.2	130.00	12.00	1.00	4	4		
									point124	124	6,253,608.5	1,940,563.1	130.00	12.00	1.00	4	4		
									point125	125	6,253,620.0	1,940,572.1	130.00	12.00	1.00	4	4		
									point127	127	6,253,626.0	1,940,580.6	130.00	12.00					

LDN			6 March 2017		
J. Louden			TNM 2.5		
INPUT: RECEIVER ADJUSTMENT FACTORS					
PROJECT/CONTRACT:	RESIDENTIAL CARE FACILITY				
RUN:	Future Compatibility				
Receiver					
Name	No.	Individual Roadway Segment Adjustment Factors			
		Roadway	Segment		
		Name	Name	No.	Adj. Factor
					dB
<< This table is empty >>					

LDN 6 March 2017
J. Louden TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc LAeq1h	Noise Reduction Calc	Goal	Calc-Goal	Barrier Reviewed	Important Segments Name	No.	Height	Partial LAeq1h
		dBA	dB	dB	dB				ft	dBA
F-1	24	70.0	-0.0	5	-5.0	Soundwall2	point116	116	12.0	23.3
						Soundwall2	point124	124	12.0	22.5
						Soundwall2	point123	123	12.0	22.4
						Soundwall2	point119	119	12.0	22.3
						Soundwall2	point122	122	12.0	21.9
						Soundwall2	point121	121	12.0	21.4
						Soundwall2	point125	125	12.0	21.1
						Soundwall2	point117	117	12.0	20.0
						Soundwall2	point120	120	12.0	19.2
						Soundwall2	point118	118	12.0	15.3
F-2	25	74.3	-0.0	5	-5.0	Soundwall2	point117	117	12.0	19.0
						Soundwall2	point116	116	12.0	19.0
						Soundwall2	point121	121	12.0	17.2
						Soundwall2	point119	119	12.0	15.9
						Soundwall2	point120	120	12.0	14.3
						Soundwall2	point118	118	12.0	12.1
F-3	26	78.1	-0.0	5	-5.0	Soundwall2	point117	117	12.0	29.7
						Soundwall2	point119	119	12.0	28.1
						Soundwall2	point120	120	12.0	26.8
						Soundwall2	point116	116	12.0	26.7
						Soundwall2	point118	118	12.0	23.7

F-4	27	78.5	0.0	5	-5.0	Soundwall2	point117	117	12.0	31.6
						Soundwall2	point116	116	12.0	29.3
						Soundwall2	point119	119	12.0	28.1
						Soundwall2	point120	120	12.0	27.3
						Soundwall2	point121	121	12.0	27.0
						Soundwall2	point118	118	12.0	23.2
F-5	28	78.9	0.0	5	-5.0	Soundwall2	point117	117	12.0	30.4
						Soundwall2	point116	116	12.0	29.8
						Soundwall2	point119	119	12.0	27.9
						Soundwall2	point121	121	12.0	27.2
						Soundwall2	point120	120	12.0	25.6
						Soundwall2	point118	118	12.0	23.8
F-6	29	81.2	-0.0	5	-5.0					
F-7	30	77.3	-0.0	5	-5.0					
F-8	31	69.6	-0.0	5	-5.0					
F-9	33	65.1	5.1	5	0.1	Soundwall2	point119	119	12.0	60.5
						Soundwall2	point116	116	12.0	58.1
						Soundwall2	point121	121	12.0	56.1
						Soundwall2	point120	120	12.0	54.3
						Soundwall2	point122	122	12.0	52.7
						Soundwall2	point118	118	12.0	52.5
						Soundwall2	point117	117	12.0	49.3
F-10	34	66.2	0.6	5	-4.4	Soundwall2	point116	116	12.0	51.9
						Soundwall2	point122	122	12.0	51.5
						Soundwall2	point123	123	12.0	51.0
						Soundwall2	point124	124	12.0	49.8
						Soundwall2	point119	119	12.0	46.8
						Soundwall2	point125	125	12.0	46.0
						Soundwall2	point121	121	12.0	42.3
						Soundwall2	point120	120	12.0	40.7
						Soundwall2	point118	118	12.0	33.9
						Soundwall2	point117	117	12.0	33.5
E-1	36	63.2	0.0	5	-5.0	Soundwall2	point116	116	12.0	33.9
						Soundwall2	point122	122	12.0	33.3
						Soundwall2	point119	119	12.0	32.0
						Soundwall2	point123	123	12.0	31.9

						Soundwall2	point121	121	12.0	31.8
						Soundwall2	point124	124	12.0	31.4
						Soundwall2	point117	117	12.0	29.3
						Soundwall2	point125	125	12.0	29.0
						Soundwall2	point120	120	12.0	29.0
						Soundwall2	point118	118	12.0	25.1
E-2	37	63.3	-0.0	5	-5.0	Soundwall2	point116	116	12.0	33.7
						Soundwall2	point122	122	12.0	32.5
						Soundwall2	point119	119	12.0	32.4
						Soundwall2	point123	123	12.0	31.4
						Soundwall2	point121	121	12.0	30.9
						Soundwall2	point120	120	12.0	29.7
						Soundwall2	point117	117	12.0	29.4
						Soundwall2	point124	124	12.0	29.0
						Soundwall2	point125	125	12.0	25.6
						Soundwall2	point118	118	12.0	24.9
E-3	38	55.0	0.0	5	-5.0	Soundwall2	point123	123	12.0	30.0
						Soundwall2	point124	124	12.0	29.4
						Soundwall2	point119	119	12.0	28.3
						Soundwall2	point116	116	12.0	27.8
						Soundwall2	point122	122	12.0	27.7
						Soundwall2	point121	121	12.0	25.6
						Soundwall2	point125	125	12.0	25.4
						Soundwall2	point120	120	12.0	23.9
						Soundwall2	point117	117	12.0	22.2
						Soundwall2	point118	118	12.0	19.9
E-4	39	58.0	0.1	5	-4.9	Soundwall2	point116	116	12.0	40.1
						Soundwall2	point119	119	12.0	38.9
						Soundwall2	point122	122	12.0	38.7
						Soundwall2	point121	121	12.0	37.0
						Soundwall2	point123	123	12.0	36.4
						Soundwall2	point120	120	12.0	35.5
						Soundwall2	point117	117	12.0	34.0
						Soundwall2	point124	124	12.0	33.3
						Soundwall2	point118	118	12.0	32.0
						Soundwall2	point125	125	12.0	28.5

E-5	40	63.3	-0.0	5	-5.0	Soundwall2	point122	122	12.0	33.4
						Soundwall2	point116	116	12.0	32.7
						Soundwall2	point123	123	12.0	31.6
						Soundwall2	point119	119	12.0	31.4
						Soundwall2	point124	124	12.0	31.3
						Soundwall2	point121	121	12.0	31.1
						Soundwall2	point125	125	12.0	29.5
						Soundwall2	point117	117	12.0	28.7
						Soundwall2	point120	120	12.0	28.5
						Soundwall2	point118	118	12.0	24.5
E-6	41	63.2	0.0	5	-5.0	Soundwall2	point122	122	12.0	33.0
						Soundwall2	point116	116	12.0	32.5
						Soundwall2	point123	123	12.0	31.5
						Soundwall2	point119	119	12.0	31.1
						Soundwall2	point124	124	12.0	30.9
						Soundwall2	point121	121	12.0	30.7
						Soundwall2	point125	125	12.0	30.3
						Soundwall2	point117	117	12.0	28.5
						Soundwall2	point120	120	12.0	28.2
						Soundwall2	point118	118	12.0	24.1
E-7	42	63.0	-0.0	5	-5.0	Soundwall2	point125	125	12.0	34.1
						Soundwall2	point122	122	12.0	33.0
						Soundwall2	point124	124	12.0	31.6
						Soundwall2	point116	116	12.0	31.4
						Soundwall2	point119	119	12.0	30.5
						Soundwall2	point121	121	12.0	30.1
						Soundwall2	point123	123	12.0	29.3
						Soundwall2	point120	120	12.0	27.1
						Soundwall2	point117	117	12.0	27.1
						Soundwall2	point118	118	12.0	23.1
E-8	43	58.7	0.0	5	-5.0	Soundwall2	point123	123	12.0	42.7
						Soundwall2	point122	122	12.0	42.2
						Soundwall2	point119	119	12.0	42.2
						Soundwall2	point121	121	12.0	41.2
						Soundwall2	point124	124	12.0	40.3
						Soundwall2	point120	120	12.0	39.8

						Soundwall2	point125	125	12.0	35.3
						Soundwall2	point116	116	12.0	30.8
						Soundwall2	point117	117	12.0	25.9
						Soundwall2	point118	118	12.0	22.3
E-9	44	63.9	0.1	5	-4.9	Soundwall2	point116	116	12.0	47.5
						Soundwall2	point119	119	12.0	46.7
						Soundwall2	point122	122	12.0	44.8
						Soundwall2	point123	123	12.0	44.4
						Soundwall2	point124	124	12.0	42.4
						Soundwall2	point117	117	12.0	41.5
						Soundwall2	point120	120	12.0	41.5
						Soundwall2	point118	118	12.0	39.1
						Soundwall2	point121	121	12.0	38.2
						Soundwall2	point125	125	12.0	36.6
E-10	45	63.8	0.1	5	-4.9	Soundwall2	point116	116	12.0	48.7
						Soundwall2	point119	119	12.0	46.9
						Soundwall2	point123	123	12.0	45.1
						Soundwall2	point122	122	12.0	44.5
						Soundwall2	point124	124	12.0	43.5
						Soundwall2	point121	121	12.0	42.5
						Soundwall2	point117	117	12.0	41.6
						Soundwall2	point118	118	12.0	39.7
						Soundwall2	point125	125	12.0	38.6
						Soundwall2	point120	120	12.0	34.8
E-11	47	65.3	8.5	5	3.5	Soundwall2	point119	119	12.0	62.4
						Soundwall2	point116	116	12.0	60.4
						Soundwall2	point120	120	12.0	53.8
						Soundwall2	point118	118	12.0	50.7
						Soundwall2	point121	121	12.0	45.9
						Soundwall2	point117	117	12.0	44.4
E-12	48	65.4	6.7	5	1.7	Soundwall2	point119	119	12.0	61.7
						Soundwall2	point122	122	12.0	57.8
						Soundwall2	point116	116	12.0	56.2
						Soundwall2	point121	121	12.0	55.9
						Soundwall2	point120	120	12.0	55.5
						Soundwall2	point118	118	12.0	39.8

						Soundwall2	point117	117	12.0	32.7
F-1B	51	75.8	0.0	5	-5.0	Soundwall2	point122	122	12.0	32.8
						Soundwall2	point116	116	12.0	31.2
						Soundwall2	point119	119	12.0	30.8
						Soundwall2	point121	121	12.0	30.4
						Soundwall2	point123	123	12.0	29.7
						Soundwall2	point124	124	12.0	29.1
						Soundwall2	point117	117	12.0	28.2
						Soundwall2	point120	120	12.0	27.9
						Soundwall2	point125	125	12.0	25.2
						Soundwall2	point118	118	12.0	22.7
F-2B	52	79.5	0.0	5	-5.0	Soundwall2	point121	121	12.0	26.6
						Soundwall2	point116	116	12.0	26.4
						Soundwall2	point117	117	12.0	26.2
						Soundwall2	point119	119	12.0	24.6
						Soundwall2	point120	120	12.0	23.5
						Soundwall2	point118	118	12.0	19.8
F-3B	53	81.6	0.0	5	-5.0	Soundwall2	point116	116	12.0	32.6
						Soundwall2	point117	117	12.0	29.5
F-4B	54	81.8	0.0	5	-5.0	Soundwall2	point117	117	12.0	36.5
						Soundwall2	point116	116	12.0	33.7
						Soundwall2	point118	118	12.0	31.9
						Soundwall2	point119	119	12.0	26.1
F-5B	55	81.8	0.0	5	-5.0	Soundwall2	point116	116	12.0	35.6
						Soundwall2	point117	117	12.0	33.0
						Soundwall2	point119	119	12.0	31.1
						Soundwall2	point118	118	12.0	27.0
F-6B	56	82.7	-0.0	5	-5.0					
F-7B	57	84.0	-0.0	5	-5.0					
F-8B	58	83.3	0.0	5	-5.0					
F-9B	59	66.4	5.6	5	0.6	Soundwall2	point119	119	12.0	62.0
						Soundwall2	point116	116	12.0	59.4
						Soundwall2	point121	121	12.0	57.7
						Soundwall2	point120	120	12.0	55.8
						Soundwall2	point118	118	12.0	54.5
						Soundwall2	point122	122	12.0	54.4

						Soundwall2	point117	117	12.0	50.4
F-10B	60	67.0	0.6	5	-4.4	Soundwall2	point122	122	12.0	53.0
						Soundwall2	point116	116	12.0	52.4
						Soundwall2	point123	123	12.0	52.0
						Soundwall2	point124	124	12.0	50.9
						Soundwall2	point125	125	12.0	47.2
						Soundwall2	point119	119	12.0	46.2
						Soundwall2	point121	121	12.0	44.5
						Soundwall2	point120	120	12.0	42.5
						Soundwall2	point118	118	12.0	34.4
						Soundwall2	point117	117	12.0	33.9
Total Cost, All Barriers (including additional cost(s))					$0					

ATTACHMENT D

Future TNM Input and Output Data

LDN 6 March 2017
J. Louden TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F-1	24	1	0.0	69.7	65	69.7	12	Snd Lvl	62.1	7.6	5	2.6
F-2	25	1	0.0	74.0	65	74.0	12	Snd Lvl	67.5	6.5	5	1.5
F-3	26	1	0.0	77.9	65	77.9	12	Snd Lvl	65.9	12.0	5	7.0
F-4	27	1	0.0	78.5	65	78.5	12	Snd Lvl	67.7	10.8	5	5.8
F-5	28	1	0.0	78.8	65	78.8	12	Snd Lvl	67.0	11.8	5	6.8
F-6	29	1	0.0	81.2	65	81.2	12	Snd Lvl	66.8	14.4	5	9.4
F-7	30	1	0.0	77.2	65	77.2	12	Snd Lvl	66.5	10.7	5	5.7
F-8	31	1	0.0	69.6	65	69.6	12	Snd Lvl	62.9	6.7	5	1.7
F-9	33	1	0.0	70.0	65	70.0	12	Snd Lvl	61.1	8.9	5	3.9
F-10	34	1	0.0	66.8	65	66.8	12	Snd Lvl	61.8	5.0	5	0.0
E-1	36	1	0.0	63.2	65	63.2	12	----	58.0	5.2	5	0.2
E-2	37	1	0.0	63.3	65	63.3	12	----	58.0	5.3	5	0.3
E-3	38	1	0.0	55.0	65	55.0	12	----	53.7	1.3	5	-3.7
E-4	39	1	0.0	57.8	65	57.8	12	----	56.0	1.8	5	-3.2
E-5	40	1	0.0	63.3	65	63.3	12	----	58.2	5.1	5	0.1
E-6	41	1	0.0	63.2	65	63.2	12	----	58.3	4.9	5	-0.1
E-7	42	1	0.0	63.0	65	63.0	12	----	58.1	4.9	5	-0.1
E-8	43	1	0.0	58.8	65	58.8	12	----	53.6	5.2	5	0.2
E-9	44	1	0.0	64.0	65	64.0	12	----	58.4	5.6	5	0.6
E-10	45	1	0.0	63.9	65	63.9	12	----	58.7	5.2	5	0.2
E-11	47	1	0.0	74.3	65	74.3	12	Snd Lvl	62.0	12.3	5	7.3
E-12	48	1	0.0	70.9	65	70.9	12	Snd Lvl	61.8	9.1	5	4.1
F-1B	51	1	0.0	75.8	65	75.8	12	Snd Lvl	72.3	3.5	5	-1.5
F-2B	52	1	0.0	79.6	65	79.6	12	Snd Lvl	73.5	6.1	5	1.1

F-3B	53	1	0.0	81.7	65	81.7	12	Snd Lvl	69.5	12.2	5	7.2
F-4B	54	1	0.0	81.9	65	81.9	12	Snd Lvl	71.9	10.0	5	5.0
F-5B	55	1	0.0	81.9	65	81.9	12	Snd Lvl	71.0	10.9	5	5.9
F-6B	56	1	0.0	82.7	65	82.7	12	Snd Lvl	71.0	11.7	5	6.7
F-7B	57	1	0.0	84.1	65	84.1	12	Snd Lvl	72.3	11.8	5	6.8
F-8B	58	1	0.0	83.5	65	83.5	12	Snd Lvl	72.0	11.5	5	6.5
F-9B	59	1	0.0	72.1	65	72.1	12	Snd Lvl	66.0	6.1	5	1.1
F-10B	60	1	0.0	67.6	65	67.6	12	Snd Lvl	62.6	5.0	5	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	32	1.3	7.8	14.4
All Impacted	22	3.5	9.3	14.4
All that meet NR Goal	27	5.0	8.6	14.4

LDN 6 March 2017
J. Louden TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
I-SB-OS	36.0	point23	23	6,253,122.5	1,942,302.0	130.00				Average	
		point22	22	6,253,145.5	1,942,106.6	129.00				Average	
		point21	21	6,253,174.0	1,941,871.0	129.00				Average	
		point20	20	6,253,204.0	1,941,617.4	129.00				Average	
		point19	19	6,253,231.0	1,941,392.1	127.00				Average	
		point18	18	6,253,256.0	1,941,210.4	125.00				Average	
		point17	17	6,253,289.0	1,940,969.1	124.00				Average	
		point16	16	6,253,308.5	1,940,821.1	123.00				Average	
		point15	15	6,253,325.0	1,940,692.9	123.00				Average	
		point14	14	6,253,342.0	1,940,561.4	122.00				Average	
		point13	13	6,253,360.0	1,940,426.9	120.00				Average	
		point12	12	6,253,374.0	1,940,316.1	120.00				Average	
		point11	11	6,253,397.0	1,940,140.1	119.00				Average	
		point10	10	6,253,432.0	1,939,875.6	115.00				Average	
		point9	9	6,253,471.0	1,939,580.0	111.00					
I-SB-IS	36.0	point38	38	6,253,162.5	1,942,309.6	130.00				Average	
		point37	37	6,253,186.0	1,942,114.2	129.00				Average	
		point36	36	6,253,214.0	1,941,878.6	129.00				Average	
		point35	35	6,253,244.5	1,941,625.0	129.00				Average	
		point34	34	6,253,271.5	1,941,399.8	127.00				Average	
		point33	33	6,253,296.5	1,941,218.0	125.00				Average	
		point32	32	6,253,329.5	1,940,976.8	124.00				Average	
		point31	31	6,253,348.5	1,940,828.8	123.00				Average	
		point30	30	6,253,365.5	1,940,700.5	123.00				Average	
		point29	29	6,253,382.5	1,940,569.0	122.00				Average	

		point28	28	6,253,400.0	1,940,434.5	120.00				Average	
		point27	27	6,253,414.5	1,940,323.8	120.00				Average	
		point26	26	6,253,437.5	1,940,147.8	119.00				Average	
		point25	25	6,253,472.5	1,939,883.2	115.00				Average	
		point24	24	6,253,511.5	1,939,587.6	111.00					
I-NB-IS	36.0	point39	39	6,253,569.5	1,939,630.6	111.00				Average	
		point40	40	6,253,530.5	1,939,926.4	115.00				Average	
		point41	41	6,253,495.5	1,940,190.9	119.00				Average	
		point42	42	6,253,472.5	1,940,366.9	120.00				Average	
		point43	43	6,253,458.0	1,940,477.6	120.00				Average	
		point44	44	6,253,440.5	1,940,612.1	122.00				Average	
		point45	45	6,253,423.5	1,940,743.6	123.00				Average	
		point46	46	6,253,406.5	1,940,871.9	123.00				Average	
		point47	47	6,253,387.5	1,941,019.9	124.00				Average	
		point48	48	6,253,354.5	1,941,261.1	125.00				Average	
		point49	49	6,253,329.5	1,941,442.9	127.00				Average	
		point50	50	6,253,302.5	1,941,668.1	129.00				Average	
		point51	51	6,253,272.0	1,941,921.8	129.00				Average	
		point52	52	6,253,244.0	1,942,157.4	129.00				Average	
		point53	53	6,253,220.5	1,942,352.8	130.00					
I-NB-OS	36.0	point54	54	6,253,610.0	1,939,593.9	111.00				Average	
		point55	55	6,253,571.0	1,939,889.5	115.00				Average	
		point56	56	6,253,536.0	1,940,154.0	119.00				Average	
		point57	57	6,253,513.0	1,940,330.0	120.00				Average	
		point58	58	6,253,498.5	1,940,440.8	120.00				Average	
		point59	59	6,253,481.0	1,940,575.2	122.00				Average	
		point60	60	6,253,464.0	1,940,706.8	123.00				Average	
		point61	61	6,253,447.5	1,940,835.0	123.00				Average	
		point62	62	6,253,428.0	1,940,983.0	124.00				Average	
		point63	63	6,253,395.0	1,941,224.2	125.00				Average	
		point64	64	6,253,370.0	1,941,406.0	127.00				Average	
		point65	65	6,253,343.0	1,941,631.2	129.00				Average	
		point66	66	6,253,313.0	1,941,884.9	129.00				Average	
		point67	67	6,253,284.5	1,942,120.5	129.00				Average	
		point68	68	6,253,261.0	1,942,315.9	130.00					
Genevieve St	12.0	point69	69	6,253,890.0	1,941,215.0	140.00				Average	
		point70	70	6,253,810.5	1,941,216.2	134.00				Average	
		point71	71	6,253,752.0	1,941,217.1	129.50				Average	
		point72	72	6,253,703.5	1,941,218.0	126.00				Average	

		point73	73	6,253,615.0	1,941,219.4	119.00				Average	
		point74	74	6,253,575.0	1,941,220.0	116.00				Average	
		point75	75	6,253,555.5	1,941,220.2	114.00				Average	
		point76	76	6,253,516.0	1,941,220.9	114.00					
Marine View Ave	12.0	point77	77	6,253,801.0	1,940,160.4	179.00				Average	
		point78	78	6,253,834.0	1,940,222.0	179.00				Average	
		point79	79	6,253,852.5	1,940,273.2	179.00				Average	
		point80	80	6,253,866.0	1,940,352.0	175.00				Average	
		point81	81	6,253,869.0	1,940,446.0	170.00				Average	
		point82	82	6,253,870.0	1,940,604.8	155.00				Average	
		point83	83	6,253,882.0	1,940,913.0	140.00				Average	
		point84	84	6,253,894.0	1,941,361.0	140.00				Average	
		point85	85	6,253,895.0	1,941,552.0	148.50				Average	
		point86	86	6,253,892.0	1,941,572.1	149.00				Average	
		point87	87	6,253,879.0	1,941,595.9	149.00				Average	
		point88	88	6,253,857.0	1,941,612.5	150.00				Average	
		point89	89	6,253,838.0	1,941,618.0	150.00					
I-5 HOV NB	24.0	point90	90	6,253,553.5	1,939,632.4	111.00				Average	
		point91	91	6,253,514.5	1,939,928.1	115.00				Average	
		point92	92	6,253,479.5	1,940,192.6	119.00				Average	
		point93	93	6,253,457.0	1,940,368.6	120.00				Average	
		point94	94	6,253,442.5	1,940,479.4	120.00				Average	
		point95	95	6,253,425.0	1,940,613.9	122.00				Average	
		point96	96	6,253,407.5	1,940,745.4	123.00				Average	
		point97	97	6,253,391.0	1,940,873.6	123.00				Average	
		point98	98	6,253,371.5	1,941,021.6	124.00				Average	
		point99	99	6,253,338.5	1,941,262.9	125.00				Average	
		point100	100	6,253,313.5	1,941,444.6	127.00				Average	
		point101	101	6,253,287.0	1,941,669.9	129.00				Average	
		point102	102	6,253,256.5	1,941,923.5	129.00				Average	
		point103	103	6,253,228.5	1,942,159.1	129.00				Average	
		point104	104	6,253,205.0	1,942,354.5	130.00					
i-5 AHOV SB	24.0	point119	119	6,253,175.5	1,942,354.5	130.00				Average	
		point118	118	6,253,199.0	1,942,159.1	129.00				Average	
		point117	117	6,253,227.0	1,941,923.5	129.00				Average	
		point116	116	6,253,257.5	1,941,669.9	129.00				Average	
		point115	115	6,253,284.0	1,941,444.6	127.00				Average	
		point114	114	6,253,309.0	1,941,262.9	125.00				Average	
		point113	113	6,253,342.0	1,941,021.6	124.00				Average	

		point112	112	6,253,361.5	1,940,873.6	123.00				Average	
		point111	111	6,253,378.0	1,940,745.4	123.00				Average	
		point110	110	6,253,395.5	1,940,613.9	122.00				Average	
		point109	109	6,253,413.0	1,940,479.4	120.00				Average	
		point108	108	6,253,427.5	1,940,368.6	120.00				Average	
		point107	107	6,253,450.0	1,940,192.6	119.00				Average	
		point106	106	6,253,485.0	1,939,928.1	115.00				Average	
		point105	105	6,253,524.0	1,939,632.4	111.00					

LDN 6 March 2017
J. Louden TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
I-SB-OS	point23	23	8228	65	394	65	378	55	0	0	0	0
	point22	22	8228	65	394	65	378	55	0	0	0	0
	point21	21	8228	65	394	65	378	55	0	0	0	0
	point20	20	8228	65	394	65	378	55	0	0	0	0
	point19	19	8228	65	394	65	378	55	0	0	0	0
	point18	18	8228	65	394	65	378	55	0	0	0	0
	point17	17	8228	65	394	65	378	55	0	0	0	0
	point16	16	8228	65	394	65	378	55	0	0	0	0
	point15	15	8228	65	394	65	378	55	0	0	0	0
	point14	14	8228	65	394	65	378	55	0	0	0	0
	point13	13	8228	65	394	65	378	55	0	0	0	0
	point12	12	8228	65	394	65	378	55	0	0	0	0
	point11	11	8228	65	394	65	378	55	0	0	0	0
	point10	10	8228	65	394	65	378	55	0	0	0	0
	point9	9										
I-SB-IS	point38	38	8737	65	263	65	0	0	0	0	0	0
	point37	37	8737	65	263	65	0	0	0	0	0	0
	point36	36	8737	65	263	65	0	0	0	0	0	0
	point35	35	8737	65	263	65	0	0	0	0	0	0
	point34	34	8737	65	263	65	0	0	0	0	0	0
	point33	33	8737	65	263	65	0	0	0	0	0	0
	point32	32	8737	65	263	65	0	0	0	0	0	0
	point31	31	8737	65	263	65	0	0	0	0	0	0

	point30	30	8737	65	263	65	0	0	0	0	0	0
	point29	29	8737	65	263	65	0	0	0	0	0	0
	point28	28	8737	65	263	65	0	0	0	0	0	0
	point27	27	8737	65	263	65	0	0	0	0	0	0
	point26	26	8737	65	263	65	0	0	0	0	0	0
	point25	25	8737	65	263	65	0	0	0	0	0	0
	point24	24										
I-NB-IS	point39	39	8737	65	263	65	0	0	0	0	0	0
	point40	40	8737	65	263	65	0	0	0	0	0	0
	point41	41	8737	65	263	65	0	0	0	0	0	0
	point42	42	8737	65	263	65	0	0	0	0	0	0
	point43	43	8737	65	263	65	0	0	0	0	0	0
	point44	44	8737	65	263	65	0	0	0	0	0	0
	point45	45	8737	65	263	65	0	0	0	0	0	0
	point46	46	8737	65	263	65	0	0	0	0	0	0
	point47	47	8737	65	263	65	0	0	0	0	0	0
	point48	48	8737	65	263	65	0	0	0	0	0	0
	point49	49	8737	65	263	65	0	0	0	0	0	0
	point50	50	8737	65	263	65	0	0	0	0	0	0
	point51	51	8737	65	263	65	0	0	0	0	0	0
	point52	52	8737	65	263	65	0	0	0	0	0	0
	point53	53										
I-NB-OS	point54	54	8228	65	394	65	378	55	0	0	0	0
	point55	55	8228	65	394	65	378	55	0	0	0	0
	point56	56	8228	65	394	65	378	55	0	0	0	0
	point57	57	8228	65	394	65	378	55	0	0	0	0
	point58	58	8228	65	394	65	378	55	0	0	0	0
	point59	59	8228	65	394	65	378	55	0	0	0	0
	point60	60	8228	65	394	65	378	55	0	0	0	0
	point61	61	8228	65	394	65	378	55	0	0	0	0
	point62	62	8228	65	394	65	378	55	0	0	0	0
	point63	63	8228	65	394	65	378	55	0	0	0	0
	point64	64	8228	65	394	65	378	55	0	0	0	0
	point65	65	8228	65	394	65	378	55	0	0	0	0
	point66	66	8228	65	394	65	378	55	0	0	0	0
	point67	67	8228	65	394	65	378	55	0	0	0	0

	point68	68										
Genevieve St	point69	69	28	25	1	25	1	25	0	0	0	0
	point70	70	28	25	1	25	1	25	0	0	0	0
	point71	71	28	25	1	25	1	25	0	0	0	0
	point72	72	28	25	1	25	1	25	0	0	0	0
	point73	73	28	25	1	25	1	25	0	0	0	0
	point74	74	28	25	1	25	1	25	0	0	0	0
	point75	75	28	25	1	25	1	25	0	0	0	0
	point76	76										
Marine View Ave	point77	77	48	25	2	25	2	25	0	0	0	0
	point78	78	48	25	2	25	2	25	0	0	0	0
	point79	79	48	25	2	25	2	25	0	0	0	0
	point80	80	48	25	2	25	2	25	0	0	0	0
	point81	81	48	25	2	25	2	25	0	0	0	0
	point82	82	48	25	2	25	2	25	0	0	0	0
	point83	83	48	25	2	25	2	25	0	0	0	0
	point84	84	48	25	2	25	2	25	0	0	0	0
	point85	85	48	25	2	25	2	25	0	0	0	0
	point86	86	48	25	2	25	2	25	0	0	0	0
	point87	87	48	25	2	25	2	25	0	0	0	0
	point88	88	48	25	2	25	2	25	0	0	0	0
	point89	89										
I-5 HOV NB	point90	90	3000	65	0	0	0	0	0	0	0	0
	point91	91	3000	65	0	0	0	0	0	0	0	0
	point92	92	3000	65	0	0	0	0	0	0	0	0
	point93	93	3000	65	0	0	0	0	0	0	0	0
	point94	94	3000	65	0	0	0	0	0	0	0	0
	point95	95	3000	65	0	0	0	0	0	0	0	0
	point96	96	3000	65	0	0	0	0	0	0	0	0
	point97	97	3000	65	0	0	0	0	0	0	0	0
	point98	98	3000	65	0	0	0	0	0	0	0	0
	point99	99	3000	65	0	0	0	0	0	0	0	0
	point100	100	3000	65	0	0	0	0	0	0	0	0
	point101	101	3000	65	0	0	0	0	0	0	0	0
	point102	102	3000	65	0	0	0	0	0	0	0	0
	point103	103	3000	65	0	0	0	0	0	0	0	0

	point104	104										
i-5 AHOV SB	point119	119	3000	65	0	0	0	0	0	0	0	0
	point118	118	3000	65	0	0	0	0	0	0	0	0
	point117	117	3000	65	0	0	0	0	0	0	0	0
	point116	116	3000	65	0	0	0	0	0	0	0	0
	point115	115	3000	65	0	0	0	0	0	0	0	0
	point114	114	3000	65	0	0	0	0	0	0	0	0
	point113	113	3000	65	0	0	0	0	0	0	0	0
	point112	112	3000	65	0	0	0	0	0	0	0	0
	point111	111	3000	65	0	0	0	0	0	0	0	0
	point110	110	3000	65	0	0	0	0	0	0	0	0
	point109	109	3000	65	0	0	0	0	0	0	0	0
	point108	108	3000	65	0	0	0	0	0	0	0	0
	point107	107	3000	65	0	0	0	0	0	0	0	0
	point106	106	3000	65	0	0	0	0	0	0	0	0
	point105	105										

LDN			6 March 2017	
J. Louden			TNM 2.5	
INPUT: TERRAIN LINES				
PROJECT/CONTRACT:	RESIDENTIAL CARE FACILITY			
RUN:	Future Compatibility			
Terrain Line	Points			
Name	No.	Coordinates (ground)		
		X	Y	Z
		ft	ft	ft
Terrain Line2	3	6,253,300.5	1,942,208.6	130.00
	4	6,253,326.5	1,941,993.8	128.00
	5	6,253,359.0	1,941,717.8	126.00
	6	6,253,373.5	1,941,612.2	125.00
	7	6,253,385.0	1,941,523.8	124.00
	8	6,253,398.0	1,941,418.2	124.00
	9	6,253,416.0	1,941,327.1	124.00
	10	6,253,434.0	1,941,230.8	123.00
	11	6,253,440.5	1,941,133.1	122.00
	12	6,253,448.5	1,941,032.9	122.00
	13	6,253,461.5	1,940,945.6	122.00
	14	6,253,470.5	1,940,858.4	122.00
	15	6,253,492.0	1,940,704.8	122.00
	16	6,253,506.5	1,940,605.8	122.00
	17	6,253,518.5	1,940,480.8	120.00
	18	6,253,567.0	1,940,131.8	115.00
	19	6,253,610.0	1,939,741.1	111.00
	20	6,253,624.5	1,939,647.4	111.00
Terrain Line3	21	6,253,641.5	1,940,542.2	145.00
	22	6,253,633.5	1,940,537.9	144.00
	23	6,253,624.5	1,940,535.2	143.00
	24	6,253,611.0	1,940,535.5	142.00
	25	6,253,595.5	1,940,535.2	141.00
	26	6,253,582.5	1,940,536.2	140.00

	27	6,253,575.5	1,940,537.5	139.00
	28	6,253,558.0	1,940,542.9	138.00
	29	6,253,549.0	1,940,546.8	137.00
	30	6,253,542.0	1,940,552.1	136.00
	31	6,253,532.0	1,940,568.4	135.00
	32	6,253,529.5	1,940,603.6	133.00
	33	6,253,524.5	1,940,664.0	131.00
	34	6,253,511.0	1,940,873.6	116.00
	35	6,253,509.0	1,940,941.0	114.00
	36	6,253,499.0	1,941,018.6	111.00
	37	6,253,488.5	1,941,091.6	109.00
	38	6,253,481.5	1,941,164.5	112.00
	39	6,253,477.5	1,941,231.6	112.00
Terrain Line4	40	6,253,649.0	1,940,714.9	124.00
	41	6,253,644.5	1,940,673.9	124.00
	42	6,253,643.0	1,940,669.1	124.00
	43	6,253,639.5	1,940,658.1	124.00
	44	6,253,632.0	1,940,652.5	124.00
	45	6,253,625.5	1,940,651.1	124.00
Terrain Line5	46	6,253,653.5	1,940,868.4	121.00
	47	6,253,654.5	1,940,908.8	121.00
	48	6,253,656.0	1,940,980.5	121.00
	49	6,253,658.5	1,941,074.9	121.00
Terrain Line6	50	6,253,647.5	1,940,816.9	122.00
	51	6,253,649.0	1,940,846.0	122.00
	52	6,253,650.5	1,940,867.5	122.00
Terrain Line7	53	6,253,648.0	1,940,818.9	122.00
	54	6,253,648.5	1,940,813.2	122.00
	55	6,253,648.0	1,940,799.8	122.00
	56	6,253,647.0	1,940,780.9	122.00
	57	6,253,645.5	1,940,750.8	122.00
	58	6,253,643.0	1,940,705.9	122.00
	59	6,253,642.0	1,940,673.9	123.00
Terrain Line8	60	6,253,556.0	1,940,623.1	129.00
	61	6,253,559.5	1,940,599.5	129.00
	62	6,253,564.5	1,940,599.9	129.00

	63	6,253,566.0	1,940,597.1	129.00
	64	6,253,571.0	1,940,566.6	129.00
	65	6,253,575.0	1,940,560.9	129.00
	66	6,253,583.5	1,940,559.4	129.00
	67	6,253,596.0	1,940,560.2	129.00
	68	6,253,608.5	1,940,563.1	129.00
	69	6,253,613.0	1,940,565.6	129.00
	70	6,253,620.0	1,940,572.1	129.00
	71	6,253,626.0	1,940,580.6	129.00
Terrain Line9	72	6,253,529.0	1,940,689.4	128.00
	73	6,253,535.5	1,940,629.1	128.00
	74	6,253,537.5	1,940,625.9	128.00
	75	6,253,541.0	1,940,625.0	128.00
	76	6,253,555.5	1,940,627.0	128.00
Terrain Line10	77	6,253,515.5	1,940,829.5	120.00
	78	6,253,516.0	1,940,818.9	120.00
	79	6,253,525.0	1,940,783.2	120.00
	80	6,253,526.5	1,940,775.2	120.00
	81	6,253,532.5	1,940,749.2	120.00
	82	6,253,535.0	1,940,742.8	120.00
	83	6,253,540.5	1,940,719.4	120.00
	84	6,253,545.0	1,940,687.5	120.00
	86	6,253,550.0	1,940,643.8	120.00
	87	6,253,550.0	1,940,644.4	120.00
Terrain Line11	88	6,253,512.0	1,940,860.1	117.00
	89	6,253,532.0	1,940,785.4	117.00
	90	6,253,532.0	1,940,801.8	117.00
	91	6,253,534.0	1,940,802.8	117.00
Terrain Line12	92	6,253,566.5	1,940,897.5	116.00
	93	6,253,566.5	1,940,942.0	115.00
	94	6,253,562.5	1,940,963.5	114.00
	95	6,253,558.0	1,940,995.5	113.00
	96	6,253,555.0	1,941,017.6	112.00
	97	6,253,552.5	1,941,039.9	111.00
	98	6,253,538.5	1,941,056.8	110.00
	99	6,253,538.0	1,941,063.4	110.00

	100	6,253,532.0	1,941,125.2	110.00
	101	6,253,529.5	1,941,136.6	110.00
	102	6,253,527.5	1,941,151.4	110.00
	103	6,253,525.5	1,941,166.6	111.00
	104	6,253,524.0	1,941,181.2	111.00
	105	6,253,523.5	1,941,187.2	112.00
Terrain Line13	106	6,253,525.0	1,940,888.6	116.00
	107	6,253,529.0	1,940,888.9	116.00
	108	6,253,563.5	1,940,896.0	116.00
	109	6,253,566.5	1,940,897.5	116.00
	110	6,253,588.5	1,940,920.5	116.00
Terrain Line14	111	6,253,566.5	1,941,211.8	116.00
	112	6,253,566.0	1,941,204.9	116.00
	113	6,253,564.0	1,941,201.4	116.00
	114	6,253,560.5	1,941,198.4	116.00
	115	6,253,558.0	1,941,197.9	116.00
	116	6,253,550.5	1,941,194.5	116.00
	117	6,253,544.5	1,941,190.2	116.00
	118	6,253,541.5	1,941,186.0	116.00
	119	6,253,541.0	1,941,182.2	116.00
	120	6,253,538.0	1,941,164.9	116.00
	121	6,253,538.5	1,941,153.9	116.00
	122	6,253,543.5	1,941,122.0	116.00
Terrain Line15	123	6,253,654.0	1,941,193.4	126.00
	124	6,253,648.0	1,941,193.6	125.00
	125	6,253,645.0	1,941,193.9	124.00
	126	6,253,640.5	1,941,193.8	123.00
	127	6,253,638.0	1,941,193.8	122.00
	128	6,253,575.0	1,941,195.0	117.00
Terrain Line16	129	6,253,777.5	1,941,106.9	130.00
	130	6,253,785.5	1,941,109.9	130.00
	131	6,253,791.5	1,941,122.4	130.00
	132	6,253,792.5	1,941,152.1	130.00
	133	6,253,788.0	1,941,177.8	130.00
	134	6,253,781.5	1,941,177.4	130.00
	135	6,253,752.0	1,941,177.9	130.00

Terrain Line17	136	6,253,862.5	1,941,186.1	140.00
	137	6,253,840.5	1,941,198.1	138.00
	138	6,253,824.0	1,941,196.1	137.00
	139	6,253,808.5	1,941,191.4	136.00
	140	6,253,802.0	1,941,147.1	136.00
	141	6,253,803.0	1,941,119.9	136.00
	142	6,253,803.5	1,941,116.4	136.00
	143	6,253,806.5	1,941,112.9	136.00
	144	6,253,813.0	1,941,110.1	136.00
	145	6,253,813.5	1,941,108.0	136.00
	146	6,253,812.5	1,941,096.9	136.00
Terrain Line19	148	6,253,649.5	1,941,177.4	116.90
	149	6,253,601.0	1,941,180.6	116.90
	150	6,253,602.0	1,941,172.8	116.90
	151	6,253,544.0	1,941,164.1	116.90
	152	6,253,549.0	1,941,121.1	116.90
	153	6,253,557.5	1,941,121.5	116.90
	154	6,253,568.0	1,941,037.6	116.90
	155	6,253,579.0	1,940,946.1	116.90
	156	6,253,582.0	1,940,946.6	116.90
	157	6,253,582.5	1,940,942.9	116.90
	158	6,253,591.5	1,940,935.0	116.90
	159	6,253,597.5	1,940,925.4	116.90
	160	6,253,601.5	1,940,913.1	116.90
	161	6,253,606.0	1,940,913.8	116.90
	162	6,253,606.5	1,940,908.5	116.90
	163	6,253,643.5	1,940,908.9	116.90
	164	6,253,641.0	1,940,929.5	116.90
	165	6,253,647.0	1,940,930.1	116.90
	166	6,253,642.5	1,940,965.9	116.90
	167	6,253,636.5	1,940,965.1	116.90
	168	6,253,634.0	1,940,987.8	116.90
	169	6,253,624.5	1,940,986.6	116.90
	170	6,253,622.0	1,941,007.0	116.90
	171	6,253,623.0	1,941,007.1	116.90
	172	6,253,621.5	1,941,020.8	116.90

	173	6,253,630.0	1,941,021.8	116.90
	174	6,253,627.0	1,941,044.9	116.90
	175	6,253,622.5	1,941,044.2	116.90
	176	6,253,620.0	1,941,068.4	116.90
	177	6,253,614.0	1,941,115.5	116.90
	178	6,253,632.5	1,941,118.8	116.90
	179	6,253,658.0	1,941,118.1	116.90
	180	6,253,659.0	1,941,155.8	116.90
	181	6,253,649.0	1,941,156.0	116.90
	182	6,253,649.5	1,941,177.4	116.90
Terrain Line20	183	6,253,624.0	1,940,849.2	118.00
	184	6,253,622.5	1,940,863.1	118.00
	185	6,253,612.5	1,940,862.0	118.00
	186	6,253,595.5	1,940,862.2	118.00
	187	6,253,565.0	1,940,858.5	118.00
	188	6,253,565.0	1,940,861.2	118.00
	189	6,253,543.5	1,940,858.6	118.00
	190	6,253,547.0	1,940,829.1	118.00
	191	6,253,537.0	1,940,827.9	118.00
	192	6,253,559.5	1,940,657.2	118.00
	193	6,253,593.0	1,940,661.2	118.00
	194	6,253,594.0	1,940,652.1	118.00
	195	6,253,618.5	1,940,655.1	118.00
	196	6,253,608.0	1,940,756.5	118.00
	197	6,253,640.0	1,940,760.4	118.00
	198	6,253,635.5	1,940,793.9	118.00
	199	6,253,638.0	1,940,794.2	118.00
	200	6,253,633.0	1,940,835.9	118.00
	201	6,253,634.5	1,940,836.1	118.00
	202	6,253,633.0	1,940,850.2	118.00
	203	6,253,624.0	1,940,849.2	118.00

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INPUT: RECEIVERS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
F-1	24	1	6,253,651.0	1,941,184.4	116.90	5.00	0.00	65	12.0	5.0	Y
F-2	25	1	6,253,566.0	1,941,175.5	116.90	5.00	0.00	65	12.0	5.0	Y
F-3	26	1	6,253,554.0	1,941,113.5	116.90	5.00	0.00	65	12.0	5.0	Y
F-4	27	1	6,253,563.0	1,941,043.5	116.90	5.00	0.00	65	12.0	5.0	Y
F-5	28	1	6,253,568.5	1,940,958.5	116.90	5.00	0.00	65	12.0	5.0	Y
F-6	29	1	6,253,542.0	1,940,834.1	118.00	5.00	0.00	65	12.0	5.0	Y
F-7	30	1	6,253,538.5	1,940,755.6	118.00	5.00	0.00	65	12.0	5.0	Y
F-8	31	1	6,253,552.0	1,940,659.9	118.00	5.00	0.00	65	12.0	5.0	Y
F-9	33	1	6,253,589.5	1,940,609.8	129.50	5.00	0.00	65	12.0	5.0	Y
F-10	34	1	6,253,633.5	1,940,658.6	129.50	5.00	0.00	65	12.0	5.0	Y
E-1	36	1	6,253,648.0	1,941,105.5	117.00	5.00	0.00	65	12.0	5.0	Y
E-2	37	1	6,253,630.0	1,941,095.6	117.00	5.00	0.00	65	12.0	5.0	Y
E-3	38	1	6,253,824.0	1,941,161.6	117.00	5.00	0.00	65	12.0	5.0	Y
E-4	39	1	6,253,850.0	1,941,122.8	117.00	5.00	0.00	65	12.0	5.0	Y
E-5	40	1	6,253,648.0	1,941,065.8	117.00	5.00	0.00	65	12.0	5.0	Y
E-6	41	1	6,253,649.5	1,941,042.8	117.00	5.00	0.00	65	12.0	5.0	Y
E-7	42	1	6,253,650.0	1,940,998.5	117.00	5.00	0.00	65	12.0	5.0	Y
E-8	43	1	6,253,640.5	1,940,880.2	117.50	5.00	0.00	65	12.0	5.0	Y
E-9	44	1	6,253,629.5	1,940,744.6	117.50	5.00	0.00	65	12.0	5.0	Y
E-10	45	1	6,253,632.0	1,940,713.0	117.50	5.00	0.00	65	12.0	5.0	Y
E-11	47	1	6,253,578.5	1,940,595.4	129.50	5.00	0.00	65	12.0	5.0	Y
E-12	48	1	6,253,603.0	1,940,580.8	129.50	5.00	0.00	65	12.0	5.0	Y

F-1B	51	1	6,253,651.5	1,941,183.6	130.90	5.00	0.00	65	12.0	5.0	Y
F-2B	52	1	6,253,566.0	1,941,176.6	130.90	5.00	0.00	65	12.0	5.0	Y
F-3B	53	1	6,253,554.0	1,941,112.6	130.90	5.00	0.00	65	12.0	5.0	Y
F-4B	54	1	6,253,563.5	1,941,044.2	130.90	5.00	0.00	65	12.0	5.0	Y
F-5B	55	1	6,253,569.5	1,940,959.9	130.90	5.00	0.00	65	12.0	5.0	Y
F-6B	56	1	6,253,542.5	1,940,835.8	132.00	5.00	0.00	65	12.0	5.0	Y
F-7B	57	1	6,253,539.0	1,940,754.9	132.00	5.00	0.00	65	12.0	5.0	Y
F-8B	58	1	6,253,553.0	1,940,660.0	132.00	5.00	0.00	65	12.0	5.0	Y
F-9B	59	1	6,253,589.5	1,940,608.8	132.00	5.00	0.00	65	12.0	5.0	Y
F-10B	60	1	6,253,634.0	1,940,658.9	132.00	5.00	0.00	65	12.0	5.0	Y

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INPUT: BARRIERS
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
North Building	W	0.00	99.99	0.00				0.00	point75	75	6,253,659.0	1,941,155.8	116.90	24.00	0.00	0	0		
									point76	76	6,253,649.0	1,941,156.0	116.90	24.00	0.00	0	0		
									point77	77	6,253,649.5	1,941,177.4	116.90	24.00	0.00	0	0		
									point78	78	6,253,601.0	1,941,180.6	116.90	24.00	0.00	0	0		
									point79	79	6,253,602.0	1,941,172.8	116.90	24.00	0.00	0	0		
									point80	80	6,253,544.0	1,941,164.1	116.90	24.00	0.00	0	0		
									point81	81	6,253,549.0	1,941,121.1	116.90	24.00	0.00	0	0		
									point82	82	6,253,557.5	1,941,121.5	116.90	24.00	0.00	0	0		
									point83	83	6,253,579.0	1,940,946.1	116.90	24.00	0.00	0	0		
									point84	84	6,253,582.0	1,940,946.6	116.90	24.00	0.00	0	0		
									point85	85	6,253,582.5	1,940,942.9	116.90	24.00	0.00	0	0		
									point86	86	6,253,591.5	1,940,935.0	116.90	24.00	0.00	0	0		
									point87	87	6,253,597.5	1,940,925.4	116.90	24.00	0.00	0	0		
									point88	88	6,253,601.5	1,940,913.1	116.90	24.00	0.00	0	0		
									point89	89	6,253,606.0	1,940,913.8	116.90	24.00	0.00	0	0		
									point90	90	6,253,606.5	1,940,908.5	116.90	24.00	0.00	0	0		
									point91	91	6,253,643.5	1,940,908.9	116.90	24.00	0.00	0	0		
									point92	92	6,253,641.0	1,940,929.5	116.90	24.00					
South Building	W	0.00	99.99	0.00				0.00	point93	93	6,253,633.0	1,940,850.2	118.00	24.00	0.00	0	0		
									point94	94	6,253,624.0	1,940,849.2	118.00	24.00	0.00	0	0		
									point95	95	6,253,622.5	1,940,863.1	118.00	24.00	0.00	0	0		
									point96	96	6,253,595.5	1,940,862.2	118.00	24.00	0.00	0	0		
									point97	97	6,253,565.0	1,940,858.5	118.00	24.00	0.00	0	0		
									point98	98	6,253,565.0	1,940,861.2	118.00	24.00	0.00	0	0		
									point99	99	6,253,543.5	1,940,858.6	118.00	24.00	0.00	0	0		
									point100	100	6,253,547.0	1,940,829.1	118.00	24.00	0.00	0	0		
									point101	101	6,253,537.0	1,940,827.9	118.00	24.00	0.00	0	0		
									point102	102	6,253,559.5	1,940,657.2	118.00	24.00	0.00	0	0		
									point103	103	6,253,565.5	1,940,608.8	130.00	24.00	0.00	0	0		
									point104	104	6,253,592.0	1,940,612.0	130.00	24.00	0.00	0	0		
									point105	105	6,253,591.5	1,940,617.9	130.00	24.00	0.00	0	0		
									point106	106	6,253,597.5	1,940,618.8	130.00	24.00	0.00	0	0		
									point107	107	6,253,596.0	1,940,631.2	130.00	24.00	0.00	0	0		
									point108	108	6,253,622.0	1,940,634.4	130.00	24.00					
Building Connecting hallway	W	0.00	99.99	0.00				0.00	point109	109	6,253,613.0	1,940,908.0	118.00	24.00	0.00	0	0		

									point110	110	6,253,612.0	1,940,898.4	118.00	24.00	0.00	0	0		
									point111	111	6,253,609.5	1,940,890.8	118.00	24.00	0.00	0	0		
									point112	112	6,253,606.0	1,940,885.4	118.00	24.00	0.00	0	0		
									point113	113	6,253,601.0	1,940,876.6	118.00	24.00	0.00	0	0		
									point114	114	6,253,596.5	1,940,869.1	118.00	24.00	0.00	0	0		
									point115	115	6,253,594.5	1,940,862.4	118.00	24.00					
Soundwall2	W	0.00	99.99	0.00				0.00	point116	116	6,253,556.0	1,940,623.1	129.00	8.00	2.00	2	1		
									point117	117	6,253,559.5	1,940,599.5	129.00	8.00	2.00	2	1		
									point118	118	6,253,564.5	1,940,599.9	129.00	8.00	2.00	2	1		
									point119	119	6,253,566.0	1,940,597.1	129.00	8.00	2.00	2	1		
									point120	120	6,253,571.0	1,940,566.6	129.00	8.00	2.00	2	1		
									point121	121	6,253,575.0	1,940,560.9	129.00	8.00	2.00	2	1		
									point122	122	6,253,583.5	1,940,559.4	129.00	8.00	2.00	2	1		
									point123	123	6,253,596.0	1,940,560.2	129.00	8.00	2.00	2	1		
									point124	124	6,253,608.5	1,940,563.1	129.00	8.00	2.00	2	1		
									point125	125	6,253,620.0	1,940,572.1	129.00	8.00	2.00	2	1		
									point127	127	6,253,626.0	1,940,580.6	129.00	8.00					
Caltrans_S206_Barrier	W	0.00	99.99	0.00				0.00	point128	128	6,253,408.0	1,941,343.4	124.00	16.00	2.00	0	1		
									point129	129	6,253,418.0	1,941,268.9	124.00	16.00	2.00	0	1		
									point130	130	6,253,427.5	1,941,225.9	123.00	16.00	2.00	0	1		
									point131	131	6,253,436.0	1,941,154.0	123.00	16.00	2.00	0	1		
									point132	132	6,253,444.0	1,941,071.4	122.00	16.00	2.00	0	1		
									point133	133	6,253,452.5	1,940,990.5	122.00	16.00	2.00	0	1		
									point134	134	6,253,463.5	1,940,914.8	122.00	16.00	2.00	0	1		
									point135	135	6,253,470.5	1,940,845.9	122.00	16.00	2.00	0	1		
									point136	136	6,253,480.0	1,940,765.0	122.00	16.00	2.00	0	1		
									point137	137	6,253,487.5	1,940,703.0	122.00	16.00	2.00	0	1		
									point138	138	6,253,503.5	1,940,592.9	122.00	16.00	2.00	0	1		
									point139	139	6,253,513.5	1,940,496.5	122.00	16.00	2.00	0	1		
									point140	140	6,253,529.0	1,940,376.0	122.00	16.00	2.00	0	1		
									point141	141	6,253,547.0	1,940,236.6	122.00	16.00	2.00	0	1		
									point142	142	6,253,554.0	1,940,186.6	121.00	16.00	2.00	0	1		
									point143	143	6,253,565.5	1,940,098.9	121.00	16.00					

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INPUT: RECEIVER ADJUSTMENT FACTORS					
PROJECT/CONTRACT:	RESIDENTIAL CARE FACILITY				
RUN:	Future Compatibility				
Receiver					
Name	No.	Individual Roadway Segment Adjustment Factors			
		Roadway	Segment		
		Name	Name	No.	Adj. Factor
					dB
<< This table is empty >>					

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J. Louden TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: RESIDENTIAL CARE FACILITY
RUN: Future Compatibility
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc LAeq1h	Noise Reduction Calc	Noise Reduction Goal	Noise Reduction Calc-Goal	Barrier Reviewed	Important Segments Name	Important Segments No.	Important Segments Height	Partial LAeq1h
		dBA	dB	dB	dB				ft	dBA
F-1	24	62.1	7.6	5	2.6	Caltrans_S206_Barrier	point130	130	16.0	54.3
						Caltrans_S206_Barrier	point128	128	16.0	53.7
						Caltrans_S206_Barrier	point129	129	16.0	52.4
						Caltrans_S206_Barrier	point131	131	16.0	39.8
						Caltrans_S206_Barrier	point132	132	16.0	38.9
						Caltrans_S206_Barrier	point133	133	16.0	36.7
						Caltrans_S206_Barrier	point134	134	16.0	34.3
						Caltrans_S206_Barrier	point135	135	16.0	33.6
						Caltrans_S206_Barrier	point137	137	16.0	32.0
						Caltrans_S206_Barrier	point136	136	16.0	30.9
F-2	25	67.5	6.5	5	1.5	Caltrans_S206_Barrier	point130	130	16.0	58.0
						Caltrans_S206_Barrier	point131	131	16.0	56.0
						Caltrans_S206_Barrier	point128	128	16.0	55.8
						Caltrans_S206_Barrier	point129	129	16.0	54.8
						Caltrans_S206_Barrier	point132	132	16.0	41.8
						Caltrans_S206_Barrier	point133	133	16.0	40.0
						Caltrans_S206_Barrier	point134	134	16.0	36.5
						Caltrans_S206_Barrier	point135	135	16.0	35.3
						Caltrans_S206_Barrier	point137	137	16.0	33.4
						Caltrans_S206_Barrier	point136	136	16.0	32.5
F-3	26	65.9	12.0	5	7.0	Caltrans_S206_Barrier	point131	131	16.0	59.8

						Caltrans_S206_Barrier	point132	132	16.0	58.6
						Caltrans_S206_Barrier	point130	130	16.0	57.6
						Caltrans_S206_Barrier	point133	133	16.0	56.2
						Caltrans_S206_Barrier	point128	128	16.0	54.2
						Caltrans_S206_Barrier	point134	134	16.0	53.5
						Caltrans_S206_Barrier	point129	129	16.0	53.2
						Caltrans_S206_Barrier	point135	135	16.0	52.7
						Caltrans_S206_Barrier	point137	137	16.0	51.3
						Caltrans_S206_Barrier	point136	136	16.0	50.3
F-4	27	67.7	10.8	5	5.8	Caltrans_S206_Barrier	point132	132	16.0	59.4
						Caltrans_S206_Barrier	point131	131	16.0	58.4
						Caltrans_S206_Barrier	point133	133	16.0	58.1
						Caltrans_S206_Barrier	point130	130	16.0	55.9
						Caltrans_S206_Barrier	point134	134	16.0	55.5
						Caltrans_S206_Barrier	point135	135	16.0	54.2
						Caltrans_S206_Barrier	point128	128	16.0	53.3
						Caltrans_S206_Barrier	point137	137	16.0	52.0
						Caltrans_S206_Barrier	point129	129	16.0	51.4
						Caltrans_S206_Barrier	point136	136	16.0	50.8
F-5	28	67.0	11.8	5	6.8	Caltrans_S206_Barrier	point133	133	16.0	59.5
						Caltrans_S206_Barrier	point132	132	16.0	58.7
						Caltrans_S206_Barrier	point134	134	16.0	58.2
						Caltrans_S206_Barrier	point135	135	16.0	56.7
						Caltrans_S206_Barrier	point131	131	16.0	56.6
						Caltrans_S206_Barrier	point130	130	16.0	54.2
						Caltrans_S206_Barrier	point136	136	16.0	53.2
						Caltrans_S206_Barrier	point128	128	16.0	52.0
						Caltrans_S206_Barrier	point137	137	16.0	50.1
						Caltrans_S206_Barrier	point129	129	16.0	49.5
F-6	29	66.8	14.4	5	9.4	Caltrans_S206_Barrier	point135	135	16.0	62.0
						Caltrans_S206_Barrier	point134	134	16.0	60.5
						Caltrans_S206_Barrier	point133	133	16.0	57.7
						Caltrans_S206_Barrier	point132	132	16.0	56.1
						Caltrans_S206_Barrier	point131	131	16.0	54.4
						Caltrans_S206_Barrier	point130	130	16.0	51.7
						Caltrans_S206_Barrier	point136	136	16.0	50.8

						Caltrans_S206_Barrier	point128	128	16.0	48.6
						Caltrans_S206_Barrier	point129	129	16.0	44.3
						Caltrans_S206_Barrier	point137	137	16.0	41.4
F-7	30	66.5	10.7	5	5.7	Caltrans_S206_Barrier	point136	136	16.0	60.3
						Caltrans_S206_Barrier	point135	135	16.0	60.0
						Caltrans_S206_Barrier	point137	137	16.0	59.1
						Caltrans_S206_Barrier	point134	134	16.0	56.2
						Caltrans_S206_Barrier	point133	133	16.0	54.0
						Caltrans_S206_Barrier	point132	132	16.0	53.6
						Caltrans_S206_Barrier	point131	131	16.0	52.4
						Caltrans_S206_Barrier	point138	138	16.0	49.7
						Caltrans_S206_Barrier	point130	130	16.0	48.7
						Caltrans_S206_Barrier	point128	128	16.0	45.8
F-8	31	62.9	6.7	5	1.7	Caltrans_S206_Barrier	point135	135	16.0	56.0
						Caltrans_S206_Barrier	point136	136	16.0	55.0
						Caltrans_S206_Barrier	point137	137	16.0	54.7
						Caltrans_S206_Barrier	point134	134	16.0	53.6
						Caltrans_S206_Barrier	point133	133	16.0	51.5
						Caltrans_S206_Barrier	point132	132	16.0	51.4
						Caltrans_S206_Barrier	point138	138	16.0	49.8
						Caltrans_S206_Barrier	point131	131	16.0	49.6
						Caltrans_S206_Barrier	point130	130	16.0	45.7
						Caltrans_S206_Barrier	point139	139	16.0	44.3
F-9	33	61.1	8.9	5	3.9	Caltrans_S206_Barrier	point138	138	16.0	55.7
						Soundwall2	point119	119	8.0	55.7
						Caltrans_S206_Barrier	point139	139	16.0	54.0
						Soundwall2	point122	122	8.0	53.2
						Soundwall2	point116	116	8.0	52.6
						Caltrans_S206_Barrier	point137	137	16.0	52.4
						Soundwall2	point121	121	8.0	51.0
						Caltrans_S206_Barrier	point140	140	16.0	50.1
						Soundwall2	point120	120	8.0	49.5
						Soundwall2	point118	118	8.0	47.2
F-10	34	61.8	5.0	5	-0.0	Caltrans_S206_Barrier	point137	137	16.0	54.5
						Caltrans_S206_Barrier	point135	135	16.0	50.9
						Caltrans_S206_Barrier	point136	136	16.0	50.5

						Caltrans_S206_Barrier	point138	138	16.0	50.1
						Soundwall2	point116	116	8.0	50.0
						Caltrans_S206_Barrier	point134	134	16.0	49.6
						Caltrans_S206_Barrier	point133	133	16.0	49.1
						Caltrans_S206_Barrier	point132	132	16.0	48.9
						Caltrans_S206_Barrier	point140	140	16.0	48.2
						Caltrans_S206_Barrier	point131	131	16.0	48.1
E-1	36	58.0	5.2	5	0.2	Caltrans_S206_Barrier	point131	131	16.0	47.2
						Caltrans_S206_Barrier	point132	132	16.0	46.5
						Caltrans_S206_Barrier	point130	130	16.0	46.2
						Caltrans_S206_Barrier	point133	133	16.0	45.2
						Caltrans_S206_Barrier	point134	134	16.0	43.2
						Caltrans_S206_Barrier	point128	128	16.0	43.0
						Caltrans_S206_Barrier	point135	135	16.0	42.4
						Caltrans_S206_Barrier	point129	129	16.0	42.1
						Caltrans_S206_Barrier	point137	137	16.0	41.3
						Caltrans_S206_Barrier	point138	138	16.0	40.1
E-2	37	58.0	5.3	5	0.3	Caltrans_S206_Barrier	point131	131	16.0	46.8
						Caltrans_S206_Barrier	point132	132	16.0	46.5
						Caltrans_S206_Barrier	point130	130	16.0	46.0
						Caltrans_S206_Barrier	point133	133	16.0	45.0
						Caltrans_S206_Barrier	point128	128	16.0	43.3
						Caltrans_S206_Barrier	point134	134	16.0	43.0
						Caltrans_S206_Barrier	point129	129	16.0	42.3
						Caltrans_S206_Barrier	point135	135	16.0	42.1
						Caltrans_S206_Barrier	point138	138	16.0	41.7
						Caltrans_S206_Barrier	point139	139	16.0	41.6
E-3	38	53.7	1.3	5	-3.7	Caltrans_S206_Barrier	point131	131	16.0	38.0
						Caltrans_S206_Barrier	point132	132	16.0	37.8
						Caltrans_S206_Barrier	point130	130	16.0	37.4
						Caltrans_S206_Barrier	point133	133	16.0	37.1
						Caltrans_S206_Barrier	point128	128	16.0	36.9
						Caltrans_S206_Barrier	point137	137	16.0	36.4
						Caltrans_S206_Barrier	point135	135	16.0	36.2
						Caltrans_S206_Barrier	point134	134	16.0	36.1
						Caltrans_S206_Barrier	point129	129	16.0	34.8

						Caltrans_S206_Barrier	point136	136	16.0	34.5
E-4	39	56.0	1.8	5	-3.2	Caltrans_S206_Barrier	point138	138	16.0	41.9
						Caltrans_S206_Barrier	point142	142	16.0	41.3
						Caltrans_S206_Barrier	point135	135	16.0	41.2
						Caltrans_S206_Barrier	point137	137	16.0	40.9
						Caltrans_S206_Barrier	point139	139	16.0	40.6
						Caltrans_S206_Barrier	point140	140	16.0	40.6
						Caltrans_S206_Barrier	point141	141	16.0	39.7
						Caltrans_S206_Barrier	point136	136	16.0	39.2
						Caltrans_S206_Barrier	point131	131	16.0	38.8
						Caltrans_S206_Barrier	point132	132	16.0	38.5
E-5	40	58.2	5.1	5	0.1	Caltrans_S206_Barrier	point132	132	16.0	46.7
						Caltrans_S206_Barrier	point131	131	16.0	46.6
						Caltrans_S206_Barrier	point133	133	16.0	45.7
						Caltrans_S206_Barrier	point130	130	16.0	45.2
						Caltrans_S206_Barrier	point134	134	16.0	43.9
						Caltrans_S206_Barrier	point128	128	16.0	43.2
						Caltrans_S206_Barrier	point135	135	16.0	43.1
						Caltrans_S206_Barrier	point137	137	16.0	42.5
						Caltrans_S206_Barrier	point129	129	16.0	41.8
						Caltrans_S206_Barrier	point138	138	16.0	41.2
E-6	41	58.3	4.9	5	-0.1	Caltrans_S206_Barrier	point132	132	16.0	46.7
						Caltrans_S206_Barrier	point131	131	16.0	46.3
						Caltrans_S206_Barrier	point133	133	16.0	45.9
						Caltrans_S206_Barrier	point130	130	16.0	44.5
						Caltrans_S206_Barrier	point134	134	16.0	44.3
						Caltrans_S206_Barrier	point137	137	16.0	43.7
						Caltrans_S206_Barrier	point135	135	16.0	43.4
						Caltrans_S206_Barrier	point128	128	16.0	43.1
						Caltrans_S206_Barrier	point129	129	16.0	41.1
						Caltrans_S206_Barrier	point136	136	16.0	41.1
E-7	42	58.1	4.9	5	-0.1	Caltrans_S206_Barrier	point132	132	16.0	46.5
						Caltrans_S206_Barrier	point133	133	16.0	46.3
						Caltrans_S206_Barrier	point131	131	16.0	45.7
						Caltrans_S206_Barrier	point134	134	16.0	44.9
						Caltrans_S206_Barrier	point130	130	16.0	43.9

						Caltrans_S206_Barrier	point135	135	16.0	43.5
						Caltrans_S206_Barrier	point128	128	16.0	42.3
						Caltrans_S206_Barrier	point137	137	16.0	42.0
						Caltrans_S206_Barrier	point136	136	16.0	40.5
						Caltrans_S206_Barrier	point129	129	16.0	40.3
E-8	43	53.6	5.2	5	0.2	Caltrans_S206_Barrier	point135	135	16.0	44.0
						Caltrans_S206_Barrier	point134	134	16.0	43.9
						Caltrans_S206_Barrier	point133	133	16.0	43.2
						Caltrans_S206_Barrier	point132	132	16.0	42.5
						Caltrans_S206_Barrier	point140	140	16.0	41.7
						Caltrans_S206_Barrier	point131	131	16.0	41.5
						Soundwall2	point124	124	8.0	41.3
						Caltrans_S206_Barrier	point137	137	16.0	40.7
						Caltrans_S206_Barrier	point139	139	16.0	40.4
						Soundwall2	point125	125	8.0	40.0
E-9	44	58.4	5.6	5	0.6	Caltrans_S206_Barrier	point137	137	16.0	50.1
						Caltrans_S206_Barrier	point135	135	16.0	49.6
						Caltrans_S206_Barrier	point136	136	16.0	48.7
						Caltrans_S206_Barrier	point138	138	16.0	48.4
						Caltrans_S206_Barrier	point134	134	16.0	48.2
						Caltrans_S206_Barrier	point133	133	16.0	46.9
						Caltrans_S206_Barrier	point139	139	16.0	46.2
						Caltrans_S206_Barrier	point132	132	16.0	45.1
						Soundwall2	point116	116	8.0	44.9
						Soundwall2	point119	119	8.0	43.8
E-10	45	58.7	5.2	5	0.2	Caltrans_S206_Barrier	point137	137	16.0	50.5
						Caltrans_S206_Barrier	point138	138	16.0	49.7
						Caltrans_S206_Barrier	point135	135	16.0	49.2
						Caltrans_S206_Barrier	point136	136	16.0	48.5
						Caltrans_S206_Barrier	point134	134	16.0	47.8
						Soundwall2	point116	116	8.0	46.2
						Caltrans_S206_Barrier	point133	133	16.0	46.2
						Caltrans_S206_Barrier	point132	132	16.0	45.2
						Caltrans_S206_Barrier	point139	139	16.0	45.0
						Soundwall2	point119	119	8.0	44.1
E-11	47	62.0	12.3	5	7.3	Soundwall2	point119	119	8.0	58.5

						Caltrans_S206_Barrier	point137	137	16.0	56.9
						Caltrans_S206_Barrier	point138	138	16.0	56.0
						Soundwall2	point116	116	8.0	55.9
						Caltrans_S206_Barrier	point139	139	16.0	54.2
						Soundwall2	point121	121	8.0	52.9
						Soundwall2	point120	120	8.0	51.2
						Caltrans_S206_Barrier	point140	140	16.0	50.5
						Caltrans_S206_Barrier	point136	136	16.0	47.0
						Caltrans_S206_Barrier	point135	135	16.0	45.3
E-12	48	61.8	9.1	5	4.1	Caltrans_S206_Barrier	point138	138	16.0	56.0
						Soundwall2	point119	119	8.0	55.8
						Caltrans_S206_Barrier	point137	137	16.0	55.6
						Caltrans_S206_Barrier	point139	139	16.0	54.1
						Soundwall2	point123	123	8.0	53.8
						Soundwall2	point122	122	8.0	53.5
						Soundwall2	point116	116	8.0	52.8
						Soundwall2	point121	121	8.0	50.6
						Caltrans_S206_Barrier	point140	140	16.0	49.7
						Soundwall2	point120	120	8.0	49.4
F-1B	51	72.3	3.5	5	-1.5	Caltrans_S206_Barrier	point130	130	16.0	56.5
						Caltrans_S206_Barrier	point128	128	16.0	56.2
						Caltrans_S206_Barrier	point129	129	16.0	54.4
						Caltrans_S206_Barrier	point131	131	16.0	49.3
						Caltrans_S206_Barrier	point132	132	16.0	45.5
						Caltrans_S206_Barrier	point133	133	16.0	43.7
						Caltrans_S206_Barrier	point134	134	16.0	41.8
						Caltrans_S206_Barrier	point135	135	16.0	41.4
						Caltrans_S206_Barrier	point137	137	16.0	40.2
						Caltrans_S206_Barrier	point139	139	16.0	40.2
F-2B	52	73.5	6.1	5	1.1	Caltrans_S206_Barrier	point130	130	16.0	60.8
						Caltrans_S206_Barrier	point131	131	16.0	59.1
						Caltrans_S206_Barrier	point128	128	16.0	58.4
						Caltrans_S206_Barrier	point129	129	16.0	57.8
						Caltrans_S206_Barrier	point132	132	16.0	48.1
						Caltrans_S206_Barrier	point133	133	16.0	45.5
						Caltrans_S206_Barrier	point134	134	16.0	43.0

						Caltrans_S206_Barrier	point135	135	16.0	42.3
						Caltrans_S206_Barrier	point137	137	16.0	40.8
						Caltrans_S206_Barrier	point136	136	16.0	39.5
F-3B	53	69.5	12.2	5	7.2	Caltrans_S206_Barrier	point131	131	16.0	61.8
						Caltrans_S206_Barrier	point132	132	16.0	61.3
						Caltrans_S206_Barrier	point130	130	16.0	60.6
						Caltrans_S206_Barrier	point133	133	16.0	59.2
						Caltrans_S206_Barrier	point128	128	16.0	57.5
						Caltrans_S206_Barrier	point134	134	16.0	56.2
						Caltrans_S206_Barrier	point129	129	16.0	56.1
						Caltrans_S206_Barrier	point135	135	16.0	55.1
						Caltrans_S206_Barrier	point137	137	16.0	53.6
						Caltrans_S206_Barrier	point136	136	16.0	52.3
F-4B	54	71.9	10.0	5	5.0	Caltrans_S206_Barrier	point132	132	16.0	62.4
						Caltrans_S206_Barrier	point131	131	16.0	61.6
						Caltrans_S206_Barrier	point133	133	16.0	60.9
						Caltrans_S206_Barrier	point130	130	16.0	58.8
						Caltrans_S206_Barrier	point134	134	16.0	58.3
						Caltrans_S206_Barrier	point135	135	16.0	56.7
						Caltrans_S206_Barrier	point128	128	16.0	55.9
						Caltrans_S206_Barrier	point137	137	16.0	54.7
						Caltrans_S206_Barrier	point129	129	16.0	54.3
						Caltrans_S206_Barrier	point136	136	16.0	53.7
F-5B	55	71.0	10.9	5	5.9	Caltrans_S206_Barrier	point133	133	16.0	62.0
						Caltrans_S206_Barrier	point132	132	16.0	61.7
						Caltrans_S206_Barrier	point134	134	16.0	60.8
						Caltrans_S206_Barrier	point131	131	16.0	59.7
						Caltrans_S206_Barrier	point135	135	16.0	59.3
						Caltrans_S206_Barrier	point130	130	16.0	57.1
						Caltrans_S206_Barrier	point136	136	16.0	55.7
						Caltrans_S206_Barrier	point128	128	16.0	54.4
						Caltrans_S206_Barrier	point137	137	16.0	53.4
						Caltrans_S206_Barrier	point129	129	16.0	52.2
F-6B	56	71.0	11.7	5	6.7	Caltrans_S206_Barrier	point135	135	16.0	65.5
						Caltrans_S206_Barrier	point134	134	16.0	64.8
						Caltrans_S206_Barrier	point133	133	16.0	62.0

						Caltrans_S206_Barrier	point132	132	16.0	60.1
						Caltrans_S206_Barrier	point131	131	16.0	58.0
						Caltrans_S206_Barrier	point136	136	16.0	57.3
						Caltrans_S206_Barrier	point130	130	16.0	54.7
						Caltrans_S206_Barrier	point128	128	16.0	50.7
						Caltrans_S206_Barrier	point137	137	16.0	47.9
						Caltrans_S206_Barrier	point129	129	16.0	46.9
F-7B	57	72.3	11.8	5	6.8	Caltrans_S206_Barrier	point136	136	16.0	66.4
						Caltrans_S206_Barrier	point135	135	16.0	66.0
						Caltrans_S206_Barrier	point137	137	16.0	64.5
						Caltrans_S206_Barrier	point134	134	16.0	61.9
						Caltrans_S206_Barrier	point133	133	16.0	59.3
						Caltrans_S206_Barrier	point138	138	16.0	58.4
						Caltrans_S206_Barrier	point132	132	16.0	58.0
						Caltrans_S206_Barrier	point139	139	16.0	55.9
						Caltrans_S206_Barrier	point131	131	16.0	55.8
						Caltrans_S206_Barrier	point130	130	16.0	51.7
F-8B	58	72.0	11.5	5	6.5	Caltrans_S206_Barrier	point137	137	16.0	68.4
						Caltrans_S206_Barrier	point136	136	16.0	63.0
						Caltrans_S206_Barrier	point138	138	16.0	62.7
						Caltrans_S206_Barrier	point135	135	16.0	60.9
						Caltrans_S206_Barrier	point139	139	16.0	59.0
						Caltrans_S206_Barrier	point134	134	16.0	58.6
						Caltrans_S206_Barrier	point133	133	16.0	56.4
						Caltrans_S206_Barrier	point132	132	16.0	55.9
						Caltrans_S206_Barrier	point140	140	16.0	54.0
						Caltrans_S206_Barrier	point131	131	16.0	53.6
F-9B	59	66.0	6.1	5	1.1	Caltrans_S206_Barrier	point138	138	16.0	63.7
						Soundwall2	point119	119	8.0	62.6
						Soundwall2	point116	116	8.0	59.9
						Caltrans_S206_Barrier	point137	137	16.0	58.3
						Caltrans_S206_Barrier	point139	139	16.0	56.9
						Soundwall2	point118	118	8.0	55.5
						Soundwall2	point122	122	8.0	53.9
						Soundwall2	point121	121	8.0	52.4
						Caltrans_S206_Barrier	point140	140	16.0	51.4

						Soundwall2	point120	120	8.0	51.1
F-10B	60	62.6	5.0	5	-0.0	Caltrans_S206_Barrier	point137	137	16.0	55.2
						Caltrans_S206_Barrier	point135	135	16.0	51.9
						Caltrans_S206_Barrier	point136	136	16.0	51.3
						Caltrans_S206_Barrier	point134	134	16.0	50.6
						Soundwall2	point116	116	8.0	50.5
						Caltrans_S206_Barrier	point138	138	16.0	50.5
						Caltrans_S206_Barrier	point132	132	16.0	49.9
						Caltrans_S206_Barrier	point133	133	16.0	49.8
						Caltrans_S206_Barrier	point139	139	16.0	49.1
						Caltrans_S206_Barrier	point131	131	16.0	49.0
Total Cost, All Barriers (including additional cost(s))					$0					

ATTACHMENT E

Construction Modeling Input and Output Data

Roadway Construction Noise Model (RCNM),Version 1.1

Report date 3/6/2017
Case Description:

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential	Residential	50	50	50

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		50	0
Backhoe	No	40	80		50	0
Dozer	No	40	85		50	0
Dump Truck	No	40	84		50	0
Front End Loader	No	40	80		50	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	85	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	80	76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	85	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	84	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	80	76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85	86.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

No.	Receiver r	Coordinates X in meters	Y UTM 11 N	Building side	Floor	Height m	Level w/o NP Leq1 dB(A)	Lmax	Level w. NP Leq1 dB(A)	Lmax	Difference Leq1 dB(A)	Lmax
1	1	476279	3650088		1.Fl	1.5	77	104	69	95	-8	-9
2	2	476244	3650088		1.Fl	1.5	78	104	71	94	-7	-10
3	3	476224	3650074		1.Fl	1.5	78	102	71	93	-7	-9
4	4	476223	3650046		1.Fl	1.5	78	103	69	93	-9	-10
5	5	476222	3650014		1.Fl	1.5	78	102	68	91	-10	-11
6	6	476221	3649962		1.Fl	1.5	78	102	68	92	-10	-10
7	7	476219	3649916		1.Fl	1.5	76	103	67	94	-9	-9
8	8	476201	3649912		1.Fl	1.5	77	105	68	98	-10	-7
9	9	476240	3650136		1.Fl	1.5	73	91	73	91	0	0
10	10	476193	3650141		1.Fl	1.5	71	89	71	89	0	0

		Level		Corrections		
Source na	Reference	Leq1	Lmax	Kwall	CI	CT
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
1	Unit	118	121.9	-	-	-

Appendix 5.11-1 Alternate Methods and Materials, Fire Apparatus Access Roads

Appendices

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Alternate Methods and Materials
Fire Apparatus Access Roads

Mark E. Schmid
June 1, 2016

Project:
Residential Care Facility
959 Genevieve Street
Solana Beach, CA 92027

Prepared For:
John Dewald
Pacific Sound Investors
1855 Freda Lane
Cardiff by the Sea, CA 92007

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Appendix A – Water Supply Analysis

1 Introduction

The California Fire Code (CFC) Section 503.1.1 requires that fire apparatus access roads be provided for buildings that extend to within 150 feet of all portions new buildings and all portions of the exterior walls of the first story of new buildings. This distance is based on the standard pre-connected hose lengths carried on fire apparatus.

Exception 1 to this code provision allows the fire official authorization to increase the dimension of 150 feet where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with CFC Section 903.3.1.1 or 903.3.1.2. Exception 2 to this code provision allows an increase in the 150-feet dimension where fire apparatus access roads cannot be installed because topography and location on property prevents compliance and an alternative means of fire protection is provided.

This report provides a fire protection engineering design to support an increase in the 150-feet dimension based on the use of automatic fire sprinklers for compliance with CFC 503.1.1 Exception 1 and additional building and fire suppression enhancements that meet the intent of CFC Section 503.1 for Compliance with Exception 2 as an Alternate Method per CFC Section 104.9.

2 Codes and Standards

The following codes and standards were used for the preparation of this report:

- California Building Code (CBC) – 2013 Edition.
- California Fire Code (CBC) – 2013 Edition.
- Nation Fire Protection Association (NFPA) Standard 1, Fire Code 2012 Edition.
- Nation Fire Protection Association (NFPA) Standard 13, Installation of Sprinkler Systems, 2013 Edition.
- Nation Fire Protection Association Research Division, U.S. Experience with Sprinklers, J. Hall, 2012

The authority having jurisdiction (AHJ) is the Solana Beach Building and Fire Departments.

3 Project Description

The proposed building will be located at 959 Genevieve Street in Solana Beach, California. The building occupancy is R-2.1 on Floors (story) 1 and 2 with a gross combined floor area of 69,743 square feet; and occupancy S-1 parking on basement Floor B1 with a gross floor area of 20,198 square feet. Basement parking construction is Type I-A and residential construction above is Type V-A. A perspective view of the building is provided in Figure 1 and an overall site plan and individual floor plans are provided in Figures 2 and 3, respectively.

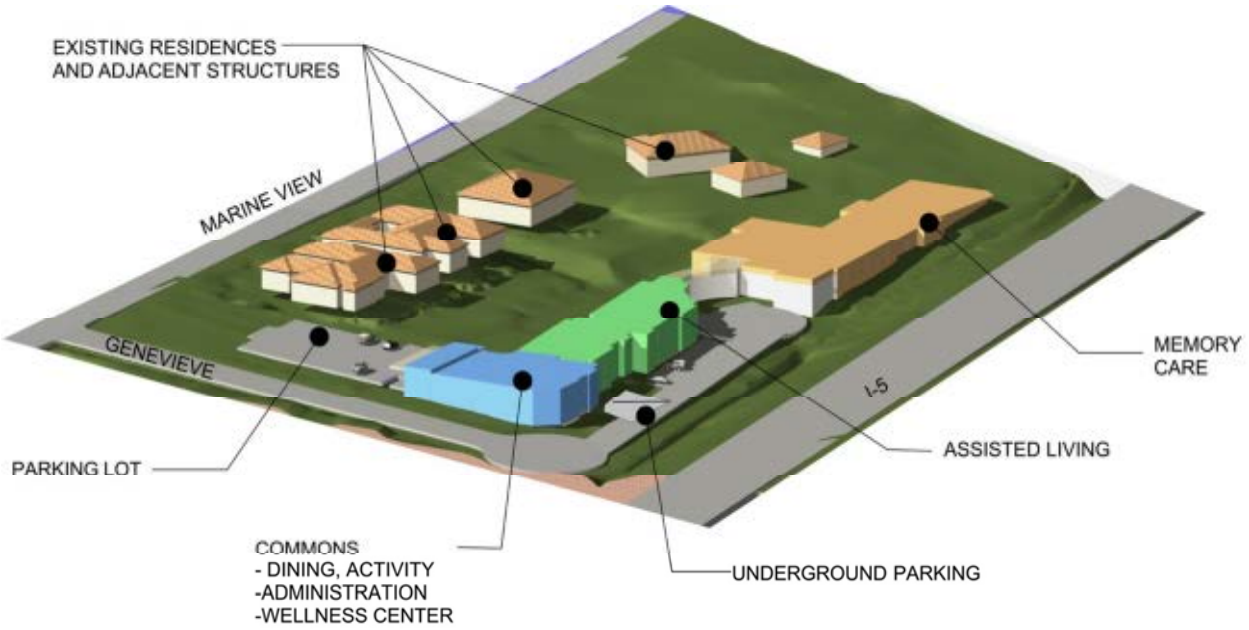

Figure 1 –Exterior perspective view of building.

Fire apparatus access roads are provided along the building frontage at Genevieve Street and the private roadway on the site. The grade level parking lot accessed from Genevieve Street can also be used to access the buildings.

The building is divided into north Buildings D & E and south Buildings A & B which are connected with a circulation hall, Building C. Fire walls constructed in accordance with CBC Section 706 separate each Building A through D. The long narrow shape of the building site prevents compliance with the prescriptive code requirement to provide access within 150 feet of all portions of the building exterior.

Figure 2 –Building site plan.

Figure 3 –Building floor plans.

4 Code Requirements & Intent

CFC Section 503.1.1 establishes a requirement for fire apparatus access roads and the maximum distance from buildings or facilities to fire apparatus access roads. The provisions intend to limit the maximum length of fire hose needed to reach any point along the exterior of a building or facility from a fire department vehicle. An access road is required to extend to within 150 feet of all portions along the exterior wall of the grade level story of each new building. The 150 foot distance is based on the standard length of pre-connected hoses carried on fire apparatus and is not intended to be measured to any point within the building.

A sample layout of a prescriptive code compliant fire apparatus access road configuration is provided in Figure 4. A compliant layout can be achieved where all exterior walls are 150 feet in distance from the access road.

Pre-connected hose lines on pumping fire apparatus are normally 200 feet to 250 feet in length. The 150 foot requirement allows fire fighters to stretch hose lines to a building access point on any exterior wall with a normal fire-fighting crew and have sufficient hose for fire-fighting operations inside the building.

Fire hydrant-to-building proximity and location along the fire apparatus access road also affect the hose length needed for firefighting efforts. Pumping fire apparatus require a suction line from a fire hydrant. Therefore, strategically locating fire hydrants along the access road aids in fire apparatus positioning to minimizing the distance fire fighters need to stretch fire hose.

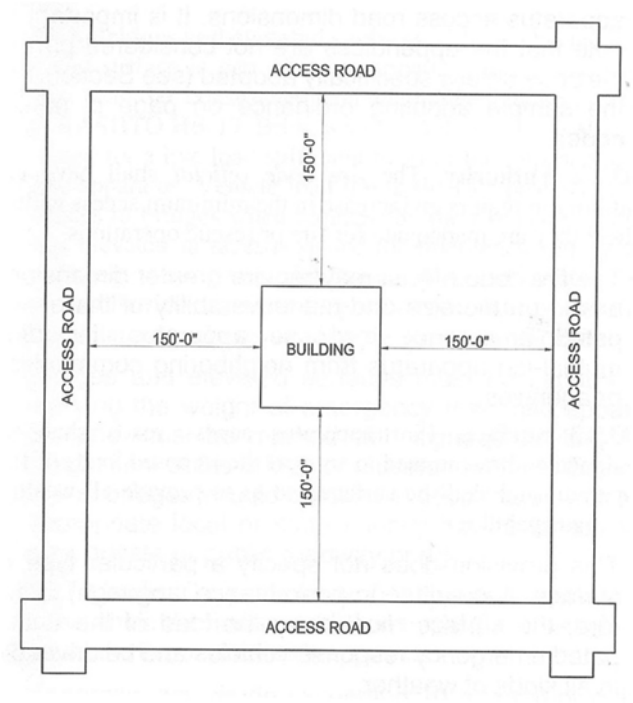

Figure 4 –Sample fire apparatus access road layout.

In determining the application of CFC Section 503.1.1, it should be considered that in order for the fire department access to be effective, an exterior wall would need to have openings through which access to the interior of the building could be achieved by hose streams or personnel. Therefore, buildings locations which allow openings in the exterior walls and where openings are provided benefit firefighting efforts.

Exception 1 to CFC 503.1.1 allows the fire code official authorization to increase the dimension beyond 150 feet where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with CFC Section 903.3.1.1 or 903.3.1.2.

This exception acknowledges that automatic sprinklers are highly effective and a reliable element of total system design for fire protection in buildings.

The large number of sprinklered buildings which have been constructed provided sufficient loss history data on sprinkler performance; it is now possible to understand the value of automatic sprinkler protection. The sprinkler systems provide building fire protection, lessening the fire department suppression burden and the water supply need on the fire department. Also, the record of automatic sprinkler system performance is significant. NFPA records show that 96 percent of all fires in sprinklered buildings are controlled or extinguished by the sprinkler system, with a large percentage of these fires controlled by no more than two or three sprinkler heads.

The CFC does not provide the fire code official guidance on how much increase over 150 feet is reasonable and each case must be evaluated individually. However, NFPA Fire Code 1, 2012 Edition does provide a code reference which allows an increase in fire department access roads length to 450 feet for buildings protected throughout with an automatic fire sprinkler system.

Exception 2 allows an increase in the 150-feet dimension, where fire apparatus access roads cannot be installed because topography and location on property prevents compliance and an alternative means of fire protection is provided. Alternate means generally will include additional building and fire suppression components to minimize fire size and fire spread and to aid in firefighting operations. These “alternate means” provide an equivalent level of protection to that of 150 foot fire apparatus access roads.

5 Proposed Fire Protection Engineering Design

Automatic fire sprinklers will be provided as detailed for compliance with CFC 503.1.1 Exception 1; and additional alternate building features and fire protection enhancements that meet or exceed the intent of CFC Section 503.1.1 for compliance with Exception 2 as an Alternate Means. The following fire protection engineering design will be provided to meet the intent of CBC Section 503.1:

1. Provide an automatic fire sprinkler system throughout all buildings for compliance with CFC 903.3.1.1, NFPA 13 sprinkler systems. Although a full NFPA 13 system will be provided, increases for building height per CBC 504.2 or increases for building area per CBC 506.3 are not applied.

2. Provide a combined Class I manual standpipe system within the stair enclosures in accordance with CBC Section 905. Standpipes are not required in buildings three stories or less where the highest occupied floor level is 30 feet or less above or below vehicle access.

3. Provide two stair enclosures (Building A and Building D) that extend to the roof and provide standpipes described in Item 2 above at roof level adjacent to the stairs. All stair enclosures will be 2-hour where only 1-hour is required.

4. Provide exterior horizontal Class I manual standpipes around the perimeter of the buildings. These standpipe connections eliminate the need for long hose pulls where the code specified 150 foot access road dimension is exceeded.

5. Use fire walls (CBC 706) to create five separate Buildings (A, B, C, D & E) each separated with 2-hour rated wall construction. Building areas are well below allowable area/height and increases for yards or automatic sprinklers are not applied.

6. Provide a total coverage smoke detection system throughout all building areas. Smoke detection is required in areas utilizing timed delayed egress devices, however, detection will be provided throughout all building areas to provide early activation of the fire alarm system.

7. Design Building C, which functions as a circulation hallway between the buildings, to facilitate access through this building for firefighting operations behind the buildings. This includes non-combustible construction, fire walls at each end of the hallway, perimeter glazing to allow clear visual view through the building to the accessible route behind the buildings, minimal building size, low fuel loading, and doors that unlock during alarm conditions.

8. Provide a water supply for fire firefighting that exceeds the minimum required fire flow and locate new fire hydrants (both private and public) for ideal fire pumper location relative to building access points to minimize hose length for firefighting.

5.1 Automatic Fire Sprinklers

Automatic sprinklers are highly effective elements of total system designs for fire protection in buildings. They save lives and property, producing large reductions in the number of deaths during a fire, reduce the direct property damage during a fire, and especially in the likelihood of a fire with large loss of life or large property loss. When they operate, they are effective 96% of the time, resulting in a combined performance of operating effectively in 88% of reported fires where sprinklers were present in the fire area and fire was large enough to activate sprinklers.

Sprinkler systems are carefully designed to activate early in a real fire but not to activate in a non-fire situation. Each sprinkler reacts only to the fire conditions in its area. Water release in a fire is generally much less than would occur if the fire department had to suppress the fire, because later action means a larger fire, which means more water is needed.

The benefit provided to property and life through the installation of sprinkler system is indisputable. A sprinkler system properly designed for the hazards it protects will control or extinguish the fire, will confine the fire to the room of origin and typically do so with the operation of only a few sprinklers.

The advantage of automatic sprinklers tends to come in the following three scenarios:

1. A fire that would otherwise have spread beyond the room of fire origin will be confined to the room of origin, resulting in a smaller fire-damaged area and less property damage.

2. A fire that would otherwise have grown larger than the design fire area in a room larger than that area will be confined to the design fire area, resulting in a smaller fire-damaged area and less property damage.

3. A fire will be confined to an area smaller than the room or the design fire area, even though that degree of success goes beyond the performance assured by the design, resulting in a smaller fire-damaged area and less property damage.

The positive impact and value of sprinklers can be quantified through the following:

1. Reduction in life loss per fire or property loss per fire;

2. Reduction in the likelihood of large fire size or severity, such as fire spread beyond room of origin, multiple deaths, or large property loss; and

3. Qualitative performance as “effective” or “satisfactory” by fire investigators or incident reporters.

The validity of the high success rate of automatic sprinklers in the United States has been corroborated by two studies conducted in New York City (98.4 percent and 98.5 percent), two studies in Australia and New Zealand (99.8 percent and 99.5 percent), and a study completed by the United States Department of Energy (98.3 percent). Other conclusions of these studies are as follows:

1. Properly installed and maintained, automatic sprinklers are a highly effective safeguard against the loss of life and property from fire. Fire fatalities in sprinklered buildings have been reported only for persons closely involved with the fire ignition or exposed in an explosion or flash fire.

2. A significantly high percentage of fires are controlled by relatively few sprinklers. NFPA statistics indicated 85 percent of all fires are controlled by ten or less sprinklers and 70.1 percent of all fires are controlled by four or less sprinklers. Thus, firefighting in sprinklered buildings relies less on manual firefighting efforts when compared to non-sprinklered buildings.

3. A high level of reliable sprinkler performance is directly related to electrical supervision of the conditions which may impair sprinkler operation, such as system control values. The sprinkler control valves on this project will be electrically supervised.

A close examination of the various studies indicates that performance of automatic sprinklers can be expected to achieve a better level of performance than the statistics indicate. Sprinkler performance statistics are typically biased toward large fires. Major fires or fires which open many sprinklers are almost always reported, while there is not always a reason or incentive to report small fires opening one or a few sprinklers. The statistics thus become skewed toward large loss fires and portray sprinkler performance in a less favorable light than is really the case.

Primary reasons for automatic sprinkler failure as reported by the NFPA includes closed control valves, partial sprinkler protection, inadequate water supplies, combustible concealed spaces lacking sprinkler protection, sprinkler systems not designed for the hazard, and obstructions to sprinkler distribution.

The performance of automatic sprinkler systems can be significantly increased if the potential for failure can be reduced or eliminated by proper design considerations. Such considerations will be addressed for this project. Proper criteria for water supply and sprinkler densities and placement will meet the requirements of NFPA 13. Design and installation in accordance with these criteria will alleviate problems attributed to three of the primary failure modes – inadequate water supplies, sprinklers inadequate for the hazard, and obstructions to sprinkler distribution. Combustible concealed spaces, which are noted as a failure mechanism, will be properly protected in accordance with their construction type. Partial sprinkler protection is also not contemplated as a failure mode, since the building is fully sprinklered. Other reasons for failure, such as antiquated systems or frozen systems, will not be factors in these buildings.

Impairment of the automatic sprinkler systems (i.e., closed control valves) is responsible for the majority of sprinkler system failures. All valves controlling the water supply for automatic sprinkler systems will be electrically monitored. This function provides the means by which impairments of a sprinkler system will be immediately identified in time to allow correction before sprinklers are needed. With the potential for failure eliminated or greatly reduced by supervision of the sprinkler system and inherently removed by other design features, satisfactory performance can be expected to approach or exceed 99 percent.

The benefits provided by automatic sprinklers support an increase in fire apparatus access roads beyond 150 feet from the exterior building walls. Firefighters responding to a fire incident within a sprinklered building require less firefighting efforts when compared to firefighting in a non-sprinklered building. The NFPA Standard 1 recognizes this benefit and allow an access road length to 450 feet for sprinklered

buildings, and the code also allows the fire official the authority to increase the dimension of 150 feet when the building is equipped throughout with an automatic sprinkler system.

The proposed automatic sprinkler system will provide adequate sprinkler protection to control or extinguish a fire, limit fire growth, the production of smoke and other products of combustion and significantly limit required manual firefighting efforts.

Due to the excellent performance of automatic sprinkler systems, the use of CFC 503.1.1 Exception 1 provides an equivalent level of protection to that prescribed by the code. Sprinklered light-hazard occupancies have an excellent loss history record and this alternate method meets the standard of safety compliant with the intent of the code and substantiates an increase in the fire apparatus access roadway dimension beyond the code specified 150 feet as detailed herein.

CBC 903.2.8 specifics that a NFPA 13R system may be used in R-2.1 occupancies when the sprinkler system is not used in accordance with CBC Section 504.2 or 506.3 for building height or building area increases. In other words, when building height and building area increases are applied, a full NFPA 13 automatic sprinkler system is required per CBC 903.3.1.1.

The proposed building does not apply increase to the basic allowable height and area in CBC Table 503, and therefore, a NFPA 13R automatic sprinkler could be used. The proposed design uses a NFPA 13 system in compliance with CBC 903.3.1.1 to provide complete sprinkler coverage throughout the buildings and additional sprinkler density/area for extinguishment or control of fire.

5.2 Standpipes, Stairs to the Roof & Exterior Horizontal Standpipes

The standard operating procedures (SOPs) of most fire departments require one of the first-response pumpers to pump into the fire department connection (FDC) of the sprinkler system. In this way, water pressure and volume to the system can be increased, making the sprinklers more effective and providing required pressure to hose line nozzles through the standpipe system.

The building/fire code or city code amendments do not prescriptively require standpipes for this project.

The proposed combined manual Class I standpipe system will allow standpipes in the stair enclosures, exterior horizontal standpipes and the automatic sprinkler system to be charged through the FDC connection.

Exterior horizontal standpipes allow firefighting operations around the perimeter of the buildings without excessive hose lengths. These standpipe connections will be located at building exits which allow for both firefighting efforts within the buildings or from the exterior.

Standpipes within all stair enclosures will be added to provide interior firefighting without long hose lengths. Standpipes are only mandated by the code for buildings four or more stories in height and more than 30 feet above vehicle access.

The buildings includes four stair enclosure and standpipes within each enclosure providing more flexibility in firefighting tactics as firefighters carrying single hose packs can quickly connect to the standpipe system and avoid long hose pulls from the building exterior.

Roof access via two stair enclosures with adjacent standpipe connections provides similar benefits and quick roof access, a roof accessible water supply for hose connections and a strategic advantage during firefighting.

Stair enclosure fire resistance rating will be increased from the code required 1-hour to 2-hour, providing both occupants and firefighters additional protection from fire exposure.

5.3 Fire Walls

Confining fire is one of the most important principles to be followed when planning fire control for a building[1]. The basic area and fire resistive limitations in the CBC have been based upon a consideration of building use and type of construction. These two parameters are used to limit building size, define the maximum size of the fire compartment, and specify fire resistance.

For this project, the building areas provided do not exceed basic allowable area of 10,500 square feet per Table 5-B without considering increases. For sprinklered buildings using a NFPA 13 system, area increases may be used to allow a maximum building area of 31,500 square feet per building floor. This would allow the proposed building to be constructed with one fire wall.

None of the building areas approach the 31,500 square foot allowable limit for a sprinklered building. The maximum single floor area of the largest building (Building E) is 9,891 square feet and the minimum single floor area of the smallest building (Building A) is 5,472 square feet, excluding Building C which is 1,050 square feet per floor and serves as a circulation between the buildings.

The use of multiple fire walls creates building compartments significantly less in area than that allowed by code. In addition, each building area created with the fire walls is further compartmented with fire partitions at each residential unit. The residential perimeter wall construction and corridors in each building uses fire partitions constructed of one-hour fire resistive materials. This creates a building with a small number of living units per story within a compartment created by the fire wall construction, and additional compartmentation created by the individual living units.

The degree of compartmentation within this residential building limits the size and severity of a fire that may potentially develop, and prevents fire and smoke migration beyond the fire origin. This provides building fire safety through passive construction materials that reduces the potential for a large fire scenario, therefore reducing necessary manual firefighting efforts.

[1] Shorter, G.W., *The Fire Protection Engineer and Modern Building*, Fire Technology.

5.4 Total Coverage Smoke Detection System

The buildings will be provided with an automatic fire alarm system in accordance with CBC Section 907.2.9 A code compliant system would consist of notification devices (audio and visual) activated by waterflow from the sprinkler systems, a manual fire alarm system and local single or multiple station smoke detectors within the individual residential unit.

Smoke detection is required and provided above the doors (spot detections) at the Level 2 exits of Buildings A & B. This includes four door locations: one exit to memory garden, one exit to Building C and one exit at each exit-enclosure (two locations) which uses delayed egress locks. Smoke detection is per CBC Section 1008.1.9.7.

However, the system will be upgraded to include a full coverage smoke detection system throughout all buildings. This provides early fire department notification of a fire event and early occupant egress from the buildings. The proposed design includes smoke detectors in the corridors and common areas of the building. These detectors, in addition to waterflow from the sprinkler systems, will initiate notification devices within the building and simultaneously automatically transmit a fire alarm to an approved central station and a constantly attended location within the building.

Occupant and fire department notification of a fire event will be improved, thus occupants will begin the egress and evacuation process sooner and firefighting efforts will begin sooner, when building conditions are more favorable.

5.5 Building C Design

Building C provides facility ingress/egress and occupant circulation between the main Buildings A & B to the south and Buildings D & E to the north. The Alternate Means includes fire apparatus access road distance to the exterior of the buildings as measured through Building C to provide exterior access on both the east and west sides of the buildings. Figure 5 shows the location of Building C relative to the buildings to the north and south and the benefit provided by site access through the building.

Access through a building is not considered as an approved route around the exterior of the building. However, in lieu of providing an open breezeway between the main buildings, the Alternate Means includes Building C design and construction to facilitate firefighting operations that pass through this building to gain exterior building access. This is done to supplement fire department access around the exterior of the building, improve access and reduce the length of hose needed.

The Building C is limited in size (1,050 square feet per floor), has a width of approximately 11.5 feet and is separated from Building B and D with 2-hour rated fire walls at each end of the hallway. Construction materials are non-combustible and construction is Type V-A.

The perimeter construction is storefront glazing and six pair of double doors (three per side) provides a clear visible view of the interior Lobby and allows visibility through the Lobby into the exterior access path around the building exterior.

Because of the nature of its use as occupant circulation, fire loading will be low and furnishings will not be utilized. The building will remain clear for occupant movement which will allow for fire department access through the building at all times.

Activation of the building fire alarm system (manual or automatic) will automatically unlock the exterior doors that serve Building C.

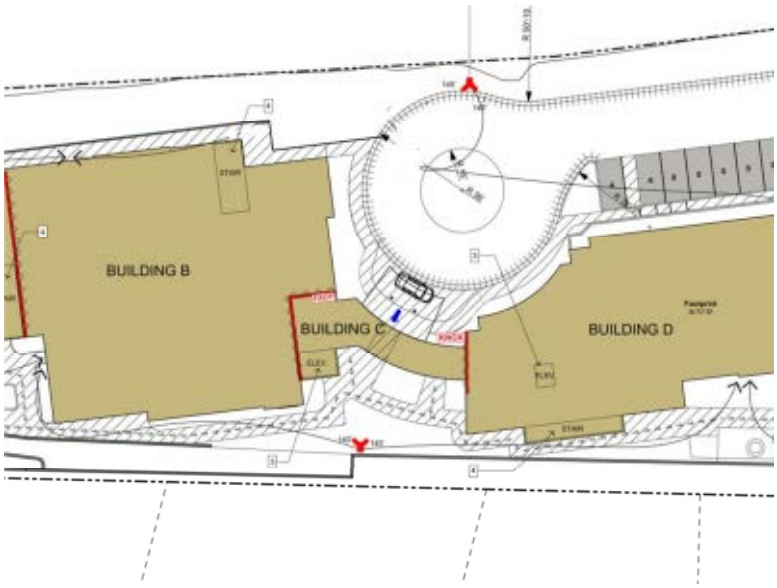

Figure 5 –Building C .

5.6 Water Supply and Fire Hydrant Layout

The required fire flow (water required for fighting fire) is determined according to CFC Appendix B, *Fire Flow Requirements for Buildings*. The fire flow requirement is intended to provide sufficient water supply to limit fire spread within the building and prevent fire spread to adjacent buildings.

Total Building Area:

69,743 square feet (Type V-A) + 20,198 square feet (Type IA) = 89,941 square feet

Base Fire Flow Per Construction Type:

Type V-A at 69,743 square feet = 4,750 gpm
Type I-A at 20,198 square feet = 1,500 gpm

Percent of Building Area:

V-A = 69,743/89,941 x 100 = 78%
I-A = 20,198/89,941 x 100 = 22%

Base Fire Flow:

0.78 (4,750 gpm) + 1,500 gpm (min. allowed) = 5,205 gpm

Adjusted Reduction For Fire Sprinklers:

50% applied, up to 75% reduction allowed as permitted by AHJ.
0.50 (5,205 gpm) = 2,600 gpm for a duration of 2-hours

The following flow test information was provided by Dexter Wilson Engineering, Inc. on behalf of the Santa Fe Irrigation District. The water supply analysis is provided in a letter dated June 21, 2016 and is attached to this report:

Simulation:	No. 1A FH1	No. 1A FH2
Date:	06/21/16	06/21/16
Location:	959 Genevieve St.	959 Genevieve St.
Static Pressure:	99 psi	93 psi
Residual Pressure:	76 psi	71 psi
Flow:	1250 gpm	1250 gpm

Simulation No. 1A was run with fire hydrant FH1 and FH2 flowing simultaneously for a combined flow of 2500 gpm.

Simulation:	No. 1B FH1	No. 1B FH2
Date:	06/21/16	06/21/16
Location:	959 Genevieve St.	959 Genevieve St.
Static Pressure:	99 psi	93 psi
Residual Pressure:	20 psi	20 psi
Flow:	2300 gpm	2300 gpm

Simulation No. 1B was run with fire hydrant FH1 and FH2 flowing simultaneously for a combined flow of 4600 gpm.

The available water supply at 20 psi can be calculated utilizing the following equation for water at about 60°F:

$$Q = Q_F \left(\frac{P_S - P}{P_S - P_R} \right)^{0.54}$$

Where:

P = Specified pressure
P_S = Static Pressure, flow test
P_R = Residual pressure, flow test
Q_F = Flow in flow test
Q = Flow at specified pressure

This calculation was performed for flow test No. 1A and the flow calculated as 2433 gpm for FH1 and 2388 gpm for FH2. This is a combined flow of 4822 gpm at 20-psi which correlated well with the simulated calculation No. 1B of 4600 gpm.

The Public Works Department is capable of supplying water through the supply grid for a duration of 2-hours.

Therefore, the fire flow is adequate for the project as proposed and provides almost double the code specified flow based on building area and construction type.

6 Discussion

In lieu of providing fire apparatus access roads within 150-feet of all portions of the building exterior, the code provisions of CFC 503.1.1 Exception 1 and 2 are used and include an Alternate Means. Exception 1 allows the fire code official authorization to increase the dimension of 150-feet where the building is equipped throughout with an approved automatic sprinkler system; and Exception 2 allows an increase in the 150-feet dimension, where fire apparatus access roads cannot be installed because topography and location on property prevents compliance and an Alternative Means of fire protection is provided.

The long narrow shape of the building site and site topography prevents compliance with the prescriptive code requirement of access within 150-feet of all portions of the building exterior.

Building features provided as an Alternate Means engineering design in lieu of 150-foot access include: automatic sprinkler protection; Class I standpipes within stair enclosures, Class I standpipes at roof level and Class I horizontal standpipes around the building exterior; building separation and compartmentation using multiple fire walls; a total coverage smoke detection system; Building C design to facilitate access through the building, thus further reducing access length around the building; and fire hydrants located to minimize access length and adequate fire flow needed for firefighting.

The provisions of the code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by the code. However, CFC 503.1.1 is different in that the Exceptions call out specific provisions where the code official may allow an increase in access road dimension, namely sprinklers and site specific conditions.

The CBC assumes a fundamental difference in required firefighting effort when fire sprinklers are provided. The 150-foot access road dimension has existed in the code for decades and referenced standards, code commentary and engineering opinion (supported by fire loss history and automatic sprinkler performance) support an increase in access road length beyond 150-feet for sprinklered buildings.

The ability of automatic fire sprinklers to control and/or extinguish fire has been recognized in many studies.

The primary requirement for these code provisions is to limit the maximum length of fire hose needed to reach any point along the exterior of a building or facility from a fire department vehicle. However, the CFC specifically allows for an Alternate Means when conditions exist that prevent compliance with this provision.

The proposed design includes multiple building features to support and increase in access road length. These are detailed in Section 5 of this report and each provide direct mitigation to the increase in access road length and the code intent of limiting fire hose length needed to reach any point along the building exterior and to minimize required firefighting efforts.

7 Summary

The proposed Engineering Design addresses the code intent that fire apparatus access roads be provided for buildings that extend to within 150 feet of all portions of the building and all portions of the exterior walls of the first story of the building.

Exceptions to this code provision allow an increase in the dimension of 150 feet where the building is equipped with an approved automatic sprinkler system and where fire apparatus access roads cannot be installed because topography and location on property prevents compliance.

This report provides and Alternate Means technical analysis to increase the dimension of the access roads.

Building features provided as an Alternate Means engineering design in lieu of 150-foot access include: automatic sprinkler protection; Class I standpipes within stair enclosures, Class I standpipes at roof level and Class I standpipes around the building exterior; building separation and compartmentation using multiple fire walls; a total coverage smoke detection system; Building C design to facilitate access through the building, thus further reducing access length around the building; and fire hydrants located to minimize access length and adequate fire flow needed for firefighting.

This engineering design meets the intent of the code and provides a suitable, effective and a safe Alternate Means utilizing exceptions to the code provision that allow an increase in the dimension of 150 feet.

Prepared By:

EVERETT ENGINEERING

Mark E. Schmid, P.E.
Engineering Manager
2033 San Elijo Avenue, Suite 321
Cardiff by the Sea, CA 92007
760.944.1513
markschmid@everettengr.com

Appendix A – Water Supply Analysis

DEXTER WILSON ENGINEERING, INC.

DEXTER S. WILSON, P.E.
ANDREW M. OVEN, P.E.
STEPHEN M. NIELSEN, P.E.
NATALIE J. FRASCHETTI, P.E.

June 21, 2016

Santa Fe Irrigation District
5920 Linea Del Cielo
Rancho Santa Fe, CA 92067
Phone: 858-756-2424

Re: **Preliminary** Fire Flow Analysis for 959 Genevieve Street

A preliminary fire flow analysis was requested from SFID by the owners of the subject property. The analysis was conducted based on the ability to deliver a residual pressure of 20 PSI in the surrounding area which is typical for the City of Solana Beach Fire Department. The project however has yet to receive official fire flow requirements from the city. Upon receiving the official requirements, this analysis may have to be updated/revised. Use of the enclosed information is intended for background knowledge for the project and its future use as demonstration of meeting official requirements will be subject to approval by both the City of Solana Beach Fire Department and the SFID.

Fire Analysis Location

- Address: 959 Genevieve Street
- City: Solana Beach
- State: CA, 92075
- APN: 298-390-51
- Map Grid: 298-1689 D3
- Description: One hydraulic model runs were conducted for this analysis.

2234 FARADAY AVENUE • CARLSBAD, CA 92008 • PH (760) 438-4422 • FAX (760) 438-0173

Model Run 1:

At two proposed public fire hydrants. A proposed public fire hydrant (FH1) is located northwest of the property and a proposed public fire hydrant (FH2) is located northeast of the property connected to the 8-inch pipeline (340 Zone) located in Genevieve Street. (Exhibit A).

Model Run 1 Data:

Assumed Proposed Public Fire Hydrant (FH1) Data:

Pressure Zone:	340 Zone (HGL = 340 feet)
Hydrant Elevation:	111.5 feet
Static Pressure:	99 psi

Assumed Proposed Public Fire Hydrant (FH2) Data:

Pressure Zone:	340 Zone (HGL=340 feet)
Hydrant Elevation:	125 feet
Static Pressure:	93 psi

Model Run 1A

2,500 gpm During Maximum Day Demands at Fire Flow Analysis Location:

The existing system is capable of delivering 2,500 gpm, with 1,250 gpm through FH1 and 1,250 gpm through FH2. The residual pressure at this flow rate was 76 psi at the proposed hydrant FH1 and 71 psi at the proposed hydrant FH2.

Model Run 1B

Fire Flow Analysis to Determine Flow at 20 psi Residual:

The existing system is capable of theoretically delivering 4,600 gpm combined through the proposed fire hydrants (2,300 gpm through FH1 & FH2) with a residual pressure of 20 psi in the surrounding area.

Date Saved: 6/21/2016 9:37:33 AM
Document Path: \\artic\gis\134001-6\InfoWater Data\WORKING GIS MODEL\Fireflow\2016-06-21_959GenevieveStreet\959GenevieveStreet_Exhibit-A.mxd

From:	Natalie Fraschetti
To:	Donald Ward
Subject:	FW: Fire Flow analysis
Date:	Wednesday, June 15, 2016 11:52:49 AM
Attachments:	image001.png HYDRANTS.pdf

Don,

This is a preliminary SFID fire flow request. Please prepare a fire flow analysis assuming 2,500 gpm split between the two proposed hydrants. The report should be prepared in our typical format; however, I'll have some modifications to the text. We need to complete this by the end of day Tuesday.

Thank you.

Natalie Fraschetti, P.E.
Dexter Wilson Engineering, Inc.
Office: (760) 438-4422, ext. 106
Cell: (858) 539-9081

From: Will Mack [mailto:wmack@plsaengineering.com]
Sent: Wednesday, June 15, 2016 11:47 AM
To: Natalie Fraschetti <Natalie@dwilsoneng.com>
Subject: RE: Fire Flow analysis

Hi Natalie,
I did any overlay of the new hydrant locations and noted the elevations in red on the prelim grading plan. The hydrants will be located approximately 13 ft over from the main. Let me know if you require any further information.

Thanks,
Will

Will Mack, P.E. | Associate Principal
PASCO LARET SUITER & ASSOCIATES
ph 858.259.8212 Ext. 112
fx 858.259.4812
535 North Highway 101, Ste A Solana Beach, CA 92075 | www.plsaengineering.com
Please visit us at our new website! www.plsaengineering.com
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From: Natalie Fraschetti [mailto:Natalie@dwilsoneng.com]
Sent: Wednesday, June 15, 2016 8:27 AM

To: Will Mack
Cc: Marissa Potter
Subject: RE: Fire Flow analysis

Hi Will,

At the approval of SFID, we can provide a preliminary fire flow analysis to you. The District's fee for the analysis is $750. Once we receive notification from the District that the fee has been paid, I'll coordinate directly with you on running the scenario and providing the results. Note that once you have your official requirements from the Fire Department, you will likely have to go through this process again.

Marissa – Could you please provide Will with direction on how to make the $750 payment for this preliminary analysis?

Feel free to call with any questions.

Thank you.

Natalie Fraschetti, P.E.
Dexter Wilson Engineering, Inc.
Office: (760) 438-4422, ext. 106
Cell: (858) 539-9081

From: Will Mack [mailto:wmack@plsaengineering.com]
Sent: Tuesday, June 14, 2016 10:14 AM
To: Natalie Fraschetti <Natalie@dwilsoneng.com>
Subject: Fire Flow analysis

Hi Natalie,
I have a project located at 959 Genevieve St in Solana Beach and I need a preliminary fire flow analysis for planning purposes. We are looking to potentially add 2 hydrants on Genevieve at the locations shown. Typically the fire department will require at least 2,500 gpm at 20 psi residual. Andrew Oven suggested I contact you directly since this is just for preliminary design. Please let me know what need to happen in order to run the analysis.

Thanks,
Will

Will Mack, P.E. | Associate Principal
PASCO LARET SUITER & ASSOCIATES
ph 858.259.8212 Ext. 112
fx 858.259.4812
535 North Highway 101, Ste A Solana Beach, CA 92075 | www.plsaengineering.com
Please visit us at our new website! www.plsaengineering.com
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PRELIMINARY GRADING PLAN FOR RESIDENTIAL CARE FACILITY 959 GENEVIEVE STREET

PREPARED FOR

PACIFIC SOUND INVESTORS, LLC

SITE ADDRESS

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

APN'S

298-390-51

LEGAL DESCRIPTION

PORTION OF LOTS 1 & 2 IN BLOCK 3 OF KENNEY'S MARINE VIEW GARDENS IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774 REC 12-31-1923 IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY. BEING PARCEL A OF CERTIFICATE OF COMPLIANCE RECORDED APRIL 28, 2003 AS DOC. NO. 2003-487729 OF OFFICIAL RECORDS OF SAID SAN DIEGO COUNTY.

BENCHMARK

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE BENCHMARK USED TO ESTABLISH SAID ELEVATIONS IS THE CITY OF SOLANA BEACH, CONTROL POINT NUMBER 2004, PER RECORD OF SURVEY 18971.

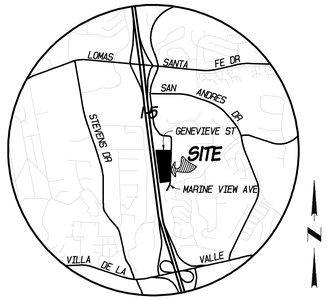
THE PUBLISHED NAVD88 ELEVATION OF SAID BENCHMARK IS 315.148 FEET. EPOC 2004.0

PROPOSED DISTURBED AREA

2.57 AC

LEGEND

DESCRIPTION	SYMBOL
SITE BOUNDARY	
RIGHT-OF-WAY CENTERLINE	
OFFSITE PROPERTY LINE	
EXISTING EASEMENT	
EXISTING CONTOUR LINE	134
EXISTING FENCE	X X
EXISTING WATER LINE	W
EXISTING SEWER LINE	S
EXISTING OVERHEAD UTILITIES	E
PROPOSED CONTOUR LINE	134
PROPOSED LIMIT OF GRADING	
PROPOSED BUILDING FOOTPRINT	
PROPOSED LOWER BUILDING LEVEL	
PROPOSED RETAINING WALL	
PROPOSED CUT SLOPE	
PROPOSED BROW DITCH	
PROPOSED DRAINAGE DIRECTION	
PROPOSED PERMANENT BMP AREA	
PROPOSED PVC STORMDRAIN	
PROPOSED DRAIN INLET	
PROPOSED RIP-RAP ENERGY DISSIPATOR	
PROPOSED CONCRETE DROP INLET	
PROPOSED BOX CULVERT	
PROPOSED CONCRETE WING HEADWALL	
TYPE G CATCH BASIN	
PROPOSED SAWCUT LINE	
PROPOSED G-2 CURB, GUTTER & G-7 SIDEWALK	
PROPOSED ROLLED CURB & DG SIDEWALK	
PROPOSED AC PAVING	
PROPOSED ENHANCED PAVING PER LANDSCAPE PLAN	



VICINITY MAP
NOT TO SCALE

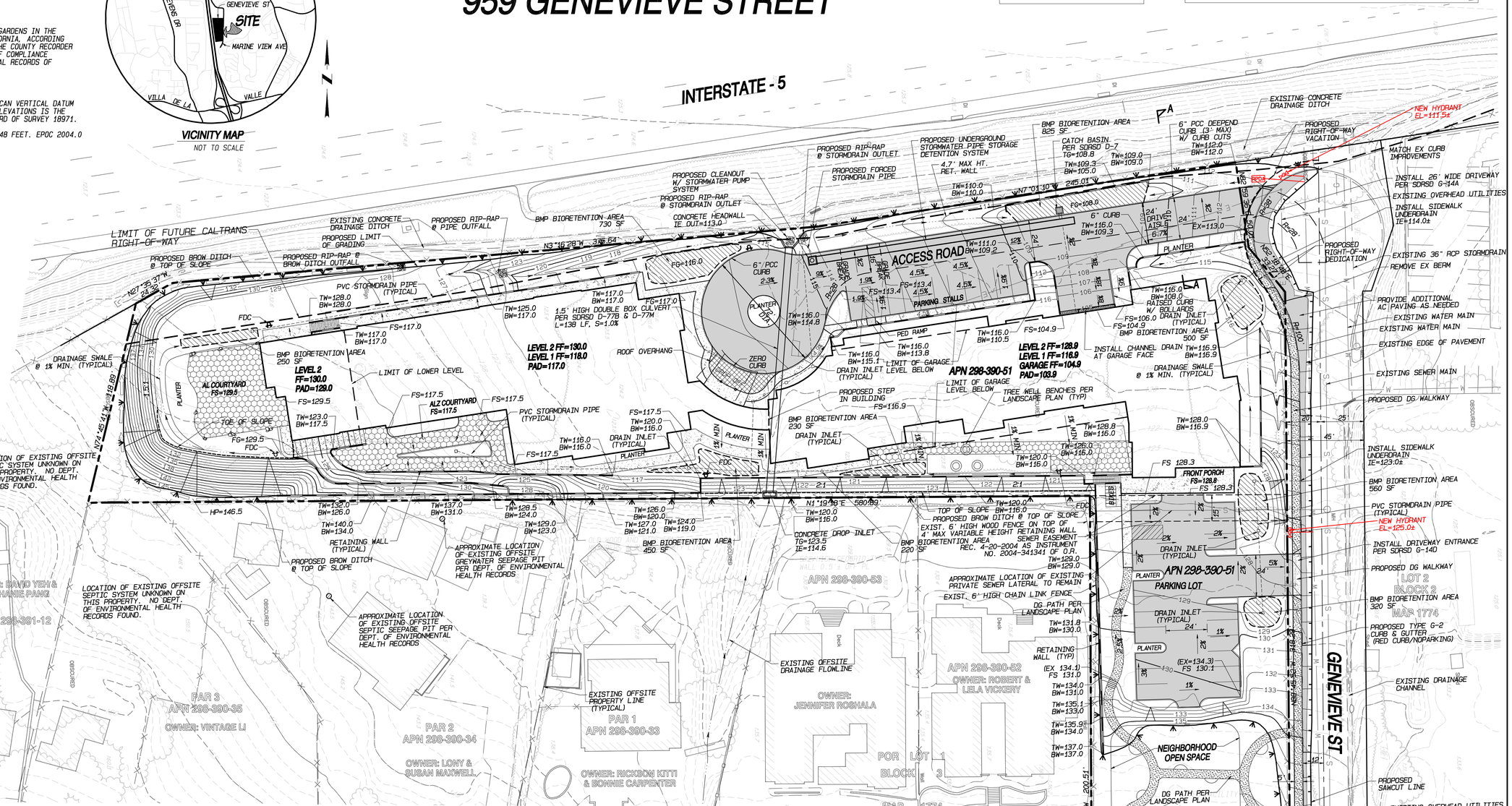
PROJECT AREA TABULATION:

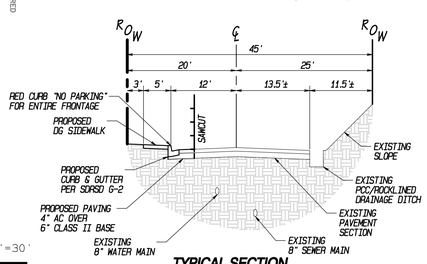
GROSS AREA: 126,875 SF (2.91 AC)
AREA OF DEDICATION: -347 SF
AREA OF STREET VACATION: +603 SF
NET AREA: 127,131 SF (2.91 AC)

ESTIMATED EARTHWORK QUANTITIES

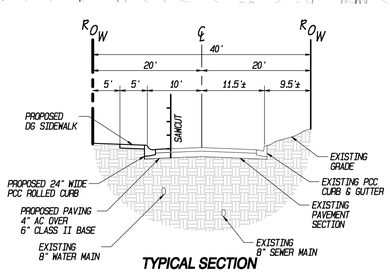
27,200 CY CUT
1,200 CY FILL
26,000 CY NET EXPORT

NOTE:
GRADING QUANTITIES HEREON REPRESENT COMPACTED SOIL VOLUMES AND DO NOT ACCOUNT FOR SPOILS GENERATED FROM FOOTINGS OR UTILITY TRENCHES OR FOR REMEDIAL GRADING THAT MAY BE REQUIRED PER THE PROJECT GEOTECHNICAL RECOMMENDATIONS





TYPICAL SECTION
GENEVIEVE ST.
NOT TO SCALE



TYPICAL SECTION
MARINE VIEW AVE.
NOT TO SCALE

DATE PREPARED: 6/15/2016

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 North Highway 101, Ste A, Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4812 | plsaengineering.com

PLSA 1890

Appendix 5.11-2 Agency Responses

Appendices

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Proposed Residential Care Facility Specific Plan
Fire Questionnaire

1. Who provides fire protection and medical response service for the project site? Do other jurisdictions provide mutual aid? If so, who are they?
   Solana Beach Fire Department and AMR provide the response for the project site.

2. What are the locations of responding station(s)?
   Solana Beach Fire Station 1 is located at 500 Lomas Santa Fe Dr. Solana Beach CA

3. What type of equipment and manpower does each station have?
   Solana Beach Fire Station 1 has one Pierce ladder truck with a 95' aerial ladder and one Pierce Engine. Both are staffed with 3 man crews 24/7/365.

4. What is the approximate fire flow requirement for the proposed project?
   The proposed project has not submitted sufficient plans to determine the answers to the remaining questions. The current plan set was returned to the applicant with corrections from the fire department.

5. What is the average response time to the project site? What is the department's standard for desired response time for emergency and non-emergency calls?

6. Are there any existing deficiencies in the level of fire protection service currently provided to the area including and surrounding the project site?

8. Would this project have a significant impact on the ability to maintain adequate level of fire protection service to the area?

9. What mitigation measures are required or recommended to reduce fire hazards and reduce potential impacts on fire service?

10. Please add any other comments you may wish to make regarding this project.
The proposed project has not submitted sufficient plans for our department to determine the answers to questions 4-9. The current plan set was returned to the applicant with corrections from the fire department.

Response Prepared By:

David Sample	Fire Prevention Technician
Name	**Title**
Solana Beach Fire Department	10/29/15
Agency	**Date**

Michael Paul

Subject: FW: 959 Genevieve Street
Attachments: image001.png

_____
From: Anita Pupping [Apupping@encinitasca.gov]
Sent: Tuesday, December 6, 2016 5:27 PM
To: Leslea Meyerhoff
Cc: Bill Chopyk
Subject: 959 Genevieve Street

Leslie,

Below are answers to your questions for Genevieve:

Questions:

1. What is the approximate fire flow requirement for the proposed project? Based on the Everett Engineering's AMMR, the approximate fire flow required is 2,600 gpms for a duration of 2-hours.

2. What is the average response time to the project site? What is the department's standard for desired response time for emergency and non-emergency calls? The average response time in Solana Beach is 4:27 from October 2015 to October 2016 . There is no department standard.

3. Are there any existing deficiencies in the level of fire protection service currently provided to the area including surrounding the project site? No site/area assessment has been made but possibly the fire access roadway. Fire access roadway width should be an unobstructed minimum of 20'.

4. Would this project have a significant impact on the ability to maintain adequate level of fire protection service to the area? This type of facility would add a significant number of emergency medical calls.

5. What mitigation measures, if any, are required or recommended to reduce fire hazards and reduce potential impacts on fire service? See AMMR. Unable to reduce emergency medical calls.

Thank you,

Anita Pupping
Fire Marshal

apupping@encinitasca.gov<mailto:apupping@encinitasca.gov>
(760) 633-2821
(760) 331-7907 cell
(760) 943-2226 fax

[cid:image003.png@01CFAA7A.D4F39920]

Serving: City of Encinitas
City of Solana Beach
City of Del Mar

Proposed Residential Care Facility Specific Plan
Police Questionnaire

1. Please indicate which police station would serve the proposed project, the station's location, distance to the project site, and staffing.

North Coastal sheriff's Station
175 N .El Camino Real, Encinitas
Provides law enforcement services to the contract cities of Encinitas, Solana Beach, Del Mar and surrounding unincorporated communities (Rancho Santa Fe).

The Sheriff's station is approximately 4.8 miles away from the northern city limits of Solana Beach.

Solana Beach contracts for 7 patrol deputies, 1 Motor unit, 2 traffic deputies, 1 Detective and .5 Community Service Officers for 24/7 coverage.

2. What is the response time to the project site? What is the department's standard for desired response time for emergency and non-emergency calls?

The proposed project location is 5.5 miles from the North Coastal Station with an average (non code) driving time of 11 minutes with no traffic. However an assigned Solana Beach unit is normally within the city limits at all times which should shorten the arrival /response time to priority calls for service to 5-10 minutes.

Non priority calls for service can have an extended response time due to a variety of conditions including prioritization of incoming calls, whether or not the assigned beat deputy is already on a call for service, traffic conditions etc.

3. Please indicate the type of service calls or service demands anticipated by the proposed use.

The anticipated calls for service would most likely be medical aids and possibly cold calls for service related to theft, embezzlements etc. for the residents housed in the facility. These are the most frequent calls for service at similar establishments in other contract cities.

4. Given the existing level of staffing and equipment, will the police department be able to provide police services to the proposed project? If not, please indicate what will be required to serve the project.

Proposed Residential Care Facility Specific Plan
Police Questionnaire

There should be no issues related to service levels upon the completion of this project.

5. What impact will the proposed project, in combination with all the other projects planned in the area, have on the ability of the police department to provide police services in the area?

None noted at this time.

6. What mitigation measures, if any, would you recommend for the proposed project?

None at this time.

6. Please add any comments you may wish to make regarding this matter.

Response Prepared By:

Name **Title**

Agency **Date**

North Coastal Sheriff's Station

Calls for Service & Response Time to Emergency Calls
November 1, 2015 through November 1, 2016
City of Solana Beach- Solana Highlands Apartments

City of Solana Beach

Calls for Service Response Times		
Priority	**# Calls**	**Av Resp Times**
1	**10**	**5.9**
2	**1259**	**10**
3	**1747**	**14.3**
4	**1182**	**41.4**

Calls for Service - Solana Highlands Apartments
661-701 S Nardo Avenue, City of Solana Beach

Yr-Month	Address	CallSource	CallPriority	CallGroupDesc	CallTypeDesc	RespTime
2016-06	661 S NARDO AV	ADMIN	4	TRAFFIC	ILLEGAL PARKING	N/A
2016-07	661 S NARDO AV	CELL PHO	4	MALICIOUS MISCHIEF	VANDALISM, VEHICLE	29.9
2016-07	661 S NARDO AV	CELL PHO	4	SUSPICIOUS ACTIVITY	SUSPICIOUS CIRCUMSTANCE	5
2016-08	661 S NARDO AV	ANI/ALI	3	PUBLIC SAFETY	PSYCH	4.9
2016-06	661 S NARDO AV	ADMIN	3	CONTACTS/MESSAGES	WELFARE CHECK	10.5
2016-09	661 S NARDO AV	ADMIN	4	DOMESTIC	TEMPORARY RESTRAINING ORDER	148.2
2016-09	661 S NARDO AV	ADMIN	4	DISTURBANCE	MISC DISTURBANCE	14.6
2016-05	661 S NARDO AV	DIRECT L	2	DEATH	SUICIDE - ACTUAL OR ATTEMPT	26.2
2016-09	661 S NARDO AV	ADMIN	3	CONTACTS/MESSAGES	WELFARE CHECK	33.4
2016-07	665 S NARDO AV	ADMIN	4	ADMINISTRATIVE	TELEPHONE CALL	N/A
2016-07	669 S NARDO AV	ADMIN	4	ACCIDENTS	HIT AND RUN, PROP. DAMAGE	7.3
2016-07	669 S NARDO AV	ADMIN	4	ACCIDENTS	HIT AND RUN, PROP. DAMAGE	15.8
2016-07	669 S NARDO AV	CELL PHO	4	ADMINISTRATIVE	TELEPHONE CALL	17.5
2016-08	669 S NARDO AV	ADMIN	2	DOMESTIC	SPOUSAL ABUSE	5.7
2016-05	679 S NARDO AV	DIRECT L	3	PUBLIC SAFETY	ASSISTANCE NEEDED	8
2016-05	679 S NARDO AV	ADMIN	3	ALARMS	BURGLARY VEHICLE AUDIBLE ALARM	3.9
2015-12	679 S NARDO AV	CELL PHO	4	ACCIDENTS	HIT AND RUN, PROP. DAMAGE	N/A
2016-06	679 S NARDO AV	ANI/ALI	3	DISTURBANCE	DISTURBANCE	14.8
2015-11	679 S NARDO AV	ANI/ALI	2	DEATH	SUICIDE - ACTUAL OR ATTEMPT	12.7
2016-03	679 S NARDO AV	ADMIN	4	MALICIOUS MISCHIEF	VANDALISM, VEHICLE	48.3
2015-12	701 S NARDO AV	ADMIN	3	THEFT VEHICLE	RECOVERED STOLEN VEHICLE	1.5
2016-02	701 S NARDO AV	CELL PHO	2	INJURED PERSON	INJURED PERSON	8.2
2016-02	701 S NARDO AV	ADMIN	2	INJURED PERSON	PERSON DOWN	4.1
2016-03	701 S NARDO AV	ADMIN	4	DOMESTIC	PRESERVE THE PEACE	9.9
2016-07	701 S NARDO AV	CELL PHO	3	THEFT VEHICLE	STOLEN VEHICLE	N/A

Average Response Time based on 12 months period of data : 20.4

North Coastal Sheriff's Station

Calls for Service & Response Time to Emergency Calls
November 1, 2015 through November 1, 2016
City of Solana Beach- Solana Highlands Apartments

Calls for Service by Description – Solana Highlands Apartments

661-701 S Nardo Avenue, City of Solana Beach

Calls for Service	Month-Year									Total
	2015-11	2015-12	2016-02	2016-03	2016-05	2016-06	2016-07	2016-08	2016-09	
661 S NARDO AV					1	2	2	1	3	9
ILLEGAL PARKING						1				1
MISC DISTURBANCE									1	1
PSYCH								1		1
SUICIDE - ACTUAL OR ATTEMPT					1					1
SUSPICIOUS CIRCUMSTANCE							1			1
TEMPORARY RESTRAINING ORDER									1	1
VANDALISM, VEHICLE							1			1
WELFARE CHECK						1			1	2
665 S NARDO AV							1			1
TELEPHONE CALL							1			1
669 S NARDO AV							3	1		4
HIT AND RUN, PROP. DAMAGE							2			2
SPOUSAL ABUSE								1		1
TELEPHONE CALL							1			1
679 S NARDO AV	1	1		1	2	1				6
ASSISTANCE NEEDED					1					1
BURGLARY VEHICLE AUDIBLE ALARM					1					1
DISTURBANCE						1				1
HIT AND RUN, PROP. DAMAGE		1								1
SUICIDE - ACTUAL OR ATTEMPT	1									1
VANDALISM, VEHICLE				1						1
701 S NARDO AV		1	2	1			1			5
INJURED PERSON			1							1
PERSON DOWN			1							1
PRESERVE THE PEACE				1						1
RECOVERED STOLEN VEHICLE		1								1
STOLEN VEHICLE							1			1
Grand Total	1	2	2	2	3	3	7	2	3	25

Source: CAD

Proposed Residential Care Facility Specific Plan
Sewer Services Questionnaire

1. Please describe the existing sewer facilities (size & location of lines and treatment plants) in the project vicinity. Please provide maps and plans for reference, if available.

An 8" sewer main exists in Genevieve Street, fronting the project site. The existing sewer flows westerly under Interstate 5 and continues on Genevieve to Valley Avenue, where it enters the Eden Gardens Sewer Pump Station.

2. Which treatment plant will the project-generated sewer flow to? What is the maximum daily treatment capacity of the treatment plant and what is the daily average?

As with all the sewage in Solana Beach, the sewage is treated at the San Elijo Water Reclamation Facility on Manchester Avenue in Encinitas, operated by the San Elijo Joint Powers Authority.

For more information:
http://www.sejpa.org/index.php?page_id=1

3. Are there any current plans to expand wastewater treatment facilities? What would the future treatment capacities be?

No plans or need to expand treatment plant.

4. What is the sewer generation factor for a transportation facility site? What about other land use types such as residential or commercial? Will the treatment plant designated for the area be able to process the sewer demand generated by the proposed project?

Existing treatment plant can process the demand generated by the proposed project.

5. What is the capacity of the conveyance facilities (sewer pipeline segments) impacted by the project? Are there any existing deficiencies? Will the conveyance facilities be able to accommodate the project-generated sewer?

No existing deficiencies in the conveyance facility. While the existing facilities should be able to accommodate the project, the final determination is pending a sewer study.

6. Please list standard mitigation measures for reducing individual project related wastewater flows, if available.

None

7. Which mitigation measures, if any, would you recommend for the proposed project?

None

Proposed Residential Care Facility
Water Services Questionnaire

1. Please describe the existing and planned water facilities in the project area, especially near the project site. Please provide maps and plans for reference, if available.

See attached map.

2. Please list the cities or communities served by your agency.

Rancho Santa Fe, Fairbanks Ranch, and the City of Solana Beach

3. What are the water consumption factors applicable to a residential care facility and neighborhood park? Please state the estimated water demand for the proposed project and the adequacy of the current water supply.

This is not determined by the Santa Fe Irrigation District, but by the Engineer/ Architect of the subject project.

4. What are your sources of water? What are the future sources of water?

65% imported water and 35% local water Additional information can be found on the Santa Fe Irrigation District's 2015 Urban Water Management Plan.

Proposed Residential Care Facility
Water Services Questionnaire

5. What impact will the proposed project, in combination with all the other development projects in the area, have on your ability to provide water service?

Unknown until specific requirements of the project are provided.

6. What water conservation measures do you recommend for the proposed project?

Conservation recommendations are identified on the Santa Fe Irrigation District's website www.sfidwater.org.

7. Please add any other comments you may wish to make regarding this project.

Response Prepared By:

Marissa Potter	Associate Civil Engineer
Name	**Title**
Santa Fe Irrigation District	12/27/16
Agency	**Date**

Santa Fe Irrigation District

Proposed Residential Care Facility Specific Plan
Sewer Services Questionnaire

8. Please add any other comments you may wish to make regarding this project.

No additional comments.

Response Prepared By:

Jim Greenstein	Associate Civil Engineer
Name	**Title**
City of Solana Beach	10-26-15
Agency	**Date**

Jim Greenstein

From: Noah Walker [nwalker@dudek.com]
Sent: Thursday, October 06, 2005 1:38 PM
To: Jim Greenstein
Cc: dcaron@cte-inc.net
Subject: RE: Solana Beach Sewer Study
Importance: High

Shana Tova to you too Jim

I have just returned from St. Louis providing a training session their for the St. Louis Engineers' Club. So I am just getting caught up on the correspondence and voice mail from last week. I will put the definitions in below. Please let Chandra know that I will call him!

Cheers!
Noah

From: Jim Greenstein [mailto:jgreenstein@cosb.org]
Sent: Monday, October 03, 2005 10:08 AM
To: Noah Walker
Subject: FW: Solana Beach Sewer Study

Noah,

As requested by CTE below, could you please describe the data from the ArcView file you sent me? I listed the data names below.

Thanks, Jim

AVERAGEFLO Average Flow Rate (CFS)
DESIGNQ Peak Flow Rate (CFS)
EPI_DEPTH Depth of Flow in Pipe (Inches or Feet)
EPI_DOVERD depth/Diameter (unit less ratio) d/D = 0.5 Half full
EPI_QFULL The Manning's Capacity of the pipe at d/D = 1.0
EPI_QMAXAL The Allowable Capacity of the pipe i.e. if <=18" this is typically half pipe
BASIN We established service areas during the initial plan and in the last flow measurement you had done.
G_ID The Unique ID
SY_GRDN Ground Elevation Downstream (Feet) Be advised this was probably estimated for small pipes
SY_GRUP Ground Elevation Upstream (Feet) Ditto
SY_INVDN Invert Elevation Downstream (Feet) Ditto small diameter lines were input with minimal slope
SY_INVUP Invert Elevation Upstream (Feet) Ditto Ditto
SY_LENGTH Length of pipe (Feet) In small lines this would be the digitized length (seen in G_Size) Not the as-built length
SY_NAME A unique name for the pipe
SY_SIZE The diameter of the pipe (Inches)

From: David Caron [mailto:dcaron@cte-inc.net]
Sent: Monday, October 03, 2005 9:47 AM
To: Jim Greenstein
Subject: RE: Solana Beach Sewer Study

476110.94,3650161.83

Center: 476225.24, 3650085.63

476339.54,3650161.83

INTERSTATE 5

445

1024

L 11

1025

15m

50ft

GENEVIEVE ST

GENEVIEVE ST

DM2 #6 CU 1ØN

DM2 #6 CU 1ØN

1-#6 SSC CU CU

1-#6 SSC CU CU N

DM2 #6 CU 1ØN

1-#6 SSC CU CU

1-#6 SSC CU CU N

2-#4 B.STRD CU

1-#6 WP CU N

MARINE VIEW AVE

DM2 #6 CU 1ØN

SH231119

1 DB 3" 80'

2-3/0 USA AL

1 - 1" - 0'

P163047

562

P26915

P129045J

P26916

2-#6 SSC CU CU

1-#6 SSC CU CU N

DM2-150

1 - 15 W

P129046

P129783

59

572

2-#2 B.STRD CU

1-#6 B.STRD CU N

DM2 #6 CU 2ØN

610

1 DB 2" 140'

2-3/0 USA AL

2-350 USA AL

1 DB 3" 150'

MARINE VIEW AVE

SH231120

609

DM2-75

1 - 25 W

P125597

630

2-#4 SSC CU CU

1-#4 SSC CU CU N

DM2 #6 CU 2ØN

DM2 1 - 80A

P26920

621

1

CL

DM2 #2 AL 1ØN 410'

1 DB 2" 200'

1

WOODSIDE WAY

MARINE VIEW AVE

641

1

476110.94,3650009.43

476339.54,3650009.43

Map Title:

Printed By: CORP\AYribe

Printed Date: 11/6/2015

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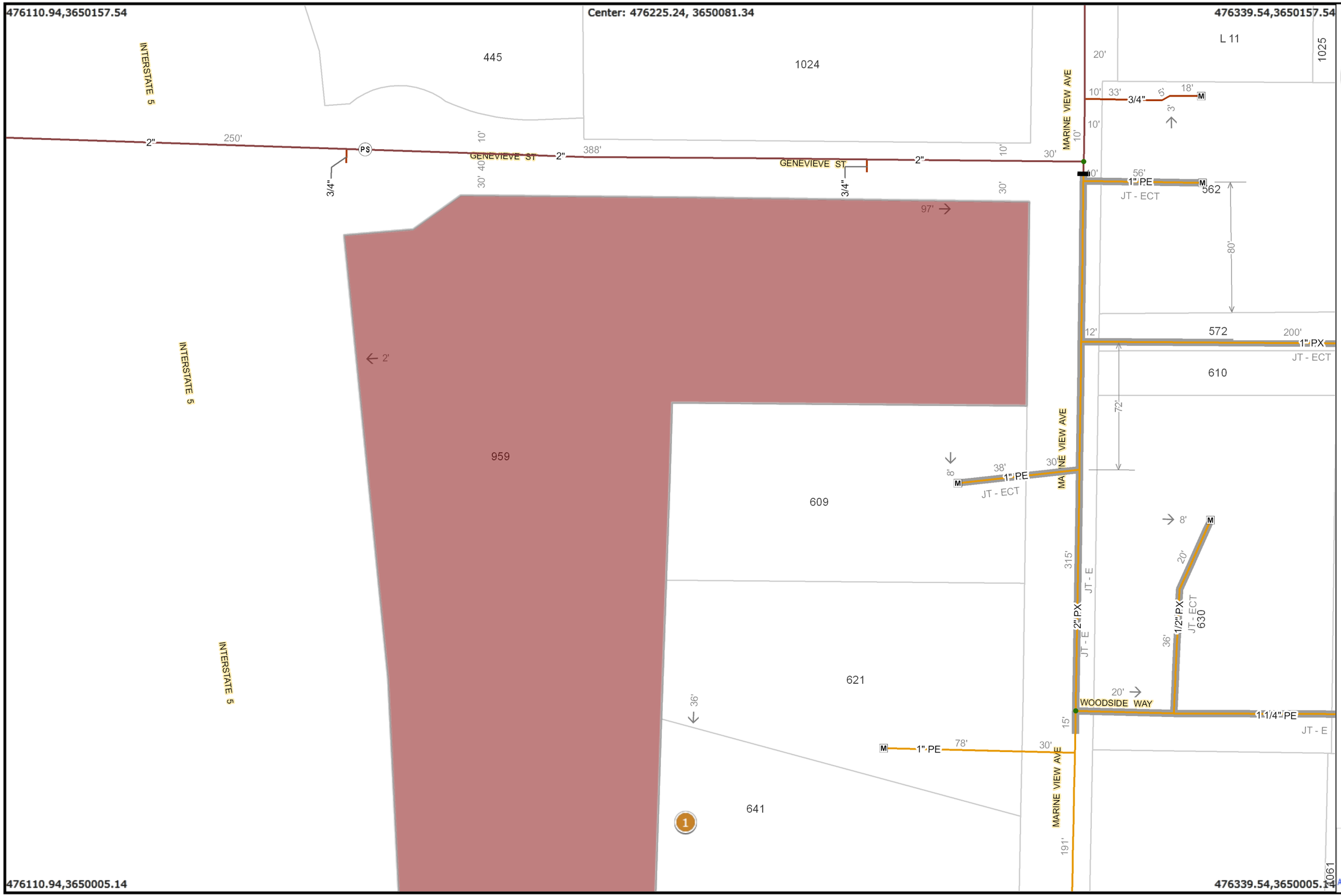
SDGE

Sempra Energy utility


476110.94,3650157.54
Center: 476225.24, 3650081.34
476339.54,3650157.54
476110.94,3650005.14
476339.54,3650005.14
INTERSTATE 5
445
1024
L 11
1025
MARINE VIEW AVE
GENEVIEVE ST
250'
388'
2"
3/4"
PS
10'
30'
40'
20'
33'
18'
5'
3'
M
56'
1"PE
JT - ECT
562
80'
97'
572
200'
1"PX
610
72'
2'
959
609
38'
8'
315'
JT - E
2"PX
1/2"PX
630
36'
621
WOODSIDE WAY
1 1/4"PE
15'
78'
641
191'
1061
15m
50ft
CORP\AYribe
11/6/2015
Map Title:
Printed By:
Printed Date:
CONFIDENTIAL - FOR INTERNAL USE ONLY, NOT FOR PUBLIC REVIEW - UNAUTHORIZED DUPLICATION PROHIBITED. This map is not survey grade, and SDG&E makes no representations or warranties, whether expressed or implied, as to its accuracy, correctness, defensibility, completeness or any other standard or measure of quality or adequacy or as to its use or intended use for any particular purpose. SDG&E disclaims all warranties, expressed or implied, including the warranty of fitness for a particular purpose. You are solely responsible for selecting this map to use and you are solely responsible for any consequences resulting from your use. "Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright ©1998 – 2007 AT&T Intellectual Property I, L.P. All Rights Reserved."
SDGE
Sempra Energy utility

Proposed Residential Care Facility
Solid Waste Services Questionnaire

1. Which County owned or operated landfill(s), material recovery facilities or other solid waste disposal facilities would serve the proposed project?

   Most San Diego and Material Recovery facilities are privately owned and operated. Commercial waste collected in Solana Beach is transported to the Escondido Waste transfer station (owned by Escondido Disposal Inc.) and waste is transported from that location to the Sycamore Landfill in San Diego and owned by Republic Services.

2. What are the maximum capacity and the total remaining capacity of the landfill(s) that serve the project area? What is (are) the anticipated life span of these landfill(s)?

   The maximum daily capacity of the Sycamore Landfill is 5,000 tons per day. The remaining life of this landfill at 5,000 TPD is over 50 years.

3. What is the daily maximum treatment capacity of the landfill(s) and what is the daily disposal average?

   Sycamore Landfill currently averages 4,000 tons per day and the maximum capacity is 5,000 tons per day.

4. What is the solid waste generation factor for a transportation facility? Based on the project description included in the cover letter, are the County's existing solid waste disposal facilities adequate to handle the amount of refuse that would be generated by the proposed project.

   There is adequate disposal capacity in the region to accommodate this project.

5. What mitigation measures are recommended or required to reduce project-level and cumulative impacts on the County's solid waste disposal system?

   No mitigation measures are required other than to maximize waste diversion efforts through recycling programs offered by EDCO.

Proposed Residential Care Facility
Solid Waste Services Questionnaire

6. What recycling efforts would apply to the proposed project? Please indicate recommended techniques for the recreational use.

EDCO provides single-steam commercial recycling programs as required by state law to all projects in the City of Solana Beach. Specific program offerings will be developed once the project is built and occupied.

7. Please add any other comments you may wish to make regarding this project.

Response Prepared By:

Jeff Ritchie — Vice President

Name — **Title**

EDCO Waste & Recycling Services — 10/8/2015

Agency — **Date**

MESA GRANDE BAND OF MISSION INDIANS
P.O. BOX 270
SANTA YSABEL, CALIFORNIA 92070
(760)782-3818 Tribal Office
(760) 782-0795 Tribal Fax#

May 9, 2017

To Whom This May Concern:

Please accept this letter from Mesa Grande Band of Mission Indians authorizing Mario Morales as the Tribe's designated Cultural Resources Representative. If you have any questions or concerns, please contact the Tribal office.

Sincerely,

Virgil F Oyos

Virgil Oyos, Tribal Chairman
Mesa Grande Band of Mission Indians

RECEIVED

JUN 22 2017

Planning-Comm Dev Dept
City of Solana Beach

June 19, 2017

Attn: City of Solana Beach Community Development Department
635 S Highway 101, Solana Beach, CA 92075

RE: California Environmental Quality Act Public Resources Code section 21080.3, subd. (b) ; California Assembly Bill 52, Request for Formal Notification of Proposed Projects within the geographic area that is traditionally and culturally affiliated with the **Mesa Grande Band of Mission Indians.**

The purpose of this letter is to request formal notification of proposed projects within the geographic area that is traditionally and culturally affiliated with the Mesa Grande Band of Mission Indians, in accordance with Public Resources Code Section 21080.3.1, subd. (b). As of the date of this letter, you have been formally notified that the boundaries of your local government's jurisdiction fall within the area that is traditionally and culturally affiliated with the Mesa Grande Band of Mission Indians. Attached to this letter you will find a traditional use area map that can be used for reference. Additionally, the Mesa Grande Band of Mission Indians has created the following specific requests and formal procedures in accordance with California Assembly Bill 52:

- Formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq. Pursuant to Public Resources Code section 21080.3.1, subd. (b) shall be sent to the Mesa Grande Band of Mission Indians

- Within 14 days of determining that an application for a project is complete or of a decision by your agency to undertake a project, a lead agency must provide formal notification to Mario Morales, Tribal Member, who is the designated contact and tribal representative for the traditionally and culturally affiliated Mesa Grande Band of Mission Indians regarding notifications pertaining to California Assembly Bill 52
  Contact Information:

  Mario Morales
  PMB 366
  35008 Pala Temecula Rd.
  Pala, Ca 92059
  Phone: 760-622-1336
- We request that all notices be sent via certified U.S. Mail with return receipt.
- This notice shall consist of a formal written letter that includes:

- A description of the proposed project
- The project's location
- The lead agency contact information
- A clear and definitive statement that the tribe has 30 day to request consultation

- Once Mr. Morales, designated representative and recipient for the Mesa Grande Band of Mission Indians has received the notification, we will respond within 30 days as to whether we wish to initiate consultation as prescribed by Public Resources Code section 21080.3.1, subd. (d), the Mesa Grande Band of Mission Indians may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.

- The lead agency shall begin the consultation process within 30 days of receiving the Mesa Grande Band of Mission Indians request for consultation and prior to the release of a negative declaration, mitigated negative declaration, or environmental impact statement.

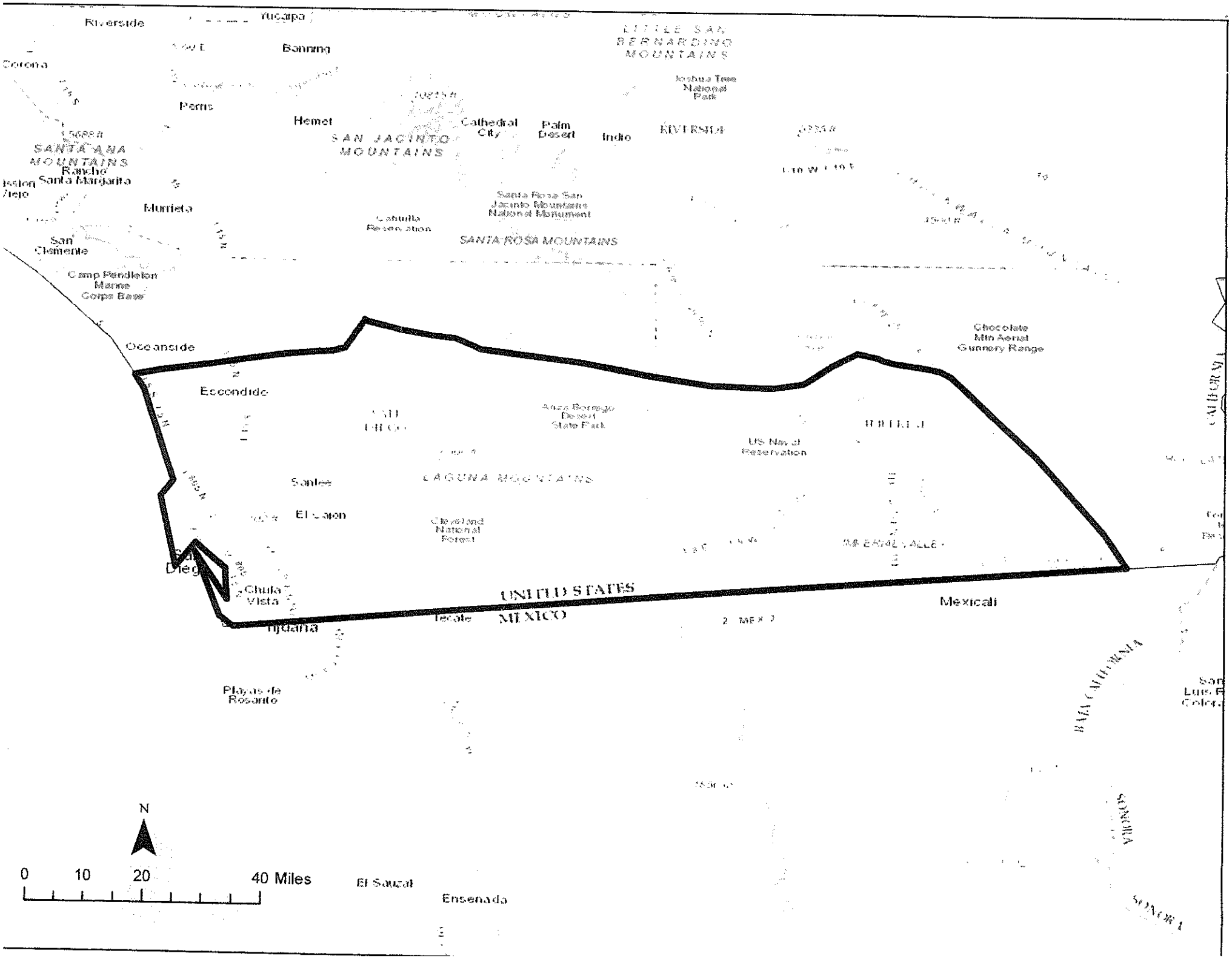
- Once a review of inadvertent discoveries has been completed by the Mr. Morales, designated representative for the Mesa Grande Band of Mission Indians, all information will then be considered for a final decision and directive.

- In the event that human remains are uncovered, all work in the immediate vicinity will halt and standard procedures will be followed as set forth by law.

On behalf of The Mesa Grande Band of Mission Indians, we appreciate your careful considerations and willingness to effectively carry out all requirements associated with AB 52. If you have any further questions or require any clarification, please feel free to contact me at your earliest convenience.

Sincerely,

Mario Morales
PMB 366
35008 Pala Temecula Rd.
Pala, Ca 92059
Phone: 760-622-1336


Riverside
Yucaipa
Corona
Banning
LITTLE SAN BERNARDINO MOUNTAINS
Joshua Tree National Park
Perris
Hemet
Cathedral City
Palm Desert
Indio
RIVERSIDE
SAN JACINTO MOUNTAINS
SANTA ANA MOUNTAINS
Rancho Santa Margarita
Murrieta
Santa Rosa San Jacinto Mountains National Monument
Cahuilla Reservation
SANTA ROSA MOUNTAINS
San Clemente
Camp Pendleton Marine Corps Base
Oceanside
Chocolate Mtn Aerial Gunnery Range
Escondido
Anza Borrego Desert State Park
US Naval Reservation
Santee
LAGUNA MOUNTAINS
El Cajon
Cleveland National Forest
Chula Vista
UNITED STATES
MEXICO
Mexicali
Tijuana
Tecate
Playas de Rosarito
N
0
10
20
40 Miles
El Sauzal
Ensenada

June 29, 2017

Mario Morales
PMB 366
35008 Pala Temecula Rd.
Pala, CA 92059

Subject: Proposed Residential Care Facility Specific Plan Project at 959 Genevieve Street, Solana Beach; AB 52 Native American Consultation Request per California Public Resources Code Sections 21080.3.1 et seq.

Dear Mr. Morales

The City of Solana Beach is the lead agency for a proposed project that is subject to the California Environmental Quality Act (CEQA). The proposed project consists of the demolition of an existing single-family residence on a 2.91-acre lot at 959 Genevieve Street in the City of Solana Beach. The project includes redevelopment of the site with a 2-story residential care facility with up to 99 beds. The facility would have surface parking as well as a partial subterranean parking area. Related sidewalk, curbs, and gutters; landscaping; and utilities would also be installed.

The project would increase the intensity of the site. Accordingly, the Solana Beach General Plan requires a Specific Plan and General Plan Amendment that must both be approved by a majority of the City's voters. If approved by the electorate, the project would still require the Solana Beach City Council to consider a Development Review Permit (DRP) and Structure Development Permit (SDP) and to certify an EIR.

The City recently completed an Initial Study for the project and has issued a Notice of Preparation of an Environmental Impact Report (EIR). These documents are enclosed for your review.

Your Tribe submitted a written request for notification of projects within the City pursuant to Public Resources Code Section 21080.3.1(b). To ensure compliance with Assembly Bill 52 (Chapter 532, Statutes of 2014) and Public Resources Code Section 21080.3.1, we are contacting you to see if you have knowledge of tribal cultural resources within the project boundaries or if you would like to request consultation with the City regarding the proposed project. ***If you wish to consult you must respond to this notification within 30 days.***

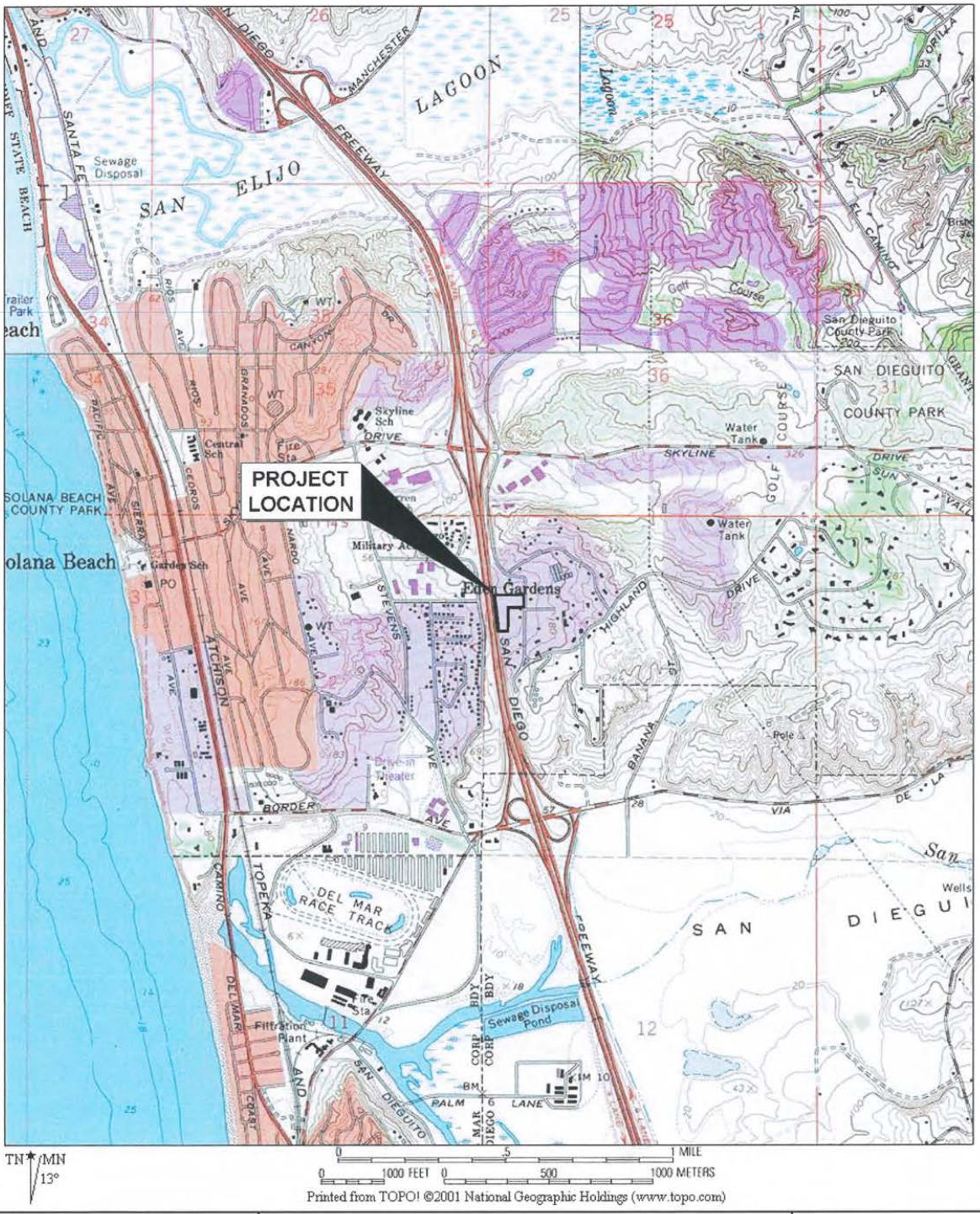
Additionally, apart from a cultural resource consultation, if you would like to be notified of public hearings for the proposed project, please let me know.

Feel free to contact me if you have any questions. I can be reached by phone at 858-720-2446 or by email at LMeyerhoff@cosb.org. Thank you for your assistance.

Sincerely,

Leslea Meyerhoff, M.A., AICP
Project Manager

Enclosures: Project Location Map on USGS Quadrangle



Affinis
Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Project location on USGS 7.5'
Del Mar & Encinitas quadrangle

Figure 2

VIEJAS
TRIBAL GOVERNMENT

P.O. Box 908
Alpine, CA 91903
#1 Viejas Grade Road
Alpine, CA 91901

Phone: 6194453810
Fax: 6194455337
viejas.com

December 23, 2015

Leslea Meyerhoff
635 South Highway 101
Solana Beach, CA 92075

RE: **959 Genevieve Street**

Dear Ms. Meyerhoff,

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed projects and at this time we have determined that the project site has cultural significance or ties to Viejas. Viejas Band request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities to inform us of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains. Please call Julie Hagen for any questions at 619-659-2339 or email jhagen@viejas-nsn.gov. Thank you

Sincerely,

VIEJAS BAND OF KUMEYAAY INDIANS

Appendix 5.12-1 Traffic Assessment Letter

Appendices

This page intentionally left blank.

LOS Engineering, Inc.
Traffic and Transportation

11622 El Camino Real, Suite 100, San Diego, CA 92130
Phone 619-890-1253, Fax 619-374-7247, E-mail: Justin@LOSengineering.com

March 14, 2016

Mr. Mo Sammak, P.E.
City of Solana Beach
635 S Highway 101
Solana Beach, CA 92075

RE: 959 Genevieve Street Senior Care Housing Project - Traffic Assessment Letter

Dear Mr. Sammak:

The following traffic assessment is provided to document surrounding daily roadway volumes and the anticipated project trip generation for a proposed 99 bed senior care housing project to be located at 959 Genevieve Street, Solana Beach, California. Project access is proposed from Genevieve Street. A preliminary grading plan is included in **Attachment A**. The site is vacant except for an un-occupied single family dwelling unit generally located in the center of the parcel.

EXISTING TRAFFIC VOLUMES

At the request of City staff, multiple days of traffic data were collected in 2014 and 2015 along five streets in the surrounding neighborhood (count data included in **Attachment B**). These counts were scheduled to account for traffic during the fair season, the racing season, and a typical week while school was in session. The data indicates that there is not a substantive change in traffic on the area streets associated with events at the Fairgrounds. The streets and respective traffic volumes (High ADT, Low ADT, and Average ADT) included:

1) Marine View Avenue from San Andres Dr to Solana Dr (High 1,330; Low 527; Average 1,078)
2) Genevieve Street from Marine View Ave to a cul-de-sac adjacent to I-5 (High 37; Low 31; Average 34)
3) Las Banderas Dr from Lomas Santa Fe Dr to San Andres Dr (High 4,095; Low 3,936; Average 4,016)
4) Marine View Avenue from Los Caballitos to Genevieve St (High 304; Low 123; Average 232)
5) Highland Dr from Solana Dr to San Andres Dr (High 2,015; Low 875; Average 1,495)

PROJECT TRIP GENERATION

For the San Diego region, project trip generation is typically calculated using the SANDAG *Brief Guide of Vehicular Traffic Generation Rates*, April 2002. However, SANDAG defaults to the Institute of Transportation Engineers (ITE) trip rates when local data is unavailable. SANDAG noted that the 6th Edition ITE rates were used for senior care housing. The latest ITE trip generation is the 9th Edition, 2012. Therefore, the ITE 9th Edition Trip Generation was used to calculate the project trip generation.

The ITE 9th Edition Trip Generation Code 254 Assisted Living was used because it best fit the project description. Assisted Living noted that memory care or Alzheimer's are commonly offered by the facilities surveyed. The project proposed to include memory or Alzheimer's care. ITE trip rates for Assisted Living are included in **Attachment C**. Using the *ITE 9th Edition Trip Generation*, the project is calculated to generate 263 Average Daily Trips (ADT), with 18 AM peak hour trips (12 inbound and 6 outbound), and 34 PM peak hour trips (16 inbound and 18 outbound) as shown in **Table 1**.

Table 1: Project Trip Generation

ITE Land Use	Trip Rate	Size & Units	ADT	AM				PM			
				Rate	Split	IN	OUT	Rate	Split	IN	OUT
Assisted Living	2.66 /Bed	99 Beds	**263**	0.18 /Bed	0.67 0.33	**12**	**6**	0.35 /Bed	0.47 0.53	**16**	**18**

Source: *ITE 9th Edition Trip Generation*, 2012. ADT=Average Daily Traffic; Split-percent inbound and outbound.

When the project trip generation is established, the need for a traffic study can be determined. Determination for the need of a traffic study was based on the *SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region*, March 2000. The SANTEC guideline states:

> "A TIS [Traffic Impact Study] should be prepared for all projects which generate traffic greater than 1,000 total average daily trips (ADT) or 100 peak-hour trips. If a proposed project is not in conformance with the land use and/or transportation element of the general or community plan, use threshold rates of 500 ADT or 50 peak-hour trips."

An excerpt from the SANTEC guidelines is included in **Attachment D**. Since the project traffic is calculated to be less than the lower 500 ADT threshold and the peak hours are calculated to be less than the lower 50 peak hour trips, the project would not require a traffic study based on the SANTEC/ITE guidelines. However, the three roadways providing access to the project were analyzed to determine if the roadway capacity would be exceeded with the proposed project.

PROJECT ACCESS AND SURROUNDING ROADWAYS

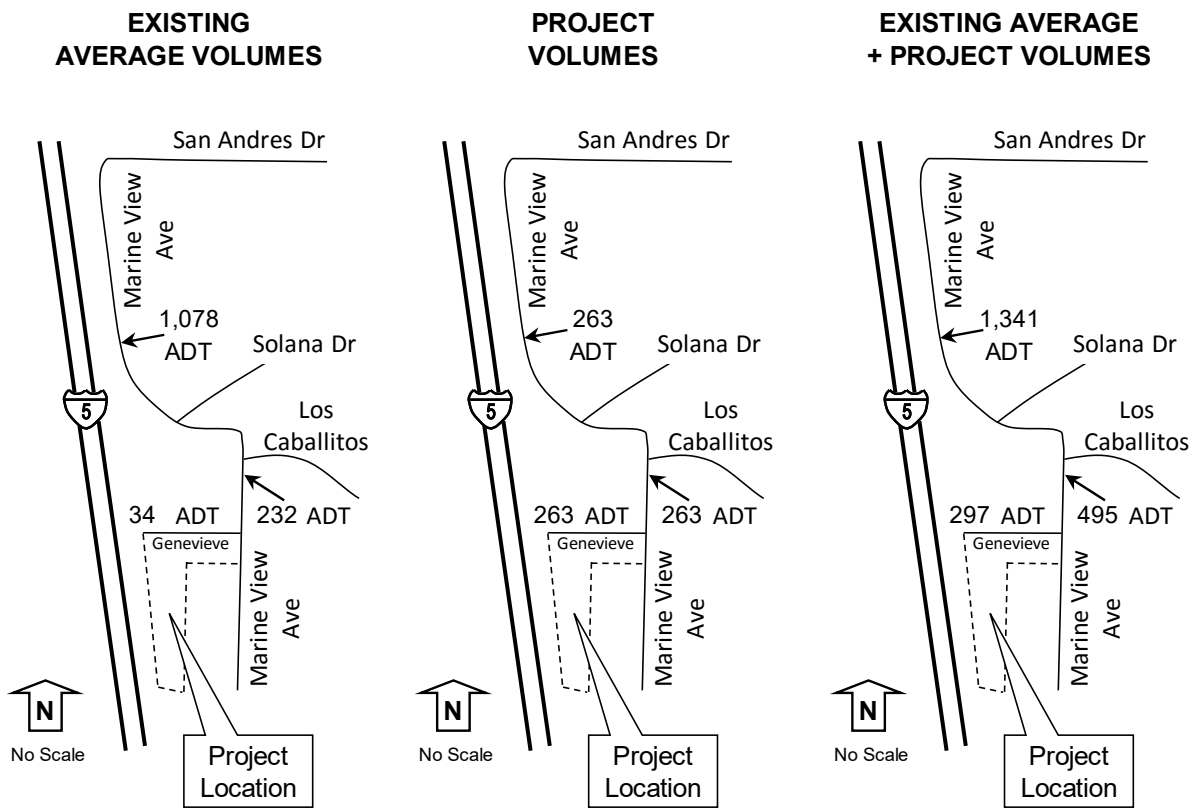
Project access is proposed on Genevieve Street. To reach Genevieve Street, project traffic will be required to use Marine View Avenue. A project driveway sight distance analysis will be provided under separate cover.

Overall travel to and from the project site is anticipated from Lomas Santa Fe Drive and Las Banderas, via San Andres Drive and Marine View Avenue. Minimal project traffic is anticipated to use the residential streets located south and east of the project site due to their narrow, windy, and circuitous network.

EXISTING PLUS PROJECT TRAFFIC

Based on the anticipated project travel from Lomas Santa Fe, the project is calculated to add 263 daily trips to Marine View Avenue and Genevieve Street. The surrounding roadways without and with project traffic are shown in **Figure 1**.

FIGURE 1: Volumes



ROADWAY CAPACITY

The roadway classification and capacity was obtained from the City of Solana Beach *Circulation Element*. The City of Solana Beach *Circulation Element* has an exhibit that shows Marine View Avenue and Genevieve Street as "Local Roads" and lists a capacity of 2,000 vehicles per day for a Local Road - excerpts included in **Attachment E**. The *Circulation Element* states "Design capacity of 2,000 vehicles per day determined not by the physical capacity of the road but rather the acceptable level of service which will not affect the quality of life in residential areas". Based on the City of Solana Beach classification and capacity, the addition of project traffic will not exceed the capacity of Marine View Avenue or Genevieve Street. In addition to these local streets, the City requested that current counts be provided for Las Banderas to verify existing volumes. The design capacity of Las Banderas, a Collector Street, is 10,000 vehicles per day and the existing volumes are well below the 10,000 level. The existing and with project volumes are included in **Tables 2** and **Table 3**.

Table 2: EXISTING (Average) + PROJECT TRAFFIC VOLUMES AND CAPACITY

Segment	Roadway Classification	Existing (Average)			Project	Existing (Avg) + Project		
		Daily Volume	Roadway Capacity	Within Capacity	Daily Volume	Daily Volume	Roadway Capacity	Within Capacity
Marine View Ave								
From San Andres Dr to Solana Dr	Local	1,078	2,000	Yes	263	1,341	2,000	Yes
From Los Caballitos to Genevieve St	Local	232	2,000	Yes	263	495	2,000	Yes
Genevieve Street								
From Marine View Ave to I-5 (cul-de-sac)	Local	34	2,000	Yes	263	297	2,000	Yes
Las Banderas								
From Lomas Santa Fe to San Andres Dr	Collector	4,016	10,000	Yes	263	4,279	10,000	Yes

Daily volume is a 24 hour volume.

Table 3: EXISTING (Highest) + PROJECT TRAFFIC VOLUMES AND CAPACITY

Segment	Roadway Classification	Existing (Highest)			Project	Existing (High) + Project		
		Daily Volume	Roadway Capacity	Within Capacity	Daily Volume	Daily Volume	Roadway Capacity	Within Capacity
Marine View Ave								
From San Andres Dr to Solana Dr	Local	1,330	2,000	Yes	263	1,593	2,000	Yes
From Los Caballitos to Genevieve St	Local	304	2,000	Yes	263	567	2,000	Yes
Genevieve Street								
From Marine View Ave to I-5 (cul-de-sac)	Local	37	2,000	Yes	263	300	2,000	Yes
Las Banderas								
From Lomas Santa Fe to San Andres Dr	Collector	4,095	10,000	Yes	263	4,358	10,000	Yes

Daily volume is a 24 hour volume.

CONCLUSION

A 99 bed assisted living project for seniors is proposed at 959 Genevieve Street in Solana Beach, California. The project is calculated to generate 263 ADT with 18 AM peak hour trips and 34 PM peak hour trips. The project trip generation is below the SANTEC requirement for a traffic study; therefore, a traffic study is not recommended for the project. However, three surrounding residential roadway segments and the Las Banderas collector were analyzed with the proposed project and were found to be within capacity with the addition of project traffic.

The City of Solana Beach *Circulation Element* states "Design capacity of 2,000 vehicles per day [for local roads were] determined not by the physical capacity of the road but rather the acceptable level of service which will not affect the quality of life in residential areas". Based on the City of Solana Beach *Circulation Element*, the proposed project would not affect the quality of life in residential area. However, the applicant is willing to work with the community to develop traffic calming measures to mitigate potential concerns by the neighboring residents.

It is recommended that the applicant be conditioned to only allow the type of uses noted in this traffic generation analysis. If other uses are to be proposed in the future, then the applicant should revise this traffic assessment letter. Please call me at (619) 890-1253 if you have any questions.

Sincerely,
LOS Engineering, Inc.

Justin Rasas

Justin Rasas, P.E.(RCE 60690), PTOE
Principal and Officer of LOS Engineering, Inc.
Attachments

ATTACHMENT A
PRELIMINARY GRADING PLAN

PLEASE SEE NEXT PAGE

PRELIMINARY GRADING PLAN FOR RESIDENTIAL CARE FACILITY 959 GENEVIEVE STREET

PREPARED FOR

PACIFIC SOUND INVESTORS, LLC

SITE ADDRESS

959 GENEVIEVE STREET
SOLANA BEACH, CA 92075

APN'S

299-390-51

LEGAL DESCRIPTION

PORTION OF LOTS 1 & 2 IN BLOCK 3 OF KENNEY'S MARINE VIEW GARDENS IN THE CITY OF SOLANA BEACH, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 1774 REC 12-31-1923 IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY, BEING PARCEL A OF CERTIFICATE OF COMPLIANCE RECORDED APRIL 28, 2003 AS DOC. NO. 2003-487729 OF OFFICIAL RECORDS OF SAID SAN DIEGO COUNTY.

BENCHMARK

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE BENCHMARK USED TO ESTABLISH SAID ELEVATIONS IS THE CITY OF SOLANA BEACH, CONTROL POINT NUMBER 2004, PER RECORD OF SURVEY 18971.

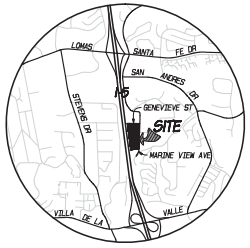
THE PUBLISHED NAVD88 ELEVATION OF SAID BENCHMARK IS 315.148 FEET. EPOC 2004.0

PROPOSED DISTURBED AREA

2.57 AC

LEGEND

DESCRIPTION	SYMBOL
SITE BOUNDARY	
RIGHT-OF-WAY CENTERLINE	
OFFSITE PROPERTY LINE	
EXISTING EASEMENT	
EXISTING CONTOUR LINE	134
EXISTING FENCE	X
EXISTING WATER LINE	W
EXISTING SEWER LINE	S
EXISTING OVERHEAD UTILITIES	E
PROPOSED CONTOUR LINE	134
PROPOSED LIMIT OF GRADING	
PROPOSED BUILDING FOOTPRINT	
PROPOSED LOWER BUILDING LEVEL	
PROPOSED RETAINING WALL	
PROPOSED CUT SLOPE	
PROPOSED BROW DITCH	
PROPOSED DRAINAGE DIRECTION	
PROPOSED PERMANENT BMP AREA	
PROPOSED PVC STORMDRAIN	
PROPOSED DRAIN INLET	
PROPOSED RIP-RAP ENERGY DISSIPATOR	
PROPOSED CONCRETE DROP INLET	
PROPOSED BOX CULVERT	
PROPOSED CONCRETE WING HEADWALL	
TYPE G CATCH BASIN	
PROPOSED SAWCUT LINE	
PROPOSED G-2 CURB, GUTTER & G-7 SIDEWALK	
PROPOSED ROLLED CURB & DG SIDEWALK	
PROPOSED AC PAVING	
PROPOSED ENHANCED PAVING PER LANDSCAPE PLAN	



VICINITY MAP
NOT TO SCALE

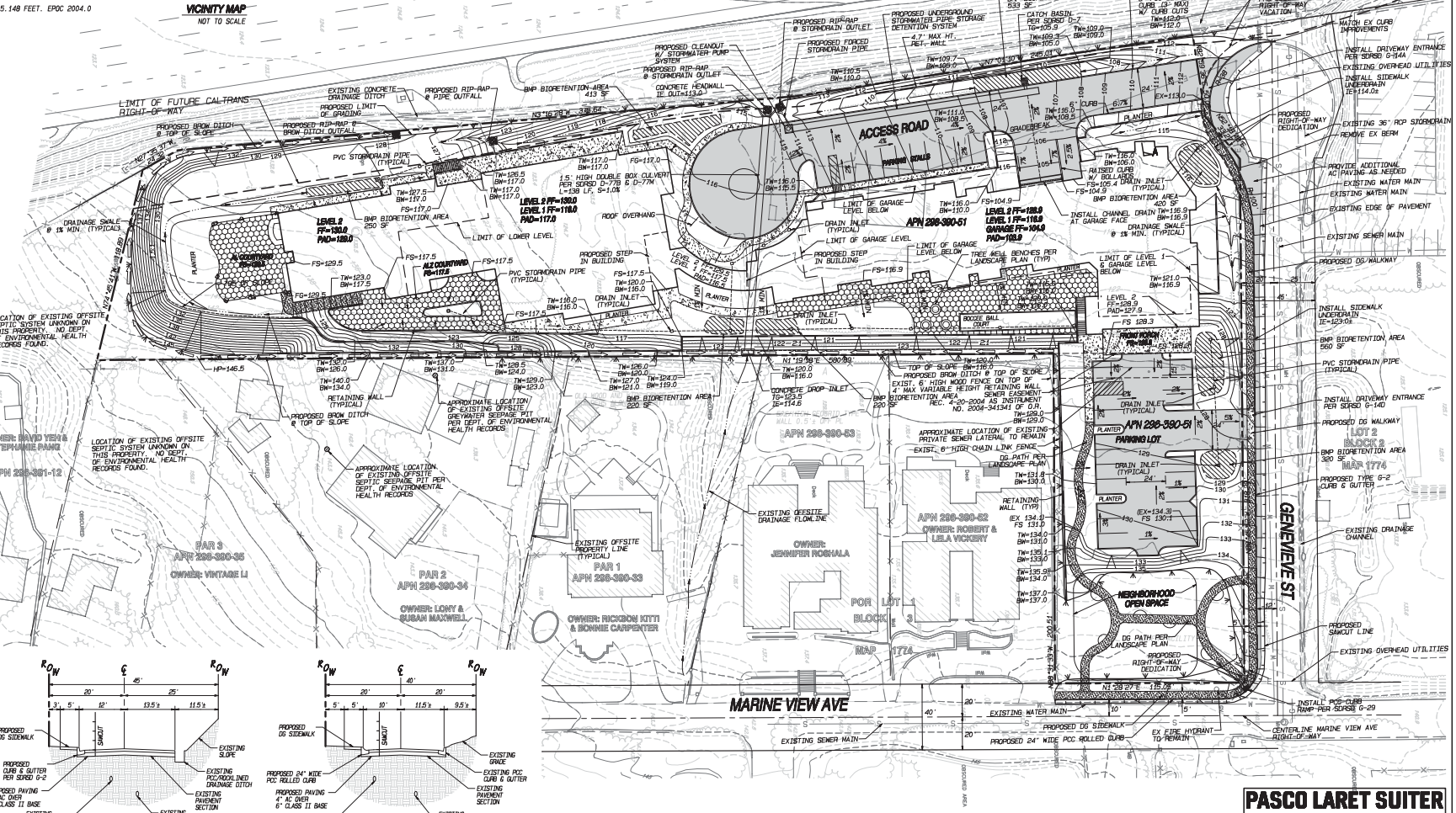
PROJECT AREA TABULATION:

GROSS AREA: 126,875 SF (2.91 AC)
AREA OF DEDICATION: -347 SF
AREA OF STREET VACATION: +603 SF
NET AREA: 127,131 SF (2.91 AC)

ESTIMATED EARTHWORK QUANTITIES

27,400 CY CUT
1,200 CY FILL
26,200 CY NET EXPORT

NOTE:
GRADING QUANTITIES HEREON REPRESENT COMPACTED SOIL VOLUMES AND DO NOT ACCOUNT FOR SPOILS GENERATED FROM FOOTINGS OR UTILITY TRENCHES OR FOR REMEDIAL GRADING THAT MAY BE REQUIRED PER THE PROJECT GEOTECHNICAL RECOMMENDATIONS



TYPICAL SECTION GENEVIEVE ST.
NOT TO SCALE

TYPICAL SECTION MARINE VIEW AVE.
NOT TO SCALE

DATE PREPARED: 8/27/2015

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING + LAND PLANNING + LAND SURVEYING
535 North Highway 101, Ste A, Solana Beach, CA 92075
ph 858.259.8212 | fx 858.259.4813 | plsaengineering.com

PLSA 1890

ATTACHMENT B

COUNT DATA

LOS Engineering, Inc.
Traffic and Transportation

11622 El Camino Real, Suite 100, San Diego, CA 92130
Phone 619-890-1253, Fax 619-374-7247

February 3, 2016

Mr. John DeWald
1855 Freda Ln
Cardiff, CA 92007

Dear Mr. DeWald:

This report summarizes the collection of traffic data over a two year period from various residential streets in Solana Beach, California.

The daily traffic volumes and locations of data collection are shown on the next page. The data collection sheets are included along with a calendar of events that occurred at the Del Mar Fairgrounds during the data collection.

If you have any questions regarding this summary of traffic data, please call me at (619) 890-1253.

Sincerely,
LOS Engineering, Inc.

Justin Rasas

Justin Rasas, P.E.(60690), PTOE
Principal and Officer of LOS Engineering, Inc.

Daily Traffic Volumes by Location

Date and Summary	Marine View Ave San Andres Dr to Solana Dr	Genevieve St Marine View to I-5	Las Banderas Dr Lomas Santa Fe to San Andres Dr	Marine View Ave Los Caballitos to Genevieve St	Highland Dr Solana Dr to San Andres Dr
Wednesday, May 7, 2014	1,258	37		221	
Tuesday, July 29, 2014		31		181	
Wednesday, July 30, 2014	1,152				
Saturday, November 15, 2014	583			172	1,383
Sunday, November 16, 2014	747			123	1,205
Monday, November 17, 2014	1,312			248	1,786
Tuesday, November 18, 2014	1,204			227	1,969
Wednesday, November 19, 2014	1,245			247	1,981
Thursday, November 20, 2014	1,233			213	1,908
Friday, November 21, 2014	1,321			229	2,015
Monday, February 23, 2015	1,322			235	1,402
Tuesday, February 24, 2015	1,277			167	1,663
Wednesday, February 25, 2015	1,330			293	1,572
Thursday, February 26, 2015	1,222			304	1,679
Friday, February 27, 2015	1,264			248	1,704
Saturday, February 28, 2015	721			288	1,395
Sunday, March 1, 2015	592			284	893
Monday, June 29, 2015	1,092			231	1,203
Tuesday, June 30, 2015	1,174			245	1,414
Wednesday, July 1, 2015	1,115			226	1,352
Thursday, July 2, 2015	1,242			239	1,436
Friday, July 3, 2015	1,025			259	1,333
Saturday, July 4, 2015	833			274	1,220
Sunday, July 5, 2015	527			185	875
Wednesday, November 18, 2015			3,936		
Thursday, November 19, 2015			4,095		
Highest Daily Traffic Volume	**1,330**	**37**	**4,095**	**304**	**2,015**
Lowest Daily Traffic Volume	**527**	**31**	**3,936**	**123**	**875**
Average Daily Traffic Volume	**1,078**	**34**	**4,016**	**232**	**1,495**
Daily traffic volumes = 24 hour count.	Location	Location	Location	Location	Location

Blank cell = no data.

N

No Scale

Source: Googlemaps

Marine View Ave (from San Andres Dr to Solana Dr)

WEDNESDAY, MAY 7TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-0509-02

MARINE VIEW (San Andres to Solana Dr)

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	15		5				
00:15	0		1					12:15	8		11				
00:30	0		0					12:30	14		10				
00:45	0	0	0	1			1	12:45	10	47	8	34			81
01:00	0		0					13:00	10		8				
01:15	0		0					13:15	3		7				
01:30	0		0					13:30	6		11				
01:45	0	0	1	1			1	13:45	5	24	4	30			54
02:00	0		0					14:00	5		9				
02:15	0		0					14:15	14		19				
02:30	0		0					14:30	13		26				
02:45	0	0	0	0				14:45	25	57	20	74			131
03:00	0		0					15:00	19		24				
03:15	0		0					15:15	10		11				
03:30	0		0					15:30	9		6				
03:45	0	0	1	1			1	15:45	20	58	7	48			106
04:00	0		0					16:00	17		12				
04:15	1		0					16:15	18		8				
04:30	0		0					16:30	15		7				
04:45	1	2	0	0			2	16:45	8	58	5	32			90
05:00	1		1					17:00	12		4				
05:15	0		0					17:15	11		9				
05:30	1		0					17:30	13		10				
05:45	0	2	1	2			4	17:45	6	42	9	32			74
06:00	3		1					18:00	5		4				
06:15	2		1					18:15	4		13				
06:30	2		4					18:30	6		6				
06:45	2	9	3	9			18	18:45	5	20	11	34			54
07:00	5		9					19:00	4		12				
07:15	7		9					19:15	3		4				
07:30	10		11					19:30	2		5				
07:45	5	27	16	45			72	19:45	4	13	3	24			37
08:00	10		13					20:00	7		2				
08:15	18		29					20:15	10		1				
08:30	35		37					20:30	3		5				
08:45	25	88	34	113			201	20:45	3	23	6	14			37
09:00	16		30					21:00	13		1				
09:15	13		18					21:15	0		1				
09:30	13		9					21:30	3		1				
09:45	7	49	9	66			115	21:45	7	23	3	6			29
10:00	3		12					22:00	1		2				
10:15	9		7					22:15	2		1				
10:30	6		5					22:30	0		0				
10:45	5	23	14	38			61	22:45	1	4	1	4			8
11:00	9		7					23:00	1		1				
11:15	6		15					23:15	1		0				
11:30	11		10					23:30	0		0				
11:45	12	38	8	40			78	23:45	0	2	0	1			3
Total Vol.		238		316			554			371		333			704

Daily Totals

NB	SB	EB	WB	Combined
609	649			1258

	AM			PM		
Split %	43.0%	57.0%	44.0%	52.7%	47.3%	56.0%
Peak Hour	08:15	08:15	08:15	14:15	14:15	14:15
Volume	94	130	224	71	89	160
P.H.F.	0.67	0.88	0.78	0.77	0.86	0.89

WEDNESDAY, JULY 30TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-0801-02

MARINE VIEW BTN SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		1						12:00	6		12					
00:15	0		0						12:15	34		13					
00:30	0		1						12:30	10		12					
00:45	1	1	0	2				3	12:45	10	60	11	48				108
01:00	0		0						13:00	7		17					
01:15	0		0						13:15	12		14					
01:30	0		0						13:30	6		4					
01:45	0	0	0	0					13:45	13	38	5	40				78
02:00	0		1						14:00	7		7					
02:15	0		0						14:15	9		11					
02:30	0		0						14:30	5		15					
02:45	0	0	0	1				1	14:45	20	41	10	43				84
03:00	0		0						15:00	10		6					
03:15	0		0						15:15	7		10					
03:30	0		0						15:30	3		10					
03:45	0	0	0	0					15:45	11	31	4	30				61
04:00	0		0						16:00	11		8					
04:15	0		1						16:15	13		6					
04:30	0		0						16:30	11		7					
04:45	2	2	0	1				3	16:45	11	46	7	28				74
05:00	0		0						17:00	17		10					
05:15	0		0						17:15	31		8					
05:30	1		0						17:30	12		6					
05:45	0	1	0	0				1	17:45	5	65	3	27				92
06:00	1		0						18:00	9		11					
06:15	2		0						18:15	4		5					
06:30	1		1						18:30	3		8					
06:45	1	5	2	3				8	18:45	4	20	3	27				47
07:00	3		0						19:00	0		8					
07:15	4		14						19:15	6		3					
07:30	2		5						19:30	3		9					
07:45	7	16	14	33				49	19:45	1	10	4	24				34
08:00	6		31						20:00	3		2					
08:15	20		13						20:15	8		4					
08:30	10		20						20:30	2		6					
08:45	13	49	17	81				130	20:45	4	17	3	15				32
09:00	9		14						21:00	3		5					
09:15	9		11						21:15	5		1					
09:30	5		9						21:30	6		4					
09:45	2	25	6	40				65	21:45	1	15	1	11				26
10:00	4		9						22:00	0		1					
10:15	4		10						22:15	1		5					
10:30	6		6						22:30	2		0					
10:45	7	21	8	33				54	22:45	0	3	1	7				10
11:00	4		11						23:00	0		0					
11:15	7		6						23:15	2		2					
11:30	80		63						23:30	0		0					
11:45	5	96	9	89				185	23:45	0	2	3	5				7
Total Vol.		216		283				499			348		305				653

Daily Totals

NB	SB	EB	WB	Combined
564	588			1152

	AM			PM		
Split %	43.3%	56.7%	43.3%	53.3%	46.7%	56.7%
Peak Hour	11:30	11:30	11:30	16:45	12:30	12:15
Volume	125	97	222	71	54	114
P.H.F.	0.39	0.38	0.39	0.73	0.79	0.61

SATURDAY - NOVEMBER 15TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		0					12:00	11		8				
00:15	1		0					12:15	8		10				
00:30	0		0					12:30	6		4				
00:45	0	2	0	0			2	12:45	5	30	11	33			63
01:00	0		0					13:00	11		6				
01:15	0		0					13:15	4		5				
01:30	0		1					13:30	4		4				
01:45	0	0	0	1			1	13:45	3	22	6	21			43
02:00	0		0					14:00	2		3				
02:15	0		0					14:15	5		8				
02:30	1		0					14:30	8		6				
02:45	1	2	1	1			3	14:45	5	20	6	23			43
03:00	0		0					15:00	5		9				
03:15	0		0					15:15	9		6				
03:30	0		1					15:30	8		4				
03:45	1	1	0	1			2	15:45	8	30	4	23			53
04:00	0		2					16:00	1		6				
04:15	0		0					16:15	4		3				
04:30	0		0					16:30	9		5				
04:45	0	0	0	2			2	16:45	9	23	11	25			48
05:00	0		0					17:00	9		12				
05:15	0		0					17:15	6		4				
05:30	0		1					17:30	4		7				
05:45	1	1	0	1			2	17:45	8	27	9	32			59
06:00	0		1					18:00	2		4				
06:15	4		3					18:15	2		6				
06:30	0		0					18:30	4		4				
06:45	5	9	4	8			17	18:45	3	11	3	17			28
07:00	4		4					19:00	2		3				
07:15	5		1					19:15	1		1				
07:30	0		2					19:30	3		2				
07:45	4	13	3	10			23	19:45	2	8	2	8			16
08:00	3		2					20:00	0		3				
08:15	4		5					20:15	1		2				
08:30	6		4					20:30	1		1				
08:45	9	22	8	19			41	20:45	1	3	4	10			13
09:00	2		3					21:00	2		4				
09:15	3		7					21:15	0		0				
09:30	3		3					21:30	0		1				
09:45	9	17	3	16			33	21:45	1	3	2	7			10
10:00	4		5					22:00	0		0				
10:15	5		6					22:15	0		0				
10:30	3		7					22:30	1		0				
10:45	4	16	5	23			39	22:45	1	2	1	1			3
11:00	4		5					23:00	0		0				
11:15	7		5					23:15	0		0				
11:30	7		5					23:30	0		0				
11:45	1	19	4	19			38	23:45	0	0	1	1			1
Total Vol.		102		101			203			179		201			380

Daily Totals

NB	SB	EB	WB	Combined
281	302			583

	AM			PM		
Split %	50.2%	49.8%	34.8%	47.1%	52.9%	65.2%
Peak Hour	11:30	11:30	11:30	16:30	16:45	16:30
Volume	27	27	54	33	34	65
P.H.F.	0.61	0.68	0.71	1.00	0.71	0.77

SUNDAY - NOVEMBER 16TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		1					12:00	8		1				
00:15	0		0					12:15	18		7				
00:30	0		1					12:30	30		11				
00:45	1	1	0	2			3	12:45	14	70	9	28			98
01:00	0		0					13:00	23		1				
01:15	0		0					13:15	8		14				
01:30	0		0					13:30	15		8				
01:45	0	0	0	0				13:45	5	51	7	30			81
02:00	0		0					14:00	5		5				
02:15	0		1					14:15	9		5				
02:30	1		0					14:30	9		8				
02:45	0	1	0	1			2	14:45	9	32	9	27			59
03:00	0		0					15:00	1		4				
03:15	0		0					15:15	0		8				
03:30	0		0					15:30	5		2				
03:45	0	0	0	0				15:45	5	11	4	18			29
04:00	0		0					16:00	2		3				
04:15	0		0					16:15	6		4				
04:30	0		0					16:30	4		6				
04:45	0	0	0	0				16:45	6	18	4	17			35
05:00	1		1					17:00	4		5				
05:15	1		0					17:15	5		3				
05:30	0		0					17:30	7		5				
05:45	0	2	0	1			3	17:45	5	21	13	26			47
06:00	1		0					18:00	8		6				
06:15	1		1					18:15	2		0				
06:30	1		1					18:30	1		5				
06:45	2	5	4	6			11	18:45	3	14	4	15			29
07:00	1		4					19:00	4		3				
07:15	2		4					19:15	1		3				
07:30	2		2					19:30	12		10				
07:45	2	7	10	20			27	19:45	7	24	0	16			40
08:00	7		8					20:00	1		0				
08:15	6		11					20:15	0		1				
08:30	4		5					20:30	0		1				
08:45	6	23	22	46			69	20:45	1	2	2	4			6
09:00	3		11					21:00	2		3				
09:15	3		7					21:15	0		0				
09:30	7		9					21:30	0		1				
09:45	5	18	10	37			55	21:45	0	2	0	4			6
10:00	4		7					22:00	0		1				
10:15	9		15					22:15	0		1				
10:30	6		18					22:30	0		0				
10:45	18	37	19	59			96	22:45	0	0	0	2			2
11:00	7		10					23:00	0		0				
11:15	8		6					23:15	0		0				
11:30	5		2					23:30	0		1				
11:45	5	25	5	23			48	23:45	0	0	0	1			1
Total Vol.		119		195			314			245		188			433

Daily Totals

NB	SB	EB	WB	Combined
364	383			747

	AM			PM		
Split %	37.9%	62.1%	42.0%	56.6%	43.4%	58.0%
Peak Hour	11:45	10:15	10:15	12:15	12:30	12:15
Volume	61	62	102	85	35	113
P.H.F.	0.51	0.82	0.69	0.63	0.63	0.69

MONDAY - NOVEMBER 17TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		0						12:00	15		10					
00:15	0		0						12:15	9		15					
00:30	0		1						12:30	16		12					
00:45	2	2	1	2				4	12:45	19	59	21	58				117
01:00	0		0						13:00	9		9					
01:15	0		0						13:15	5		9					
01:30	0		0						13:30	9		11					
01:45	0	0	0	0					13:45	7	30	6	35				65
02:00	0		0						14:00	5		14					
02:15	1		0						14:15	19		17					
02:30	0		0						14:30	13		7					
02:45	0	1	0	0				1	14:45	18	55	22	60				115
03:00	0		0						15:00	18		13					
03:15	0		0						15:15	15		12					
03:30	0		0						15:30	17		11					
03:45	0	0	0	0					15:45	20	70	18	54				124
04:00	0		0						16:00	11		14					
04:15	0		0						16:15	12		10					
04:30	0		0						16:30	13		6					
04:45	0	0	0	0					16:45	15	51	12	42				93
05:00	0		0						17:00	13		7					
05:15	1		0						17:15	9		10					
05:30	1		0						17:30	6		21					
05:45	1	3	0	0				3	17:45	20	48	46	84				132
06:00	1		1						18:00	13		16					
06:15	1		0						18:15	6		7					
06:30	3		4						18:30	6		3					
06:45	3	8	5	10				18	18:45	1	26	6	32				58
07:00	6		9						19:00	12		5					
07:15	8		8						19:15	16		5					
07:30	8		7						19:30	25		7					
07:45	3	25	14	38				63	19:45	9	62	1	18				80
08:00	12		17						20:00	5		3					
08:15	24		34						20:15	3		3					
08:30	35		31						20:30	3		4					
08:45	15	86	26	108				194	20:45	3	14	2	12				26
09:00	13		22						21:00	2		2					
09:15	6		12						21:15	1		1					
09:30	7		11						21:30	1		0					
09:45	9	35	4	49				84	21:45	1	5	0	3				8
10:00	9		14						22:00	1		2					
10:15	5		7						22:15	0		0					
10:30	8		8						22:30	1		0					
10:45	10	32	6	35				67	22:45	1	3	0	2				5
11:00	6		9						23:00	0		0					
11:15	7		7						23:15	2		2					
11:30	4		6						23:30	0		1					
11:45	4	21	7	29				50	23:45	0	2	0	3				5
Total Vol.		213		271				484			425		403				828

Daily Totals

NB	SB	EB	WB	Combined
638	674			1312

	AM			PM		
Split %	44.0%	56.0%	36.9%	51.3%	48.7%	63.1%
Peak Hour	08:15	08:15	08:15	15:00	17:15	17:15
Volume	87	113	200	70	93	141
P.H.F.	0.62	0.83	0.76	0.93	0.51	0.53

TUESDAY - NOVEMBER 18TH, 2014, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		0					12:00	15		17				
00:15	0		0					12:15	11		17				
00:30	0		1					12:30	12		19				
00:45	0	1	0	1			2	12:45	12	50	6	59			109
01:00	0		1					13:00	16		6				
01:15	0		0					13:15	4		11				
01:30	0		0					13:30	16		9				
01:45	0	0	1	2			2	13:45	12	48	10	36			84
02:00	1		1					14:00	9		14				
02:15	1		0					14:15	11		13				
02:30	0		0					14:30	14		8				
02:45	0	2	0	1			3	14:45	14	48	16	51			99
03:00	0		0					15:00	24		9				
03:15	0		0					15:15	13		9				
03:30	0		0					15:30	17		5				
03:45	0	0	0	0				15:45	6	60	15	38			98
04:00	0		0					16:00	14		6				
04:15	0		0					16:15	10		9				
04:30	0		0					16:30	9		8				
04:45	0	0	0	0				16:45	12	45	7	30			75
05:00	0		0					17:00	16		5				
05:15	0		0					17:15	9		18				
05:30	2		0					17:30	9		6				
05:45	3	5	0	0			5	17:45	9	43	7	36			79
06:00	2		0					18:00	10		2				
06:15	3		2					18:15	3		7				
06:30	2		5					18:30	4		11				
06:45	5	12	6	13			25	18:45	5	22	10	30			52
07:00	2		8					19:00	4		4				
07:15	9		12					19:15	3		3				
07:30	3		10					19:30	4		2				
07:45	12	26	23	53			79	19:45	1	12	4	13			25
08:00	11		21					20:00	10		3				
08:15	24		28					20:15	3		5				
08:30	25		25					20:30	8		2				
08:45	14	74	35	109			183	20:45	3	24	3	13			37
09:00	16		23					21:00	6		1				
09:15	16		4					21:15	1		4				
09:30	4		13					21:30	0		1				
09:45	5	41	7	47			88	21:45	2	9	3	9			18
10:00	4		6					22:00	0		0				
10:15	7		9					22:15	1		0				
10:30	7		4					22:30	1		1				
10:45	14	32	10	29			61	22:45	2	4	0	1			5
11:00	13		12					23:00	0		0				
11:15	6		4					23:15	0		1				
11:30	11		5					23:30	0		0				
11:45	9	39	12	33			72	23:45	1	1	1	2			3
Total Vol.		232		288			520			366		318			684

Daily Totals

NB	SB	EB	WB	Combined
598	606			1204

	AM			PM		
Split %	44.6%	55.4%	43.2%	53.5%	46.5%	56.8%
Peak Hour	08:15	08:15	08:15	14:45	12:00	12:00
Volume	79	111	190	68	59	109
P.H.F.	0.79	0.79	0.91	0.67	0.78	0.85

WEDNESDAY - NOVEMBER 19TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	8		6				
00:15	0		0					12:15	12		17				
00:30	0		0					12:30	15		15				
00:45	0	0	0	0				12:45	9	44	5	43			87
01:00	0		0					13:00	12		12				
01:15	0		0					13:15	8		7				
01:30	0		1					13:30	8		10				
01:45	0	0	0	1			1	13:45	9	37	12	41			78
02:00	0		1					14:00	10		16				
02:15	0		0					14:15	14		14				
02:30	1		0					14:30	13		15				
02:45	0	1	1	2			3	14:45	13	50	19	64			114
03:00	1		0					15:00	13		15				
03:15	0		0					15:15	20		5				
03:30	0		0					15:30	11		9				
03:45	0	1	0	0			1	15:45	13	57	14	43			100
04:00	0		0					16:00	13		12				
04:15	0		0					16:15	21		7				
04:30	0		0					16:30	9		11				
04:45	1	1	0	0			1	16:45	15	58	11	41			99
05:00	0		0					17:00	22		11				
05:15	1		0					17:15	10		10				
05:30	0		0					17:30	10		7				
05:45	2	3	1	1			4	17:45	9	51	13	41			92
06:00	1		0					18:00	11		9				
06:15	1		0					18:15	4		10				
06:30	1		2					18:30	3		7				
06:45	2	5	3	5			10	18:45	6	24	3	29			53
07:00	3		6					19:00	5		2				
07:15	5		7					19:15	4		4				
07:30	5		17					19:30	3		5				
07:45	9	22	19	49			71	19:45	6	18	2	13			31
08:00	13		15					20:00	5		4				
08:15	19		31					20:15	9		1				
08:30	25		27					20:30	4		3				
08:45	20	77	31	104			181	20:45	3	21	3	11			32
09:00	13		18					21:00	1		3				
09:15	19		17					21:15	2		3				
09:30	10		14					21:30	2		5				
09:45	9	51	6	55			106	21:45	0	5	1	12			17
10:00	7		7					22:00	0		1				
10:15	3		9					22:15	0		1				
10:30	17		17					22:30	2		0				
10:45	11	38	9	42			80	22:45	0	2	0	2			4
11:00	8		10					23:00	1		0				
11:15	8		6					23:15	0		3				
11:30	13		8					23:30	0		0				
11:45	10	39	11	35			74	23:45	2	3	0	3			6
Total Vol.		238		294			532			370		343			713

Daily Totals

NB	SB	EB	WB	Combined
608	637			1245

	AM			PM		
Split %	44.7%	55.3%	42.7%	51.9%	48.1%	57.3%
Peak Hour	08:00	08:15	08:15	16:15	14:00	14:15
Volume	77	107	184	67	64	116
P.H.F.	0.77	0.86	0.88	0.71	0.84	0.91

THURSDAY - NOVEMBER 20TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		1					12:00	10		15				
00:15	0		0					12:15	23		16				
00:30	0		0					12:30	13		11				
00:45	0	1	0	1			2	12:45	20	66	14	56			122
01:00	1		0					13:00	11		10				
01:15	0		0					13:15	8		6				
01:30	0		0					13:30	13		9				
01:45	0	1	1	1			2	13:45	8	40	11	36			76
02:00	1		0					14:00	14		8				
02:15	0		0					14:15	19		16				
02:30	0		0					14:30	16		13				
02:45	0	1	0	0			1	14:45	6	55	15	52			107
03:00	0		0					15:00	26		13				
03:15	0		0					15:15	7		6				
03:30	0		0					15:30	14		7				
03:45	0	0	0	0				15:45	10	57	12	38			95
04:00	0		0					16:00	12		9				
04:15	0		0					16:15	12		5				
04:30	0		0					16:30	10		8				
04:45	0	0	0	0				16:45	8	42	7	29			71
05:00	0		0					17:00	14		6				
05:15	0		0					17:15	13		8				
05:30	0		0					17:30	8		6				
05:45	2	2	1	1			3	17:45	8	43	7	27			70
06:00	2		0					18:00	10		9				
06:15	1		1					18:15	2		3				
06:30	2		3					18:30	5		3				
06:45	1	6	6	10			16	18:45	4	21	12	27			48
07:00	4		9					19:00	0		13				
07:15	4		5					19:15	3		10				
07:30	10		11					19:30	3		0				
07:45	12	30	18	43			73	19:45	1	7	2	25			32
08:00	6		20					20:00	0		2				
08:15	26		43					20:15	1		2				
08:30	28		23					20:30	1		2				
08:45	12	72	31	117			189	20:45	2	4	1	7			11
09:00	17		14					21:00	21		4				
09:15	13		16					21:15	6		2				
09:30	7		9					21:30	0		3				
09:45	7	44	5	44			88	21:45	1	28	2	11			39
10:00	5		12					22:00	0		1				
10:15	4		16					22:15	0		3				
10:30	9		10					22:30	2		0				
10:45	6	24	15	53			77	22:45	0	2	0	4			6
11:00	16		10					23:00	0		1				
11:15	16		13					23:15	0		0				
11:30	17		8					23:30	0		0				
11:45	10	59	14	45			104	23:45	0	0	0	1			1
Total Vol.		240		315			555			365		313			678

Daily Totals

NB	SB	EB	WB	Combined
605	628			1233

	AM			PM		
Split %	43.2%	56.8%	45.0%	53.8%	46.2%	55.0%
Peak Hour	08:15	08:00	08:15	12:15	14:15	14:15
Volume	83	117	194	67	57	124
P.H.F.	0.74	0.68	0.70	0.83	0.89	0.79

FRIDAY - NOVEMBER 21ST, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN SAN ANDRES & SOLANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	30		18				
00:15	0		0					12:15	9		15				
00:30	0		1					12:30	16		8				
00:45	1	1	0	1			2	12:45	13	68	11	52			120
01:00	0		0					13:00	12		16				
01:15	0		0					13:15	10		10				
01:30	0		0					13:30	9		12				
01:45	0	0	0	0				13:45	11	42	10	48			90
02:00	1		0					14:00	12		13				
02:15	0		0					14:15	13		19				
02:30	0		0					14:30	11		12				
02:45	0	1	0	0			1	14:45	20	56	12	56			112
03:00	0		0					15:00	30		24				
03:15	0		0					15:15	32		22				
03:30	0		0					15:30	18		6				
03:45	0	0	0	0				15:45	32	112	15	67			179
04:00	1		0					16:00	33		9				
04:15	1		0					16:15	8		12				
04:30	0		0					16:30	15		6				
04:45	0	2	0	0			2	16:45	12	68	8	35			103
05:00	0		0					17:00	12		9				
05:15	0		0					17:15	11		4				
05:30	2		1					17:30	4		5				
05:45	1	3	1	2			5	17:45	10	37	4	22			59
06:00	0		0					18:00	12		3				
06:15	1		0					18:15	6		6				
06:30	7		1					18:30	1		4				
06:45	1	9	9	10			19	18:45	6	25	7	20			45
07:00	6		10					19:00	1		2				
07:15	3		10					19:15	2		0				
07:30	3		7					19:30	2		1				
07:45	9	21	15	42			63	19:45	3	8	1	4			12
08:00	10		22					20:00	1		0				
08:15	26		32					20:15	2		2				
08:30	23		32					20:30	1		3				
08:45	16	75	19	105			180	20:45	2	6	3	8			14
09:00	9		17					21:00	1		3				
09:15	9		12					21:15	1		2				
09:30	6		11					21:30	1		1				
09:45	14	38	10	50			88	21:45	0	3	3	9			12
10:00	6		11					22:00	1		1				
10:15	8		10					22:15	0		1				
10:30	5		7					22:30	0		1				
10:45	7	26	8	36			62	22:45	0	1	1	4			5
11:00	7		8					23:00	0		1				
11:15	20		16					23:15	0		0				
11:30	26		16					23:30	1		0				
11:45	20	73	32	72			145	23:45	0	1	1	2			3
Total Vol.		249		318			567			427		327			754

Daily Totals

NB	SB	EB	WB	Combined
676	645			1321

	AM			PM		
Split %	43.9%	56.1%	42.9%	56.6%	43.4%	57.1%
Peak Hour	11:15	08:00	08:00	15:15	14:30	15:00
Volume	96	105	180	115	70	179
P.H.F.	0.80	0.82	0.78	0.89	0.73	0.83

MONDAY - FEBUARY 23RD, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	15		9				
00:15	0		0					12:15	11		13				
00:30	0		0					12:30	12		15				
00:45	0	0	0	0				12:45	19	57	21	58			115
01:00	0		0					13:00	10		11				
01:15	0		0					13:15	8		15				
01:30	0		0					13:30	10		13				
01:45	0	0	0	0				13:45	11	39	18	57			96
02:00	1		0					14:00	9		9				
02:15	0		0					14:15	13		22				
02:30	0		0					14:30	26		19				
02:45	0	1	0	0			1	14:45	19	67	20	70			137
03:00	0		0					15:00	29		15				
03:15	0		0					15:15	5		17				
03:30	0		0					15:30	12		14				
03:45	0	0	0	0				15:45	16	62	11	57			119
04:00	0		0					16:00	13		12				
04:15	0		0					16:15	15		5				
04:30	0		0					16:30	11		5				
04:45	0	0	0	0				16:45	10	49	9	31			80
05:00	0		0					17:00	15		11				
05:15	5		0					17:15	12		10				
05:30	0		0					17:30	9		18				
05:45	0	5	0	0			5	17:45	6	42	17	56			98
06:00	3		0					18:00	13		12				
06:15	0		4					18:15	7		8				
06:30	1		3					18:30	5		8				
06:45	2	6	2	9			15	18:45	13	38	2	30			68
07:00	2		5					19:00	20		2				
07:15	4		9					19:15	10		6				
07:30	3		10					19:30	4		0				
07:45	6	15	16	40			55	19:45	0	34	5	13			47
08:00	9		18					20:00	1		2				
08:15	22		25					20:15	0		3				
08:30	28		36					20:30	1		5				
08:45	24	83	20	99			182	20:45	3	5	2	12			17
09:00	6		22					21:00	1		2				
09:15	14		14					21:15	2		3				
09:30	13		8					21:30	1		1				
09:45	4	37	14	58			95	21:45	2	6	2	8			14
10:00	7		15					22:00	4		1				
10:15	6		4					22:15	1		1				
10:30	14		12					22:30	0		0				
10:45	9	36	7	38			74	22:45	2	7	1	3			10
11:00	9		13					23:00	0		1				
11:15	11		12					23:15	2		2				
11:30	11		11					23:30	1		1				
11:45	13	44	6	42			86	23:45	0	3	1	5			8
Total Vol.		227		286			513			409		400			809

Daily Totals

NB	SB	EB	WB	Combined
636	686			1322

	AM			PM		
Split %	44.2%	55.8%	38.8%	50.6%	49.4%	61.2%
Peak Hour	08:00	08:15	08:15	14:15	14:15	14:15
Volume	83	103	183	87	76	163
P.H.F.	0.74	0.72	0.71	0.74	0.86	0.91

PACIFIC TECHNICAL DATA, LLC

TUESDAY - FEBUARY 24TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	18		11				
00:15	0		0					12:15	9		16				
00:30	0		0					12:30	16		13				
00:45	0	0	0	0				12:45	15	58	10	50			108
01:00	0		0					13:00	7		6				
01:15	0		0					13:15	3		10				
01:30	0		0					13:30	11		10				
01:45	0	0	0	0				13:45	10	31	15	41			72
02:00	0		1					14:00	11		10				
02:15	0		0					14:15	10		17				
02:30	0		0					14:30	21		13				
02:45	0	0	1	2			2	14:45	14	56	17	57			113
03:00	1		0					15:00	26		16				
03:15	0		0					15:15	22		14				
03:30	0		0					15:30	15		4				
03:45	0	1	0	0			1	15:45	7	70	12	46			116
04:00	0		0					16:00	15		11				
04:15	0		0					16:15	13		7				
04:30	0		0					16:30	7		8				
04:45	0	0	0	0				16:45	9	44	11	37			81
05:00	0		0					17:00	18		7				
05:15	2		1					17:15	17		9				
05:30	2		0					17:30	15		5				
05:45	1	5	0	1			6	17:45	11	61	4	25			86
06:00	1		1					18:00	9		11				
06:15	0		4					18:15	2		12				
06:30	1		4					18:30	6		1				
06:45	2	4	4	13			17	18:45	5	22	7	31			53
07:00	4		3					19:00	12		9				
07:15	3		13					19:15	4		5				
07:30	11		15					19:30	2		1				
07:45	4	22	22	53			75	19:45	1	19	5	20			39
08:00	5		17					20:00	8		4				
08:15	30		35					20:15	1		5				
08:30	34		33					20:30	5		4				
08:45	21	90	27	112			202	20:45	5	19	3	16			35
09:00	8		24					21:00	7		4				
09:15	10		12					21:15	1		2				
09:30	14		4					21:30	0		4				
09:45	6	38	10	50			88	21:45	0	8	2	12			20
10:00	7		10					22:00	2		2				
10:15	7		12					22:15	0		0				
10:30	11		4					22:30	3		2				
10:45	4	29	6	32			61	22:45	0	5	1	5			10
11:00	18		0					23:00	1		1				
11:15	10		14					23:15	0		1				
11:30	12		14					23:30	1		2				
11:45	11	51	6	34			85	23:45	1	3	0	4			7
Total Vol.		240		297			537			396		344			740

Daily Totals

NB	SB	EB	WB	Combined
636	641			1277

	AM			PM		
Split %	44.7%	55.3%	42.1%	53.5%	46.5%	57.9%
Peak Hour	08:15	08:15	08:15	14:30	14:15	14:30
Volume	93	119	212	83	63	143
P.H.F.	0.68	0.85	0.79	0.84	0.93	0.85

PACIFIC TECHNICAL DATA, LLC

WEDNESDAY - FEBUARY 25TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	11		8				
00:15	0		1					12:15	8		15				
00:30	0		1					12:30	9		10				
00:45	0	0	1	3			3	12:45	5	33	9	42			75
01:00	0		0					13:00	16		15				
01:15	0		0					13:15	8		8				
01:30	0		0					13:30	4		11				
01:45	0	0	0	0				13:45	11	39	16	50			89
02:00	1		0					14:00	11		14				
02:15	0		0					14:15	11		23				
02:30	1		2					14:30	28		20				
02:45	1	3	0	2			5	14:45	19	69	23	80			149
03:00	0		0					15:00	28		11				
03:15	0		0					15:15	13		9				
03:30	1		1					15:30	8		4				
03:45	0	1	0	1			2	15:45	6	55	11	35			90
04:00	0		0					16:00	14		9				
04:15	0		0					16:15	12		10				
04:30	0		0					16:30	15		11				
04:45	0	0	0	0				16:45	16	57	11	41			98
05:00	0		0					17:00	16		10				
05:15	1		0					17:15	10		12				
05:30	1		0					17:30	13		8				
05:45	1	3	0	0			3	17:45	14	53	6	36			89
06:00	1		0					18:00	9		16				
06:15	1		2					18:15	7		17				
06:30	2		5					18:30	5		8				
06:45	0	4	4	11			15	18:45	2	23	8	49			72
07:00	7		3					19:00	4		9				
07:15	5		10					19:15	6		7				
07:30	5		6					19:30	7		5				
07:45	2	19	15	34			53	19:45	6	23	3	24			47
08:00	3		28					20:00	16		5				
08:15	37		31					20:15	9		4				
08:30	23		37					20:30	13		4				
08:45	22	85	26	122			207	20:45	1	39	5	18			57
09:00	27		16					21:00	0		1				
09:15	10		14					21:15	3		3				
09:30	13		7					21:30	3		1				
09:45	8	58	12	49			107	21:45	4	10	3	8			18
10:00	5		9					22:00	0		1				
10:15	8		3					22:15	1		0				
10:30	6		7					22:30	1		1				
10:45	10	29	12	31			60	22:45	1	3	0	2			5
11:00	12		10					23:00	0		0				
11:15	7		15					23:15	0		1				
11:30	15		6					23:30	0		1				
11:45	10	44	9	40			84	23:45	0	0	0	2			2
Total Vol.		246		293			539			404		387			791

Daily Totals

NB	SB	EB	WB	Combined
650	680			1330

	AM			PM		
Split %	45.6%	54.4%	40.5%	51.1%	48.9%	59.5%
Peak Hour	08:15	08:00	08:15	14:30	14:00	14:15
Volume	109	122	219	88	80	163
P.H.F.	0.74	0.82	0.81	0.92	0.87	0.85

PACIFIC TECHNICAL DATA, LLC

THURSDAY - FEBUARY 26TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	6		8				
00:15	0		0					12:15	13		19				
00:30	0		0					12:30	13		15				
00:45	0	0	2	2			2	12:45	12	44	4	46			90
01:00	0		0					13:00	8		10				
01:15	0		0					13:15	13		9				
01:30	1		1					13:30	7		12				
01:45	0	1	1	2			3	13:45	13	41	9	40			81
02:00	0		0					14:00	5		8				
02:15	0		1					14:15	12		21				
02:30	1		0					14:30	18		14				
02:45	0	1	0	1			2	14:45	10	45	20	63			108
03:00	0		0					15:00	20		14				
03:15	0		0					15:15	16		5				
03:30	0		0					15:30	12		15				
03:45	0	0	0	0				15:45	7	55	6	40			95
04:00	0		0					16:00	13		3				
04:15	0		0					16:15	16		12				
04:30	0		0					16:30	6		8				
04:45	0	0	0	0				16:45	8	43	8	31			74
05:00	0		0					17:00	20		10				
05:15	1		0					17:15	9		10				
05:30	0		0					17:30	9		12				
05:45	0	1	0	0			1	17:45	13	51	7	39			90
06:00	2		0					18:00	7		4				
06:15	0		1					18:15	6		5				
06:30	2		6					18:30	5		5				
06:45	3	7	5	12			19	18:45	4	22	8	22			44
07:00	4		6					19:00	8		9				
07:15	6		12					19:15	5		3				
07:30	9		15					19:30	8		6				
07:45	6	25	12	45			70	19:45	2	23	3	21			44
08:00	7		19					20:00	1		4				
08:15	29		30					20:15	2		4				
08:30	23		34					20:30	2		0				
08:45	25	84	28	111			195	20:45	0	5	0	8			13
09:00	11		26					21:00	8		2				
09:15	12		11					21:15	2		3				
09:30	10		7					21:30	1		3				
09:45	11	44	5	49			93	21:45	2	13	5	13			26
10:00	4		9					22:00	5		3				
10:15	9		8					22:15	1		0				
10:30	10		7					22:30	1		0				
10:45	6	29	9	33			62	22:45	1	8	2	5			13
11:00	9		7					23:00	0		1				
11:15	14		12					23:15	0		0				
11:30	21		12					23:30	0		0				
11:45	13	57	8	39			96	23:45	0	0	0	1			1
Total Vol.		249		294			543			350		329			679

Daily Totals

NB	SB	EB	WB	Combined
599	623			1222

	AM			PM		
Split %	45.9%	54.1%	44.4%	51.5%	48.5%	55.6%
Peak Hour	08:15	08:15	08:15	14:30	14:15	14:15
Volume	88	118	206	64	69	129
P.H.F.	0.76	0.87	0.87	0.85	0.82	0.95

PACIFIC TECHNICAL DATA, LLC

FRIDAY - FEBUARY 27TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		1					12:00	12		16				
00:15	1		0					12:15	11		13				
00:30	0		0					12:30	18		17				
00:45	1	3	2	3			6	12:45	12	53	10	56			109
01:00	0		0					13:00	10		9				
01:15	0		0					13:15	7		8				
01:30	0		1					13:30	3		6				
01:45	0	0	0	1			1	13:45	13	33	12	35			68
02:00	0		1					14:00	14		13				
02:15	0		0					14:15	17		22				
02:30	0		0					14:30	20		13				
02:45	0	0	0	1			1	14:45	15	66	21	69			135
03:00	0		0					15:00	18		10				
03:15	0		0					15:15	19		4				
03:30	0		0					15:30	13		13				
03:45	0	0	0	0				15:45	9	59	10	37			96
04:00	0		0					16:00	12		10				
04:15	0		0					16:15	20		10				
04:30	1		0					16:30	12		8				
04:45	1	2	0	0			2	16:45	10	54	9	37			91
05:00	0		0					17:00	18		12				
05:15	0		0					17:15	14		11				
05:30	0		1					17:30	13		6				
05:45	1	1	0	1			2	17:45	8	53	7	36			89
06:00	1		0					18:00	9		6				
06:15	1		3					18:15	3		3				
06:30	1		6					18:30	1		3				
06:45	3	6	5	14			20	18:45	5	18	9	21			39
07:00	3		5					19:00	4		6				
07:15	5		4					19:15	4		4				
07:30	5		17					19:30	4		1				
07:45	7	20	19	45			65	19:45	7	19	4	15			34
08:00	8		15					20:00	1		1				
08:15	34		28					20:15	3		7				
08:30	27		39					20:30	4		7				
08:45	23	92	30	112			204	20:45	7	15	9	24			39
09:00	16		21					21:00	4		1				
09:15	13		7					21:15	0		2				
09:30	9		9					21:30	0		3				
09:45	7	45	14	51			96	21:45	1	5	2	8			13
10:00	5		5					22:00	4		2				
10:15	5		12					22:15	1		3				
10:30	6		16					22:30	0		1				
10:45	5	21	11	44			65	22:45	1	6	1	7			13
11:00	11		3					23:00	0		0				
11:15	10		6					23:15	1		0				
11:30	16		8					23:30	0		0				
11:45	10	47	8	25			72	23:45	2	3	1	1			4
Total Vol.		237		297			534			384		346			730

Daily Totals

NB	SB	EB	WB	Combined
621	643			1264

	AM			PM		
Split %	44.4%	55.6%	42.2%	52.6%	47.4%	57.8%
Peak Hour	08:15	08:15	08:15	14:30	14:00	14:15
Volume	100	118	218	72	69	136
P.H.F.	0.74	0.76	0.83	0.89	0.78	0.87

PACIFIC TECHNICAL DATA, LLC

SATURDAY - FEBUARY 28TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		2					12:00	4		6				
00:15	0		2					12:15	8		7				
00:30	0		2					12:30	6		11				
00:45	2	3	1	7			10	12:45	6	24	6	30			54
01:00	0		1					13:00	7		7				
01:15	1		0					13:15	4		8				
01:30	0		1					13:30	5		7				
01:45	1	2	0	2			4	13:45	5	21	5	27			48
02:00	1		1					14:00	7		9				
02:15	0		0					14:15	4		11				
02:30	0		0					14:30	4		7				
02:45	1	2	0	1			3	14:45	3	18	4	31			49
03:00	0		0					15:00	8		7				
03:15	0		0					15:15	5		7				
03:30	0		0					15:30	6		6				
03:45	0	0	0	0				15:45	5	24	9	29			53
04:00	0		0					16:00	8		9				
04:15	0		0					16:15	5		7				
04:30	0		0					16:30	3		6				
04:45	1	1	0	0			1	16:45	2	18	7	29			47
05:00	1		0					17:00	4		7				
05:15	1		0					17:15	3		12				
05:30	1		1					17:30	4		13				
05:45	0	3	1	2			5	17:45	4	15	5	37			52
06:00	1		0					18:00	9		14				
06:15	0		2					18:15	5		10				
06:30	2		3					18:30	4		8				
06:45	0	3	0	5			8	18:45	6	24	4	36			60
07:00	4		0					19:00	8		4				
07:15	4		2					19:15	9		8				
07:30	3		2					19:30	8		4				
07:45	4	15	3	7			22	19:45	8	33	2	18			51
08:00	5		0					20:00	9		5				
08:15	4		5					20:15	4		6				
08:30	0		4					20:30	4		7				
08:45	6	15	9	18			33	20:45	6	23	0	18			41
09:00	9		5					21:00	2		5				
09:15	6		8					21:15	2		5				
09:30	1		4					21:30	6		2				
09:45	4	20	7	24			44	21:45	2	12	1	13			25
10:00	2		6					22:00	1		2				
10:15	2		2					22:15	3		1				
10:30	7		6					22:30	1		0				
10:45	14	25	7	21			46	22:45	0	5	0	3			8
11:00	9		4					23:00	2		1				
11:15	3		7					23:15	0		1				
11:30	9		6					23:30	0		0				
11:45	7	28	5	22			50	23:45	1	3	2	4			7
Total Vol.		117		109			226			220		275			495

Daily Totals

NB	SB	EB	WB	Combined
337	384			721

	AM			PM		
Split %	51.8%	48.2%	31.3%	44.4%	55.6%	68.7%
Peak Hour	10:45	11:45	10:45	19:15	17:15	17:15
Volume	35	29	59	34	44	64
P.H.F.	0.63	0.66	0.70	0.92	0.79	0.70

PACIFIC TECHNICAL DATA, LLC

SUNDAY - MARCH 1ST, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

MARINE VIEW BTN SAN ANDRES & SOLOANA

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	2		2					12:00	9		7				
00:15	0		0					12:15	21		6				
00:30	1		0					12:30	19		6				
00:45	0	3	1	3			6	12:45	4	53	3	22			75
01:00	3		0					13:00	6		5				
01:15	0		1					13:15	4		6				
01:30	0		0					13:30	5		8				
01:45	0	3	0	1			4	13:45	2	17	2	21			38
02:00	0		1					14:00	1		3				
02:15	0		1					14:15	4		5				
02:30	0		0					14:30	6		7				
02:45	0	0	1	3			3	14:45	5	16	3	18			34
03:00	0		0					15:00	3		4				
03:15	0		0					15:15	5		1				
03:30	0		0					15:30	1		4				
03:45	0	0	0	0				15:45	2	11	1	10			21
04:00	1		0					16:00	6		8				
04:15	0		0					16:15	1		7				
04:30	0		1					16:30	1		5				
04:45	0	1	1	2			3	16:45	3	11	3	23			34
05:00	1		0					17:00	1		3				
05:15	3		0					17:15	4		2				
05:30	0		0					17:30	4		3				
05:45	3	7	1	1			8	17:45	3	12	4	12			24
06:00	0		0					18:00	4		7				
06:15	1		1					18:15	7		13				
06:30	1		1					18:30	12		16				
06:45	1	3	1	3			6	18:45	2	25	2	38			63
07:00	0		1					19:00	1		3				
07:15	2		2					19:15	0		0				
07:30	0		1					19:30	1		2				
07:45	2	4	3	7			11	19:45	1	3	10	15			18
08:00	2		2					20:00	22		2				
08:15	4		3					20:15	1		3				
08:30	0		7					20:30	4		2				
08:45	3	9	10	22			31	20:45	0	27	2	9			36
09:00	2		7					21:00	1		0				
09:15	2		3					21:15	2		2				
09:30	7		5					21:30	2		3				
09:45	8	19	4	19			38	21:45	1	6	2	7			13
10:00	11		11					22:00	1		0				
10:15	12		1					22:15	0		2				
10:30	7		10					22:30	1		0				
10:45	11	41	20	42			83	22:45	0	2	1	3			5
11:00	5		10					23:00	0		0				
11:15	6		4					23:15	0		0				
11:30	3		3					23:30	0		0				
11:45	4	18	2	19			37	23:45	0	0	1	1			1
Total Vol.		108		122			230			183		179			362

Daily Totals

NB	SB	EB	WB	Combined
291	301			592

	AM			PM		
Split %	47.0%	53.0%	38.9%	50.6%	49.4%	61.1%
Peak Hour	11:45	10:30	10:00	12:00	17:45	12:00
Volume	53	44	83	53	40	75
P.H.F.	0.63	0.55	0.67	0.81	0.63	0.69

PACIFIC TECHNICAL DATA, LLC

MONDAY 6/29/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		0						12:00	30		12					
00:15	1		0						12:15	16		11					
00:30	0		0						12:30	9		11					
00:45	0	1	0	0				1	12:45	10	65	28	62				127
01:00	0		0						13:00	9		7					
01:15	0		0						13:15	11		6					
01:30	0		0						13:30	5		5					
01:45	0	0	1	1				1	13:45	7	32	10	28				60
02:00	0		1						14:00	5		9					
02:15	0		0						14:15	7		14					
02:30	0		0						14:30	4		11					
02:45	0	0	0	1				1	14:45	6	22	4	38				60
03:00	0		0						15:00	22		11					
03:15	0		0						15:15	10		12					
03:30	0		0						15:30	15		5					
03:45	0	0	0	0					15:45	9	56	8	36				92
04:00	0		0						16:00	16		5					
04:15	0		0						16:15	9		12					
04:30	0		0						16:30	15		16					
04:45	0	0	0	0					16:45	9	49	13	46				95
05:00	0		0						17:00	39		9					
05:15	1		0						17:15	17		7					
05:30	2		1						17:30	6		10					
05:45	3	6	0	1				7	17:45	10	72	14	40				112
06:00	1		1						18:00	10		3					
06:15	2		3						18:15	9		4					
06:30	2		4						18:30	6		6					
06:45	4	9	6	14				23	18:45	7	32	5	18				50
07:00	2		7						19:00	11		6					
07:15	1		8						19:15	10		3					
07:30	3		16						19:30	3		4					
07:45	6	12	33	64				76	19:45	4	28	2	15				43
08:00	16		14						20:00	1		4					
08:15	15		16						20:15	2		5					
08:30	13		13						20:30	3		3					
08:45	8	52	14	57				109	20:45	0	6	2	14				20
09:00	11		12						21:00	2		3					
09:15	5		4						21:15	1		3					
09:30	6		11						21:30	1		1					
09:45	9	31	8	35				66	21:45	0	4	0	7				11
10:00	5		14						22:00	1		2					
10:15	6		5						22:15	1		3					
10:30	7		7						22:30	1		2					
10:45	5	23	3	29				52	22:45	2	5	0	7				12
11:00	4		5						23:00	0		0					
11:15	6		4						23:15	0		0					
11:30	7		19						23:30	0		0					
11:45	14	31	15	43				74	23:45	0	0	0	0				
Total Vol.		165		245				410			371		311				682

Daily Totals

NB	SB	EB	WB	Combined
536	556			1092

	AM			PM		
Split %	40.2%	59.8%	37.5%	54.4%	45.6%	62.5%
Peak Hour	11:45	07:30	07:45	16:30	12:00	12:00
Volume	69	79	126	80	62	127
P.H.F.	0.58	0.60	0.81	0.65	0.55	0.76

TUESDAY 6/30/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	1		1						12:00	32		12					
00:15	0		0						12:15	9		10					
00:30	0		0						12:30	13		13					
00:45	0	1	0	1				2	12:45	14	68	19	54				122
01:00	0		0						13:00	18		10					
01:15	0		0						13:15	8		11					
01:30	0		0						13:30	13		5					
01:45	1	1	0	0				1	13:45	7	46	5	31				77
02:00	0		0						14:00	9		12					
02:15	1		1						14:15	3		11					
02:30	0		0						14:30	8		5					
02:45	0	1	0	1				2	14:45	6	26	9	37				63
03:00	0		1						15:00	13		8					
03:15	0		0						15:15	16		10					
03:30	0		0						15:30	8		3					
03:45	0	0	0	1				1	15:45	12	49	7	28				77
04:00	0		0						16:00	16		4					
04:15	0		0						16:15	9		15					
04:30	0		0						16:30	11		7					
04:45	1	1	1	1				2	16:45	14	50	13	39				89
05:00	0		0						17:00	32		8					
05:15	0		1						17:15	14		8					
05:30	2		0						17:30	12		7					
05:45	2	4	1	2				6	17:45	12	70	8	31				101
06:00	3		1						18:00	12		12					
06:15	0		1						18:15	7		13					
06:30	2		1						18:30	7		5					
06:45	3	8	8	11				19	18:45	7	33	5	35				68
07:00	1		5						19:00	3		3					
07:15	3		9						19:15	3		1					
07:30	6		18						19:30	7		2					
07:45	12	22	29	61				83	19:45	7	20	4	10				30
08:00	15		24						20:00	10		7					
08:15	17		11						20:15	1		2					
08:30	11		17						20:30	2		3					
08:45	11	54	14	66				120	20:45	3	16	2	14				30
09:00	9		10						21:00	2		4					
09:15	6		11						21:15	3		3					
09:30	12		8						21:30	1		0					
09:45	14	41	7	36				77	21:45	2	8	1	8				16
10:00	7		9						22:00	0		2					
10:15	8		9						22:15	5		4					
10:30	11		16						22:30	1		3					
10:45	5	31	5	39				70	22:45	1	7	2	11				18
11:00	11		6						23:00	2		0					
11:15	10		8						23:15	2		2					
11:30	12		13						23:30	0		1					
11:45	10	43	23	50				93	23:45	0	4	0	3				7
Total Vol.		207		269				476			397		301				698

Daily Totals

NB	SB	EB	WB	Combined
604	570			1174

	AM			PM		
Split %	43.5%	56.5%	40.5%	56.9%	43.1%	59.5%
Peak Hour	11:15	07:30	07:45	16:45	12:00	12:00
Volume	64	82	136	72	54	122
P.H.F.	0.50	0.71	0.83	0.58	0.71	0.69

WEDNESDAY 7/1/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		0						12:00	36		14					
00:15	1		0						12:15	13		6					
00:30	0		2						12:30	5		8					
00:45	0	1	0	2				3	12:45	16	70	19	47				117
01:00	0		0						13:00	16		9					
01:15	0		1						13:15	6		11					
01:30	0		0						13:30	14		17					
01:45	0	0	0	1				1	13:45	7	43	6	43				86
02:00	0		0						14:00	9		6					
02:15	0		0						14:15	5		13					
02:30	0		0						14:30	14		6					
02:45	0	0	0	0					14:45	9	37	9	34				71
03:00	0		0						15:00	15		10					
03:15	0		0						15:15	8		8					
03:30	0		0						15:30	14		7					
03:45	0	0	0	0					15:45	10	47	10	35				82
04:00	0		0						16:00	14		11					
04:15	0		0						16:15	19		12					
04:30	0		0						16:30	11		11					
04:45	0	0	0	0					16:45	17	61	19	53				114
05:00	0		0						17:00	41		8					
05:15	0		1						17:15	8		8					
05:30	1		0						17:30	11		5					
05:45	1	2	2	3				5	17:45	8	68	11	32				100
06:00	3		0						18:00	4		6					
06:15	2		0						18:15	4		5					
06:30	0		5						18:30	6		10					
06:45	3	8	6	11				19	18:45	3	17	6	27				44
07:00	2		8						19:00	6		5					
07:15	3		5						19:15	6		2					
07:30	7		17						19:30	1		7					
07:45	7	19	28	58				77	19:45	5	18	3	17				35
08:00	18		13						20:00	3		3					
08:15	11		11						20:15	6		2					
08:30	12		17						20:30	2		2					
08:45	11	52	12	53				105	20:45	4	15	3	10				25
09:00	5		15						21:00	2		5					
09:15	9		12						21:15	1		3					
09:30	7		10						21:30	2		0					
09:45	7	28	6	43				71	21:45	1	6	2	10				16
10:00	5		9						22:00	0		1					
10:15	3		7						22:15	3		3					
10:30	7		5						22:30	0		3					
10:45	8	23	6	27				50	22:45	1	4	1	8				12
11:00	12		9						23:00	4		0					
11:15	6		8						23:15	1		1					
11:30	6		10						23:30	0		1					
11:45	9	33	14	41				74	23:45	1	6	0	2				8
Total Vol.		166		239				405			392		318				710

Daily Totals

NB	SB	EB	WB	Combined
558	557			1115

	AM			PM		
Split %	41.0%	59.0%	36.3%	55.2%	44.8%	63.7%
Peak Hour	11:30	07:30	07:45	16:15	12:45	16:15
Volume	64	69	117	88	56	138
P.H.F.	0.44	0.62	0.84	0.84	0.74	0.70

THURSDAY 7/2/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		0						12:00	31		24					
00:15	0		0						12:15	7		14					
00:30	0		4						12:30	9		8					
00:45	0	0	1	5				5	12:45	8	55	19	65				120
01:00	0		1						13:00	26		15					
01:15	0		0						13:15	13		10					
01:30	0		0						13:30	14		12					
01:45	0	0	0	1				1	13:45	9	62	10	47				109
02:00	0		0						14:00	15		16					
02:15	0		0						14:15	8		15					
02:30	0		0						14:30	13		7					
02:45	0	0	0	0					14:45	13	49	21	59				108
03:00	0		0						15:00	11		5					
03:15	0		0						15:15	13		16					
03:30	0		0						15:30	15		6					
03:45	0	0	0	0					15:45	7	46	5	32				78
04:00	0		0						16:00	18		7					
04:15	0		0						16:15	15		6					
04:30	0		0						16:30	17		10					
04:45	0	0	0	0					16:45	15	65	12	35				100
05:00	0		0						17:00	30		7					
05:15	0		0						17:15	15		10					
05:30	0		0						17:30	9		9					
05:45	3	3	1	1				4	17:45	5	59	9	35				94
06:00	2		0						18:00	6		3					
06:15	2		3						18:15	9		6					
06:30	0		5						18:30	4		10					
06:45	5	9	4	12				21	18:45	8	27	4	23				50
07:00	2		10						19:00	8		10					
07:15	3		11						19:15	6		12					
07:30	6		19						19:30	6		5					
07:45	5	16	32	72				88	19:45	9	29	4	31				60
08:00	17		16						20:00	6		5					
08:15	11		12						20:15	2		2					
08:30	14		10						20:30	2		7					
08:45	10	52	10	48				100	20:45	8	18	5	19				37
09:00	6		11						21:00	4		4					
09:15	9		6						21:15	7		6					
09:30	10		9						21:30	4		7					
09:45	8	33	11	37				70	21:45	4	19	3	20				39
10:00	8		7						22:00	0		1					
10:15	5		5						22:15	2		7					
10:30	7		3						22:30	1		0					
10:45	14	34	8	23				57	22:45	1	4	2	10				14
11:00	8		9						23:00	1		0					
11:15	12		8						23:15	0		0					
11:30	9		14						23:30	0		0					
11:45	8	37	15	46				83	23:45	2	3	1	1				4
Total Vol.		184		245				429			436		377				813

Daily Totals

NB	SB	EB	WB	Combined
620	622			1242

	AM			PM		
Split %	42.9%	57.1%	34.5%	53.6%	46.4%	65.5%
Peak Hour	11:15	07:30	11:30	16:15	12:00	12:00
Volume	60	79	122	77	65	120
P.H.F.	0.48	0.62	0.55	0.91	0.68	0.55

FRIDAY 7/3/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		0						12:00	24		22					
00:15	0		0						12:15	18		17					
00:30	0		0						12:30	6		11					
00:45	1	1	1	1				2	12:45	12	60	11	61				121
01:00	0		0						13:00	19		23					
01:15	0		0						13:15	10		11					
01:30	0		0						13:30	10		9					
01:45	0	0	1	1				1	13:45	7	46	5	48				94
02:00	1		1						14:00	8		7					
02:15	0		0						14:15	6		12					
02:30	0		1						14:30	5		7					
02:45	0	1	0	2				3	14:45	10	29	9	35				64
03:00	0		0						15:00	14		6					
03:15	0		0						15:15	14		13					
03:30	0		0						15:30	5		12					
03:45	0	0	0	0					15:45	12	45	7	38				83
04:00	0		0						16:00	9		8					
04:15	0		0						16:15	8		10					
04:30	0		0						16:30	6		8					
04:45	0	0	0	0					16:45	6	29	13	39				68
05:00	0		0						17:00	21		7					
05:15	0		0						17:15	10		10					
05:30	0		0						17:30	8		8					
05:45	0	0	0	0					17:45	1	40	7	32				72
06:00	3		2						18:00	6		8					
06:15	0		1						18:15	2		7					
06:30	2		1						18:30	6		4					
06:45	1	6	3	7				13	18:45	6	20	10	29				49
07:00	4		3						19:00	6		10					
07:15	2		6						19:15	2		5					
07:30	2		15						19:30	9		11					
07:45	7	15	17	41				56	19:45	4	21	6	32				53
08:00	12		6						20:00	5		7					
08:15	5		1						20:15	1		1					
08:30	4		4						20:30	4		3					
08:45	8	29	8	19				48	20:45	3	13	4	15				28
09:00	14		10						21:00	4		15					
09:15	5		6						21:15	4		4					
09:30	7		9						21:30	4		3					
09:45	10	36	6	31				67	21:45	3	15	4	26				41
10:00	5		6						22:00	1		2					
10:15	6		12						22:15	3		2					
10:30	10		8						22:30	0		0					
10:45	14	35	12	38				73	22:45	0	4	1	5				9
11:00	10		8						23:00	2		0					
11:15	12		5						23:15	1		1					
11:30	7		5						23:30	0		1					
11:45	14	43	14	32				75	23:45	0	3	0	2				5
Total Vol.		166		172				338			325		362				687

Daily Totals

NB	SB	EB	WB	Combined
491	534			1025

	AM			PM		
Split %	49.1%	50.9%	33.0%	47.3%	52.7%	67.0%
Peak Hour	11:30	11:45	11:45	12:00	12:15	12:00
Volume	63	64	126	60	62	121
P.H.F.	0.66	0.73	0.68	0.56	0.67	0.66

SATURDAY 7/4/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	1		0						12:00	9		5					
00:15	1		1						12:15	4		7					
00:30	4		0						12:30	8		0					
00:45	0	6	0	1				7	12:45	4	25	8	20				45
01:00	0		0						13:00	5		8					
01:15	0		1						13:15	4		1					
01:30	0		0						13:30	4		8					
01:45	0	0	0	1				1	13:45	5	18	6	23				41
02:00	0		2						14:00	5		2					
02:15	3		2						14:15	4		6					
02:30	0		0						14:30	5		2					
02:45	0	3	0	4				7	14:45	4	18	5	15				33
03:00	0		0						15:00	1		6					
03:15	0		0						15:15	5		6					
03:30	0		0						15:30	6		3					
03:45	0	0	0	0					15:45	6	18	2	17				35
04:00	0		0						16:00	2		3					
04:15	0		1						16:15	3		4					
04:30	1		0						16:30	3		5					
04:45	0	1	1	2				3	16:45	3	11	1	13				24
05:00	0		1						17:00	7		8					
05:15	4		0						17:15	6		8					
05:30	1		0						17:30	8		8					
05:45	0	5	0	1				6	17:45	2	23	7	31				54
06:00	0		0						18:00	5		8					
06:15	2		2						18:15	4		7					
06:30	1		1						18:30	5		3					
06:45	1	4	0	3				7	18:45	2	16	2	20				36
07:00	1		0						19:00	3		4					
07:15	1		3						19:15	0		2					
07:30	2		1						19:30	6		5					
07:45	3	7	1	5				12	19:45	6	15	5	16				31
08:00	6		6						20:00	7		10					
08:15	2		1						20:15	8		17					
08:30	8		3						20:30	7		29					
08:45	8	24	5	15				39	20:45	14	36	30	86				122
09:00	3		2						21:00	5		11					
09:15	9		7						21:15	52		5					
09:30	9		10						21:30	18		3					
09:45	9	30	1	20				50	21:45	6	81	7	26				107
10:00	4		1						22:00	15		2					
10:15	7		4						22:15	7		4					
10:30	7		1						22:30	1		3					
10:45	5	23	7	13				36	22:45	5	28	5	14				42
11:00	12		6						23:00	3		3					
11:15	7		11						23:15	3		3					
11:30	3		4						23:30	5		7					
11:45	12	34	11	32				66	23:45	3	14	2	15				29
Total Vol.		137		97				234			303		296				599

Daily Totals

NB	SB	EB	WB	Combined
440	393			833

	AM			PM		
Split %	58.5%	41.5%	28.1%	50.6%	49.4%	71.9%
Peak Hour	11:00	11:00	11:00	21:15	20:15	20:30
Volume	34	32	66	91	87	153
P.H.F.	0.71	0.73	0.72	0.39	0.73	0.67

SUNDAY 7/5/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT01-MARINE VIEW-SAN ANDRES & SOLANA DR

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	5		2						12:00	4		1					
00:15	2		1						12:15	2		6					
00:30	0		0						12:30	7		3					
00:45	0	7	1	4				11	12:45	3	16	7	17				33
01:00	0		0						13:00	9		7					
01:15	1		1						13:15	4		2					
01:30	0		0						13:30	2		5					
01:45	2	3	1	2				5	13:45	3	18	6	20				38
02:00	1		1						14:00	5		4					
02:15	2		3						14:15	9		8					
02:30	1		0						14:30	10		8					
02:45	0	4	0	4				8	14:45	4	28	7	27				55
03:00	0		0						15:00	6		8					
03:15	0		0						15:15	1		3					
03:30	0		0						15:30	7		8					
03:45	0	0	0	0					15:45	5	19	4	23				42
04:00	0		0						16:00	5		6					
04:15	0		0						16:15	3		3					
04:30	1		1						16:30	4		2					
04:45	0	1	0	1				2	16:45	0	12	6	17				29
05:00	1		0						17:00	3		3					
05:15	1		1						17:15	3		2					
05:30	1		0						17:30	2		6					
05:45	2	5	0	1				6	17:45	4	12	8	19				31
06:00	0		0						18:00	0		5					
06:15	0		0						18:15	1		2					
06:30	0		0						18:30	3		3					
06:45	1	1	1	1				2	18:45	1	5	3	13				18
07:00	1		0						19:00	2		4					
07:15	2		4						19:15	3		3					
07:30	0		0						19:30	2		3					
07:45	4	7	3	7				14	19:45	0	7	3	13				20
08:00	2		0						20:00	2		3					
08:15	4		3						20:15	2		5					
08:30	5		3						20:30	1		0					
08:45	3	14	3	9				23	20:45	0	5	1	9				14
09:00	1		5						21:00	1		2					
09:15	4		6						21:15	3		2					
09:30	1		5						21:30	0		2					
09:45	5	11	17	33				44	21:45	0	4	0	6				10
10:00	8		9						22:00	1		3					
10:15	2		4						22:15	0		0					
10:30	6		4						22:30	1		1					
10:45	8	24	1	18				42	22:45	1	3	1	5				8
11:00	12		4						23:00	1		0					
11:15	22		4						23:15	1		2					
11:30	12		9						23:30	1		1					
11:45	1	47	1	18				65	23:45	1	4	0	3				7
Total Vol.		124		98				222			133		172				305

Daily Totals

NB	SB	EB	WB	Combined
257	270			527

	AM			PM		
Split %	55.9%	44.1%	42.1%	43.6%	56.4%	57.9%
Peak Hour	10:45	09:15	10:45	14:15	14:15	14:15
Volume	54	37	72	29	31	60
P.H.F.	0.61	0.54	0.69	0.68	0.97	0.83

Genevieve St (from Marine View to I-5)

WEDNESDAY, MAY 7TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-0509-02

GENEVIEVE (West of Marine View)

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			0		0		
00:15			0		0			12:15			0		0		
00:30			0		0			12:30			0		1		
00:45			0	0	0	0		12:45			1	1	0	1	2
01:00			0		0			13:00			1		1		
01:15			0		0			13:15			0		0		
01:30			0		0			13:30			0		0		
01:45			0	0	0	0		13:45			0	1	0	1	2
02:00			0		0			14:00			0		0		
02:15			0		0			14:15			0		0		
02:30			0		0			14:30			0		0		
02:45			0	0	0	0		14:45			0	0	3	3	3
03:00			0		0			15:00			0		0		
03:15			0		0			15:15			0		0		
03:30			0		0			15:30			0		1		
03:45			0	0	0	0		15:45			3	3	1	2	5
04:00			0		0			16:00			0		0		
04:15			0		0			16:15			1		1		
04:30			0		0			16:30			2		0		
04:45			0	0	0	0		16:45			2	5	0	1	6
05:00			1		0			17:00			1		1		
05:15			0		0			17:15			0		0		
05:30			0		0			17:30			1		0		
05:45			0	1	0	0	1	17:45			0	2	0	1	3
06:00			0		0			18:00			0		0		
06:15			0		0			18:15			0		0		
06:30			0		0			18:30			0		0		
06:45			0	0	0	0		18:45			0	0	0	0	
07:00			0		0			19:00			0		0		
07:15			0		0			19:15			0		0		
07:30			2		1			19:30			0		1		
07:45			1	3	0	1	4	19:45			0	0	0	1	1
08:00			0		0			20:00			0		1		
08:15			0		0			20:15			0		0		
08:30			0		0			20:30			0		0		
08:45			0	0	1	1	1	20:45			0	0	0	1	1
09:00			0		1			21:00			0		0		
09:15			0		2			21:15			0		0		
09:30			0		0			21:30			0		0		
09:45			2	2	1	4	6	21:45			0	0	0	0	
10:00			0		0			22:00			0		0		
10:15			0		0			22:15			0		0		
10:30			0		0			22:30			0		0		
10:45			0	0	0	0		22:45			0	0	0	0	
11:00			0		0			23:00			0		0		
11:15			0		1			23:15			0		0		
11:30			0		0			23:30			0		0		
11:45			1	1	0	1	2	23:45			0	0	0	0	
Total Vol.				7		7	14					12		11	23

	AM			PM		
Daily Totals	NB	SB	EB	WB	Combined	
			19	18	37	
Split %	50.0%	50.0%	37.8%	52.2%	47.8%	62.2%
Peak Hour	07:00	08:30	09:00	15:45	14:45	15:45
Volume	3	4	6	6	4	8
P.H.F.	0.38	0.50	0.50	0.50	0.33	0.50

TUESDAY, JULY 29TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-0801-02

GENEVIEVE W-O MARINE VIEW

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			1		0		
00:15			0		0			12:15			0		0		
00:30			0		0			12:30			0		0		
00:45			0	0	0	0		12:45			0	1	0	0	1
01:00			0		0			13:00			0		0		
01:15			0		0			13:15			1		0		
01:30			0		0			13:30			0		0		
01:45			0	0	0	0		13:45			0	1	0	0	1
02:00			0		0			14:00			0		0		
02:15			0		0			14:15			0		1		
02:30			0		0			14:30			0		0		
02:45			0	0	0	0		14:45			0	0	0	1	1
03:00			0		0			15:00			0		3		
03:15			0		0			15:15			1		1		
03:30			0		0			15:30			0		0		
03:45			0	0	0	0		15:45			0	1	0	4	5
04:00			0		0			16:00			0		0		
04:15			0		0			16:15			1		1		
04:30			0		0			16:30			0		0		
04:45			0	0	0	0		16:45			1	2	0	1	3
05:00			0		0			17:00			1		0		
05:15			0		0			17:15			2		0		
05:30			0		0			17:30			0		0		
05:45			0	0	0	0		17:45			0	3	0	0	3
06:00			0		0			18:00			0		1		
06:15			0		0			18:15			1		0		
06:30			0		0			18:30			0		1		
06:45			0	0	1	1	1	18:45			0	1	1	3	4
07:00			0		0			19:00			0		1		
07:15			0		0			19:15			1		0		
07:30			0		1			19:30			0		1		
07:45			0	0	0	1	1	19:45			0	1	0	2	3
08:00			3		1			20:00			1		0		
08:15			0		0			20:15			0		0		
08:30			0		0			20:30			0		0		
08:45			0	3	0	1	4	20:45			0	1	0	0	1
09:00			0		0			21:00			0		0		
09:15			0		0			21:15			0		0		
09:30			0		0			21:30			0		0		
09:45			0	0	0	0		21:45			1	1	0	0	1
10:00			0		0			22:00			0		1		
10:15			0		0			22:15			0		0		
10:30			0		0			22:30			0		0		
10:45			0	0	0	0		22:45			0	0	0	1	1
11:00			0		0			23:00			0		0		
11:15			1		0			23:15			0		0		
11:30			0		0			23:30			0		0		
11:45			0	1	0	0	1	23:45			0	0	0	0	
Total Vol.				4		3	7					12		12	24

Daily Totals

NB	SB	EB	WB	Combined
		16	15	31

	AM			PM		
Split %	57.1%	42.9%	22.6%	50.0%	50.0%	77.4%
Peak Hour	07:15	06:45	07:15	16:30	14:15	14:30
Volume	3	2	5	4	4	5
P.H.F.	0.25	0.50	0.31	0.50	0.33	0.42

PACIFIC TECHNICAL DATA

Marine View Ave (from Los Caballitos to Genevieve St)

WEDNESDAY, MAY 7TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-0509-02

MARINE VIEW (Los Cabalitos to Genevieve)

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		1					12:00	2		3				
00:15	0		0					12:15	3		3				
00:30	0		0					12:30	2		1				
00:45	0	0	0	1			1	12:45	0	7	1	8			15
01:00	0		0					13:00	2		2				
01:15	0		0					13:15	1		2				
01:30	0		0					13:30	1		5				
01:45	1	1	0	0			1	13:45	3	7	2	11			18
02:00	0		0					14:00	0		0				
02:15	0		0					14:15	3		1				
02:30	1		0					14:30	2		1				
02:45	0	1	0	0			1	14:45	4	9	1	3			12
03:00	0		0					15:00	1		6				
03:15	0		1					15:15	1		3				
03:30	0		0					15:30	1		2				
03:45	0	0	0	1			1	15:45	3	6	0	11			17
04:00	0		0					16:00	1		0				
04:15	1		0					16:15	4		2				
04:30	0		1					16:30	1		3				
04:45	0	1	0	1			2	16:45	1	7	1	6			13
05:00	0		0					17:00	2		2				
05:15	0		0					17:15	2		2				
05:30	0		0					17:30	4		5				
05:45	0	0	0	0				17:45	0	8	2	11			19
06:00	0		1					18:00	0		0				
06:15	0		0					18:15	1		3				
06:30	1		1					18:30	3		1				
06:45	1	2	2	4			6	18:45	1	5	1	5			10
07:00	2		0					19:00	0		0				
07:15	2		6					19:15	1		1				
07:30	3		3					19:30	0		0				
07:45	2	9	2	11			20	19:45	1	2	1	2			4
08:00	4		1					20:00	0		2				
08:15	3		0					20:15	1		0				
08:30	6		5					20:30	0		0				
08:45	4	17	2	8			25	20:45	0	1	0	2			3
09:00	3		2					21:00	0		0				
09:15	3		0					21:15	1		0				
09:30	1		1					21:30	0		1				
09:45	5	12	4	7			19	21:45	0	1	0	1			2
10:00	1		1					22:00	0		0				
10:15	1		2					22:15	1		0				
10:30	2		0					22:30	0		0				
10:45	1	5	3	6			11	22:45	0	1	0	0			1
11:00	2		3					23:00	0		1				
11:15	1		5					23:15	1		0				
11:30	3		3					23:30	0		0				
11:45	1	7	0	11			18	23:45	0	1	0	1			2
Total Vol.		55		50			105			55		61			116

Daily Totals

NB	SB	EB	WB	Combined
110	111			221

	AM			PM		
Split %	52.4%	47.6%	47.5%	47.4%	52.6%	52.5%
Peak Hour	08:00	10:45	08:00	14:15	14:45	14:15
Volume	17	14	25	10	12	19
P.H.F.	0.71	0.70	0.57	0.81	0.50	0.68

TUESDAY, JULY 29TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-0801-02

MARINE VIEW BTN SOLANA DR & GENEVIEVE

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	0		0						12:00	1		2					
00:15	0		0						12:15	2		1					
00:30	0		1						12:30	1		0					
00:45	1	1	0	1				2	12:45	2	6	2	5				11
01:00	0		0						13:00	3		3					
01:15	0		0						13:15	1		0					
01:30	0		0						13:30	0		1					
01:45	1	1	0	0				1	13:45	5	9	0	4				13
02:00	0		0						14:00	1		1					
02:15	0		0						14:15	5		5					
02:30	0		0						14:30	2		0					
02:45	0	0	1	1				1	14:45	0	8	2	8				16
03:00	0		0						15:00	0		2					
03:15	0		0						15:15	1		3					
03:30	0		0						15:30	1		2					
03:45	0	0	1	1				1	15:45	2	4	1	8				12
04:00	1		0						16:00	2		3					
04:15	0		0						16:15	2		3					
04:30	0		0						16:30	1		2					
04:45	0	1	0	0				1	16:45	2	7	2	10				17
05:00	0		0						17:00	2		0					
05:15	0		0						17:15	0		3					
05:30	1		0						17:30	1		1					
05:45	0	1	0	0				1	17:45	1	4	0	4				8
06:00	0		0						18:00	2		3					
06:15	0		1						18:15	1		1					
06:30	1		1						18:30	1		0					
06:45	2	3	2	4				7	18:45	3	7	2	6				13
07:00	0		1						19:00	0		1					
07:15	1		0						19:15	1		2					
07:30	1		3						19:30	0		0					
07:45	1	3	1	5				8	19:45	1	2	0	3				5
08:00	4		2						20:00	0		0					
08:15	2		0						20:15	0		0					
08:30	3		2						20:30	1		0					
08:45	3	12	4	8				20	20:45	0	1	0	0				1
09:00	1		1						21:00	0		0					
09:15	2		1						21:15	0		0					
09:30	0		3						21:30	1		1					
09:45	4	7	1	6				13	21:45	0	1	0	1				2
10:00	1		1						22:00	0		0					
10:15	4		2						22:15	0		0					
10:30	0		0						22:30	0		1					
10:45	2	7	3	6				13	22:45	0	0	0	1				1
11:00	1		4						23:00	0		0					
11:15	1		1						23:15	1		0					
11:30	0		1						23:30	1		1					
11:45	1	3	2	8				11	23:45	0	2	0	1				3
Total Vol.		39		40				79			51		51				102

Daily Totals

NB	SB	EB	WB	Combined
90	91			181

	AM			PM		
Split %	49.4%	50.6%	43.6%	50.0%	50.0%	56.4%
Peak Hour	08:00	08:45	08:00	13:45	16:00	13:45
Volume	12	9	20	13	10	19
P.H.F.	0.75	0.56	0.71	0.80	0.83	0.48

PACIFIC TECHNICAL DATA

SATURDAY - NOVEMBER 15TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	2		3				
00:15	0		0					12:15	1		1				
00:30	0		1					12:30	0		0				
00:45	0	0	0	1			1	12:45	1	4	1	5			9
01:00	0		0					13:00	2		1				
01:15	0		0					13:15	1		0				
01:30	0		0					13:30	1		0				
01:45	0	0	0	0				13:45	0	4	1	2			6
02:00	1		0					14:00	0		1				
02:15	0		0					14:15	1		1				
02:30	0		0					14:30	2		3				
02:45	0	1	0	0			1	14:45	0	3	2	7			10
03:00	0		0					15:00	0		2				
03:15	1		0					15:15	1		1				
03:30	1		1					15:30	0		1				
03:45	0	2	0	1			3	15:45	3	4	1	5			9
04:00	0		0					16:00	1		3				
04:15	0		0					16:15	2		0				
04:30	1		0					16:30	4		1				
04:45	0	1	0	0			1	16:45	5	12	4	8			20
05:00	0		0					17:00	2		2				
05:15	1		0					17:15	3		4				
05:30	0		0					17:30	2		2				
05:45	0	1	0	0			1	17:45	1	8	5	13			21
06:00	0		0					18:00	0		2				
06:15	0		0					18:15	0		1				
06:30	0		0					18:30	1		3				
06:45	1	1	0	0			1	18:45	1	2	1	7			9
07:00	0		0					19:00	2		1				
07:15	1		0					19:15	0		1				
07:30	0		0					19:30	0		0				
07:45	1	2	0	0			2	19:45	2	4	1	3			7
08:00	1		0					20:00	0		0				
08:15	2		0					20:15	1		0				
08:30	2		1					20:30	0		0				
08:45	3	8	2	3			11	20:45	0	1	0	0			1
09:00	4		2					21:00	1		0				
09:15	2		3					21:15	0		0				
09:30	1		2					21:30	0		0				
09:45	4	11	4	11			22	21:45	0	1	0	0			1
10:00	0		3					22:00	1		0				
10:15	2		4					22:15	0		0				
10:30	3		4					22:30	0		0				
10:45	4	9	2	13			22	22:45	2	3	0	0			3
11:00	0		5					23:00	0		0				
11:15	0		2					23:15	0		0				
11:30	1		1					23:30	0		0				
11:45	2	3	0	8			11	23:45	0	0	0	0			
Total Vol.		39		37			76			46		50			96

Daily Totals

NB	SB	EB	WB	Combined
85	87			172

	AM			PM		
Split %	51.3%	48.7%	44.2%	47.9%	52.1%	55.8%
Peak Hour	08:15	09:45	09:45	16:30	17:00	16:30
Volume	11	15	24	14	13	25
P.H.F.	0.69	0.94	0.75	0.65	0.65	0.69

PACIFIC TECHNICAL DATA, LLC

SUNDAY - NOVEMBER 16TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	1		0				
00:15	1		1					12:15	0		0				
00:30	0		0					12:30	0		1				
00:45	0	1	0	1			2	12:45	1	2	2	3			5
01:00	0		0					13:00	3		1				
01:15	0		0					13:15	1		8				
01:30	1		1					13:30	1		0				
01:45	0	1	1	2			3	13:45	2	7	0	9			16
02:00	0		0					14:00	4		1				
02:15	0		0					14:15	3		0				
02:30	0		1					14:30	0		1				
02:45	0	0	0	1			1	14:45	1	8	0	2			10
03:00	0		1					15:00	2		2				
03:15	0		0					15:15	0		1				
03:30	0		0					15:30	4		2				
03:45	0	0	0	1			1	15:45	1	7	0	5			12
04:00	0		0					16:00	1		1				
04:15	0		0					16:15	2		3				
04:30	0		1					16:30	0		3				
04:45	0	0	0	1			1	16:45	0	3	2	9			12
05:00	0		0					17:00	0		0				
05:15	0		0					17:15	3		1				
05:30	0		0					17:30	1		2				
05:45	0	0	0	0				17:45	0	4	0	3			7
06:00	1		0					18:00	1		0				
06:15	0		1					18:15	0		1				
06:30	0		0					18:30	0		3				
06:45	0	1	1	2			3	18:45	1	2	1	5			7
07:00	0		2					19:00	0		0				
07:15	0		1					19:15	0		0				
07:30	0		0					19:30	1		1				
07:45	1	1	0	3			4	19:45	0	1	0	1			2
08:00	1		0					20:00	0		0				
08:15	0		0					20:15	0		0				
08:30	0		0					20:30	0		0				
08:45	2	3	0	0			3	20:45	1	1	0	0			1
09:00	0		0					21:00	1		1				
09:15	0		0					21:15	0		0				
09:30	0		0					21:30	0		0				
09:45	4	4	5	5			9	21:45	0	1	0	1			2
10:00	1		1					22:00	0		1				
10:15	1		1					22:15	0		0				
10:30	1		1					22:30	0		0				
10:45	1	4	2	5			9	22:45	0	0	0	1			1
11:00	3		2					23:00	1		0				
11:15	1		1					23:15	0		0				
11:30	1		0					23:30	1		0				
11:45	2	7	0	3			10	23:45	0	2	0	0			2
Total Vol.		22		24			46			38		39			77

Daily Totals

NB	SB	EB	WB	Combined
60	63			123

	AM			PM		
Split %	47.8%	52.2%	37.4%	49.4%	50.6%	62.6%
Peak Hour	09:45	09:45	09:45	13:30	12:30	12:30
Volume	7	8	15	10	12	17
P.H.F.	0.44	0.40	0.42	0.69	0.38	0.47

PACIFIC TECHNICAL DATA, LLC

MONDAY - NOVEMBER 17TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	3		0				
00:15	0		0					12:15	2		1				
00:30	0		0					12:30	0		0				
00:45	1	1	1	1			2	12:45	1	6	0	1			7
01:00	0		1					13:00	0		1				
01:15	0		0					13:15	1		1				
01:30	0		0					13:30	2		2				
01:45	0	0	0	1			1	13:45	1	4	1	5			9
02:00	0		0					14:00	1		3				
02:15	1		0					14:15	1		1				
02:30	0		0					14:30	3		2				
02:45	0	1	1	1			2	14:45	2	7	3	9			16
03:00	0		1					15:00	5		2				
03:15	1		0					15:15	2		2				
03:30	0		0					15:30	2		2				
03:45	1	2	0	1			3	15:45	1	10	1	7			17
04:00	0		0					16:00	6		4				
04:15	0		1					16:15	1		2				
04:30	0		0					16:30	1		3				
04:45	0	0	1	2			2	16:45	2	10	2	11			21
05:00	0		0					17:00	9		2				
05:15	1		0					17:15	5		4				
05:30	0		0					17:30	7		4				
05:45	0	1	0	0			1	17:45	5	26	5	15			41
06:00	2		1					18:00	4		5				
06:15	1		0					18:15	2		2				
06:30	1		1					18:30	1		3				
06:45	1	5	2	4			9	18:45	0	7	3	13			20
07:00	3		2					19:00	1		2				
07:15	3		1					19:15	1		1				
07:30	2		2					19:30	0		2				
07:45	1	9	2	7			16	19:45	0	2	1	6			8
08:00	2		4					20:00	0		0				
08:15	3		2					20:15	1		1				
08:30	2		5					20:30	1		0				
08:45	1	8	2	13			21	20:45	0	2	0	1			3
09:00	3		2					21:00	0		1				
09:15	1		2					21:15	1		0				
09:30	1		0					21:30	1		0				
09:45	2	7	1	5			12	21:45	2	4	1	2			6
10:00	1		3					22:00	0		0				
10:15	1		3					22:15	0		0				
10:30	2		0					22:30	0		1				
10:45	2	6	1	7			13	22:45	1	1	1	2			3
11:00	3		2					23:00	1		1				
11:15	2		1					23:15	0		2				
11:30	1		1					23:30	0		0				
11:45	1	7	0	4			11	23:45	0	1	0	3			4
Total Vol.		47		46			93			80		75			155

Daily Totals

NB	SB	EB	WB	Combined
127	121			248

	AM			PM		
Split %	50.5%	49.5%	37.5%	51.6%	48.4%	62.5%
Peak Hour	06:45	07:45	07:45	17:00	17:15	17:00
Volume	9	13	21	26	18	41
P.H.F.	0.75	0.65	0.75	0.78	0.90	0.93

PACIFIC TECHNICAL DATA, LLC

TUESDAY - NOVEMBER 18TH, 2014, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		0					12:00	2		1				
00:15	0		0					12:15	1		0				
00:30	0		1					12:30	2		1				
00:45	0	1	0	1			2	12:45	1	6	0	2			8
01:00	0		0					13:00	1		1				
01:15	0		0					13:15	0		3				
01:30	0		0					13:30	2		1				
01:45	1	1	0	0			1	13:45	1	4	1	6			10
02:00	0		0					14:00	3		0				
02:15	0		0					14:15	1		3				
02:30	0		0					14:30	1		1				
02:45	0	0	0	0				14:45	3	8	3	7			15
03:00	0		0					15:00	4		2				
03:15	1		0					15:15	3		0				
03:30	0		1					15:30	4		2				
03:45	0	1	0	1			2	15:45	0	11	3	7			18
04:00	1		1					16:00	2		5				
04:15	0		1					16:15	1		5				
04:30	0		0					16:30	1		0				
04:45	0	1	2	4			5	16:45	2	6	1	11			17
05:00	0		0					17:00	11		2				
05:15	0		0					17:15	1		1				
05:30	0		0					17:30	2		6				
05:45	1	1	0	0			1	17:45	1	15	5	14			29
06:00	0		1					18:00	1		0				
06:15	1		0					18:15	0		4				
06:30	1		0					18:30	1		3				
06:45	2	4	3	4			8	18:45	0	2	1	8			10
07:00	6		2					19:00	1		2				
07:15	5		1					19:15	0		1				
07:30	2		4					19:30	0		1				
07:45	1	14	2	9			23	19:45	1	2	0	4			6
08:00	4		3					20:00	0		0				
08:15	1		4					20:15	0		1				
08:30	3		4					20:30	2		0				
08:45	1	9	6	17			26	20:45	0	2	0	1			3
09:00	2		2					21:00	2		0				
09:15	3		1					21:15	1		1				
09:30	1		0					21:30	0		3				
09:45	0	6	0	3			9	21:45	2	5	2	6			11
10:00	1		0					22:00	0		0				
10:15	1		1					22:15	0		0				
10:30	0		2					22:30	0		0				
10:45	1	3	1	4			7	22:45	1	1	1	1			2
11:00	2		2					23:00	0		0				
11:15	2		3					23:15	1		0				
11:30	1		1					23:30	0		0				
11:45	0	5	2	8			13	23:45	0	1	0	0			1
Total Vol.		46		51			97			63		67			130

Daily Totals

NB	SB	EB	WB	Combined
109	118			227

	AM			PM		
Split %	47.4%	52.6%	42.7%	48.5%	51.5%	57.3%
Peak Hour	06:45	08:00	08:00	16:45	15:30	17:00
Volume	15	17	26	16	15	29
P.H.F.	0.63	0.71	0.93	0.34	0.75	0.56

PACIFIC TECHNICAL DATA, LLC

WEDNESDAY - NOVEMBER 19TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		0					12:00	1		2				
00:15	0		1					12:15	1		5				
00:30	0		0					12:30	1		5				
00:45	0	1	1	2			3	12:45	3	6	2	14			20
01:00	0		0					13:00	2		3				
01:15	1		1					13:15	2		2				
01:30	0		0					13:30	2		1				
01:45	0	1	0	1			2	13:45	1	7	1	7			14
02:00	0		1					14:00	2		2				
02:15	0		0					14:15	0		1				
02:30	0		0					14:30	2		0				
02:45	0	0	1	2			2	14:45	2	6	3	6			12
03:00	0		0					15:00	4		1				
03:15	0		1					15:15	4		2				
03:30	0		0					15:30	1		3				
03:45	0	0	0	1			1	15:45	3	12	0	6			18
04:00	1		0					16:00	5		1				
04:15	0		0					16:15	4		7				
04:30	0		0					16:30	1		2				
04:45	0	1	0	0			1	16:45	6	16	4	14			30
05:00	0		1					17:00	9		3				
05:15	0		0					17:15	7		5				
05:30	0		0					17:30	8		1				
05:45	1	1	1	2			3	17:45	3	27	2	11			38
06:00	0		0					18:00	2		4				
06:15	1		0					18:15	1		1				
06:30	0		1					18:30	0		2				
06:45	1	2	0	1			3	18:45	2	5	1	8			13
07:00	0		1					19:00	1		3				
07:15	3		1					19:15	0		2				
07:30	0		2					19:30	1		2				
07:45	3	6	3	7			13	19:45	0	2	0	7			9
08:00	2		1					20:00	0		1				
08:15	2		0					20:15	1		1				
08:30	1		2					20:30	1		0				
08:45	3	8	4	7			15	20:45	0	2	0	2			4
09:00	1		1					21:00	0		1				
09:15	1		1					21:15	1		1				
09:30	1		3					21:30	1		2				
09:45	3	6	1	6			12	21:45	0	2	2	6			8
10:00	1		2					22:00	0		0				
10:15	1		0					22:15	0		1				
10:30	4		1					22:30	1		0				
10:45	0	6	2	5			11	22:45	1	2	0	1			3
11:00	1		0					23:00	1		0				
11:15	2		1					23:15	1		0				
11:30	0		2					23:30	0		1				
11:45	1	4	2	5			9	23:45	0	2	0	1			3
Total Vol.		36		39			75			89		83			172

Daily Totals

NB	SB	EB	WB	Combined
125	122			247

	AM			PM		
Split %	48.0%	52.0%	30.4%	51.7%	48.3%	69.6%
Peak Hour	09:45	11:45	11:45	16:45	16:15	16:45
Volume	9	14	18	30	16	43
P.H.F.	0.56	0.70	0.75	0.81	0.57	0.90

PACIFIC TECHNICAL DATA, LLC

THURSDAY - NOVEMBER 20TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	2		4				
00:15	0		0					12:15	1		0				
00:30	1		1					12:30	1		3				
00:45	0	1	1	2			3	12:45	2	6	1	8			14
01:00	0		0					13:00	1		4				
01:15	0		0					13:15	3		1				
01:30	0		0					13:30	2		3				
01:45	0	0	0	0				13:45	3	9	2	10			19
02:00	0		0					14:00	1		3				
02:15	0		0					14:15	0		1				
02:30	1		1					14:30	3		2				
02:45	0	1	1	2			3	14:45	5	9	3	9			18
03:00	1		0					15:00	2		2				
03:15	0		0					15:15	0		0				
03:30	0		0					15:30	2		1				
03:45	0	1	0	0			1	15:45	3	7	2	5			12
04:00	0		0					16:00	2		4				
04:15	0		0					16:15	0		0				
04:30	0		0					16:30	3		3				
04:45	1	1	0	0			1	16:45	1	6	1	8			14
05:00	1		0					17:00	1		0				
05:15	0		0					17:15	0		3				
05:30	0		1					17:30	1		1				
05:45	0	1	0	1			2	17:45	1	3	2	6			9
06:00	1		1					18:00	2		0				
06:15	2		0					18:15	0		3				
06:30	0		2					18:30	1		3				
06:45	0	3	0	3			6	18:45	1	4	2	8			12
07:00	1		2					19:00	0		3				
07:15	2		1					19:15	0		0				
07:30	2		2					19:30	0		0				
07:45	3	8	3	8			16	19:45	0	0	2	5			5
08:00	5		2					20:00	1		1				
08:15	1		1					20:15	0		0				
08:30	0		2					20:30	1		1				
08:45	2	8	1	6			14	20:45	0	2	1	3			5
09:00	6		2					21:00	1		0				
09:15	2		1					21:15	2		0				
09:30	3		1					21:30	0		0				
09:45	2	13	4	8			21	21:45	1	4	0	0			4
10:00	0		2					22:00	0		1				
10:15	5		1					22:15	0		0				
10:30	1		0					22:30	0		2				
10:45	3	9	2	5			14	22:45	0	0	0	3			3
11:00	2		1					23:00	1		0				
11:15	1		3					23:15	0		1				
11:30	2		2					23:30	0		0				
11:45	1	6	2	8			14	23:45	1	2	0	1			3
Total Vol.		52		43			95			52		66			118

Daily Totals

NB	SB	EB	WB	Combined
104	109			213

	AM			PM		
Split %	54.7%	45.3%	44.6%	44.1%	55.9%	55.4%
Peak Hour	08:45	11:15	09:00	14:15	18:15	13:00
Volume	13	11	21	10	11	19
P.H.F.	0.54	0.69	0.66	0.65	0.92	0.95

PACIFIC TECHNICAL DATA, LLC

FRIDAY - NOVEMBER 21ST, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		1					12:00	1		1				
00:15	0		0					12:15	0		1				
00:30	0		0					12:30	1		2				
00:45	0	1	0	1			2	12:45	2	4	0	4			8
01:00	1		1					13:00	1		2				
01:15	0		0					13:15	1		3				
01:30	0		0					13:30	2		2				
01:45	1	2	0	1			3	13:45	0	4	1	8			12
02:00	0		0					14:00	1		0				
02:15	0		0					14:15	2		2				
02:30	0		0					14:30	1		2				
02:45	0	0	1	1			1	14:45	4	8	0	4			12
03:00	0		0					15:00	2		1				
03:15	1		0					15:15	1		2				
03:30	1		0					15:30	1		0				
03:45	0	2	0	0			2	15:45	2	6	2	5			11
04:00	1		0					16:00	6		3				
04:15	0		0					16:15	2		2				
04:30	0		1					16:30	2		4				
04:45	0	1	1	2			3	16:45	1	11	6	15			26
05:00	0		0					17:00	2		1				
05:15	2		0					17:15	1		2				
05:30	0		0					17:30	1		3				
05:45	0	2	0	0			2	17:45	2	6	1	7			13
06:00	1		1					18:00	1		2				
06:15	0		1					18:15	0		3				
06:30	0		1					18:30	2		4				
06:45	1	2	2	5			7	18:45	0	3	2	11			14
07:00	1		1					19:00	1		4				
07:15	1		0					19:15	1		2				
07:30	2		2					19:30	0		1				
07:45	2	6	2	5			11	19:45	1	3	1	8			11
08:00	1		4					20:00	2		2				
08:15	4		2					20:15	2		1				
08:30	5		2					20:30	0		0				
08:45	2	12	2	10			22	20:45	0	4	0	3			7
09:00	1		1					21:00	1		0				
09:15	4		0					21:15	1		0				
09:30	6		1					21:30	1		1				
09:45	2	13	1	3			16	21:45	1	4	0	1			5
10:00	1		3					22:00	0		1				
10:15	1		2					22:15	1		2				
10:30	1		2					22:30	1		2				
10:45	2	5	4	11			16	22:45	0	2	1	6			8
11:00	3		2					23:00	1		0				
11:15	2		1					23:15	1		0				
11:30	1		1					23:30	0		1				
11:45	1	7	0	4			11	23:45	2	4	1	2			6
Total Vol.		53		43			96			59		74			133

Daily Totals

NB	SB	EB	WB	Combined
112	117			229

	AM			PM		
Split %	55.2%	44.8%	41.9%	44.4%	55.6%	58.1%
Peak Hour	08:45	10:00	07:45	15:45	16:00	16:00
Volume	13	11	22	12	15	26
P.H.F.	0.54	0.69	0.79	0.50	0.63	0.72

PACIFIC TECHNICAL DATA, LLC

MONDAY - FEBUARY 23RD, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	3		3				
00:15	0		0					12:15	3		4				
00:30	1		1					12:30	3		4				
00:45	0	1	0	1			2	12:45	3	12	1	12			24
01:00	0		0					13:00	0		1				
01:15	0		0					13:15	1		2				
01:30	1		0					13:30	1		3				
01:45	0	1	0	0			1	13:45	3	5	2	8			13
02:00	0		0					14:00	3		2				
02:15	0		0					14:15	3		4				
02:30	0		0					14:30	1		4				
02:45	0	0	1	1			1	14:45	1	8	3	13			21
03:00	0		0					15:00	2		3				
03:15	0		0					15:15	2		4				
03:30	0		0					15:30	1		2				
03:45	1	1	1	1			2	15:45	0	5	0	9			14
04:00	0		0					16:00	2		1				
04:15	0		0					16:15	1		0				
04:30	1		0					16:30	0		3				
04:45	0	1	0	0			1	16:45	4	7	1	5			12
05:00	1		0					17:00	2		5				
05:15	0		0					17:15	0		0				
05:30	0		0					17:30	1		3				
05:45	0	1	1	1			2	17:45	4	7	1	9			16
06:00	1		0					18:00	4		5				
06:15	0		1					18:15	2		4				
06:30	0		0					18:30	1		3				
06:45	0	1	0	1			2	18:45	1	8	2	14			22
07:00	1		0					19:00	4		0				
07:15	1		0					19:15	2		4				
07:30	0		0					19:30	2		2				
07:45	2	4	1	1			5	19:45	0	8	1	7			15
08:00	2		1					20:00	0		3				
08:15	0		2					20:15	1		4				
08:30	0		1					20:30	0		1				
08:45	2	4	0	4			8	20:45	0	1	0	8			9
09:00	4		2					21:00	1		4				
09:15	5		3					21:15	0		1				
09:30	0		2					21:30	2		1				
09:45	1	10	3	10			20	21:45	2	5	1	7			12
10:00	1		1					22:00	1		0				
10:15	0		1					22:15	2		0				
10:30	2		1					22:30	0		0				
10:45	6	9	2	5			14	22:45	0	3	0	0			3
11:00	1		2					23:00	1		1				
11:15	0		4					23:15	0		0				
11:30	1		0					23:30	1		0				
11:45	3	5	2	8			13	23:45	0	2	0	1			3
Total Vol.		38		33			71			71		93			164

Daily Totals

NB	SB	EB	WB	Combined
109	126			235

	AM			PM		
Split %	53.5%	46.5%	30.2%	43.3%	56.7%	69.8%
Peak Hour	11:45	11:45	11:45	12:00	14:15	12:00
Volume	12	13	25	12	14	24
P.H.F.	1.00	0.81	0.89	1.00	0.88	0.86

PACIFIC TECHNICAL DATA, LLC

TUESDAY - FEBUARY 24TH, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		1					12:00	0		2				
00:15	1		0					12:15	1		3				
00:30	0		0					12:30	2		1				
00:45	0	1	0	1			2	12:45	3	6	0	6			12
01:00	0		0					13:00	2		1				
01:15	0		0					13:15	2		2				
01:30	0		0					13:30	1		3				
01:45	0	0	0	0				13:45	2	7	2	8			15
02:00	0		0					14:00	0		1				
02:15	0		0					14:15	2		2				
02:30	1		0					14:30	1		1				
02:45	0	1	0	0			1	14:45	2	5	0	4			9
03:00	0		0					15:00	4		1				
03:15	0		0					15:15	0		0				
03:30	0		0					15:30	0		3				
03:45	0	0	1	1			1	15:45	1	5	2	6			11
04:00	0		0					16:00	2		2				
04:15	1		0					16:15	2		2				
04:30	0		0					16:30	1		3				
04:45	0	1	0	0			1	16:45	1	6	2	9			15
05:00	1		0					17:00	1		1				
05:15	0		0					17:15	2		0				
05:30	2		0					17:30	0		1				
05:45	0	3	0	0			3	17:45	2	5	3	5			10
06:00	0		1					18:00	1		3				
06:15	1		1					18:15	2		2				
06:30	0		0					18:30	0		0				
06:45	1	2	0	2			4	18:45	0	3	1	6			9
07:00	0		0					19:00	0		0				
07:15	0		1					19:15	0		0				
07:30	0		1					19:30	1		2				
07:45	2	2	1	3			5	19:45	0	1	0	2			3
08:00	0		1					20:00	0		0				
08:15	1		0					20:15	1		1				
08:30	0		1					20:30	2		0				
08:45	3	4	1	3			7	20:45	0	3	1	2			5
09:00	1		1					21:00	0		0				
09:15	4		1					21:15	1		1				
09:30	5		3					21:30	0		0				
09:45	3	13	2	7			20	21:45	0	1	0	1			2
10:00	3		4					22:00	0		0				
10:15	2		2					22:15	0		1				
10:30	3		0					22:30	0		0				
10:45	1	9	1	7			16	22:45	1	1	0	1			2
11:00	0		3					23:00	0		1				
11:15	0		0					23:15	1		0				
11:30	2		1					23:30	0		1				
11:45	2	4	3	7			11	23:45	0	1	0	2			3
Total Vol.		40		31			71			44		52			96

Daily Totals

NB	SB	EB	WB	Combined
84	83			167

	AM			PM		
Split %	56.3%	43.7%	42.5%	45.8%	54.2%	57.5%
Peak Hour	09:15	09:30	09:15	12:30	15:30	13:00
Volume	15	11	25	9	9	15
P.H.F.	0.75	0.69	0.78	0.75	0.75	0.94

PACIFIC TECHNICAL DATA, LLC

WEDNESDAY - FEBUARY 25TH, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	3		2				
00:15	1		0					12:15	2		2				
00:30	0		0					12:30	1		5				
00:45	0	1	0	0			1	12:45	3	9	2	11			20
01:00	0		0					13:00	3		2				
01:15	0		0					13:15	3		3				
01:30	0		0					13:30	0		4				
01:45	0	0	1	1			1	13:45	2	8	4	13			21
02:00	0		0					14:00	2		6				
02:15	0		0					14:15	1		6				
02:30	0		0					14:30	2		5				
02:45	1	1	0	0			1	14:45	2	7	2	19			26
03:00	0		0					15:00	4		4				
03:15	0		0					15:15	3		4				
03:30	1		0					15:30	4		4				
03:45	0	1	1	1			2	15:45	3	14	4	16			30
04:00	0		0					16:00	0		4				
04:15	1		0					16:15	1		2				
04:30	0		0					16:30	1		2				
04:45	0	1	0	0			1	16:45	0	2	3	11			13
05:00	0		0					17:00	2		4				
05:15	3		1					17:15	4		2				
05:30	0		0					17:30	1		4				
05:45	0	3	0	1			4	17:45	2	9	3	13			22
06:00	1		0					18:00	1		0				
06:15	0		0					18:15	1		2				
06:30	1		1					18:30	1		2				
06:45	0	2	0	1			3	18:45	2	5	2	6			11
07:00	2		4					19:00	2		1				
07:15	2		2					19:15	2		3				
07:30	2		2					19:30	1		0				
07:45	4	10	1	9			19	19:45	1	6	2	6			12
08:00	2		4					20:00	1		1				
08:15	6		3					20:15	0		2				
08:30	4		4					20:30	0		1				
08:45	2	14	1	12			26	20:45	2	3	1	5			8
09:00	1		3					21:00	1		2				
09:15	2		1					21:15	1		1				
09:30	2		2					21:30	0		2				
09:45	1	6	3	9			15	21:45	1	3	2	7			10
10:00	1		2					22:00	3		3				
10:15	3		1					22:15	0		0				
10:30	2		3					22:30	0		0				
10:45	5	11	0	6			17	22:45	0	3	1	4			7
11:00	4		2					23:00	0		0				
11:15	1		1					23:15	1		0				
11:30	2		3					23:30	0		0				
11:45	4	11	3	9			20	23:45	2	3	0	0			3
Total Vol.		61		49			110			72		111			183

Daily Totals

NB	SB	EB	WB	Combined
133	160			293

	AM			PM		
Split %	55.5%	44.5%	37.5%	39.3%	60.7%	62.5%
Peak Hour	07:45	07:45	07:45	15:00	13:45	15:00
Volume	16	12	28	14	21	30
P.H.F.	0.67	0.75	0.78	0.94	0.88	0.94

PACIFIC TECHNICAL DATA, LLC

THURSDAY - FEBUARY 26TH, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		0					12:00	2		1				
00:15	0		0					12:15	2		3				
00:30	0		1					12:30	2		1				
00:45	0	1	0	1			2	12:45	3	9	2	7			16
01:00	0		0					13:00	4		2				
01:15	0		0					13:15	5		2				
01:30	0		0					13:30	2		1				
01:45	0	0	0	0				13:45	3	14	2	7			21
02:00	0		2					14:00	2		3				
02:15	0		1					14:15	0		5				
02:30	0		0					14:30	2		2				
02:45	0	0	0	3			3	14:45	6	10	5	15			25
03:00	0		0					15:00	4		3				
03:15	0		0					15:15	3		3				
03:30	0		1					15:30	2		3				
03:45	0	0	0	1			1	15:45	1	10	2	11			21
04:00	1		0					16:00	4		4				
04:15	0		0					16:15	3		4				
04:30	0		0					16:30	3		3				
04:45	1	2	0	0			2	16:45	4	14	4	15			29
05:00	0		0					17:00	5		2				
05:15	0		0					17:15	2		2				
05:30	1		0					17:30	1		3				
05:45	1	2	0	0			2	17:45	4	12	0	7			19
06:00	0		0					18:00	1		5				
06:15	0		0					18:15	1		1				
06:30	0		3					18:30	3		1				
06:45	0	0	2	5			5	18:45	1	6	1	8			14
07:00	3		1					19:00	1		2				
07:15	3		4					19:15	0		1				
07:30	6		3					19:30	1		3				
07:45	2	14	0	8			22	19:45	0	2	1	7			9
08:00	1		5					20:00	0		3				
08:15	9		3					20:15	0		0				
08:30	1		3					20:30	1		1				
08:45	2	13	2	13			26	20:45	1	2	1	5			7
09:00	2		3					21:00	0		0				
09:15	2		3					21:15	0		1				
09:30	5		0					21:30	2		0				
09:45	2	11	0	6			17	21:45	0	2	1	2			4
10:00	0		2					22:00	0		2				
10:15	3		2					22:15	0		0				
10:30	7		2					22:30	1		0				
10:45	2	12	0	6			18	22:45	1	2	0	2			4
11:00	11		2					23:00	0		0				
11:15	3		7					23:15	1		2				
11:30	1		3					23:30	0		1				
11:45	5	20	1	13			33	23:45	0	1	0	3			4
Total Vol.		75		56			131			84		89			173

Daily Totals

NB	SB	EB	WB	Combined
159	145			304

	AM			PM		
Split %	57.3%	42.7%	43.1%	48.6%	51.4%	56.9%
Peak Hour	10:15	08:00	10:30	14:30	14:00	14:45
Volume	23	13	34	15	15	29
P.H.F.	0.52	0.65	0.65	0.67	0.75	0.66

PACIFIC TECHNICAL DATA, LLC

FRIDAY - FEBUARY 27TH, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	2		1				
00:15	0		1					12:15	2		3				
00:30	0		0					12:30	1		0				
00:45	0	0	0	1			1	12:45	2	7	3	7			14
01:00	0		0					13:00	3		3				
01:15	1		0					13:15	5		1				
01:30	0		0					13:30	1		1				
01:45	0	1	0	0			1	13:45	3	12	2	7			19
02:00	0		1					14:00	2		3				
02:15	0		0					14:15	0		4				
02:30	0		0					14:30	1		4				
02:45	0	0	0	1			1	14:45	4	7	3	14			21
03:00	1		0					15:00	3		3				
03:15	1		0					15:15	3		2				
03:30	0		0					15:30	2		3				
03:45	0	2	0	0			2	15:45	1	9	1	9			18
04:00	1		0					16:00	3		4				
04:15	0		0					16:15	2		2				
04:30	0		0					16:30	2		3				
04:45	0	1	1	1			2	16:45	4	11	5	14			25
05:00	0		0					17:00	2		4				
05:15	0		0					17:15	2		3				
05:30	0		0					17:30	1		3				
05:45	1	1	0	0			1	17:45	2	7	0	10			17
06:00	0		0					18:00	0		4				
06:15	0		0					18:15	1		1				
06:30	0		1					18:30	3		0				
06:45	1	1	2	3			4	18:45	1	5	1	6			11
07:00	5		0					19:00	1		1				
07:15	4		2					19:15	1		2				
07:30	0		3					19:30	1		2				
07:45	0	9	1	6			15	19:45	0	3	1	6			9
08:00	2		1					20:00	0		1				
08:15	5		2					20:15	0		1				
08:30	2		4					20:30	2		2				
08:45	4	13	0	7			20	20:45	1	3	0	4			7
09:00	6		1					21:00	0		0				
09:15	1		2					21:15	0		1				
09:30	3		2					21:30	2		0				
09:45	1	11	2	7			18	21:45	1	3	1	2			5
10:00	1		1					22:00	0		2				
10:15	4		0					22:15	0		0				
10:30	0		1					22:30	1		1				
10:45	1	6	2	4			10	22:45	0	1	0	3			4
11:00	1		2					23:00	0		0				
11:15	2		6					23:15	1		0				
11:30	1		3					23:30	2		1				
11:45	3	7	1	12			19	23:45	0	3	0	1			4
Total Vol.		52		42			94			71		83			154

Daily Totals

NB	SB	EB	WB	Combined
123	125			248

	AM			PM		
Split %	55.3%	44.7%	37.9%	46.1%	53.9%	62.1%
Peak Hour	08:15	10:45	08:15	13:00	16:30	16:00
Volume	17	13	24	12	15	25
P.H.F.	0.71	0.54	0.86	0.50	0.75	0.69

PACIFIC TECHNICAL DATA, LLC

SATURDAY - FEBUARY 28TH, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	2		3				
00:15	0		0					12:15	4		2				
00:30	0		0					12:30	2		2				
00:45	1	1	1	1			2	12:45	1	9	4	11			20
01:00	2		1					13:00	2		3				
01:15	0		0					13:15	3		1				
01:30	0		2					13:30	0		1				
01:45	0	2	0	3			5	13:45	4	9	2	7			16
02:00	0		0					14:00	1		0				
02:15	0		0					14:15	2		5				
02:30	0		0					14:30	2		2				
02:45	0	0	0	0				14:45	6	11	2	9			20
03:00	0		0					15:00	0		6				
03:15	0		0					15:15	3		5				
03:30	1		0					15:30	1		0				
03:45	0	1	0	0			1	15:45	3	7	3	14			21
04:00	0		1					16:00	1		1				
04:15	1		0					16:15	5		5				
04:30	0		0					16:30	2		2				
04:45	0	1	0	1			2	16:45	4	12	4	12			24
05:00	2		0					17:00	5		4				
05:15	1		0					17:15	1		1				
05:30	0		0					17:30	0		1				
05:45	0	3	0	0			3	17:45	3	9	1	7			16
06:00	0		0					18:00	3		1				
06:15	0		0					18:15	2		2				
06:30	0		1					18:30	3		2				
06:45	1	1	0	1			2	18:45	2	10	4	9			19
07:00	4		2					19:00	1		2				
07:15	4		4					19:15	2		1				
07:30	4		4					19:30	1		1				
07:45	2	14	1	11			25	19:45	1	5	4	8			13
08:00	5		0					20:00	1		1				
08:15	4		2					20:15	0		2				
08:30	2		5					20:30	0		0				
08:45	3	14	2	9			23	20:45	0	1	0	3			4
09:00	3		2					21:00	1		0				
09:15	2		0					21:15	0		2				
09:30	2		3					21:30	1		2				
09:45	2	9	1	6			15	21:45	1	3	5	9			12
10:00	0		2					22:00	1		2				
10:15	3		1					22:15	2		0				
10:30	2		1					22:30	0		0				
10:45	2	7	1	5			12	22:45	1	4	0	2			6
11:00	1		2					23:00	0		0				
11:15	2		5					23:15	0		1				
11:30	6		5					23:30	0		1				
11:45	2	11	2	14			25	23:45	0	0	0	2			2
Total Vol.		64		51			115			80		93			173

Daily Totals

NB	SB	EB	WB	Combined
144	144			288

	AM			PM		
Split %	55.7%	44.3%	39.9%	46.2%	53.8%	60.1%
Peak Hour	07:15	11:15	11:15	16:15	14:15	16:15
Volume	15	15	27	16	15	31
P.H.F.	0.75	0.75	0.61	0.75	0.63	0.78

PACIFIC TECHNICAL DATA, LLC

SUNDAY - MARCH 1ST, 2015 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

MARINE VIEW BTN LOS CABALITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	1		3				
00:15	1		0					12:15	3		0				
00:30	0		0					12:30	5		5				
00:45	0	1	1	1			2	12:45	1	10	3	11			21
01:00	0		0					13:00	3		1				
01:15	0		2					13:15	2		2				
01:30	0		0					13:30	1		1				
01:45	0	0	0	2			2	13:45	3	9	1	5			14
02:00	0		0					14:00	3		4				
02:15	0		0					14:15	1		1				
02:30	0		0					14:30	1		2				
02:45	1	1	1	1			2	14:45	4	9	3	10			19
03:00	1		0					15:00	0		2				
03:15	0		0					15:15	1		1				
03:30	0		0					15:30	7		2				
03:45	1	2	1	1			3	15:45	2	10	4	9			19
04:00	2		1					16:00	1		2				
04:15	0		0					16:15	1		3				
04:30	0		0					16:30	2		2				
04:45	0	2	0	1			3	16:45	7	11	7	14			25
05:00	0		0					17:00	3		2				
05:15	1		0					17:15	2		1				
05:30	0		1					17:30	3		1				
05:45	0	1	0	1			2	17:45	2	10	5	9			19
06:00	0		0					18:00	4		3				
06:15	0		0					18:15	3		1				
06:30	0		1					18:30	0		1				
06:45	2	2	2	3			5	18:45	2	9	5	10			19
07:00	1		1					19:00	4		1				
07:15	3		1					19:15	2		3				
07:30	3		2					19:30	2		2				
07:45	3	10	0	4			14	19:45	1	9	1	7			16
08:00	1		3					20:00	1		1				
08:15	2		5					20:15	3		2				
08:30	3		6					20:30	2		2				
08:45	1	7	4	18			25	20:45	0	6	2	7			13
09:00	1		0					21:00	1		1				
09:15	1		3					21:15	0		1				
09:30	0		2					21:30	1		1				
09:45	4	6	3	8			14	21:45	1	3	2	5			8
10:00	0		1					22:00	2		1				
10:15	1		4					22:15	0		1				
10:30	2		0					22:30	0		1				
10:45	3	6	3	8			14	22:45	0	2	0	3			5
11:00	2		2					23:00	0		0				
11:15	2		2					23:15	1		0				
11:30	5		4					23:30	0		0				
11:45	0	9	1	9			18	23:45	0	1	1	1			2
Total Vol.		47		57			104			89		91			180

Daily Totals

NB	SB	EB	WB	Combined
136	148			284

	AM			PM		
Split %	45.2%	54.8%	36.6%	49.4%	50.6%	63.4%
Peak Hour	10:45	08:00	08:00	16:45	16:00	16:15
Volume	12	18	25	15	14	27
P.H.F.	0.60	0.75	0.69	0.50	0.50	0.48

PACIFIC TECHNICAL DATA, LLC

MONDAY 6/29/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE 6AM-9AM_11AM-1PM_3PM-7PM_9PM-10PM

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	6		2				
00:15	0		0					12:15	6		4				
00:30	0		0					12:30	3		3				
00:45	0	0	0	0				12:45	4	19	1	10			29
01:00	0		1					13:00	2		1				
01:15	0		0					13:15	1		2				
01:30	0		0					13:30	0		3				
01:45	0	0	0	1			1	13:45	1	4	2	8			12
02:00	0		0					14:00	1		4				
02:15	0		0					14:15	2		1				
02:30	0		0					14:30	2		1				
02:45	0	0	0	0				14:45	1	6	3	9			15
03:00	0		0					15:00	3		4				
03:15	0		0					15:15	4		6				
03:30	0		0					15:30	5		4				
03:45	0	0	0	0				15:45	0	12	2	16			28
04:00	1		0					16:00	0		1				
04:15	0		0					16:15	0		6				
04:30	0		0					16:30	1		2				
04:45	0	1	0	0			1	16:45	3	4	1	10			14
05:00	0		0					17:00	2		4				
05:15	0		0					17:15	4		4				
05:30	0		0					17:30	3		2				
05:45	0	0	0	0				17:45	2	11	3	13			24
06:00	0		0					18:00	0		1				
06:15	1		1					18:15	4		3				
06:30	0		1					18:30	1		4				
06:45	5	6	1	3			9	18:45	2	7	3	11			18
07:00	0		3					19:00	2		1				
07:15	0		0					19:15	1		2				
07:30	1		3					19:30	0		1				
07:45	1	2	1	7			9	19:45	0	3	0	4			7
08:00	3		1					20:00	1		0				
08:15	1		2					20:15	0		1				
08:30	2		2					20:30	0		1				
08:45	3	9	0	5			14	20:45	1	2	0	2			4
09:00	2		1					21:00	1		1				
09:15	1		0					21:15	0		2				
09:30	3		0					21:30	0		1				
09:45	4	10	1	2			12	21:45	0	1	0	4			5
10:00	5		0					22:00	0		0				
10:15	2		2					22:15	0		0				
10:30	1		1					22:30	0		0				
10:45	2	10	0	3			13	22:45	0	0	0	0			
11:00	2		0					23:00	1		1				
11:15	0		0					23:15	0		0				
11:30	0		5					23:30	0		0				
11:45	5	7	2	7			14	23:45	0	1	0	1			2
Total Vol.		45		28			73			70		88			158

Daily Totals

NB	SB	EB	WB	Combined
115	116			231

	AM			PM		
Split %	61.6%	38.4%	31.6%	44.3%	55.7%	68.4%
Peak Hour	11:45	11:30	11:45	12:00	14:45	14:45
Volume	20	13	31	19	17	30
P.H.F.	0.83	0.65	0.78	0.75	0.71	0.75

PACIFIC TECHNICAL DATA, LLC

TUESDAY 6/30/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	3		2				
00:15	0		0					12:15	6		3				
00:30	0		1					12:30	1		4				
00:45	0	0	0	1			1	12:45	0	10	2	11			21
01:00	0		1					13:00	3		2				
01:15	0		0					13:15	2		1				
01:30	0		0					13:30	1		0				
01:45	0	0	0	1			1	13:45	4	10	1	4			14
02:00	0		0					14:00	2		2				
02:15	0		0					14:15	1		1				
02:30	1		0					14:30	0		3				
02:45	0	1	1	1			2	14:45	1	4	2	8			12
03:00	1		0					15:00	1		2				
03:15	0		0					15:15	6		5				
03:30	0		0					15:30	1		2				
03:45	0	1	0	0			1	15:45	6	14	4	13			27
04:00	0		0					16:00	1		0				
04:15	0		0					16:15	1		3				
04:30	0		0					16:30	1		0				
04:45	0	0	0	0				16:45	2	5	2	5			10
05:00	1		0					17:00	4		2				
05:15	0		0					17:15	3		4				
05:30	0		1					17:30	2		1				
05:45	0	1	0	1			2	17:45	2	11	2	9			20
06:00	1		0					18:00	4		6				
06:15	0		0					18:15	2		3				
06:30	0		0					18:30	2		2				
06:45	1	2	0	0			2	18:45	2	10	1	12			22
07:00	0		0					19:00	2		2				
07:15	2		0					19:15	1		1				
07:30	2		2					19:30	2		0				
07:45	5	9	5	7			16	19:45	1	6	0	3			9
08:00	1		2					20:00	2		0				
08:15	1		2					20:15	1		1				
08:30	3		1					20:30	0		2				
08:45	3	8	0	5			13	20:45	0	3	1	4			7
09:00	2		1					21:00	0		3				
09:15	1		1					21:15	1		1				
09:30	2		0					21:30	0		0				
09:45	3	8	1	3			11	21:45	0	1	1	5			6
10:00	2		1					22:00	0		0				
10:15	1		3					22:15	0		0				
10:30	1		2					22:30	1		0				
10:45	1	5	10	16			21	22:45	0	1	0	0			1
11:00	5		4					23:00	0		0				
11:15	2		4					23:15	0		0				
11:30	3		2					23:30	0		0				
11:45	1	11	5	15			26	23:45	0	0	0	0			
Total Vol.		46		50			96			75		74			149

Daily Totals

NB	SB	EB	WB	Combined
121	124			245

	AM			PM		
Split %	47.9%	52.1%	39.2%	50.3%	49.7%	60.8%
Peak Hour	11:30	10:30	10:45	15:00	15:00	15:00
Volume	13	20	31	14	13	27
P.H.F.	0.54	0.50	0.70	0.38	0.65	0.61

PACIFIC TECHNICAL DATA, LLC

WEDNESDAY 7/1/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	4		4				
00:15	0		0					12:15	6		3				
00:30	0		0					12:30	1		0				
00:45	0	0	1	1			1	12:45	1	12	2	9			21
01:00	0		0					13:00	0		0				
01:15	0		1					13:15	1		1				
01:30	0		0					13:30	2		2				
01:45	0	0	0	1			1	13:45	1	4	1	4			8
02:00	0		0					14:00	2		1				
02:15	0		0					14:15	3		2				
02:30	0		1					14:30	2		3				
02:45	0	0	0	1			1	14:45	1	8	3	9			17
03:00	0		0					15:00	2		3				
03:15	0		0					15:15	0		4				
03:30	1		0					15:30	5		3				
03:45	0	1	1	1			2	15:45	2	9	1	11			20
04:00	0		0					16:00	3		5				
04:15	0		0					16:15	3		3				
04:30	1		0					16:30	1		2				
04:45	0	1	0	0			1	16:45	3	10	2	12			22
05:00	0		0					17:00	2		5				
05:15	0		0					17:15	5		4				
05:30	0		0					17:30	5		2				
05:45	0	0	0	0				17:45	1	13	2	13			26
06:00	1		0					18:00	1		5				
06:15	1		0					18:15	3		3				
06:30	0		0					18:30	1		2				
06:45	2	4	1	1			5	18:45	1	6	2	12			18
07:00	1		3					19:00	0		1				
07:15	0		0					19:15	0		2				
07:30	3		4					19:30	1		2				
07:45	1	5	0	7			12	19:45	1	2	1	6			8
08:00	3		2					20:00	0		0				
08:15	1		0					20:15	0		0				
08:30	0		1					20:30	2		1				
08:45	3	7	1	4			11	20:45	1	3	0	1			4
09:00	0		2					21:00	0		4				
09:15	1		0					21:15	2		0				
09:30	2		1					21:30	1		0				
09:45	0	3	0	3			6	21:45	0	3	0	4			7
10:00	1		0					22:00	0		0				
10:15	2		2					22:15	0		0				
10:30	1		3					22:30	0		0				
10:45	2	6	1	6			12	22:45	0	0	0	0			
11:00	4		4					23:00	0		1				
11:15	3		2					23:15	1		0				
11:30	1		0					23:30	0		0				
11:45	4	12	3	9			21	23:45	0	1	0	1			2
Total Vol.		39		34			73			71		82			153

Daily Totals

NB	SB	EB	WB	Combined
110	116			226

	AM			PM		
Split %	53.4%	46.6%	32.3%	46.4%	53.6%	67.7%
Peak Hour	11:30	10:15	11:30	16:45	14:30	16:45
Volume	15	10	25	15	13	28
P.H.F.	0.63	0.63	0.69	0.75	0.81	0.78

PACIFIC TECHNICAL DATA, LLC

THURSDAY 7/2/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	2		5				
00:15	0		0					12:15	2		2				
00:30	0		0					12:30	4		5				
00:45	0	0	1	1			1	12:45	2	10	2	14			24
01:00	0		0					13:00	2		0				
01:15	0		0					13:15	3		2				
01:30	0		0					13:30	2		1				
01:45	0	0	0	0				13:45	1	8	0	3			11
02:00	0		0					14:00	4		0				
02:15	0		0					14:15	2		1				
02:30	0		0					14:30	2		2				
02:45	0	0	0	0				14:45	1	9	1	4			13
03:00	0		1					15:00	5		2				
03:15	0		0					15:15	3		7				
03:30	0		0					15:30	4		2				
03:45	0	0	0	1			1	15:45	3	15	2	13			28
04:00	0		0					16:00	1		3				
04:15	0		0					16:15	3		0				
04:30	1		0					16:30	2		2				
04:45	1	2	0	0			2	16:45	2	8	6	11			19
05:00	0		0					17:00	1		4				
05:15	0		1					17:15	4		3				
05:30	0		0					17:30	1		3				
05:45	0	0	0	1			1	17:45	0	6	2	12			18
06:00	0		0					18:00	2		4				
06:15	0		1					18:15	3		2				
06:30	0		0					18:30	1		7				
06:45	4	4	2	3			7	18:45	3	9	2	15			24
07:00	1		1					19:00	0		2				
07:15	1		8					19:15	1		1				
07:30	1		1					19:30	2		0				
07:45	3	6	0	10			16	19:45	1	4	1	4			8
08:00	1		3					20:00	2		1				
08:15	2		1					20:15	1		2				
08:30	3		1					20:30	2		0				
08:45	2	8	0	5			13	20:45	1	6	0	3			9
09:00	1		1					21:00	1		2				
09:15	0		2					21:15	1		1				
09:30	1		0					21:30	2		4				
09:45	1	3	1	4			7	21:45	0	4	0	7			11
10:00	0		0					22:00	1		0				
10:15	0		0					22:15	2		0				
10:30	1		2					22:30	1		0				
10:45	1	2	1	3			5	22:45	0	4	1	1			5
11:00	0		2					23:00	0		0				
11:15	3		3					23:15	1		0				
11:30	0		3					23:30	0		0				
11:45	2	5	2	10			15	23:45	0	1	0	0			1
Total Vol.		30		38			68			84		87			171

Daily Totals

NB	SB	EB	WB	Combined
114	125			239

	AM			PM		
Split %	44.1%	55.9%	28.5%	49.1%	50.9%	71.5%
Peak Hour	11:45	11:45	11:45	15:00	16:45	15:00
Volume	10	14	24	15	16	28
P.H.F.	0.63	0.70	0.67	0.80	0.67	0.70

PACIFIC TECHNICAL DATA, LLC

FRIDAY 7/3/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	1		3				
00:15	1		1					12:15	5		8				
00:30	0		0					12:30	4		4				
00:45	0	1	0	1			2	12:45	5	15	5	20			35
01:00	0		0					13:00	4		3				
01:15	0		0					13:15	2		1				
01:30	0		0					13:30	0		2				
01:45	0	0	0	0				13:45	1	7	3	9			16
02:00	0		0					14:00	2		1				
02:15	0		0					14:15	1		2				
02:30	0		0					14:30	0		1				
02:45	0	0	0	0				14:45	1	4	2	6			10
03:00	1		0					15:00	2		4				
03:15	0		0					15:15	3		2				
03:30	0		0					15:30	0		5				
03:45	0	1	0	0			1	15:45	2	7	2	13			20
04:00	0		0					16:00	4		4				
04:15	0		0					16:15	4		3				
04:30	0		0					16:30	2		2				
04:45	0	0	1	1			1	16:45	2	12	5	14			26
05:00	0		1					17:00	2		4				
05:15	0		0					17:15	2		5				
05:30	0		0					17:30	2		2				
05:45	0	0	0	1			1	17:45	0	6	3	14			20
06:00	1		0					18:00	3		5				
06:15	0		0					18:15	2		3				
06:30	0		0					18:30	5		2				
06:45	0	1	1	1			2	18:45	2	12	3	13			25
07:00	0		0					19:00	3		1				
07:15	1		3					19:15	1		2				
07:30	1		2					19:30	1		0				
07:45	3	5	0	5			10	19:45	1	6	1	4			10
08:00	1		0					20:00	0		2				
08:15	1		2					20:15	1		1				
08:30	3		0					20:30	2		0				
08:45	3	8	1	3			11	20:45	3	6	2	5			11
09:00	2		1					21:00	0		1				
09:15	2		0					21:15	2		2				
09:30	0		1					21:30	1		1				
09:45	1	5	2	4			9	21:45	2	5	3	7			12
10:00	2		1					22:00	1		0				
10:15	1		0					22:15	0		0				
10:30	3		0					22:30	1		0				
10:45	1	7	1	2			9	22:45	1	3	1	1			4
11:00	2		3					23:00	0		0				
11:15	7		0					23:15	0		0				
11:30	4		0					23:30	1		1				
11:45	2	15	3	6			21	23:45	0	1	1	2			3
Total Vol.		43		24			67			84		108			192

Daily Totals

NB	SB	EB	WB	Combined
127	132			259

	AM			PM		
Split %	64.2%	35.8%	25.9%	43.8%	56.3%	74.1%
Peak Hour	11:00	11:45	11:45	12:15	12:00	12:15
Volume	15	18	30	18	20	38
P.H.F.	0.54	0.56	0.58	0.95	0.63	0.73

PACIFIC TECHNICAL DATA, LLC

SATURDAY 7/4/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	4		6				
00:15	1		0					12:15	0		0				
00:30	1		0					12:30	4		4				
00:45	0	2	0	0			2	12:45	1	9	3	13			22
01:00	0		0					13:00	1		3				
01:15	0		0					13:15	2		3				
01:30	0		0					13:30	4		2				
01:45	0	0	0	0				13:45	2	9	1	9			18
02:00	0		0					14:00	0		4				
02:15	0		0					14:15	1		2				
02:30	0		2					14:30	1		2				
02:45	0	0	1	3			3	14:45	0	2	2	10			12
03:00	1		0					15:00	1		3				
03:15	1		0					15:15	3		4				
03:30	0		0					15:30	1		1				
03:45	0	2	0	0			2	15:45	2	7	3	11			18
04:00	0		0					16:00	1		1				
04:15	0		0					16:15	1		2				
04:30	0		0					16:30	3		3				
04:45	0	0	0	0				16:45	3	8	0	6			14
05:00	0		0					17:00	5		4				
05:15	0		0					17:15	3		6				
05:30	1		0					17:30	2		3				
05:45	0	1	0	0			1	17:45	1	11	3	16			27
06:00	0		0					18:00	1		1				
06:15	0		0					18:15	4		3				
06:30	0		0					18:30	3		2				
06:45	1	1	1	1			2	18:45	0	8	2	8			16
07:00	1		0					19:00	3		3				
07:15	0		1					19:15	2		2				
07:30	0		0					19:30	2		1				
07:45	1	2	1	2			4	19:45	1	8	0	6			14
08:00	2		2					20:00	1		1				
08:15	0		1					20:15	0		2				
08:30	2		1					20:30	1		1				
08:45	1	5	1	5			10	20:45	2	4	2	6			10
09:00	1		1					21:00	1		3				
09:15	2		2					21:15	15		2				
09:30	1		1					21:30	7		3				
09:45	0	4	0	4			8	21:45	2	25	1	9			34
10:00	1		1					22:00	3		1				
10:15	2		2					22:15	1		2				
10:30	1		1					22:30	2		0				
10:45	2	6	2	6			12	22:45	1	7	0	3			10
11:00	5		1					23:00	1		1				
11:15	3		5					23:15	0		0				
11:30	1		3					23:30	1		2				
11:45	6	15	3	12			27	23:45	2	4	1	4			8
Total Vol.		38		33			71			102		101			203

Daily Totals

NB	SB	EB	WB	Combined
140	134			274

	AM			PM		
Split %	53.5%	46.5%	25.9%	50.2%	49.8%	74.1%
Peak Hour	11:00	11:15	11:15	21:15	17:00	20:45
Volume	15	17	31	27	16	35
P.H.F.	0.63	0.71	0.78	0.43	0.67	0.51

PACIFIC TECHNICAL DATA, LLC

SUNDAY 7/5/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT02-MARINE VIEW-LOS CABLITOS & GENEVIEVE

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	1		1					12:00	1		1				
00:15	0		2					12:15	0		4				
00:30	0		0					12:30	3		2				
00:45	2	3	0	3			6	12:45	1	5	4	11			16
01:00	0		0					13:00	2		1				
01:15	1		0					13:15	2		1				
01:30	0		1					13:30	3		2				
01:45	0	1	1	2			3	13:45	2	9	3	7			16
02:00	1		0					14:00	1		0				
02:15	1		1					14:15	3		0				
02:30	0		0					14:30	4		1				
02:45	0	2	0	1			3	14:45	5	13	2	3			16
03:00	0		0					15:00	2		3				
03:15	1		0					15:15	2		3				
03:30	1		0					15:30	4		3				
03:45	0	2	0	0			2	15:45	4	12	0	9			21
04:00	0		0					16:00	0		11				
04:15	0		0					16:15	0		1				
04:30	0		0					16:30	2		1				
04:45	0	0	0	0				16:45	2	4	1	14			18
05:00	0		0					17:00	1		1				
05:15	0		0					17:15	0		0				
05:30	0		0					17:30	1		3				
05:45	0	0	0	0				17:45	0	2	3	7			9
06:00	1		0					18:00	0		2				
06:15	0		0					18:15	1		3				
06:30	0		0					18:30	1		3				
06:45	0	1	0	0			1	18:45	0	2	1	9			11
07:00	0		0					19:00	1		0				
07:15	0		1					19:15	1		0				
07:30	0		0					19:30	0		1				
07:45	1	1	0	1			2	19:45	1	3	2	3			6
08:00	0		1					20:00	2		1				
08:15	1		0					20:15	0		0				
08:30	1		1					20:30	0		0				
08:45	0	2	3	5			7	20:45	0	2	0	1			3
09:00	1		0					21:00	0		2				
09:15	3		2					21:15	1		0				
09:30	2		1					21:30	1		0				
09:45	4	10	2	5			15	21:45	0	2	1	3			5
10:00	2		2					22:00	0		0				
10:15	1		1					22:15	0		0				
10:30	1		0					22:30	0		0				
10:45	2	6	1	4			10	22:45	0	0	0	0			
11:00	0		2					23:00	0		0				
11:15	1		0					23:15	0		0				
11:30	5		5					23:30	0		0				
11:45	0	6	1	8			14	23:45	1	1	0	0			1
Total Vol.		34		29			63			55		67			122

Daily Totals

NB	SB	EB	WB	Combined
89	96			185

	AM			PM		
Split %	54.0%	46.0%	34.1%	45.1%	54.9%	65.9%
Peak Hour	09:15	11:30	09:15	14:15	15:15	15:15
Volume	11	11	18	14	17	27
P.H.F.	0.69	0.55	0.75	0.85	0.39	0.61

PACIFIC TECHNICAL DATA, LLC

Highland Dr (from Solana Dr to San Andres Dr)

SATURDAY - NOVEMBER 15TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		1			12:00			15		7		
00:15			0		0			12:15			15		14		
00:30			0		1			12:30			20		10		
00:45			1	2	0	2	4	12:45			21	71	15	46	117
01:00			2		0			13:00			7		20		
01:15			0		1			13:15			11		12		
01:30			0		2			13:30			17		15		
01:45			0	2	0	3	5	13:45			12	47	11	58	105
02:00			0		0			14:00			11		17		
02:15			0		0			14:15			16		24		
02:30			0		0			14:30			11		25		
02:45			1	1	0	0	1	14:45			14	52	11	77	129
03:00			0		0			15:00			14		19		
03:15			1		1			15:15			12		12		
03:30			0		0			15:30			16		7		
03:45			1	2	1	2	4	15:45			12	54	17	55	109
04:00			0		0			16:00			14		8		
04:15			1		0			16:15			6		16		
04:30			0		0			16:30			9		5		
04:45			1	2	1	1	3	16:45			15	44	18	47	91
05:00			2		0			17:00			9		10		
05:15			0		1			17:15			13		8		
05:30			2		0			17:30			11		8		
05:45			3	7	3	4	11	17:45			17	50	7	33	83
06:00			4		5			18:00			8		6		
06:15			1		6			18:15			9		11		
06:30			3		4			18:30			7		6		
06:45			9	17	2	17	34	18:45			6	30	6	29	59
07:00			8		4			19:00			9		9		
07:15			1		5			19:15			2		4		
07:30			11		5			19:30			7		4		
07:45			13	33	9	23	56	19:45			8	26	5	22	48
08:00			11		6			20:00			4		8		
08:15			8		7			20:15			7		8		
08:30			8		6			20:30			7		5		
08:45			21	48	13	32	80	20:45			3	21	4	25	46
09:00			10		21			21:00			1		0		
09:15			14		12			21:15			4		7		
09:30			19		9			21:30			4		6		
09:45			9	52	22	64	116	21:45			3	12	3	16	28
10:00			14		13			22:00			3		9		
10:15			12		8			22:15			3		6		
10:30			12		13			22:30			2		5		
10:45			25	63	11	45	108	22:45			3	11	1	21	32
11:00			9		16			23:00			0		2		
11:15			15		16			23:15			0		4		
11:30			6		14			23:30			1		1		
11:45			14	44	13	59	103	23:45			2	3	1	8	11
Total Vol.				273		252	525					421		437	858

	Daily Totals				
	NB	SB	EB	WB	Combined
			694	689	1383
	AM			PM	
Split %	52.0%	48.0%	38.0%	49.1%	50.9%	62.0%
Peak Hour	08:45	09:00	08:45	12:00	14:15	14:15
Volume	64	64	119	71	79	134
P.H.F.	0.76	0.73	0.88	0.85	0.79	0.84

SUNDAY - NOVEMBER 16TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		2			12:00			16		14		
00:15			0		2			12:15			13		13		
00:30			2		2			12:30			16		10		
00:45			1	3	1	7	10	12:45			30	75	12	49	124
01:00			0		0			13:00			26		15		
01:15			1		1			13:15			15		6		
01:30			0		0			13:30			12		11		
01:45			0	1	0	1	2	13:45			21	74	10	42	116
02:00			0		2			14:00			9		14		
02:15			1		0			14:15			15		12		
02:30			0		0			14:30			8		14		
02:45			0	1	0	2	3	14:45			15	47	19	59	106
03:00			0		0			15:00			10		12		
03:15			0		0			15:15			11		8		
03:30			0		0			15:30			7		11		
03:45			0	0	0	0		15:45			10	38	9	40	78
04:00			0		0			16:00			12		6		
04:15			0		1			16:15			11		9		
04:30			1		0			16:30			15		11		
04:45			0	1	0	1	2	16:45			11	49	12	38	87
05:00			0		0			17:00			5		13		
05:15			0		0			17:15			15		9		
05:30			1		1			17:30			6		15		
05:45			2	3	0	1	4	17:45			6	32	9	46	78
06:00			1		2			18:00			7		3		
06:15			0		1			18:15			4		8		
06:30			6		2			18:30			8		4		
06:45			5	12	1	6	18	18:45			9	28	8	23	51
07:00			7		4			19:00			3		8		
07:15			5		1			19:15			3		7		
07:30			6		1			19:30			3		7		
07:45			4	22	9	15	37	19:45			0	9	5	27	36
08:00			3		6			20:00			5		8		
08:15			9		3			20:15			3		3		
08:30			13		6			20:30			2		3		
08:45			7	32	14	29	61	20:45			3	13	7	21	34
09:00			11		4			21:00			1		2		
09:15			8		13			21:15			3		6		
09:30			12		5			21:30			2		2		
09:45			13	44	18	40	84	21:45			0	6	5	15	21
10:00			9		17			22:00			1		3		
10:15			11		18			22:15			1		2		
10:30			17		17			22:30			1		1		
10:45			11	48	16	68	116	22:45			3	6	0	6	12
11:00			11		14			23:00			0		4		
11:15			15		15			23:15			0		0		
11:30			16		21			23:30			0		0		
11:45			15	57	11	61	118	23:45			0	0	3	7	7
Total Vol.				224		231	455					377		373	750

Daily Totals	NB	SB	EB	WB	Combined
			601	604	1205

	AM			PM		
Split %	49.2%	50.8%	37.8%	50.3%	49.7%	62.2%
Peak Hour	11:15	09:45	11:15	12:30	14:00	12:15
Volume	62	70	123	87	59	135
P.H.F.	0.97	0.97	0.83	0.73	0.78	0.80

MONDAY - NOVEMBER 17TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			18		18		
00:15			0		0			12:15			19		19		
00:30			0		0			12:30			20		20		
00:45			0	0	0	0		12:45			10	67	22	79	146
01:00			0		0			13:00			9		20		
01:15			0		0			13:15			8		18		
01:30			0		0			13:30			9		15		
01:45			0	0	0	0		13:45			7	33	19	72	105
02:00			0		0			14:00			8		16		
02:15			0		0			14:15			9		11		
02:30			0		0			14:30			10		9		
02:45			1	1	0	0	1	14:45			7	34	12	48	82
03:00			0		0			15:00			13		11		
03:15			0		0			15:15			16		9		
03:30			1		1			15:30			20		12		
03:45			0	1	0	1	2	15:45			21	70	18	50	120
04:00			1		0			16:00			20		21		
04:15			0		0			16:15			19		26		
04:30			0		0			16:30			22		28		
04:45			0	1	1	1	2	16:45			26	87	26	101	188
05:00			1		1			17:00			35		36		
05:15			2		1			17:15			40		30		
05:30			4		1			17:30			28		20		
05:45			4	11	1	4	15	17:45			21	124	18	104	228
06:00			1		0			18:00			20		22		
06:15			7		2			18:15			11		23		
06:30			8		6			18:30			18		15		
06:45			12	28	5	13	41	18:45			10	59	11	71	130
07:00			17		2			19:00			11		9		
07:15			15		12			19:15			8		12		
07:30			21		14			19:30			7		11		
07:45			19	72	9	37	109	19:45			5	31	8	40	71
08:00			15		10			20:00			4		9		
08:15			19		23			20:15			6		8		
08:30			23		22			20:30			8		9		
08:45			21	78	15	70	148	20:45			9	27	5	31	58
09:00			13		10			21:00			4		4		
09:15			20		10			21:15			3		3		
09:30			12		11			21:30			2		5		
09:45			14	59	11	42	101	21:45			1	10	4	16	26
10:00			12		9			22:00			4		2		
10:15			14		10			22:15			2		3		
10:30			10		5			22:30			1		2		
10:45			9	45	11	35	80	22:45			0	7	4	11	18
11:00			13		12			23:00			2		5		
11:15			19		11			23:15			3		2		
11:30			8		10			23:30			0		1		
11:45			14	54	14	47	101	23:45			1	6	0	8	14
Total Vol.				350		250	600					555		631	1186

Daily Totals

NB	SB	EB	WB	Combined
		905	881	1786

	AM			PM		
Split %	58.3%	41.7%	33.6%	46.8%	53.2%	66.4%
Peak Hour	08:00	11:45	08:00	16:45	16:30	16:30
Volume	78	71	148	129	120	243
P.H.F.	0.85	0.89	0.82	0.81	0.83	0.86

TUESDAY - NOVEMBER 18TH, 2014, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		0			12:00			14		14		
00:15			0		1			12:15			21		20		
00:30			1		0			12:30			26		26		
00:45			0	2	1	2	4	12:45			20	81	22	82	163
01:00			0		0			13:00			13		15		
01:15			1		0			13:15			15		12		
01:30			0		0			13:30			18		18		
01:45			0	1	0	0	1	13:45			19	65	11	56	121
02:00			0		0			14:00			10		16		
02:15			1		0			14:15			11		19		
02:30			0		1			14:30			13		22		
02:45			0	1	2	3	4	14:45			10	44	26	83	127
03:00			0		0			15:00			14		20		
03:15			1		0			15:15			16		18		
03:30			0		1			15:30			18		11		
03:45			0	1	0	1	2	15:45			22	70	17	66	136
04:00			1		1			16:00			26		28		
04:15			0		0			16:15			20		33		
04:30			1		0			16:30			28		38		
04:45			0	2	1	2	4	16:45			21	95	31	130	225
05:00			1		1			17:00			30		40		
05:15			2		0			17:15			33		44		
05:30			3		1			17:30			28		25		
05:45			0	6	0	2	8	17:45			26	117	28	137	254
06:00			6		1			18:00			15		20		
06:15			5		1			18:15			11		19		
06:30			8		3			18:30			9		11		
06:45			9	28	6	11	39	18:45			15	50	15	65	115
07:00			12		5			19:00			14		10		
07:15			20		18			19:15			16		16		
07:30			26		11			19:30			11		11		
07:45			21	79	9	43	122	19:45			9	50	9	46	96
08:00			22		10			20:00			10		10		
08:15			20		13			20:15			5		10		
08:30			28		18			20:30			4		11		
08:45			20	90	20	61	151	20:45			6	25	4	35	60
09:00			19		11			21:00			3		3		
09:15			15		15			21:15			2		2		
09:30			11		9			21:30			2		1		
09:45			18	63	12	47	110	21:45			2	9	0	6	15
10:00			12		11			22:00			0		1		
10:15			16		16			22:15			4		2		
10:30			9		9			22:30			2		1		
10:45			10	47	10	46	93	22:45			1	7	6	10	17
11:00			8		8			23:00			0		0		
11:15			13		10			23:15			2		2		
11:30			11		13			23:30			1		0		
11:45			18	50	15	46	96	23:45			0	3	1	3	6
Total Vol.				370		264	634					616		719	1335

Daily Totals	NB	SB	EB	WB	Combined
			986	983	1969

	AM			PM		
Split %	58.4%	41.6%	32.2%	46.1%	53.9%	67.8%
Peak Hour	07:45	11:45	11:45	17:00	16:30	16:30
Volume	91	75	154	117	153	265
P.H.F.	0.81	0.72	0.74	0.89	0.87	0.86

WEDNESDAY - NOVEMBER 19TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		1			12:00			16		20		
00:15			1		0			12:15			11		16		
00:30			1		0			12:30			26		20		
00:45			2	4	0	1	5	12:45			30	83	21	77	160
01:00			0		0			13:00			22		22		
01:15			0		1			13:15			19		13		
01:30			1		0			13:30			20		15		
01:45			0	1	1	2	3	13:45			15	76	19	69	145
02:00			0		1			14:00			9		20		
02:15			0		0			14:15			12		16		
02:30			0		0			14:30			14		18		
02:45			1	1	0	1	2	14:45			11	46	26	80	126
03:00			0		0			15:00			16		15		
03:15			0		1			15:15			20		18		
03:30			0		2			15:30			18		20		
03:45			1	1	0	3	4	15:45			28	82	26	79	161
04:00			1		1			16:00			20		35		
04:15			0		0			16:15			22		38		
04:30			0		1			16:30			21		31		
04:45			0	1	0	2	3	16:45			26	89	44	148	237
05:00			1		1			17:00			21		41		
05:15			0		0			17:15			30		36		
05:30			1		0			17:30			24		20		
05:45			0	2	1	2	4	17:45			25	100	21	118	218
06:00			1		1			18:00			18		16		
06:15			2		1			18:15			20		18		
06:30			6		0			18:30			11		19		
06:45			5	14	4	6	20	18:45			9	58	20	73	131
07:00			10		8			19:00			10		15		
07:15			18		12			19:15			9		11		
07:30			33		18			19:30			10		9		
07:45			31	92	11	49	141	19:45			11	40	10	45	85
08:00			25		9			20:00			14		5		
08:15			26		20			20:15			10		4		
08:30			22		11			20:30			5		6		
08:45			26	99	16	56	155	20:45			6	35	9	24	59
09:00			20		22			21:00			5		5		
09:15			19		15			21:15			4		4		
09:30			20		11			21:30			2		2		
09:45			15	74	9	57	131	21:45			3	14	3	14	28
10:00			11		10			22:00			1		2		
10:15			9		7			22:15			2		1		
10:30			10		9			22:30			3		0		
10:45			8	38	10	36	74	22:45			1	7	1	4	11
11:00			9		5			23:00			1		1		
11:15			11		10			23:15			0		1		
11:30			6		9			23:30			1		0		
11:45			12	38	12	36	74	23:45			0	2	0	2	4
Total Vol.				365		251	616					632		733	1365

	Daily Totals NB	SB	EB	WB	Combined
			997	984	1981

	AM			PM		
Split %	59.3%	40.7%	31.1%	46.3%	53.7%	68.9%
Peak Hour	07:30	08:15	07:30	16:45	16:15	16:30
Volume	115	69	173	101	154	250
P.H.F.	0.87	0.78	0.85	0.84	0.88	0.89

THURSDAY - NOVEMBER 20TH, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		1			12:00			20		15		
00:15			2		0			12:15			15		18		
00:30			0		0			12:30			19		20		
00:45			0	3	0	1	4	12:45			16	70	22	75	145
01:00			1		0			13:00			18		21		
01:15			0		1			13:15			15		19		
01:30			1		1			13:30			19		16		
01:45			1	3	0	2	5	13:45			20	72	11	67	139
02:00			2		0			14:00			22		15		
02:15			0		1			14:15			16		9		
02:30			1		1			14:30			18		12		
02:45			1	4	1	3	7	14:45			20	76	11	47	123
03:00			1		1			15:00			11		10		
03:15			0		0			15:15			18		19		
03:30			0		0			15:30			26		18		
03:45			1	2	0	1	3	15:45			22	77	22	69	146
04:00			1		1			16:00			23		26		
04:15			0		0			16:15			18		35		
04:30			0		1			16:30			20		44		
04:45			1	2	1	3	5	16:45			26	87	30	135	222
05:00			0		0			17:00			24		46		
05:15			1		2			17:15			23		38		
05:30			1		1			17:30			22		40		
05:45			0	2	1	4	6	17:45			16	85	22	146	231
06:00			0		1			18:00			18		20		
06:15			3		2			18:15			15		25		
06:30			2		1			18:30			9		24		
06:45			4	9	3	7	16	18:45			15	57	20	89	146
07:00			2		6			19:00			16		11		
07:15			6		5			19:15			11		9		
07:30			18		9			19:30			9		12		
07:45			20	46	11	31	77	19:45			10	46	12	44	90
08:00			22		11			20:00			8		8		
08:15			26		15			20:15			9		9		
08:30			28		18			20:30			10		4		
08:45			20	96	20	64	160	20:45			5	32	5	26	58
09:00			19		16			21:00			4		3		
09:15			20		20			21:15			6		2		
09:30			15		15			21:30			5		4		
09:45			11	65	11	62	127	21:45			1	16	1	10	26
10:00			9		9			22:00			2		0		
10:15			10		10			22:15			2		1		
10:30			5		7			22:30			1		2		
10:45			4	28	9	35	63	22:45			1	6	1	4	10
11:00			9		5			23:00			2		0		
11:15			12		12			23:15			0		0		
11:30			18		11			23:30			0		1		
11:45			14	53	13	41	94	23:45			1	3	1	2	5
Total Vol.				313		254	567					627		714	1341

	Daily Totals NB	SB	EB	WB	Combined
			940	968	1908

	AM			PM		
Split %	55.2%	44.8%	29.7%	46.8%	53.2%	70.3%
Peak Hour	07:45	08:30	08:15	16:45	16:30	16:30
Volume	96	74	162	95	158	251
P.H.F.	0.86	0.93	0.88	0.91	0.86	0.90

FRIDAY - NOVEMBER 21ST, 2014 CITY: SOLANA BEACH PROJECT: PTD14-1114-02

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			15		18		
00:15			0		1			12:15			22		20		
00:30			1		0			12:30			20		16		
00:45			1	2	0	1	3	12:45			28	85	19	73	158
01:00			0		0			13:00			20		22		
01:15			0		0			13:15			19		18		
01:30			0		1			13:30			20		15		
01:45			1	1	0	1	2	13:45			22	81	20	75	156
02:00			0		1			14:00			20		16		
02:15			0		0			14:15			16		11		
02:30			0		1			14:30			11		9		
02:45			1	1	2	4	5	14:45			15	62	12	48	110
03:00			0		0			15:00			18		18		
03:15			0		0			15:15			20		20		
03:30			0		0			15:30			16		22		
03:45			0	0	0	0		15:45			26	80	28	88	168
04:00			0		2			16:00			21		30		
04:15			0		0			16:15			18		32		
04:30			0		1			16:30			20		45		
04:45			0	0	0	3	3	16:45			19	78	41	148	226
05:00			0		0			17:00			20		40		
05:15			1		2			17:15			18		31		
05:30			1		0			17:30			20		33		
05:45			0	2	2	4	6	17:45			22	80	28	132	212
06:00			0		0			18:00			20		26		
06:15			0		3			18:15			20		20		
06:30			2		2			18:30			23		15		
06:45			3	5	1	6	11	18:45			18	81	18	79	160
07:00			7		7			19:00			15		20		
07:15			10		9			19:15			19		11		
07:30			19		12			19:30			16		16		
07:45			20	56	18	46	102	19:45			11	61	9	56	117
08:00			28		20			20:00			14		12		
08:15			22		16			20:15			10		5		
08:30			20		11			20:30			10		4		
08:45			19	89	15	62	151	20:45			8	42	9	30	72
09:00			20		9			21:00			9		9		
09:15			16		12			21:15			10		5		
09:30			18		10			21:30			5		4		
09:45			10	64	9	40	104	21:45			4	28	3	21	49
10:00			9		9			22:00			6		5		
10:15			10		5			22:15			2		4		
10:30			5		9			22:30			4		2		
10:45			10	34	10	33	67	22:45			5	17	1	12	29
11:00			6		7			23:00			2		1		
11:15			11		12			23:15			3		2		
11:30			12		9			23:30			2		2		
11:45			18	47	14	42	89	23:45			2	9	1	6	15
Total Vol.				301		242	543					704		768	1472

	Daily Totals NB	SB	EB	WB	Combined
			1005	1010	2015

	AM			PM		
Split %	55.4%	44.6%	26.9%	47.8%	52.2%	73.1%
Peak Hour	07:45	11:45	07:30	12:15	16:15	16:15
Volume	90	68	155	90	158	235
P.H.F.	0.80	0.85	0.81	0.80	0.88	0.90

MONDAY - FEBUARY 23RD, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		0			12:00			14		15		
00:15			0		0			12:15			11		13		
00:30			0		0			12:30			14		13		
00:45			0	1	0	0	1	12:45			14	53	17	58	111
01:00			0		1			13:00			9		11		
01:15			0		0			13:15			16		13		
01:30			0		0			13:30			14		7		
01:45			1	1	1	2	3	13:45			10	49	9	40	89
02:00			0		1			14:00			12		14		
02:15			0		0			14:15			21		10		
02:30			1		0			14:30			18		11		
02:45			0	1	0	1	2	14:45			2	53	20	55	108
03:00			0		0			15:00			27		18		
03:15			1		0			15:15			14		18		
03:30			0		2			15:30			10		23		
03:45			0	1	0	2	3	15:45			14	65	12	71	136
04:00			0		0			16:00			20		8		
04:15			0		0			16:15			19		15		
04:30			0		1			16:30			12		7		
04:45			0	0	0	1	1	16:45			5	56	15	45	101
05:00			0		1			17:00			10		14		
05:15			2		0			17:15			7		25		
05:30			2		0			17:30			11		14		
05:45			4	8	3	4	12	17:45			8	36	18	71	107
06:00			3		0			18:00			10		18		
06:15			5		1			18:15			14		10		
06:30			8		1			18:30			7		13		
06:45			13	29	3	5	34	18:45			11	42	8	49	91
07:00			10		8			19:00			8		12		
07:15			13		6			19:15			10		5		
07:30			17		8			19:30			1		7		
07:45			20	60	7	29	89	19:45			6	25	7	31	56
08:00			14		11			20:00			2		2		
08:15			17		13			20:15			2		8		
08:30			17		21			20:30			3		4		
08:45			22	70	17	62	132	20:45			4	11	3	17	28
09:00			12		5			21:00			1		4		
09:15			15		9			21:15			0		7		
09:30			10		9			21:30			2		3		
09:45			16	53	4	27	80	21:45			1	4	4	18	22
10:00			13		8			22:00			2		4		
10:15			15		11			22:15			1		2		
10:30			14		14			22:30			2		2		
10:45			10	52	10	43	95	22:45			0	5	2	10	15
11:00			10		9			23:00			0		1		
11:15			8		11			23:15			1		1		
11:30			9		8			23:30			0		0		
11:45			12	39	13	41	80	23:45			1	2	2	4	6
Total Vol.				315		217	532					401		469	870

Daily Totals				
NB	SB	EB	WB	Combined
		716	686	1402

	AM			PM		
Split %	59.2%	40.8%	37.9%	46.1%	53.9%	62.1%
Peak Hour	08:00	08:00	08:00	14:15	14:45	15:00
Volume	70	62	132	68	79	136
P.H.F.	0.80	0.74	0.85	0.63	0.86	0.76

PACIFIC TECHNICAL DATA, LLC

TUESDAY - FEBUARY 24TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			13		15		
00:15			0		1			12:15			16		16		
00:30			0		0			12:30			8		9		
00:45			0	0	0	1	1	12:45			15	52	11	51	103
01:00			0		0			13:00			12		13		
01:15			2		2			13:15			10		21		
01:30			0		0			13:30			9		17		
01:45			0	2	1	3	5	13:45			13	44	15	66	110
02:00			0		0			14:00			14		14		
02:15			0		0			14:15			19		18		
02:30			1		0			14:30			27		17		
02:45			0	1	0	0	1	14:45			14	74	25	74	148
03:00			0		0			15:00			12		21		
03:15			0		1			15:15			20		15		
03:30			2		1			15:30			25		17		
03:45			0	2	0	2	4	15:45			20	77	17	70	147
04:00			1		1			16:00			17		23		
04:15			0		0			16:15			13		12		
04:30			0		0			16:30			17		17		
04:45			0	1	1	2	3	16:45			14	61	16	68	129
05:00			2		0			17:00			15		15		
05:15			1		1			17:15			13		11		
05:30			4		0			17:30			14		13		
05:45			2	9	0	1	10	17:45			8	50	20	59	109
06:00			2		1			18:00			9		17		
06:15			6		1			18:15			12		11		
06:30			6		5			18:30			5		16		
06:45			12	26	8	15	41	18:45			5	31	8	52	83
07:00			7		8			19:00			3		11		
07:15			21		12			19:15			3		10		
07:30			20		10			19:30			10		10		
07:45			15	63	13	43	106	19:45			7	23	8	39	62
08:00			20		11			20:00			3		6		
08:15			25		20			20:15			3		4		
08:30			33		22			20:30			3		9		
08:45			24	102	18	71	173	20:45			0	9	7	26	35
09:00			18		21			21:00			2		10		
09:15			15		16			21:15			2		6		
09:30			12		14			21:30			1		6		
09:45			21	66	14	65	131	21:45			1	6	4	26	32
10:00			10		9			22:00			1		0		
10:15			17		14			22:15			2		1		
10:30			11		8			22:30			2		5		
10:45			17	55	6	37	92	22:45			0	5	0	6	11
11:00			17		12			23:00			0		0		
11:15			25		11			23:15			0		0		
11:30			15		8			23:30			0		1		
11:45			15	72	23	54	126	23:45			0	0	0	1	1
Total Vol.				399		294	693					432		538	970

Daily Totals

NB	SB	EB	WB	Combined
		831	832	1663

	AM			PM		
Split %	57.6%	42.4%	41.7%	44.5%	55.5%	58.3%
Peak Hour	08:00	08:15	08:15	15:15	14:15	15:15
Volume	102	81	181	82	81	154
P.H.F.	0.77	0.92	0.82	0.82	0.81	0.92

PACIFIC TECHNICAL DATA, LLC

WEDNESDAY - FEBUARY 25TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			7		10		
00:15			0		1			12:15			17		14		
00:30			0		1			12:30			17		13		
00:45			0	0	1	3	3	12:45			16	57	10	47	104
01:00			0		0			13:00			10		13		
01:15			0		1			13:15			9		12		
01:30			1		0			13:30			12		11		
01:45			0	1	0	1	2	13:45			12	43	14	50	93
02:00			0		0			14:00			12		10		
02:15			0		0			14:15			15		9		
02:30			1		0			14:30			27		10		
02:45			0	1	0	0	1	14:45			11	65	14	43	108
03:00			0		0			15:00			17		22		
03:15			0		0			15:15			16		19		
03:30			0		0			15:30			15		14		
03:45			0	0	0	0		15:45			17	65	12	67	132
04:00			1		0			16:00			16		16		
04:15			1		0			16:15			15		15		
04:30			2		1			16:30			15		19		
04:45			0	4	2	3	7	16:45			14	60	22	72	132
05:00			3		0			17:00			10		16		
05:15			1		1			17:15			15		17		
05:30			2		1			17:30			9		15		
05:45			6	12	0	2	14	17:45			6	40	25	73	113
06:00			3		0			18:00			8		15		
06:15			6		3			18:15			10		10		
06:30			11		2			18:30			11		13		
06:45			11	31	13	18	49	18:45			14	43	11	49	92
07:00			15		6			19:00			8		8		
07:15			18		7			19:15			9		5		
07:30			22		12			19:30			5		8		
07:45			11	66	7	32	98	19:45			3	25	11	32	57
08:00			17		21			20:00			3		3		
08:15			28		13			20:15			1		1		
08:30			27		38			20:30			4		6		
08:45			17	89	12	84	173	20:45			6	14	7	17	31
09:00			18		10			21:00			1		7		
09:15			7		13			21:15			0		4		
09:30			17		17			21:30			0		2		
09:45			13	55	13	53	108	21:45			0	1	2	15	16
10:00			15		11			22:00			0		4		
10:15			21		14			22:15			0		2		
10:30			14		11			22:30			1		2		
10:45			11	61	19	55	116	22:45			0	1	1	9	10
11:00			16		18			23:00			0		1		
11:15			12		12			23:15			0		2		
11:30			19		10			23:30			1		1		
11:45			12	59	6	46	105	23:45			0	1	3	7	8
Total Vol.				379		297	676					415		481	896

Daily Totals

NB	SB	EB	WB	Combined
		794	778	1572

	AM			PM		
Split %	56.1%	43.9%	43.0%	46.3%	53.7%	57.0%
Peak Hour	08:15	08:00	08:00	14:30	16:30	14:30
Volume	90	84	173	71	74	136
P.H.F.	0.80	0.55	0.67	0.66	0.84	0.87

PACIFIC TECHNICAL DATA, LLC

THURSDAY - FEBUARY 26TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			12		11		
00:15			0		0			12:15			13		22		
00:30			0		0			12:30			18		15		
00:45			0	0	0	0		12:45			19	62	15	63	125
01:00			0		0			13:00			13		23		
01:15			0		0			13:15			12		9		
01:30			0		0			13:30			13		17		
01:45			1	1	1	1	2	13:45			14	52	18	67	119
02:00			0		0			14:00			20		14		
02:15			0		0			14:15			13		11		
02:30			1		1			14:30			23		16		
02:45			0	1	0	1	2	14:45			17	73	27	68	141
03:00			0		0			15:00			18		21		
03:15			0		0			15:15			24		33		
03:30			0		0			15:30			22		14		
03:45			0	0	0	0		15:45			12	76	13	81	157
04:00			0		0			16:00			19		17		
04:15			0		0			16:15			13		17		
04:30			1		0			16:30			13		26		
04:45			0	1	0	0	1	16:45			14	59	10	70	129
05:00			5		6			17:00			11		13		
05:15			2		1			17:15			16		12		
05:30			2		0			17:30			10		19		
05:45			4	13	0	7	20	17:45			11	48	21	65	113
06:00			1		1			18:00			6		17		
06:15			3		2			18:15			16		17		
06:30			8		1			18:30			11		17		
06:45			12	24	5	9	33	18:45			8	41	13	64	105
07:00			10		6			19:00			7		4		
07:15			15		5			19:15			7		6		
07:30			21		6			19:30			8		16		
07:45			6	52	9	26	78	19:45			1	23	9	35	58
08:00			20		14			20:00			1		6		
08:15			19		15			20:15			2		11		
08:30			33		17			20:30			1		5		
08:45			23	95	22	68	163	20:45			5	9	7	29	38
09:00			18		18			21:00			4		8		
09:15			19		7			21:15			4		1		
09:30			11		21			21:30			1		4		
09:45			16	64	7	53	117	21:45			2	11	11	24	35
10:00			14		18			22:00			0		9		
10:15			19		7			22:15			0		4		
10:30			9		20			22:30			2		0		
10:45			11	53	13	58	111	22:45			1	3	3	16	19
11:00			25		9			23:00			2		4		
11:15			16		8			23:15			0		0		
11:30			12		5			23:30			0		1		
11:45			17	70	14	36	106	23:45			0	2	0	5	7
Total Vol.				374		259	633					459		587	1046

Daily Totals

NB	SB	EB	WB	Combined
		833	846	1679

	AM			PM		
Split %	59.1%	40.9%	37.7%	43.9%	56.1%	62.3%
Peak Hour	08:00	08:15	08:15	14:30	14:30	14:30
Volume	95	72	165	82	97	179
P.H.F.	0.72	0.82	0.83	0.85	0.73	0.79

PACIFIC TECHNICAL DATA, LLC

FRIDAY - FEBUARY 27TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		1			12:00			17		23		
00:15			1		0			12:15			10		21		
00:30			0		1			12:30			21		11		
00:45			0	2	0	2	4	12:45			13	61	10	65	126
01:00			0		1			13:00			17		13		
01:15			0		0			13:15			9		6		
01:30			0		0			13:30			15		17		
01:45			0	0	1	2	2	13:45			15	56	11	47	103
02:00			0		0			14:00			18		16		
02:15			0		0			14:15			12		23		
02:30			1		0			14:30			25		21		
02:45			0	1	0	0	1	14:45			15	70	16	76	146
03:00			0		0			15:00			16		20		
03:15			0		0			15:15			14		24		
03:30			0		0			15:30			16		23		
03:45			0	0	0	0		15:45			17	63	16	83	146
04:00			0		1			16:00			21		20		
04:15			0		0			16:15			23		20		
04:30			1		1			16:30			7		19		
04:45			0	1	0	2	3	16:45			15	66	18	77	143
05:00			1		1			17:00			14		13		
05:15			2		0			17:15			10		17		
05:30			0		0			17:30			20		17		
05:45			3	6	0	1	7	17:45			11	55	20	67	122
06:00			2		0			18:00			11		8		
06:15			4		1			18:15			11		18		
06:30			8		2			18:30			7		12		
06:45			16	30	7	10	40	18:45			11	40	8	46	86
07:00			12		4			19:00			5		7		
07:15			23		12			19:15			3		4		
07:30			20		8			19:30			8		5		
07:45			18	73	14	38	111	19:45			5	21	9	25	46
08:00			16		11			20:00			1		11		
08:15			16		16			20:15			4		7		
08:30			21		27			20:30			2		5		
08:45			22	75	19	73	148	20:45			2	9	5	28	37
09:00			17		10			21:00			7		6		
09:15			16		11			21:15			0		4		
09:30			15		16			21:30			1		6		
09:45			17	65	15	52	117	21:45			2	10	6	22	32
10:00			17		14			22:00			2		5		
10:15			20		15			22:15			2		6		
10:30			11		12			22:30			3		4		
10:45			15	63	5	46	109	22:45			1	8	6	21	29
11:00			14		13			23:00			2		5		
11:15			9		10			23:15			1		0		
11:30			23		13			23:30			3		4		
11:45			24	70	20	56	126	23:45			4	10	1	10	20
Total Vol.				386		282	668					469		567	1036

Daily Totals

NB	SB	EB	WB	Combined
		855	849	1704

	AM			PM		
Split %	57.8%	42.2%	39.2%	45.3%	54.7%	60.8%
Peak Hour	07:15	11:30	11:30	15:30	14:45	15:30
Volume	77	77	151	77	83	156
P.H.F.	0.84	0.84	0.86	0.84	0.86	0.91

PACIFIC TECHNICAL DATA, LLC

SATURDAY - FEBUARY 28TH, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		0			12:00			24		15		
00:15			2		1			12:15			10		24		
00:30			0		2			12:30			22		7		
00:45			1	4	5	8	12	12:45			11	67	14	60	127
01:00			0		0			13:00			15		13		
01:15			1		0			13:15			13		11		
01:30			0		0			13:30			13		11		
01:45			0	1	0	0	1	13:45			8	49	12	47	96
02:00			0		0			14:00			12		13		
02:15			0		1			14:15			14		24		
02:30			0		0			14:30			10		8		
02:45			0	0	1	2	2	14:45			11	47	13	58	105
03:00			0		0			15:00			20		11		
03:15			0		0			15:15			14		17		
03:30			1		1			15:30			18		13		
03:45			0	1	0	1	2	15:45			16	68	12	53	121
04:00			0		0			16:00			9		16		
04:15			0		0			16:15			14		14		
04:30			0		0			16:30			11		19		
04:45			1	1	1	1	2	16:45			12	46	18	67	113
05:00			0		0			17:00			15		22		
05:15			0		1			17:15			6		13		
05:30			3		0			17:30			11		11		
05:45			0	3	1	2	5	17:45			9	41	10	56	97
06:00			0		2			18:00			12		15		
06:15			3		5			18:15			7		8		
06:30			4		0			18:30			10		7		
06:45			6	13	2	9	22	18:45			6	35	12	42	77
07:00			9		4			19:00			8		10		
07:15			5		2			19:15			7		9		
07:30			4		4			19:30			9		16		
07:45			4	22	1	11	33	19:45			5	29	7	42	71
08:00			17		3			20:00			6		3		
08:15			11		7			20:15			5		5		
08:30			8		2			20:30			4		5		
08:45			17	53	5	17	70	20:45			4	19	7	20	39
09:00			8		11			21:00			4		5		
09:15			10		10			21:15			6		3		
09:30			12		8			21:30			3		4		
09:45			15	45	15	44	89	21:45			6	19	4	16	35
10:00			15		25			22:00			3		6		
10:15			13		14			22:15			3		4		
10:30			18		16			22:30			1		3		
10:45			14	60	9	64	124	22:45			5	12	3	16	28
11:00			20		10			23:00			2		3		
11:15			16		7			23:15			2		3		
11:30			15		16			23:30			1		5		
11:45			11	62	11	44	106	23:45			1	6	1	12	18
Total Vol.				265		203	468					438		489	927

Daily Totals

NB	SB	EB	WB	Combined
		703	692	1395

	AM			PM		
Split %	56.6%	43.4%	33.5%	47.2%	52.8%	66.5%
Peak Hour	10:30	09:45	09:45	15:00	16:15	12:00
Volume	68	70	131	68	73	127
P.H.F.	0.85	0.70	0.82	0.85	0.83	0.81

PACIFIC TECHNICAL DATA, LLC

SUNDAY - MARCH 1ST, 2015 CITY: SOLANA BEACH PROJECT: PTD15-0227-01

HIGHLAND BTN SOLANA & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		1			12:00			10		4		
00:15			0		1			12:15			19		9		
00:30			0		1			12:30			17		9		
00:45			0	1	0	3	4	12:45			3	49	15	37	86
01:00			2		1			13:00			16		8		
01:15			0		0			13:15			11		11		
01:30			0		2			13:30			15		10		
01:45			2	4	1	4	8	13:45			9	51	15	44	95
02:00			0		1			14:00			9		9		
02:15			1		0			14:15			17		10		
02:30			0		0			14:30			5		16		
02:45			0	1	1	2	3	14:45			7	38	10	45	83
03:00			0		0			15:00			3		9		
03:15			0		0			15:15			6		5		
03:30			0		0			15:30			12		10		
03:45			0	0	0	0		15:45			13	34	13	37	71
04:00			0		0			16:00			5		7		
04:15			0		0			16:15			8		9		
04:30			0		0			16:30			11		12		
04:45			0	0	0	0		16:45			10	34	11	39	73
05:00			0		0			17:00			0		10		
05:15			0		0			17:15			6		10		
05:30			0		2			17:30			3		5		
05:45			1	1	1	3	4	17:45			6	15	6	31	46
06:00			3		2			18:00			9		10		
06:15			2		2			18:15			5		5		
06:30			3		1			18:30			4		7		
06:45			3	11	0	5	16	18:45			8	26	4	26	52
07:00			2		1			19:00			7		4		
07:15			0		1			19:15			3		7		
07:30			5		0			19:30			1		8		
07:45			1	8	2	4	12	19:45			1	12	6	25	37
08:00			4		2			20:00			5		3		
08:15			3		7			20:15			3		3		
08:30			4		5			20:30			4		1		
08:45			8	19	4	18	37	20:45			4	16	6	13	29
09:00			6		4			21:00			1		6		
09:15			4		3			21:15			3		4		
09:30			5		4			21:30			1		3		
09:45			4	19	4	15	34	21:45			2	7	4	17	24
10:00			9		10			22:00			2		0		
10:15			11		6			22:15			0		5		
10:30			11		13			22:30			1		2		
10:45			13	44	14	43	87	22:45			0	3	2	9	12
11:00			7		6			23:00			1		0		
11:15			12		11			23:15			0		1		
11:30			9		5			23:30			1		0		
11:45			18	46	9	31	77	23:45			0	2	0	1	3
Total Vol.				154		128	282					287		324	611

Daily Totals

NB	SB	EB	WB	Combined
		441	452	893

	AM			PM		
Split %	54.6%	45.4%	31.6%	47.0%	53.0%	68.4%
Peak Hour	11:45	10:30	11:45	12:15	13:45	12:15
Volume	64	44	95	55	50	96
P.H.F.	0.84	0.79	0.85	0.72	0.78	0.86

PACIFIC TECHNICAL DATA, LLC

MONDAY 6/29/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		1			12:00			14		11		
00:15			0		0			12:15			13		15		
00:30			0		0			12:30			9		8		
00:45			0	1	0	1	2	12:45			15	51	10	44	95
01:00			0		0			13:00			9		8		
01:15			0		0			13:15			9		11		
01:30			0		0			13:30			7		10		
01:45			0	0	0	0		13:45			15	40	14	43	83
02:00			0		0			14:00			12		12		
02:15			0		1			14:15			10		11		
02:30			1		0			14:30			10		7		
02:45			1	2	0	1	3	14:45			11	43	13	43	86
03:00			0		0			15:00							
03:15			0		0			15:15			19		12		
03:30			0		0			15:30			10		18		
03:45			0	0	0	0		15:45			12	41	14	44	85
04:00			0		0			16:00			11		11		
04:15			1		0			16:15			7		9		
04:30			0		0			16:30			6		13		
04:45			0	1	0	0	1	16:45			10	34	9	42	76
05:00			3		1			17:00			10		9		
05:15			3		0			17:15			10		17		
05:30			1		0			17:30			10		13		
05:45			3	10	0	1	11	17:45			13	43	11	50	93
06:00			2		1			18:00			8		17		
06:15			8		3			18:15			11		12		
06:30			7		4			18:30			7		12		
06:45			5	22	4	12	34	18:45			5	31	7	48	79
07:00			4		4			19:00			5		8		
07:15			6		6			19:15			7		12		
07:30			13		4			19:30			7		11		
07:45			18	41	3	17	58	19:45			4	23	4	35	58
08:00			16		7			20:00			4		5		
08:15			15		10			20:15			3		4		
08:30			12		5			20:30			2		7		
08:45			20	63	10	32	95	20:45			4	13	5	21	34
09:00			11		9			21:00			1		6		
09:15			13		11			21:15			0		6		
09:30			8		8			21:30			3		0		
09:45			16	48	11	39	87	21:45			1	5	2	14	19
10:00			13		10			22:00			0		4		
10:15			10		14			22:15			5		0		
10:30			12		11			22:30			2		5		
10:45			9	44	5	40	84	22:45			2	9	0	9	18
11:00			9		13			23:00			0		0		
11:15			17		13			23:15			2		2		
11:30			13		10			23:30			0		0		
11:45			11	50	11	47	97	23:45			0	2	1	3	5
Total Vol.				282		190	472					335		396	731

	Daily Totals				
	NB	SB	EB	WB	Combined
			617	586	1203
	AM			PM	
Split %	59.7%	40.3%	39.2%	45.8%	54.2%	60.8%
Peak Hour	08:00	11:00	11:15	15:15	17:15	15:15
Volume	63	47	100	52	58	107
P.H.F.	0.79	0.90	0.83	0.68	0.85	0.86

TUESDAY 6/30/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		1			12:00			16		12		
00:15			0		1			12:15			20		8		
00:30			0		1			12:30			11		14		
00:45			0	0	0	3	3	12:45			15	62	16	50	112
01:00			0		1			13:00			7		11		
01:15			0		2			13:15			13		6		
01:30			0		0			13:30			11		15		
01:45			0	0	0	3	3	13:45			18	49	15	47	96
02:00			1		0			14:00			14		15		
02:15			0		0			14:15			11		11		
02:30			1		0			14:30			16		12		
02:45			0	2	0	0	2	14:45			10	51	13	51	102
03:00			0		0			15:00			10		16		
03:15			0		0			15:15			16		12		
03:30			0		0			15:30			8		17		
03:45			0	0	0	0		15:45			12	46	11	56	102
04:00			0		0			16:00			12		12		
04:15			0		0			16:15			6		11		
04:30			2		1			16:30			11		7		
04:45			2	4	0	1	5	16:45			6	35	18	48	83
05:00			2		0			17:00			15		13		
05:15			0		0			17:15			9		24		
05:30			1		2			17:30			5		11		
05:45			2	5	0	2	7	17:45			10	39	12	60	99
06:00			2		1			18:00			7		16		
06:15			7		5			18:15			13		15		
06:30			7		5			18:30			8		11		
06:45			7	23	6	17	40	18:45			6	34	9	51	85
07:00			5		6			19:00			4		4		
07:15			9		10			19:15			7		11		
07:30			11		3			19:30			12		8		
07:45			18	43	16	35	78	19:45			4	27	6	29	56
08:00			19		8			20:00			7		5		
08:15			19		9			20:15			6		13		
08:30			18		13			20:30			3		12		
08:45			15	71	14	44	115	20:45			4	20	7	37	57
09:00			10		11			21:00			7		12		
09:15			11		12			21:15			2		3		
09:30			13		9			21:30			2		5		
09:45			12	46	12	44	90	21:45			2	13	5	25	38
10:00			12		10			22:00			1		5		
10:15			12		15			22:15			4		5		
10:30			20		9			22:30			1		5		
10:45			13	57	12	46	103	22:45			2	8	2	17	25
11:00			11		13			23:00			2		4		
11:15			12		11			23:15			2		2		
11:30			15		11			23:30			2		0		
11:45			14	52	12	47	99	23:45			0	6	2	8	14
Total Vol.				303		242	545					390		479	869

Daily Totals

NB	SB	EB	WB	Combined
		693	721	1414

	AM			PM		
Split %	55.6%	44.4%	38.5%	44.9%	55.1%	61.5%
Peak Hour	07:45	08:30	07:45	12:00	16:45	12:00
Volume	74	50	120	62	66	112
P.H.F.	0.97	0.89	0.88	0.78	0.69	0.90

WEDNESDAY 7/1/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		1			12:00			15		9		
00:15			0		0			12:15			15		11		
00:30			0		0			12:30			14		7		
00:45			0	0	0	1	1	12:45			11	55	15	42	97
01:00			0		0			13:00			16		12		
01:15			0		0			13:15			12		13		
01:30			0		0			13:30			13		10		
01:45			0	0	0	0		13:45			13	54	16	51	105
02:00			0		0			14:00			12		12		
02:15			0		0			14:15			8		9		
02:30			1		0			14:30			12		10		
02:45			0	1	0	0	1	14:45			15	47	13	44	91
03:00			1		0			15:00			21		16		
03:15			0		0			15:15			11		22		
03:30			0		0			15:30			14		16		
03:45			0	1	0	0	1	15:45			12	58	15	69	127
04:00			0		0			16:00			11		12		
04:15			0		0			16:15			8		14		
04:30			1		1			16:30			4		7		
04:45			0	1	0	1	2	16:45			15	38	15	48	86
05:00			2		1			17:00			12		12		
05:15			1		0			17:15			12		15		
05:30			2		0			17:30			13		9		
05:45			4	9	0	1	10	17:45			9	46	10	46	92
06:00			5		1			18:00			12		17		
06:15			5		2			18:15			3		9		
06:30			7		6			18:30			8		12		
06:45			5	22	3	12	34	18:45			6	29	8	46	75
07:00			4		6			19:00			12		13		
07:15			5		8			19:15			7		10		
07:30			14		5			19:30			2		7		
07:45			16	39	7	26	65	19:45			5	26	7	37	63
08:00			18		6			20:00			1		5		
08:15			13		1			20:15			6		6		
08:30			18		8			20:30			2		5		
08:45			14	63	14	29	92	20:45			2	11	5	21	32
09:00			13		11			21:00			0		6		
09:15			12		13			21:15			2		4		
09:30			13		8			21:30			2		3		
09:45			13	51	15	47	98	21:45			2	6	4	17	23
10:00			13		10			22:00			3		2		
10:15			14		17			22:15			2		6		
10:30			20		13			22:30			0		3		
10:45			12	59	10	50	109	22:45			0	5	6	17	22
11:00			19		13			23:00			2		1		
11:15			14		12			23:15			1		2		
11:30			15		15			23:30			0		0		
11:45			15	63	16	56	119	23:45			0	3	1	4	7
Total Vol.				309		223	532					378		442	820

Daily Totals	NB	SB	EB	WB	Combined
			687	665	1352

	AM			PM		
Split %	58.1%	41.9%	39.3%	46.1%	53.9%	60.7%
Peak Hour	07:45	11:00	11:00	14:45	15:00	14:45
Volume	65	56	119	61	69	128
P.H.F.	0.90	0.88	0.93	0.73	0.78	0.86

THURSDAY 7/2/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			21		12		
00:15			0		1			12:15			11		15		
00:30			1		1			12:30			14		9		
00:45			1	2	0	2	4	12:45			12	58	15	51	109
01:00			2		0			13:00			14		11		
01:15			1		1			13:15			10		19		
01:30			0		1			13:30			17		11		
01:45			0	3	0	2	5	13:45			16	57	12	53	110
02:00			0		0			14:00			12		19		
02:15			0		0			14:15			7		13		
02:30			1		0			14:30			13		12		
02:45			1	2	0	0	2	14:45			18	50	13	57	107
03:00			0		0			15:00			9		16		
03:15			0		0			15:15			13		15		
03:30			0		0			15:30			19		13		
03:45			1	1	0	0	1	15:45			14	55	6	50	105
04:00			0		1			16:00			12		12		
04:15			0		0			16:15			9		16		
04:30			1		0			16:30			14		16		
04:45			1	2	0	1	3	16:45			6	41	17	61	102
05:00			3		1			17:00			10		14		
05:15			1		0			17:15			7		14		
05:30			1		0			17:30			10		7		
05:45			6	11	1	2	13	17:45			5	32	9	44	76
06:00			2		0			18:00			7		16		
06:15			7		5			18:15			9		11		
06:30			5		6			18:30			10		10		
06:45			13	27	3	14	41	18:45			9	35	14	51	86
07:00			6		13			19:00			7		11		
07:15			7		6			19:15			10		13		
07:30			15		7			19:30			8		5		
07:45			17	45	8	34	79	19:45			6	31	8	37	68
08:00			10		7			20:00			6		11		
08:15			16		9			20:15			11		10		
08:30			17		18			20:30			7		3		
08:45			20	63	9	43	106	20:45			8	32	5	29	61
09:00			7		6			21:00			4		7		
09:15			15		14			21:15			4		9		
09:30			6		6			21:30			3		5		
09:45			20	48	12	38	86	21:45			0	11	3	24	35
10:00			10		12			22:00			0		5		
10:15			16		15			22:15			3		3		
10:30			19		8			22:30			1		3		
10:45			13	58	9	44	102	22:45			2	6	4	15	21
11:00			15		3			23:00			3		5		
11:15			10		10			23:15			2		1		
11:30			13		10			23:30			2		5		
11:45			20	58	15	38	96	23:45			0	7	0	11	18
Total Vol.				320		218	538					415		483	898

Daily Totals

NB	SB	EB	WB	Combined
		735	701	1436

	AM			PM		
Split %	59.5%	40.5%	37.5%	46.2%	53.8%	62.5%
Peak Hour	11:45	11:30	11:30	14:45	16:15	13:15
Volume	66	52	117	59	63	116
P.H.F.	0.79	0.87	0.84	0.78	0.93	0.94

FRIDAY 7/3/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		0			12:00			17		7		
00:15			1		1			12:15			15		17		
00:30			0		2			12:30			22		7		
00:45			2	3	0	3	6	12:45			14	68	15	46	114
01:00			0		0			13:00			13		10		
01:15			0		0			13:15			5		13		
01:30			0		0			13:30			21		21		
01:45			0	0	0	0		13:45			19	58	11	55	113
02:00			1		0			14:00			6		13		
02:15			0		1			14:15			9		17		
02:30			0		0			14:30			17		11		
02:45			0	1	0	1	2	14:45			14	46	12	53	99
03:00			0		0			15:00			11		14		
03:15			0		0			15:15			9		13		
03:30			1		1			15:30			10		10		
03:45			1	2	1	2	4	15:45			10	40	7	44	84
04:00			2		0			16:00			11		15		
04:15			1		1			16:15			14		8		
04:30			0		1			16:30			16		11		
04:45			0	3	0	2	5	16:45			10	51	9	43	94
05:00			1		0			17:00			12		10		
05:15			0		0			17:15			18		12		
05:30			1		1			17:30			17		20		
05:45			3	5	0	1	6	17:45			13	60	6	48	108
06:00			2		0			18:00			4		13		
06:15			3		5			18:15			13		11		
06:30			1		3			18:30			10		11		
06:45			6	12	7	15	27	18:45			11	38	7	42	80
07:00			3		5			19:00			8		8		
07:15			5		5			19:15			8		10		
07:30			7		3			19:30			12		6		
07:45			10	25	8	21	46	19:45			8	36	8	32	68
08:00			9		8			20:00			8		11		
08:15			10		5			20:15			4		14		
08:30			9		6			20:30			6		4		
08:45			9	37	8	27	64	20:45			3	21	3	32	53
09:00			12		7			21:00			3		6		
09:15			8		7			21:15			3		7		
09:30			15		13			21:30			1		4		
09:45			15	50	8	35	85	21:45			2	9	2	19	28
10:00			14		9			22:00			1		2		
10:15			15		11			22:15			1		6		
10:30			13		7			22:30			4		8		
10:45			12	54	9	36	90	22:45			2	8	0	16	24
11:00			14		18			23:00			3		3		
11:15			14		12			23:15			2		3		
11:30			16		17			23:30			2		0		
11:45			16	60	12	59	119	23:45			1	8	0	6	14
Total Vol.				252		202	454					443		436	879

Daily Totals

	NB	SB	EB	WB	Combined
			695	638	1333
	AM			PM	
Split %	55.5%	44.5%	34.1%	50.4%	49.6%	65.9%
Peak Hour	11:45	11:00	11:00	12:00	13:30	13:30
Volume	70	59	119	68	62	117
P.H.F.	0.80	0.82	0.90	0.77	0.74	0.70

SATURDAY 7/4/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			2		4			12:00			9		10		
00:15			3		3			12:15			9		7		
00:30			0		0			12:30			8		9		
00:45			0	5	1	8	13	12:45			5	31	7	33	64
01:00			0		0			13:00			8		9		
01:15			1		2			13:15			7		7		
01:30			1		0			13:30			7		7		
01:45			1	3	3	5	8	13:45			9	31	8	31	62
02:00			0		1			14:00			10		7		
02:15			1		0			14:15			7		6		
02:30			0		0			14:30			9		18		
02:45			0	1	0	1	2	14:45			10	36	13	44	80
03:00			0		0			15:00			9		3		
03:15			0		0			15:15			8		9		
03:30			0		1			15:30			8		15		
03:45			1	1	1	2	3	15:45			6	31	7	34	65
04:00			0		1			16:00			9		10		
04:15			0		0			16:15			8		12		
04:30			0		0			16:30			6		16		
04:45			1	1	0	1	2	16:45			3	26	12	50	76
05:00			1		0			17:00			10		13		
05:15			0		1			17:15			5		2		
05:30			0		1			17:30			7		12		
05:45			2	3	0	2	5	17:45			5	27	10	37	64
06:00			0		1			18:00			8		11		
06:15			2		0			18:15			9		12		
06:30			3		1			18:30			5		5		
06:45			3	8	0	2	10	18:45			4	26	9	37	63
07:00			4		1			19:00			6		13		
07:15			3		0			19:15			12		4		
07:30			3		4			19:30			8		7		
07:45			5	15	4	9	24	19:45			3	29	6	30	59
08:00			7		4			20:00			2		12		
08:15			4		3			20:15			9		16		
08:30			5		4			20:30			6		30		
08:45			14	30	5	16	46	20:45			2	19	46	104	123
09:00			11		5			21:00			1		14		
09:15			5		7			21:15			47		10		
09:30			7		5			21:30			58		13		
09:45			14	37	5	22	59	21:45			20	126	8	45	171
10:00			12		4			22:00			6		8		
10:15			7		8			22:15			10		1		
10:30			7		8			22:30			10		9		
10:45			5	31	5	25	56	22:45			4	30	4	22	52
11:00			10		11			23:00			7		5		
11:15			8		11			23:15			0		4		
11:30			9		6			23:30			8		2		
11:45			11	38	9	37	75	23:45			6	21	6	17	38
Total Vol.				173		130	303					433		484	917

Daily Totals

NB	SB	EB	WB	Combined
		606	614	1220

	AM			PM		
Split %	57.1%	42.9%	24.8%	47.2%	52.8%	75.2%
Peak Hour	09:30	11:00	11:00	21:15	20:15	20:45
Volume	40	37	75	131	106	191
P.H.F.	0.71	0.84	0.89	0.56	0.58	0.67

SUNDAY 7/5/15 CITY: SOLANA BEACH PROJECT: PDT15-0703-01

ADT03-HIGHLAND DR- SOLANA DR. & SAN ANDRES

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			2		3			12:00			9		10		
00:15			1		6			12:15			13		11		
00:30			1		1			12:30			15		9		
00:45			0	4	0	10	14	12:45			8	45	9	39	84
01:00			1		2			13:00			13		12		
01:15			2		0			13:15			11		5		
01:30			0		0			13:30			8		11		
01:45			0	3	0	2	5	13:45			14	46	10	38	84
02:00			2		1			14:00			9		8		
02:15			0		0			14:15			5		9		
02:30			0		0			14:30			13		8		
02:45			0	2	0	1	3	14:45			6	33	6	31	64
03:00			0		0			15:00			4		3		
03:15			0		0			15:15			7		12		
03:30			1		0			15:30			14		8		
03:45			0	1	0	0	1	15:45			11	36	11	34	70
04:00			0		0			16:00			8		7		
04:15			0		0			16:15			8		6		
04:30			0		0			16:30			8		6		
04:45			1	1	0	0	1	16:45			3	27	7	26	53
05:00			3		1			17:00			7		11		
05:15			1		1			17:15			4		8		
05:30			0		0			17:30			5		7		
05:45			0	4	2	4	8	17:45			12	28	4	30	58
06:00			2		0			18:00			4		6		
06:15			0		2			18:15			9		3		
06:30			1		0			18:30			6		1		
06:45			0	3	0	2	5	18:45			2	21	7	17	38
07:00			2		1			19:00			6		9		
07:15			2		1			19:15			5		5		
07:30			4		0			19:30			6		7		
07:45			2	10	2	4	14	19:45			4	21	6	27	48
08:00			6		3			20:00			2		5		
08:15			2		1			20:15			1		9		
08:30			9		1			20:30			0		7		
08:45			6	23	4	9	32	20:45			1	4	6	27	31
09:00			3		2			21:00			3		2		
09:15			12		7			21:15			3		3		
09:30			5		5			21:30			1		6		
09:45			6	26	12	26	52	21:45			4	11	2	13	24
10:00			5		9			22:00			1		1		
10:15			11		5			22:15			3		3		
10:30			12		7			22:30			3		3		
10:45			9	37	6	27	64	22:45			4	11	3	10	21
11:00			20		6			23:00			1		1		
11:15			21		6			23:15			1		0		
11:30			13		9			23:30			0		5		
11:45			8	62	7	28	90	23:45			2	4	1	7	11
Total Vol.				176		113	289					287		299	586

Daily Totals

NB	SB	EB	WB	Combined
		463	412	875

	AM			PM		
Split %	60.9%	39.1%	33.0%	49.0%	51.0%	67.0%
Peak Hour	10:45	11:30	10:45	12:15	12:15	12:15
Volume	63	37	90	49	41	90
P.H.F.	0.75	0.84	0.83	0.82	0.85	0.90

Las Banderas Drive (from Lomas Santa Fe Dr to San Andres Dr)

The City of Solana Beach circulation element states in Section 4.1.2 Functional Classification that a roadways designated as collector has a design capacity of 10,000 vehicles per day. This same section states that La Banderas Drive between Lomas Santa Fe Drive and San Andres Drive is a collector. Daily traffic counts were collect on La Banderas Drive between Lomas Santa Fe Drive and San Andres Drive on Wednesday November 18, 2015 with 3,936 ADT and on Thursday November 19, 2015 with 4,095 ADT. The average over two day is 4,016 and is well below the noted 10,000 ADT capacity for a collector. Therefore, the background 4,016 ADT and background with project traffic 4,016 ADT + 263 ADT = 4,279 ADT are well below the 10,000 ADT capacity.

WEDNESDAY - NOVEMBER 18, 2015 CITY: SOLANA BEACH PROJECT: PTD15-1120-01

LAS BANDERAS- LOMAS SANTA FE TO SAN ANDRES

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	2		1					12:00	29		27				
00:15	2		0					12:15	35		35				
00:30	1		1					12:30	35		28				
00:45	0	5	2	4			9	12:45	33	132	44	134			266
01:00	0		1					13:00	41		41				
01:15	1		1					13:15	50		35				
01:30	0		0					13:30	40		28				
01:45	0	1	0	2			3	13:45	32	163	26	130			293
02:00	2		1					14:00	44		35				
02:15	1		0					14:15	41		40				
02:30	1		0					14:30	46		33				
02:45	0	4	0	1			5	14:45	37	168	38	146			314
03:00	0		0					15:00	42		34				
03:15	0		0					15:15	30		36				
03:30	1		0					15:30	27		33				
03:45	2	3	1	1			4	15:45	41	140	36	139			279
04:00	1		0					16:00	50		35				
04:15	0		0					16:15	46		46				
04:30	1		0					16:30	37		27				
04:45	2	4	2	2			6	16:45	47	180	26	134			314
05:00	1		1					17:00	56		30				
05:15	0		2					17:15	55		26				
05:30	1		8					17:30	54		28				
05:45	2	4	2	13			17	17:45	51	216	30	114			330
06:00	3		5					18:00	51		34				
06:15	2		7					18:15	45		30				
06:30	6		6					18:30	62		33				
06:45	8	19	12	30			49	18:45	60	218	24	121			339
07:00	13		18					19:00	31		23				
07:15	28		16					19:15	36		22				
07:30	48		22					19:30	39		14				
07:45	33	122	28	84			206	19:45	27	133	13	72			205
08:00	28		30					20:00	22		23				
08:15	26		33					20:15	16		18				
08:30	20		28					20:30	7		9				
08:45	30	104	21	112			216	20:45	8	53	11	61			114
09:00	31		35					21:00	18		9				
09:15	44		31					21:15	7		10				
09:30	48		44					21:30	11		11				
09:45	35	158	45	155			313	21:45	6	42	4	34			76
10:00	42		51					22:00	6		17				
10:15	38		40					22:15	5		6				
10:30	28		28					22:30	6		7				
10:45	22	130	30	149			279	22:45	3	20	2	32			52
11:00	33		33					23:00	3		3				
11:15	25		26					23:15	3		5				
11:30	20		35					23:30	1		3				
11:45	25	103	27	121			224	23:45	0	7	5	16			23
Total Vol.		657		674			1331			1472		1133			2605

Daily Totals

NB	SB	EB	WB	Combined
2129	1807			3936

	AM			PM		
Split %	49.4%	50.6%	33.8%	56.5%	43.5%	66.2%
Peak Hour	09:15	09:30	09:30	18:00	15:30	18:00
Volume	169	180	343	218	150	339
P.H.F.	0.88	0.88	0.92	0.89	0.82	0.89

THURSDAY - NOVEMBER 19, 2015 CITY: SOLANA BEACH PROJECT: PTD15-1120-01

LAS BANDERAS- LOMAS SANTA FE TO SAN ANDRES

AM Period	NB		SB		EB		WB		PM Period	NB		SB		EB		WB	
00:00	1		2						12:00	37		29					
00:15	0		1						12:15	30		19					
00:30	2		1						12:30	41		27					
00:45	0	3	2	6				9	12:45	41	149	41	116				265
01:00	1		0						13:00	53		37					
01:15	0		0						13:15	45		36					
01:30	1		0						13:30	41		31					
01:45	0	2	1	1				3	13:45	41	180	39	143				323
02:00	0		0						14:00	47		35					
02:15	0		0						14:15	30		28					
02:30	0		0						14:30	47		39					
02:45	1	1	0	0				1	14:45	35	159	30	132				291
03:00	0		1						15:00	37		40					
03:15	1		0						15:15	29		35					
03:30	1		0						15:30	34		25					
03:45	0	2	0	1				3	15:45	48	148	31	131				279
04:00	0		0						16:00	56		37					
04:15	1		1						16:15	62		47					
04:30	0		1						16:30	64		37					
04:45	6	7	2	4				11	16:45	52	234	33	154				388
05:00	1		0						17:00	67		29					
05:15	0		3						17:15	66		38					
05:30	2		12						17:30	60		33					
05:45	2	5	0	15				20	17:45	67	260	35	135				395
06:00	1		2						18:00	73		31					
06:15	1		5						18:15	62		32					
06:30	6		5						18:30	58		16					
06:45	15	23	20	32				55	18:45	55	248	20	99				347
07:00	16		12						19:00	36		16					
07:15	31		15						19:15	31		22					
07:30	40		18						19:30	32		24					
07:45	10	97	25	70				167	19:45	25	124	25	87				211
08:00	34		23						20:00	35		23					
08:15	43		31						20:15	23		13					
08:30	12		17						20:30	13		11					
08:45	20	109	27	98				207	20:45	16	87	18	65				152
09:00	46		40						21:00	5		23					
09:15	49		43						21:15	11		10					
09:30	42		43						21:30	8		8					
09:45	34	171	42	168				339	21:45	9	33	7	48				81
10:00	25		32						22:00	17		9					
10:15	36		36						22:15	11		7					
10:30	26		28						22:30	6		2					
10:45	26	113	27	123				236	22:45	6	40	4	22				62
11:00	32		31						23:00	8		5					
11:15	27		29						23:15	5		4					
11:30	19		21						23:30	1		4					
11:45	28	106	32	113				219	23:45	1	15	3	16				31
Total Vol.		639		631				1270			1677		1148				2825

Daily Totals

NB	SB	EB	WB	Combined
2316	1779			4095

	AM			PM		
Split %	50.3%	49.7%	31.0%	59.4%	40.6%	69.0%
Peak Hour	09:00	09:00	09:00	17:15	16:00	17:15
Volume	171	168	339	266	154	403
P.H.F.	0.87	0.98	0.92	0.97	0.82	0.97

EVENTS CALENDAR | FACILITIES | SAN DIEGO COUNTY FAIR | MAPS & DIRECTIONS | ABOUT US | VACATION PLANNER

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- Del Mar National Horse Show
- San Diego County Fair
- The Scream Zone
- Holiday of Lights
- Surfside Race Place
- Del Mar Thoroughbred Club

Events Calendar

<< Previous Month **May 2014** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 Del Mar Electronics and Design Show Del Mar National Hunter-Jumper Week Golf Mart - Tent Sale / Demo Day Surfside Satellite Wagering Horse Racing	2 Del Mar National Hunter-Jumper Week Golf Mart - Tent Sale / Demo Day Surfside Satellite Wagering Horse Racing The Del Mar Antique Show	3 $100,000 Grand Prix of Del Mar 23rd Annual Pug Party Del Mar National Hunter-Jumper Week Golf Mart - Tent Sale / Demo Day Kentucky Derby Simulcast at Surfside Race Place Plumbing Heating Cooling Contractors (PHCC) Trade Show Saturday Guitar Camp Surfside Satellite Wagering Horse Racing The Del Mar Antique Show
4 Bingo Del Mar Del Mar National Hunter-Jumper Week Golf Mart - Tent Sale / Demo Day Surfside Satellite Wagering Horse Racing The Del Mar Antique Show	5	6	7 Surfside Satellite Wagering Horse Racing	8 Surfside Satellite Wagering Horse Racing	9 Surfside Satellite Wagering Horse Racing	10 ROC Race San Diego Saturday Guitar Camp Surfside Satellite Wagering Horse Racing

Del Mar National Horse Show
San Diego County Fair
The Scream Zone
Holiday of Lights
Surfside Race Place
Del Mar Thoroughbred Club

Events Calendar

<< Previous Month **July 2014** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 Surfside Satellite Wagering Horse Racing	3 Surfside Satellite Wagering Horse Racing	4 Surfside Satellite Wagering Horse Racing	5 Surfside Satellite Wagering Horse Racing
6 Surfside Satellite Wagering Horse Racing	7 Bingo Del Mar	8	9 Surfside Satellite Wagering Horse Racing	10 Surfside Satellite Wagering Horse Racing	11 Surfside Satellite Wagering Horse Racing	12 Crossroads of the West Gun Show Surfside Satellite Wagering Horse Racing
13 Crossroads of the West Gun Show Surfside Satellite Wagering Horse Racing	14 Bingo Del Mar	15	16	17 Del Mar Horse Racing Live Meet	18 Del Mar Horse Racing Live Meet	19 Del Mar Horse Racing Live Meet
20 Del Mar Horse Racing Live Meet	21 Bingo Del Mar	22	23 Del Mar Horse Racing Live Meet	24 Del Mar Horse Racing Live Meet	25 Del Mar Horse Racing Live Meet	26 Del Mar Horse Racing Live Meet
27 Del Mar Horse Racing Live Meet	28 Bingo Del Mar	29	30 Del Mar Horse Racing Live Meet	31 Del Mar Horse Racing Live Meet		

- Del Mar National Horse Show
- San Diego County Fair
- The Scream Zone
- Holiday of Lights
- Surfside Race Place
- Del Mar Thoroughbred Club

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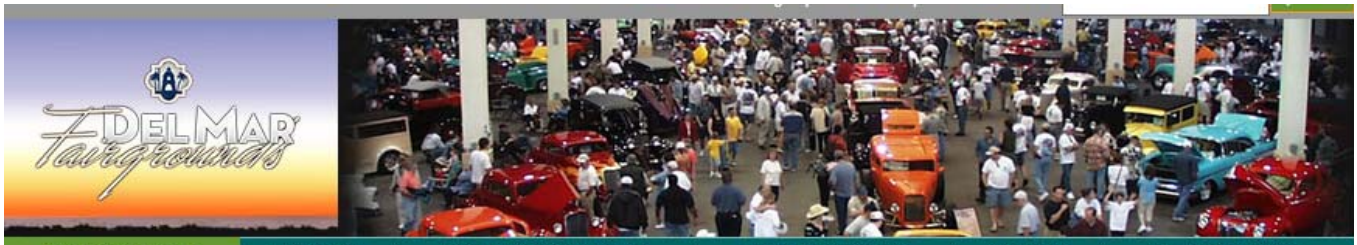
Events Calendar

<< Previous Month **November 2014** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Breeders' Cup Horse Race Surfside Race Place Satellite Wagering Horse Racing The Scream Zone
2 Bingo Del Mar Surfside Race Place Satellite Wagering Horse Racing	3	4	5	6	7 Del Mar Horse Racing Live Meet Diamond Jubilee County Horse Show Seasons of the Heart Craft, Decor, and Gift Faire	8 Del Mar Horse Racing Live Meet Diamond Jubilee County Horse Show Seasons of the Heart Craft, Decor, and Gift Faire
9 Bingo Del Mar Del Mar Horse Racing Live Meet Diamond Jubilee County Horse Show Seasons of the Heart Craft, Decor, and Gift Faire	10	11	12	13 Del Mar Horse Racing Live Meet	14 Del Mar Horse Racing Live Meet SnowJam Ski & Snowboard Expo	15 Del Mar Horse Racing Live Meet SnowJam Ski & Snowboard Expo
16 Del Mar Bingo Del Mar Horse Racing Live Meet SnowJam Ski & Snowboard Expo	17	18	19	20 Del Mar Horse Racing Live Meet	21 Del Mar Horse Racing Live Meet Susan G. Komen San Diego 3-Day The Del Mar Antique Show	22 Del Mar Horse Racing Live Meet Susan G. Komen San Diego 3-Day The Del Mar Antique Show



EVENTS CALENDAR | FACILITIES | SAN DIEGO COUNTY FAIR | MAPS & DIRECTIONS | ABOUT US | VACATION PLANNER

Del Mar National Horse Show

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Events Calendar

<< Previous Month **February 2015** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
22 Bingo Del Mar Silver Bay Kennel Club Dog Show Surfside Race Place Satellite Wagering Horse Racing The Marvel Experience - Extended one more week	23	24 California Bar Examination The Marvel Experience - Extended one more week	25 California Bar Examination Surfside Race Place Satellite Wagering Horse Racing The Marvel Experience - Extended one more week	26 California Bar Examination Show Me the Money Qtr Horse Surfside Race Place Satellite Wagering Horse Racing The Marvel Experience - Extended one more week	27 Show Me the Money Qtr Horse Surfside Race Place Satellite Wagering Horse Racing The Marvel Experience - Extended one more week	28 2015 San Diego Pet Expo Show Me the Money Qtr Horse Surfside Race Place Satellite Wagering Horse Racing The Marvel Experience - Extended one more week

Del Mar National Horse Show
San Diego County Fair
The Scream Zone
Holiday of Lights
Surfside Race Place
Del Mar Thoroughbred Club

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Events Calendar

<< Previous Month **March 2015** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 Bingo Del Mar Show Me the Money Qtr Horse Surfside Race Place Satellite Wagering Horse Racing The Marvel Experience - Extended one more week	2	3	4 Surfside Race Place Satellite Wagering Horse Racing	5 Surfside Race Place Satellite Wagering Horse Racing	6 Dressage Affaire Gem Faire Spring Home/Garden Show Surfside Race Place Satellite Wagering Horse Racing	7 28th Annual Koi Show Dressage Affaire Flat Track Motorcycle Racing Gem Faire Spring Home/Garden Show Surfside Race Place Satellite Wagering Horse Racing

EVENTS CALENDAR | FACILITIES | SAN DIEGO COUNTY FAIR | MAPS & DIRECTIONS | ABOUT US | VACATION PLANNER

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- Del Mar National Horse Show
- San Diego County Fair
- The Scream Zone
- Holiday of Lights
- Surfside Race Place
- Del Mar Thoroughbred Club

Events Calendar

<< Previous Month **June 2015** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Surfside Race Place Satellite Wagering Horse Racing	2 Surfside Race Place Satellite Wagering Horse Racing	3 Surfside Race Place Satellite Wagering Horse Racing	4 Surfside Race Place Satellite Wagering Horse Racing	5 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	6 Belmont Stakes Horse Race San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing
7 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	8	9	10 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	11 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	12 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	13 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing
14 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	15	16	17 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	18 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	19 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	20 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing
21 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	22	23 San Diego County Fair	24 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	25 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	26 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	27 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing
28 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	29	30 San Diego County Fair				

EVENTS CALENDAR | FACILITIES | SAN DIEGO COUNTY FAIR | MAPS & DIRECTIONS | ABOUT US | VACATION PLANNER

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- Del Mar National Horse Show
- San Diego County Fair
- The Scream Zone
- Holiday of Lights
- Surfside Race Place
- Del Mar Thoroughbred Club

Events Calendar

<< Previous Month **July 2015** Next Month >>

Events Categories: Show All

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	2 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	3 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	4 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing
5 San Diego County Fair Surfside Race Place Satellite Wagering Horse Racing	6 Surfside Race Place Satellite Wagering Horse Racing	7 Surfside Race Place Satellite Wagering Horse Racing	8 Surfside Race Place Satellite Wagering Horse Racing	9 Surfside Race Place Satellite Wagering Horse Racing	10 Surfside Race Place Satellite Wagering Horse Racing	11 Crossroads of the West Gun Show Surfside Race Place Satellite Wagering Horse Racing
12 Crossroads of the West Gun Show Surfside Race Place Satellite Wagering Horse Racing	13	14 Showpark Summer Festival Horse Show	15 Showpark Summer Festival Horse Show	16 Del Mar Horse Racing Live Meet Showpark Summer Festival Horse Show	17 Del Mar Horse Racing Live Meet Showpark Summer Festival Horse Show	18 Del Mar Horse Racing Live Meet Showpark Summer Festival Horse Show
19 Del Mar Horse Racing Live Meet Showpark Summer Festival Horse Show	20 Showpark Racing Festival Horse Show	21 Showpark Racing Festival Horse Show	22 Del Mar Horse Racing Live Meet Showpark Racing Festival Horse Show	23 Del Mar Horse Racing Live Meet Showpark Racing Festival Horse Show	24 Del Mar Horse Racing Live Meet Showpark Racing Festival Horse Show	25 Del Mar Horse Racing Live Meet Showpark Racing Festival Horse Show
26 Del Mar Horse Racing Live Meet Showpark Racing Festival Horse Show	27	28 Showpark August Festival Horse Show	29 Del Mar Horse Racing Live Meet Showpark August Festival Horse Show	30 Del Mar Horse Racing Live Meet Showpark August Festival Horse Show	31 Del Mar Horse Racing Live Meet Showpark August Festival Horse Show	

ATTACHMENT C

ITE TRIP RATES

Land Use: 254
Assisted Living

Description

Assisted living complexes are residential settings that provide either routine general protective oversight or assistance with activities necessary for independent living to mentally or physically limited persons. They commonly have separate living quarters for residents, and services include dining, housekeeping, social and physical activities, medication administration and transportation. Alzheimer's and ALS care are commonly offered by these facilities, though the living quarters for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and nursing homes. In some areas of the country, assisted living residences may be called personal care, residential care, or domiciliary care. Staff may be available at an assisted care facility 24 hours a day, but skilled medical care—which is limited in nature—is not required. Continuing care retirement community (Land Use 255) and nursing home (Land Use 620) are related uses.

Additional Data

The rooms in these facilities may be private or shared accommodations, consisting of either a single room or a small apartment-style unit with a kitchenette and living space.

One study reported that according to national and local data, less than 5 percent of the residents owned cars, which were rarely driven. Employees, visitors and delivery trucks make most of the trips to these facilities.

Truck traffic was captured for some studies in this land use and is presented in the following table. Although truck traffic was very low overall, most trips occurred during the mid-day period on a weekday.

The peak hour of the generator did not coincide with the peak hour of the adjacent street traffic for several sites included in this land use, primarily because of the shifts of the employees. For the data collected at those sites, shifts typically began at 7:00 a.m., 3:00 p.m. and 11:00 p.m. For all sites, the A.M. peak hour of the generator typically ranged from 6:00 a.m. to 9:00 a.m., while the P.M. peak hour of the generator typically ranged from 3:00 p.m. and 5:00 p.m.

Assisted Living
(254)

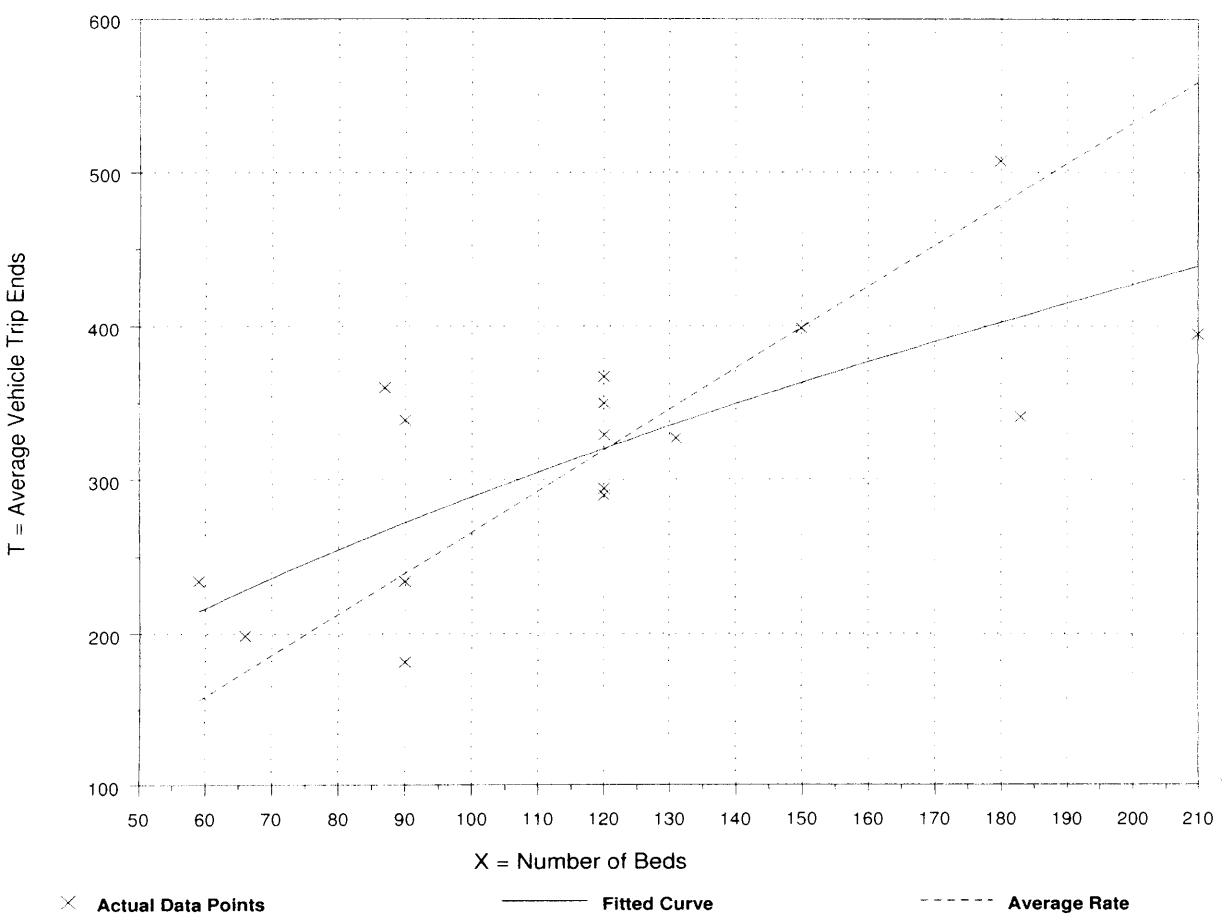
Average Vehicle Trip Ends vs: Beds
On a: Weekday

Number of Studies: 16
Average Number of Beds: 121
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
2.66	1.86 - 4.14	1.74

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.56 Ln(X) + 3.07

R^2 = 0.55

Assisted Living
(254)

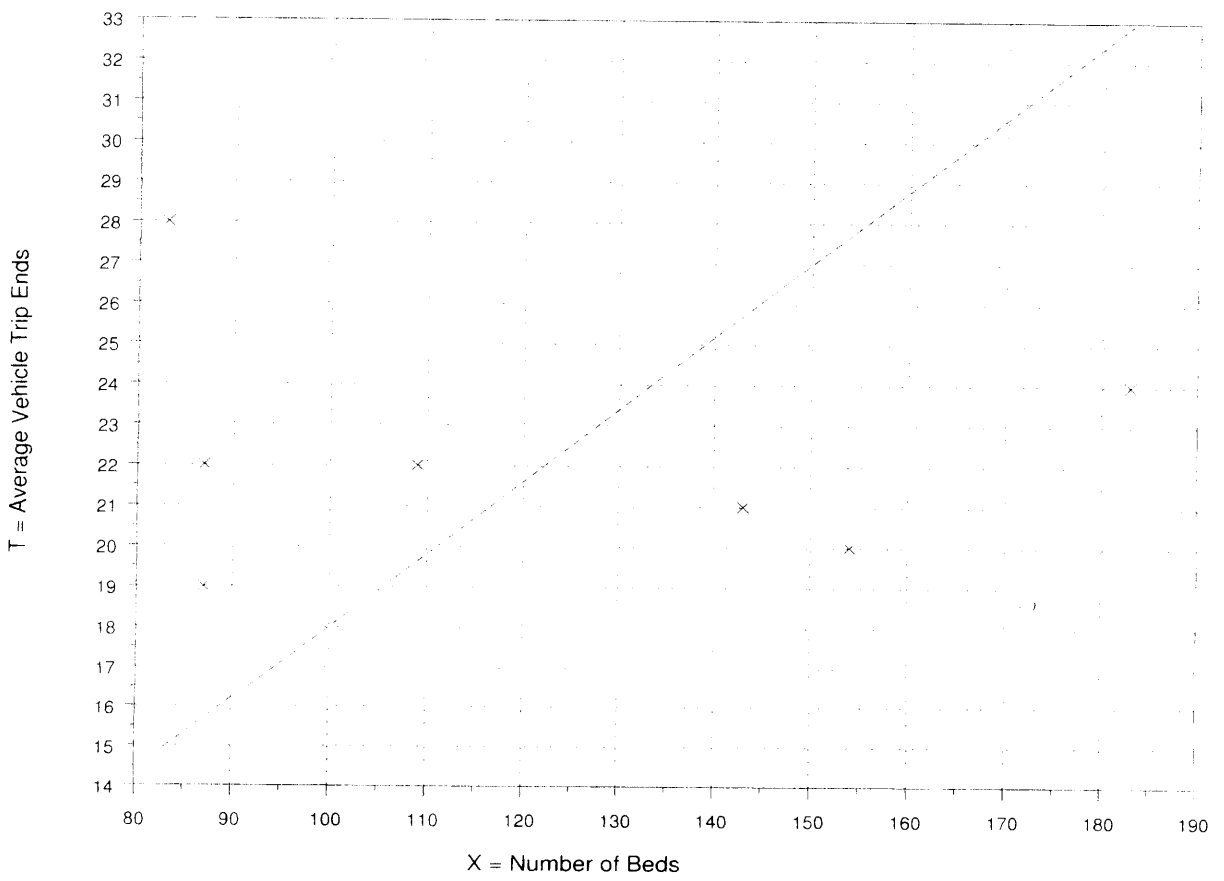
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
A.M. Peak Hour of Generator

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 67% entering, 33% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.18	0.13 - 0.34	0.43

Data Plot and Equation



Fitted Curve Equation: Not given

R^2 = ****

Assisted Living
(254)

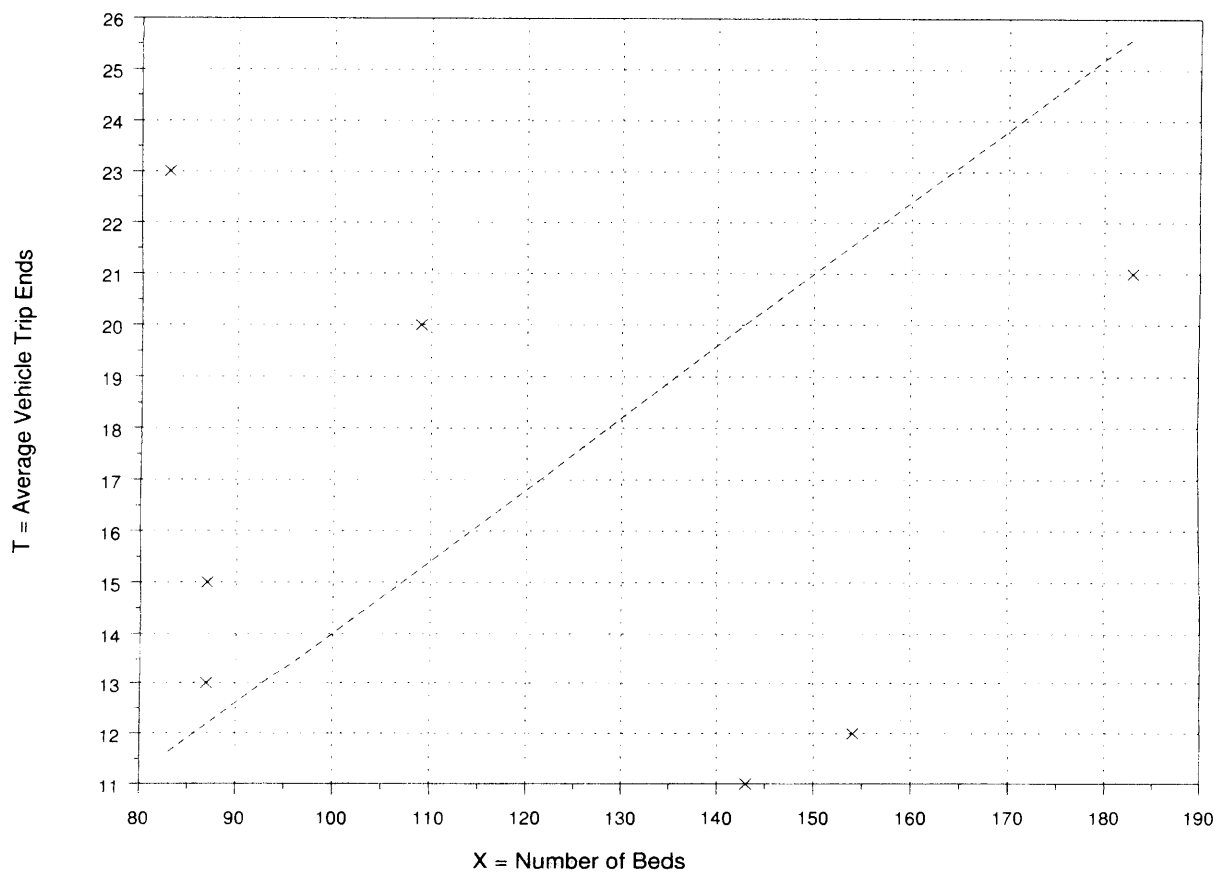
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 65% entering, 35% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.14	0.08 - 0.28	0.37

Data Plot and Equation



× Actual Data Points

------ Average Rate

Fitted Curve Equation: Not given

R^2 = ****

Assisted Living
(254)

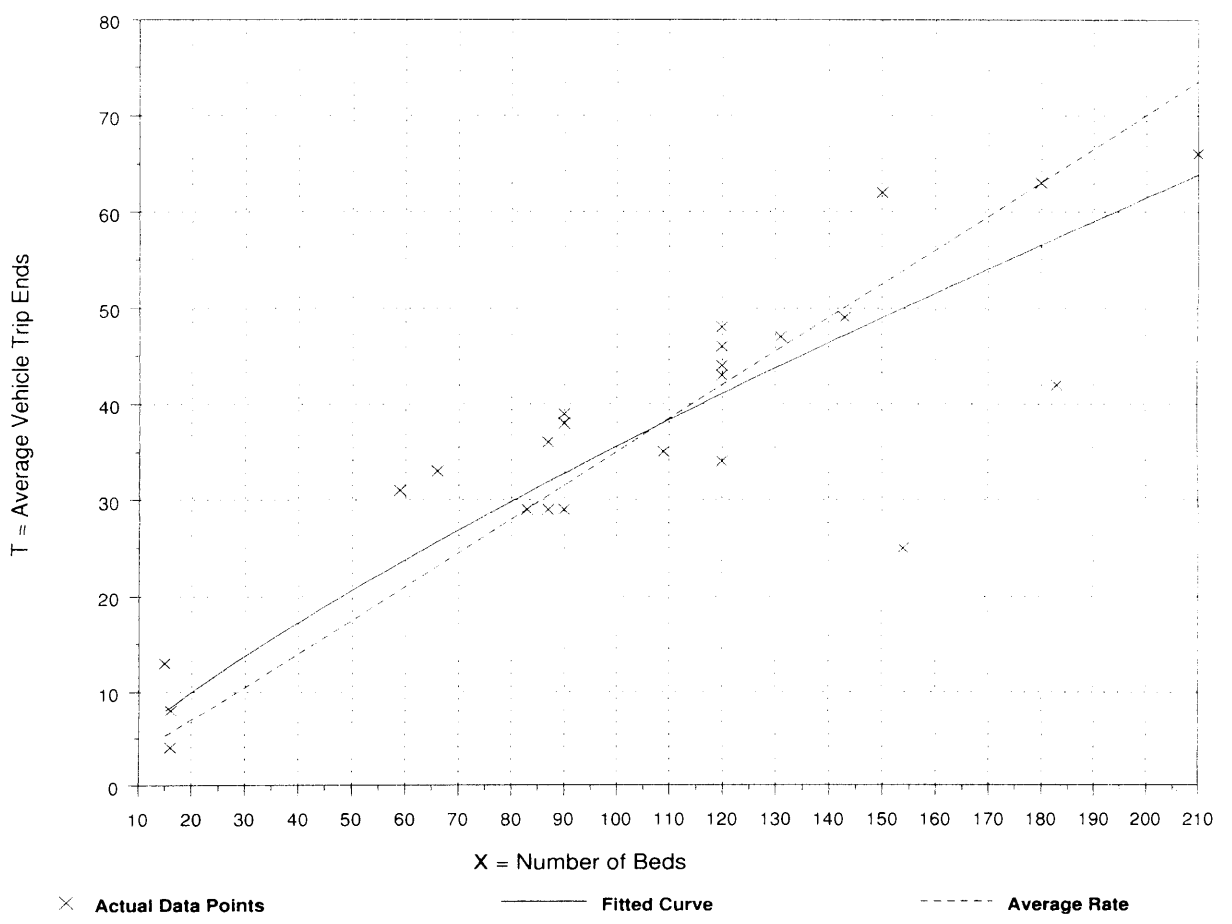
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
P.M. Peak Hour of Generator

Number of Studies: 24
Average Number of Beds: 107
Directional Distribution: 47% entering, 53% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.35	0.16 - 0.87	0.59

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.79 Ln(X) - 0.06 **R^2 = 0.82**

Assisted Living
(254)

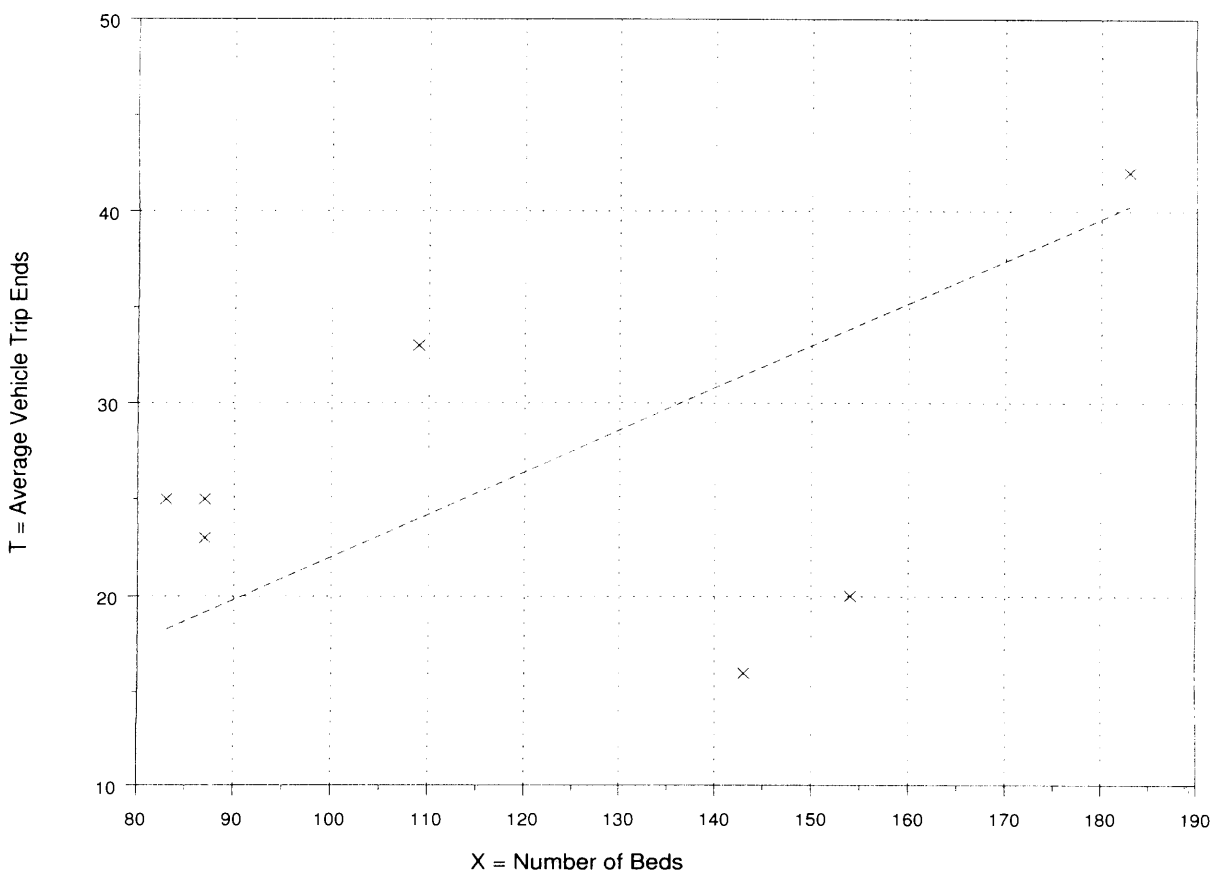
Average Vehicle Trip Ends vs: Beds
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 7
Average Number of Beds: 121
Directional Distribution: 44% entering, 56% exiting

Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.22	0.11 - 0.30	0.47

Data Plot and Equation



× **Actual Data Points**

------ **Average Rate**

Fitted Curve Equation: Not given

R^2 = ****

ATTACHMENT D

SANTEC GUIDELINE EXCERPTS

SANTEC / ITE GUIDELINES FOR TRAFFIC IMPACT STUDIES [TIS] IN THE SAN DIEGO REGION

MARCH 2, 2000 FINAL DRAFT

PREFACE

These guidelines are subject to continual update, as future technology and documentation become available. Always check with local jurisdictions for their preferred or applicable procedures.

Committee Compilation by Kent A. Whitson

Reviewed by committee members: Hank Morris (co-chair), Tom Parry (co-chair), Arnold Torma (co-chair), Susan O'Rourke, Bill Darnell, Labib Qasem, John Boarman, Ralph Leyva, and Erik Ruehr

Additional review by: Ann French Gonsalves, Bill Figge, Bob Goralka, and Gary Halbert

LOS objectives. For example, the Regional Growth Management Strategy for San Diego has a level-of-service objective of "D;" while the Congestion Management Program has established a minimum level-of-service of "E", or "F" if that is the existing 1990 base year LOS. In other words, if the existing LOS is "D" or worse, preservation of the existing LOS must be maintained or acceptable mitigation must be identified.

These guidelines do not establish a legal standard for these functions, but are intended to supplement any individual TIS manuals or level-of-service objectives for the various jurisdictions. These guidelines attempt to consolidate regional efforts to identify when a TIS is needed, what professional procedures should be followed, and what constitutes a significant traffic impact.

The instructions outlined in these guidelines are subject to update as future conditions and experience become available. Special situations may call for variation from these guidelines. Caltrans and lead agencies should agree on the specific methods used in traffic impact studies involving any State Route facilities, including metered and unmetered freeway ramps.

IV. NEED FOR A STUDY

A TIS should be prepared for all projects which generate traffic greater than 1,000 total average daily trips (ADT) or 100 peak-hour trips. If a proposed project is not in conformance with the land use and/or transportation element of the general or community plan, use threshold rates of 500 ADT or 50 peak-hour trips. Early consultation with any affected jurisdictions is strongly encouraged since a "focused" or "abbreviated" TIS may still be required – even if the above threshold rates are not met.

Currently, a Congestion Management Program (CMP) analysis is required for all large projects, which are defined as generating 2,400 or more average daily trips or 200 or more peak-hour trips. This size of study would usually include computerized long-range forecasts and select zone assignments. Please refer to the following flow chart (Figure 1) for TIS requirements.

The geographic area examined in the TIS must include the following:

- All local roadway segments (including all State surface routes), intersections, and mainline freeway locations where the proposed project will add 50 or more peak-hour trips in either direction to the existing roadway traffic.

- All freeway entrance and exit ramps where the proposed project will add a significant number of peak-hour trips to cause any traffic queues to exceed ramp storage capacities (see Figure 1). (NOTE: Care must be taken to include <u>other</u> ramps and intersections that may receive project traffic <u>diverted</u> as a result of already existing, or project causing congestion at freeway entrances and exits.)

ATTACHMENT E

CITY OF SOLANA BEACH *CIRCULATION ELEMENT* EXCERPTS

Current through Resolution 2006-27, passed August 24, 2006, and Ordinance 326, passed July 13, 2004.

Disclaimer: The City Clerk's Office has the official version of the Solana Beach General Plan. Users should contact the City Clerk's Office for ordinances and resolutions passed subsequent to the ordinance and resolution cited above.

Circulation Element located under the General Plan at the following link:

http://www.codepublishing.com/ca/SolanaBeach.html

CIRCULATION ELEMENT

1.0 Introduction

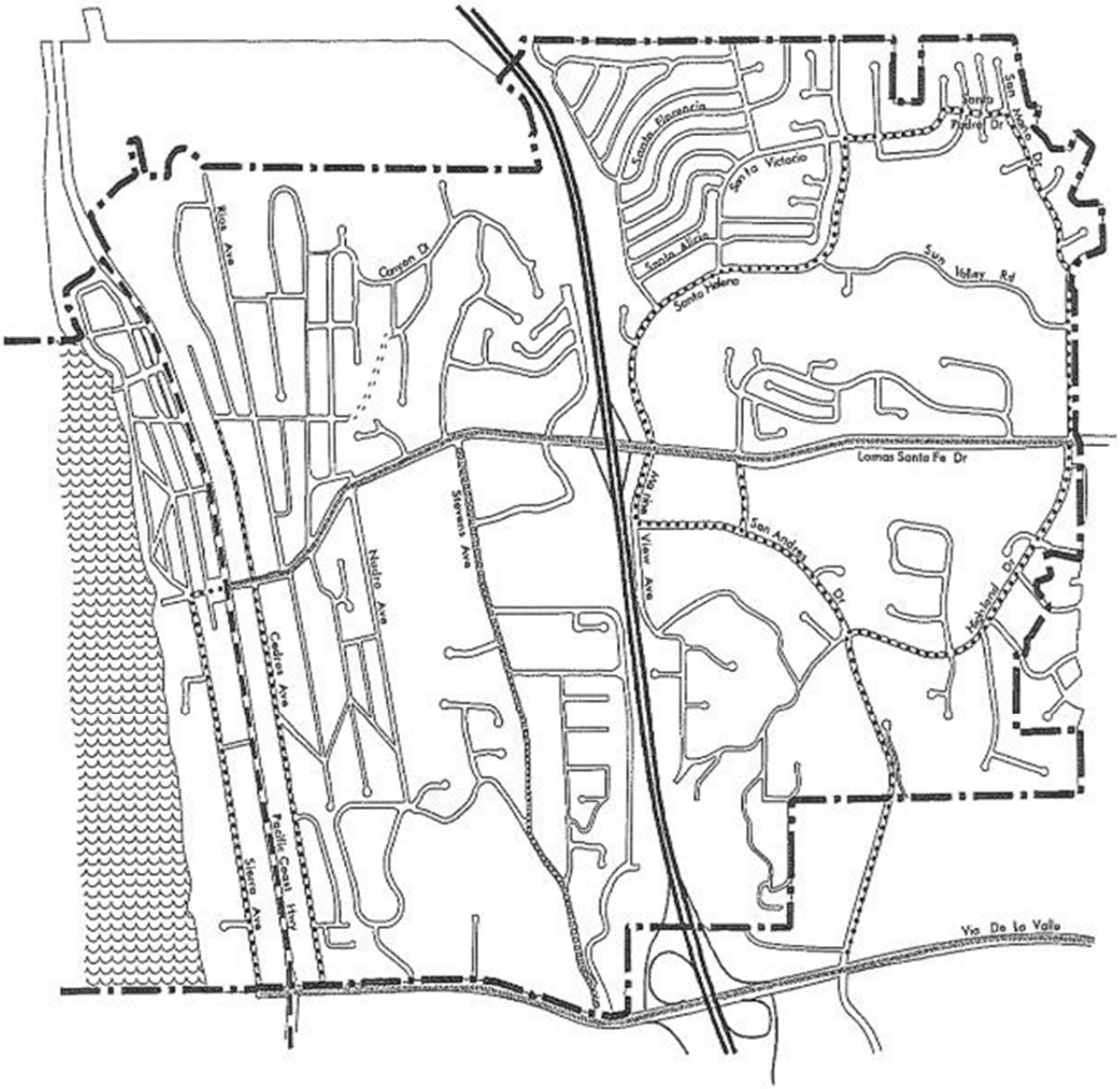
The City of Solana Beach Circulation Element has been developed in response to issues raised and goals, policies, and objectives established by the consultant team and General Plan Advisory Committee. It is intended to provide a balanced circulation system that will provide adequate capacity to support the travel demands of the land uses included in the Land Use Element while at the same time maintaining an acceptable quality of life for the residents of Solana Beach.

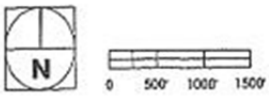
[content removed – please see web link above for content]

4.0 The Circulation Plan

4.1 Relationship to Land Use and Environment

The circulation plan proposed for Solana Beach has been developed to provide adequate capacity to accommodate the travel demands of the Land Use Element as well as to preserve the quality of life in Solana Beach. Exhibit 4 illustrates the proposed circulation plan.





Freeway
Scenic Highway
Major Arterial
Collector
Collector - Commercial
Local
Proposed Local

Exhibit 4
Circulation Plan

4.1.1 Major Plan Features

The major plan features recommended by the General Plan Advisory Committee and the consultant team and reflected on Exhibit 4 include the following:

◆ Identification of several north-south roadways as Collector facilities, including Stevens Avenue/Valley Avenue, Cedros Avenue, Sierra Avenue (between Plaza Street and Via De La Valle), San Andres Drive, Highland Drive, and Santa Helena.

◆ Designation of Highway 101 as a Scenic Highway.

4.1.2 Functional Classification

The functional classification of a roadway is intended to establish its function or role in the overall circulation system. It establishes the hierarchy of streets in terms of their purpose in relation to movement of through traffic versus provision of access to adjacent land uses.

The hierarchy of roadway classifications ranges from freeways (with full control of access, grade-separated interchanges, high speed-high volume traffic, emphasis on longer-distance and intercity travel) to local streets/cur-de-sacs (with unlimited access to fronting properties, low speed-low volume traffic, emphasis on multi-purpose use of the paved street section for travel, parking, pedestrian, and bicycle activity).

Collector roadways vary in width from 50 foot right-of-way to 84 foot right-of-way. Major arterial roadways have a raised median within 102 foot right-of-way.

The following road classifications and functional characteristics have been designated in the Solana Beach Circulation Element (Exhibit 4).

Scenic Highway

◆ A route with unique or special aesthetic and visual resources which should be protected and upgraded through sensitive highway design and the regulation of development within the scenic corridor.

◆ A route which provides a pleasant driving environment and community enhancement.

◆ Striped for one or two lanes in each direction with at least partial control of access and at least partial restriction of on-street parking.

Highway 101 is classified as a state-designated scenic highway in the Solana Beach Circulation Element.

Major Arterial

◆ A four lane arterial highway with access limitations, divided by a raised or striped median.

◆ As a type of intercity or community facility, highways are expected to carry the majority of traffic between Solana Beach, adjacent communities, and the freeway system.

◆ Striped for two lanes in each direction, with shoulders and medians where right-of-way permits, and left-turn lanes at intersections.

◆ Maximum capacity of 38,000 vehicles per day (assumes 10 percent peak hour, 60/40 directional split, 1,200 vehicles per hour per lane).

Designated major arterials in the Solana Beach Circulation Element include:

◆ Lomas Santa Fe Drive between Highway 101 and Highland Drive.

◆ Via De La Valle between Highway 101 and east City boundary.

Collector

◆ A two-lane to four-lane undivided road with intersections at grade and partial control of access.

◆ Collectors can serve as a secondary type of highway to provide routes for locally-generated traffic to connect to the major arterial system network, but primarily serve as access routes for local residents to reach activity areas in the city. Collectors may also provide direct access to residential properties.

◆ Striped for one lane to two lanes in each direction, with curb parking, and left-turn lanes at major intersections.

◆ Design capacity of 10,000 vehicles per day (determined not by the physical capacity of the road segment, but rather by the desirability of maintaining an acceptable level of traffic on these facilities which may be bordered by fronting land uses).

Designated collectors in the Solana Beach Circulation Element include:

◆ Sierra Avenue between Plaza Street and Via De La Valle.
◆ Cedros Avenue between Via De La Valle and Cliff Street.
◆ Stevens Avenue between Lomas Santa Fe Drive and Valley Avenue (collector-commercial).
◆ Valley Avenue between Stevens Avenue and Via De La Valle (collector-commercial).
◆ San Andres Drive between Marine View Avenue and south City boundary.
◆ Marine View Avenue between Lomas Santa Fe Drive and San Andres Drive.
◆ Santa Helena between Lomas Santa Fe Drive and Santa Victoria.
◆ Santa Victoria between Santa Helena West and Santa Petra Drive.
◆ Santa Petra Drive between Santa Helena and San Mario Drive.
◆ San Mario Drive between Santa Petra Drive and Highland Drive.
◆ Highland Drive between San Andres Drive and east City boundary.
◆ Las Banderas Drive between Lomas Santa Fe Drive and San Andres Drive.

Local

◆ Two-lane undivided roads with at-grade intersections and frequent driveway access.

◆ Local roads are intended to provide access to adjacent residential land uses and to feed traffic to collectors and other roads of higher classification.

◆ Provide one lane in each direction, with curb parking, but not provided with centerline stripe.

◆ **Design capacity of 2,000 vehicles per day determined not by the physical capacity of the road but rather the acceptable level of traffic which will not affect the quality of life in residential areas.**

The remainder of the street. in the Solana Beach circulation system, not mentioned above, are classified as local streets.

Appendix 5.12-2 Emergency Calls Statistics

Appendices

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THE LIGHTFOOT PLANNING GROUP

MEMORANDUM

TO: **Leslea Meyerhoff** **EMAIL:** leslea.meyerhoff@att.net

FROM: Kelly Kanaster **TOTAL PAGES:** 33

DATE: August 31, 2018 **JOB:** Solana Beach Senior

RE: Traffic Analysis- Emergency Calls and Nearby Schools

The City of Solana Beach asked for research into additional traffic considerations for the Solana Beach Seniors project and the surrounding area. Following are the items for review:

1. Emergency Service Calls Study - Research into frequency of emergency calls to La Vida Del Mar Assisted Living, located in Solana Beach.

2. Analysis of Schools Nearby - Research into the number of students, student ages, and how they arrive to schools.

5900 Pasteur Court
Suite 110
Carlsbad, CA 92008
(760) 692-1924
lightfootpg.com

RM
RhodesMoore LLC

To: The City of Solana Beach

Subject: Analysis of Calls for Service to La Vida Del Mar Assisted Living Facility

One of the concerns for traffic and neighborhood impacts is the frequency of emergency calls to the care facility proposed for Genevieve Drive in Solana Beach. We contacted several assisted living facility operators to get estimates of the frequency of calls for service (ambulance calls) to their facilities. We also looked at data for the only other assisted living facility in Solana Beach. We found that the estimates and data for the current facility in Solana Beach indicate a frequency of 1.5 to 2 calls per week for a facility in the size range proposed for Genevieve.

The following is a simple analysis of the frequency of calls for service at La Vida Del Mar, an assisted living facility located at 850 Del Mar Downs Rd. in Solana Beach. This analysis is based on the call logs from the Solana Beach Fire Department provided to RhodesMoore. The analysis is for the five years from 2013-2017 for which we have a complete year's data. La Vida Del Mar has 110 beds as compared to 94 beds for the facility proposed for Genevieve in Solana Beach.

For the analysis, the total calls for service were totaled for each year and then divided by 52 weeks to get an average call per week for each year. Then an average across all five years was calculated. The average ranged from a high of 2.04 in 2013 to a low of 1.46 on 2017. These number are similar to the estimates that were given by Benchmark (3 current facilities in San Diego County), Frontier Management (78 current facilities nationwide) and Formation Capital (approx. 50 facilities nationwide) that were reported in the range of 1.5 to 2 per week.

The totals are listed below, and the raw data is provided in exhibit A:

RM
RhodesMoore LLC

Summary of Calls for Service at La Vida Del Mar

Year	Total Count	Ave. Calls/Week
2013	106	2.04
2014	97	1.87
2015	82	1.58
2016	83	1.60
2017	76	1.46
Average	**88.8**	**1.71**

RM

RhodesMoore LLC

Exhibit A

Call for Service Logs for La Vida Dal Mar

850 Del Mar Downs Road

EXHIBIT A

Incident Listing

Solana Beach Fire Department

Saturday January 1, 2000 through Wednesday March 28, 2018
Location contains "850 del mar downs"

Solana Beach Fire Department (No Filter)

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000003	000	01/01/2000 14:56:23	321	N	850 Del Mar Downs Rd	X	X	
0000029	000	01/11/2000 08:07:34	321	N	850 Del Mar Downs Rd	X	X	
0000046	000	01/15/2000 12:52:58	321	N	850 Del Mar Downs Rd	X	X	
0000069	000	01/19/2000 17:59:59	554	N	850 Del Mar Downs Rd	X	X	
0000142	000	02/09/2000 16:09:36	320	N	850 Del Mar Downs Rd	X	X	
0000157	000	02/13/2000 00:30:42	321	N	850 Del Mar Downs Rd	X	X	
0000286	000	03/26/2000 07:27:38	311	N	850 Del Mar Downs Rd	X	X	
0000293	000	03/28/2000 20:11:37	321	N	850 Del Mar Downs Rd	X	X	
0000311	000	04/02/2000 09:41:04	321	N	850 Del Mar Downs Rd	X	X	
0000447	000	05/20/2000 01:23:19	321	N	850 Del Mar Downs Rd	X	X	
0000466	000	05/24/2000 16:40:28	321	N	In front of 850 Del Mar Downs Rd	X	X	
0000520	000	06/08/2000 00:16:55	320	N	850 Del Mar Downs Rd	X	X	
0000535	000	06/13/2000 21:08:34	321	N	850 Del Mar Downs Rd	X	X	
0000595	000	06/29/2000 13:33:18	321	N	850 Del Mar Downs Rd	X	X	
0000605	000	07/01/2000 19:46:55	311	N	850 Del Mar Downs Rd	X	X	
0000610	000	07/03/2000 16:38:40	321	N	850 Del Mar Downs Rd	X	X	
0000613	000	07/04/2000 08:44:22	321	N	850 Del Mar Downs Rd	X	X	
0000647	000	07/14/2000 09:04:26	311	N	850 Del Mar Downs Rd	X	X	
0000691	000	07/27/2000 22:23:37	311	N	850 Del Mar Downs Rd	X	X	
0000698	000	07/30/2000 14:29:39	311	N	850 Del Mar Downs Rd	X	X	
0000720	000	08/05/2000 16:31:21	311	N	850 Del Mar Downs Rd	X	X	
0000735	000	08/10/2000 07:30:54	321	N	850 Del Mar Downs Rd	X	X	
0000809	000	08/28/2000 12:33:55	321	N	850 Del Mar Downs Rd	X	X	
0000829	000	08/31/2000 15:41:01	321	N	850 Del Mar Downs Rd	X	X	
0000845	000	09/04/2000 17:05:24	311	N	850 Del Mar Downs Rd	X	X	
0000888	000	09/14/2000 16:46:57	321	N	850 Del Mar Downs Rd	X	X	
0001016	000	10/19/2000 18:50:00	320	N	850 Del Mar Downs Rd	X	X	
0001097	000	11/11/2000 14:01:15	311	N	850 Del Mar Downs Rd	X	X	
0001164	000	12/03/2000 08:26:47	321	N	850 Del Mar Downs Rd	X	X	
0000040	000	01/11/2001 07:30:17	311	N	850 Del Mar Downs Rd	X	X	
0000051	000	01/16/2001 07:57:57	745	N	850 Del Mar Downs Rd	X	X	
0000093	000	01/29/2001 16:45:16	321	N	850 Del Mar Downs Rd	X	X	
0000107	000	02/01/2001 07:14:24	311	N	850 Del Mar Downs Rd	X	X	

Printed March 28, 2018

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000159	000	02/20/2001 07:06:38	321	N	850 Del Mar Downs Rd	X	X	
0000166	000	02/22/2001 18:49:33	321	N	850 Del Mar Downs Rd	X	X	
0000211	000	03/10/2001 17:43:57	321	N	850 Del Mar Downs Rd	X	X	
0000217	000	03/12/2001 17:58:18	321	N	850 Del Mar Downs Rd	X	X	
0000218	000	03/12/2001 18:05:40	321	N	850 Del Mar Downs Rd	X	X	
0000232	000	03/15/2001 02:11:33	321	N	850 Del Mar Downs Rd	X	X	
0000266	000	03/27/2001 02:22:00	311	N	850 Del Mar Downs Rd	X	X	
0000286	000	04/02/2001 12:05:15	321	N	850 Del Mar Downs Rd	X	X	
0000338	000	04/15/2001 07:39:14	321	N	850 Del Mar Downs Rd	X	X	
0000375	000	04/28/2001 11:33:56	320	N	850 Del Mar Downs Rd	X	X	
0000376	000	04/29/2001 07:42:33	UUU	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000414	000	05/13/2001 08:28:44	321	N	850 Del Mar Downs Rd	X	X	
0000449	000	05/26/2001 14:30:39	311	N	850 Del Mar Downs Rd	X	X	
0000460	000	05/31/2001 07:02:56	321	N	850 Del Mar Downs Rd	X	X	
0000505	000	06/14/2001 21:00:18	320	N	850 Del Mar Downs Rd	X	X	
0000633	000	07/21/2001 16:10:50	733	N	850 Del Mar Downs Rd	X	X	
0000638	000	07/23/2001 09:31:26	321	N	850 Del Mar Downs Rd	X	X	
0000857	000	09/23/2001 13:59:05	311	N	850 Del Mar Downs Rd	X	X	
0000876	000	10/01/2001 17:12:32	321	N	850 Del Mar Downs Rd	X	X	
0000880	000	10/03/2001 15:23:51	321	N	850 Del Mar Downs Rd	X	X	
0000895	000	10/09/2001 19:15:50	321	N	850 Del Mar Downs Rd	X	X	
0000917	000	10/15/2001 10:46:42	311	N	850 Del Mar Downs Rd	X	X	
0000968	000	10/23/2001 19:27:32	321	N	850 Del Mar Downs Rd	X	X	
0000984	000	10/29/2001 23:02:17	321	N	850 Del Mar Downs Rd	X	X	
0001044	000	11/18/2001 10:53:25	311	N	850 Del Mar Downs Rd	X	X	
0001061	000	11/22/2001 12:14:23	311	N	850 Del Mar Downs Rd	X	X	
0001074	000	11/25/2001 10:51:57	311	N	850 Del Mar Downs Rd	X	X	
0001123	000	12/10/2001 20:49:09	900	N	850 Del Mar Downs Rd	X	X	
0001125	000	12/11/2001 13:17:23	321	N	850 Del Mar Downs Rd	X	X	
0001132	000	12/13/2001 09:16:15	311	N	850 Del Mar Downs Rd	X	X	
0001136	000	12/14/2001 05:59:10	311	N	850 Del Mar Downs Rd	X	X	
0001175	000	12/28/2001 11:30:32	311	N	850 Del Mar Downs Rd	X	X	
0000023	000	01/08/2002 04:30:25	321	N	850 Del Mar Downs Rd	X	X	
0000045	000	01/13/2002 08:35:33	311	N	850 Del Mar Downs Rd	X	X	
0000117	000	02/02/2002 18:14:22	311	N	850 Del Mar Downs Rd	X	X	
0000211	000	03/05/2002 21:35:30	321	N	850 Del Mar Downs Rd	X	X	
0000239	000	03/16/2002 17:15:31	321	N	850 Del Mar Downs Rd	X	X	
0000253	000	03/20/2002 02:07:40	321	N	850 Del Mar Downs Rd	X	X	
0000263	000	03/22/2002 14:34:32	311	N	850 Del Mar Downs Rd	X	X	
0000276	000	03/25/2002 07:17:18	311	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000336	000	04/15/2002 04:44:45	321	N	850 Del Mar Downs Rd	X	X	
0000342	000	04/16/2002 10:54:36	321	N	850 Del Mar Downs Rd	X	X	
0000398	000	05/01/2002 21:27:07	321	N	850 Del Mar Downs Rd	X	X	
0000425	000	05/09/2002 22:00:17	311	N	850 Del Mar Downs Rd	X	X	
0000456	000	05/19/2002 07:12:21	311	N	850 Del Mar Downs Rd	X	X	
0000488	000	05/31/2002 13:46:32	321	N	850 Del Mar Downs Rd	X	X	
0000593	000	07/06/2002 11:33:40	311	N	850 Del Mar Downs Rd	X	X	
0000609	000	07/11/2002 08:46:53	321	N	850 Del Mar Downs Rd	X	X	
0000677	000	07/28/2002 13:25:09	311	N	850 Del Mar Downs Rd	X	X	
0000794	000	09/03/2002 09:21:00	321	N	850 Del Mar Downs Rd	X	X	
0000814	000	09/10/2002 22:17:57	311	N	850 Del Mar Downs Rd	X	X	
0000824	000	09/13/2002 18:03:13	321	N	850 Del Mar Downs Rd	X	X	
0000834	000	09/16/2002 08:30:58	321	N	850 Del Mar Downs Rd	X	X	
0000878	000	09/30/2002 04:04:30	311	N	850 Del Mar Downs Rd	X	X	
0000935	000	10/19/2002 19:28:59	311	N	850 Del Mar Downs Rd	X	X	
0000963	000	10/29/2002 07:10:48	311	N	850 Del Mar Downs Rd	X	X	
0000971	000	11/01/2002 03:09:19	321	N	850 Del Mar Downs Rd	X	X	
0001015	000	11/15/2002 06:11:29	321	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0001015	000	11/15/2002 06:11:29	UUU	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0001022	000	11/19/2002 19:18:49	311	N	850 Del Mar Downs Rd	X	X	
0001023	000	11/21/2002 19:16:14	311	N	850 Del Mar Downs Rd	X	X	
0001084	000	12/15/2002 13:07:29	311	N	850 Del Mar Downs Rd	X	X	
0000060	000	01/25/2003 22:47:39	311	N	850 Del Mar Downs Rd	X	X	
0000061	000	01/26/2003 11:24:50	311	N	850 Del Mar Downs Rd	X	X	
0000073	000	01/31/2003 12:55:53	311	N	850 Del Mar Downs Rd	X	X	
0000111	000	02/12/2003 17:55:09	311	N	850 Del Mar Downs Rd	X	X	
0000137	000	02/22/2003 12:22:32	321	N	850 Del Mar Downs Rd	X	X	
0000166	000	03/04/2003 13:27:58	321	N	850 Del Mar Downs Rd	X	X	
0000272	000	04/12/2003 10:12:32	311	N	850 Del Mar Downs Rd	X	X	
0000286	000	04/15/2003 11:17:32	321	N	850 Del Mar Downs Rd	X	X	
0000332	000	04/26/2003 08:35:05	311	N	850 Del Mar Downs Rd	X	X	
0000333	000	04/26/2003 17:54:33	611	N	850 Del Mar Downs Rd	X	X	
0000392	000	05/17/2003 09:08:48	321	N	850 Del Mar Downs Rd	X	X	
0000402	000	05/21/2003 17:20:26	321	N	850 Del Mar Downs Rd	X	X	
0000403	000	05/22/2003 00:35:59	321	N	850 Del Mar Downs Rd	X	X	
0000424	000	05/30/2003 09:48:39	321	N	850 Del Mar Downs Rd	X	X	
0000427	000	05/30/2003 12:21:13	321	N	850 Del Mar Downs Rd	X	X	
0000450	000	06/10/2003 12:57:35	311	N	850 Del Mar Downs Rd	X	X	
0000457	000	06/12/2003 09:29:41	311	N	850 Del Mar Downs Rd	X	X	
0000458	000	06/12/2003 09:50:41	311	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000510	000	06/25/2003 19:26:15	311	N	850 Del Mar Downs Rd	X	X	
0000523	000	06/29/2003 10:12:51	321	N	850 Del Mar Downs Rd	X	X	
0000563	000	07/10/2003 22:56:32	321	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000563	000	07/10/2003 22:56:32	311	N	Duplicate: 850 Del Mar Downs Rd	X		
0000614	000	07/26/2003 07:10:44	311	N	850 Del Mar Downs Rd	X	X	
0000713	000	08/22/2003 11:35:42	321	N	850 Del Mar Downs Rd	X	X	
0000868	000	10/11/2003 12:56:42	321	N	850 Del Mar Downs Rd	X	X	
0000878	000	10/15/2003 08:25:31	321	N	850 Del Mar Downs Rd	X	X	
0000884	000	10/18/2003 11:49:45	321	N	850 Del Mar Downs Rd	X	X	
0000889	000	10/20/2003 20:50:45	321	N	850 Del Mar Downs Rd	X	X	
0000932	000	11/03/2003 07:48:09	311	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000932	000	11/03/2003 07:48:09	611	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000985	000	11/18/2003 18:22:51	321	N	850 Del Mar Downs Rd	X	X	
0001025	000	11/30/2003 09:25:44	321	N	850 Del Mar Downs Rd	X	X	
0001052	000	12/09/2003 01:12:49	311	4	850 Del Mar Downs Rd	X	X	
0001055	000	12/09/2003 13:44:50	311	N	850 Del Mar Downs Rd	X	X	
0001105	000	12/23/2003 21:57:36	554	N	850 Del Mar Downs Rd	X	X	
0001107	000	12/24/2003 13:05:36	321	N	850 Del Mar Downs Rd	X	X	
0000009	000	01/04/2004 01:42:03	321	2	850 Del Mar Downs Rd	X	X	
0000033	000	01/13/2004 14:46:42	311	4	850 Del Mar Downs Rd	X	X	
0000034	000	01/13/2004 14:54:21	311	N	850 Del Mar Downs Rd	X	X	
0000041	000	01/16/2004 01:11:40	321	N	850 Del Mar Downs Rd	X	X	
0000053	000	01/20/2004 23:08:38	611	N	850 Del Mar Downs Rd	X	X	
0000125	000	02/15/2004 09:29:20	900	N	850 Del Mar Downs Rd	X	X	
0000132	000	02/16/2004 02:25:48	321	N	850 Del Mar Downs Rd	X	X	
0000190	000	03/06/2004 09:16:13	311	N	850 Del Mar Downs Rd	X	X	
0000210	000	03/12/2004 09:18:05	900	N	850 Del Mar Downs Rd	X	X	
0000212	000	03/12/2004 13:25:12	611	N	850 Del Mar Downs Rd	X	X	
0000218	000	03/13/2004 20:27:52	321	N	850 Del Mar Downs Rd	X	X	
0000221	000	03/15/2004 17:39:03	900	N	850 Del Mar Downs Rd	X	X	
0000300	000	04/05/2004 13:22:09	311	N	850 Del Mar Downs Rd	X	X	
0000303	000	04/06/2004 13:19:20	321	N	850 Del Mar Downs Rd	X	X	
0000316	000	04/11/2004 09:51:01	311	N	850 Del Mar Downs Rd	X	X	
0000326	000	04/13/2004 08:51:38	311	N	850 Del Mar Downs Rd	X	X	
0000389	000	04/30/2004 11:58:49	321	2	850 Del Mar Downs Rd	X	X	
0000437	000	05/17/2004 06:53:40	611	4	Duplicate: 850 Del Mar Downs Rd	X	X	
0000437	000	05/17/2004 06:53:40	611	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000498	000	06/04/2004 18:05:34	611	N	850 Del Mar Downs Rd	X	X	
0000507	000	06/07/2004 09:05:52	311	N	850 Del Mar Downs Rd	X	X	
0000508	000	06/07/2004 12:14:03	311	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000511	000	06/07/2004 15:40:21	311	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000511	000	06/07/2004 15:40:21	611	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000525	000	06/12/2004 13:17:11	311	N	850 Del Mar Downs Rd	X	X	
0000557	000	06/21/2004 02:19:48	611	N	850 Del Mar Downs Rd	X	X	
0000562	000	06/23/2004 05:33:42	321	2	Duplicate: 850 Del Mar Downs Rd	X	X	
0000562	000	06/23/2004 05:33:42	900	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0000618	000	07/06/2004 12:44:53	611	N	850 Del Mar Downs Rd	X	X	
0000704	000	07/27/2004 08:56:01	611	2	850 Del Mar Downs Rd	X	X	
0000720	000	07/31/2004 09:19:30	611	N	850 Del Mar Downs Rd	X	X	
0000749	000	08/08/2004 09:18:38	321	2	850 Del Mar Downs Rd	X	X	
0000793	000	08/17/2004 17:05:30	321	2	850 Del Mar Downs Rd	X	X	
0000963	000	09/25/2004 14:35:40	900	N	850 Del Mar Downs Rd	X	X	
0001004	000	10/10/2004 07:49:44	311	N	850 Del Mar Downs Rd	X	X	
0001005	000	10/10/2004 16:55:53	311	N	850 Del Mar Downs Rd	X	X	
0001022	000	10/19/2004 06:56:35	611	N	850 Del Mar Downs Rd	X	X	
0001036	000	10/21/2004 15:07:16	611	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0001036	000	10/21/2004 15:07:16	611	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0001043	000	10/23/2004 09:15:48	321	N	850 Del Mar Downs Rd	X	X	
0001108	000	11/07/2004 13:09:34	611	N	850 Del Mar Downs Rd	X	X	
0001175	000	11/26/2004 18:53:08	311	N	850 Del Mar Downs Rd	X	X	
0001176	000	11/27/2004 08:21:45	311	N	850 Del Mar Downs Rd	X	X	
0001186	000	12/01/2004 14:38:05	611	N	850 Del Mar Downs Rd	X	X	
0001201	000	12/05/2004 03:17:17	611	N	850 Del Mar Downs Rd	X	X	
0001222	000	12/09/2004 19:10:20	611	N	850 Del Mar Downs Rd	X	X	
0001238	000	12/13/2004 12:56:19	311	N	850 Del Mar Downs Rd	X	X	
0001258	000	12/17/2004 23:55:43	611	N	850 Del Mar Downs Rd	X	X	
0001304	000	12/29/2004 02:27:45	733	N	850 Del Mar Downs Rd	X	X	
0001311	000	12/29/2004 16:48:55	311	2	850 Del Mar Downs RD	X	X	
0000015	000	01/04/2005 19:33:49	321	2	850 Del Mar Downs Rd	X	X	
0000030	000	01/09/2005 09:26:20	321	2	850 Del Mar Downs Rd	X	X	
0000059	000	01/15/2005 22:19:24	321	2	850 Del Mar Downs Rd	X	X	
0000068	000	01/17/2005 20:47:42	321	N	850 Del Mar Downs Rd	X	X	
0000070	000	01/18/2005 06:38:50	321	N	850 Del Mar Downs Rd	X	X	
0000073	000	01/20/2005 03:49:18	321	N	850 Del Mar Downs Rd	X	X	
0000162	000	02/12/2005 14:56:08	321	N	850 Del Mar Downs Rd	X	X	
0000163	000	02/12/2005 15:08:13	321	N	850 Del Mar Downs Rd	X	X	
0000226	000	03/04/2005 14:04:59	321	2	850 Del Mar Downs Rd	X	X	
0000234	000	03/05/2005 22:33:18	611	N	850 Del Mar Downs Rd	X	X	
0000238	000	03/06/2005 18:03:32	321	N	850 Del Mar Downs Rd	X	X	
0000250	000	03/11/2005 15:43:29	321	4	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000360	000	04/12/2005 04:18:24	611	N	850 Del Mar Downs Rd	X	X	
0000375	000	04/18/2005 08:53:08	611	N	850 Del Mar Downs Rd	X	X	
0000382	000	04/19/2005 06:32:21	611	N	850 Del Mar Downs Rd	X	X	
0000384	000	04/19/2005 11:16:41	611	N	850 Del Mar Downs Rd	X	X	
0000426	000	04/30/2005 19:39:12	611	N	850 Del Mar Downs Rd	X	X	
0000432	000	05/03/2005 04:50:53	611	N	850 Del Mar Downs Rd	X	X	
0000438	000	05/04/2005 21:12:11	611	N	850 Del Mar Downs Rd	X	X	
0000452	000	05/07/2005 19:49:26	311	N	850 Del Mar Downs Rd	X	X	
0000549	000	05/29/2005 17:07:16	611	4	850 Del Mar Downs Rd	X	X	
0000557	000	05/31/2005 08:11:17	611	2	850 Del Mar Downs Rd	X	X	
0000597	000	06/12/2005 11:43:09	611	N	850 Del Mar Downs Rd	X	X	
0000612	000	06/16/2005 04:53:27	321	2	850 Del Mar Downs Rd	X	X	
0000651	000	06/29/2005 10:40:23	611	N	850 Del Mar Downs Rd	X	X	
0000655	000	07/01/2005 07:33:50	321	2	850 Del Mar Downs Rd	X	X	
0000665	000	07/02/2005 17:35:15	611	2	850 Del Mar Downs Rd	X	X	
0000699	000	07/10/2005 14:32:45	611	N	850 Del Mar Downs Rd	X	X	
0000701	000	07/11/2005 07:57:14	321	2	850 Del Mar Downs Rd	X	X	
0000710	000	07/12/2005 21:10:34	611	4	850 Del Mar Downs Rd	X	X	
0000766	000	07/27/2005 08:30:40	611	2	850 Del Mar Downs Rd	X	X	
0000803	000	08/06/2005 07:15:18	321	2	850 Del Mar Downs Rd	X	X	
0000833	000	08/12/2005 21:36:12	311	N	850 Del Mar Downs Rd	X	X	
0000863	000	08/19/2005 17:26:32	311	N	850 Del Mar Downs Rd	X	X	
0000869	000	08/21/2005 09:05:07	611	N	850 Del Mar Downs Rd	X	X	
0000899	000	08/27/2005 09:20:04	611	N	850 Del Mar Downs Rd	X	X	
0000924	000	09/03/2005 22:20:21	611	N	850 Del Mar Downs Rd	X	X	
0000927	000	09/04/2005 18:27:20	611	N	850 Del Mar Downs Rd	X	X	
0000955	000	09/13/2005 09:02:15	735	4	850 Del Mar Downs Rd	X	X	
0000959	000	09/13/2005 09:17:10	311	2	850 Del Mar Downs Rd	X	X	
0000972	000	09/18/2005 09:20:08	611	N	850 Del Mar Downs Rd	X	X	
0000992	000	09/22/2005 12:22:51	611	4	850 Del Mar Downs Rd	X	X	
0001010	000	09/26/2005 15:12:08	611	4	850 Del Mar Downs Rd	X	X	
0001011	000	09/26/2005 21:17:25	611	4	850 Del Mar Downs Rd	X	X	
0001013	000	09/27/2005 11:31:07	611	N	850 Del Mar Downs Rd	X	X	
0001020	000	09/29/2005 10:14:32	611	N	850 Del Mar Downs Rd	X	X	
0001051	000	10/08/2005 03:35:25	522	N	850 Del Mar Downs Rd	X	X	
0001065	000	10/15/2005 11:39:06	321	4	850 Del Mar Downs Rd	X	X	
0001111	000	10/30/2005 17:30:50	321	2	850 Del Mar Downs Rd	X	X	
0001123	000	11/04/2005 01:20:15	611	N	850 Del Mar Downs Rd	X	X	
0001182	000	11/16/2005 19:05:22	611	N	850 Del Mar Downs Rd	X	X	
0001195	000	11/18/2005 17:00:07	611	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0001197	000	11/18/2005 23:17:08	611	N	850 Del Mar Downs Rd	X	X	
0001208	000	11/20/2005 17:52:36	611	N	850 Del Mar Downs Rd	X	X	
0001232	000	11/27/2005 02:30:50	611	4	850 Del Mar Downs Rd	X	X	
0001237	000	11/29/2005 12:56:36	745	N	850 Del Mar Downs Rd	X	X	
0001250	000	12/05/2005 08:19:46	611	2	850 Del Mar Downs Rd	X	X	
0001258	000	12/08/2005 20:36:36	611	N	850 Del Mar Downs Rd	X	X	
0001266	000	12/11/2005 11:02:25	321	N	850 Del Mar Downs Rd	X	X	
0001320	000	12/26/2005 11:41:14	321	1	850 Del Mar Downs Rd	X	X	
0001324	000	12/28/2005 08:15:55	321	2	850 Del Mar Downs Rd	X	X	
0001325	000	12/28/2005 21:17:31	554	N	850 Del Mar Downs Rd	X	X	
0000010	000	01/03/2006 19:44:48	611	N	850 Del Mar Downs Rd	X	X	
0000011	000	01/04/2006 06:37:01	611	N	850 Del Mar Downs Rd	X	X	
0000037	000	01/14/2006 06:48:36	611	4	850 Del Mar Downs Rd	X	X	
0000065	000	01/21/2006 10:09:31	611	N	850 Del Mar Downs Rd	X	X	
0000116	000	02/05/2006 15:54:06	611	N	850 Del Mar Downs Rd	X	X	
0000127	000	02/07/2006 22:57:25	611	N	850 Del Mar Downs Rd	X	X	
0000162	000	02/15/2006 03:57:37	311	N	850 Del Mar Downs Rd	X	X	
0000204	000	02/28/2006 15:34:03	611	4	850 Del Mar Downs Rd	X	X	
0000215	000	03/04/2006 07:49:54	611	4	850 Del Mar Downs Rd	X	X	
0000217	000	03/04/2006 13:03:13	311	N	850 Del Mar Downs Rd	X	X	
0000230	000	03/08/2006 12:16:53	611	N	850 Del Mar Downs Rd	X	X	
0000239	000	03/10/2006 16:07:22	311	N	850 Del Mar Downs Rd	X	X	
0000244	000	03/12/2006 13:05:07	611	N	850 Del Mar Downs Rd	X	X	
0000254	000	03/14/2006 11:23:22	611	N	850 Del Mar Downs Rd	X	X	
0000255	000	03/14/2006 13:59:27	611	N	850 Del Mar Downs Rd	X	X	
0000361	000	04/13/2006 07:24:55	611	N	850 Del Mar Downs Rd	X	X	
0000388	000	04/20/2006 08:25:50	611	N	850 Del Mar Downs Rd	X	X	
0000406	000	04/24/2006 13:57:48	311	2	850 Del Mar Downs Rd	X	X	
0000412	000	04/25/2006 16:36:08	311	N	850 Del Mar Downs Rd	X	X	
0000415	000	04/26/2006 12:32:36	611	2	850 Del Mar Downs Rd	X	X	
0000448	000	05/07/2006 06:46:28	321	2	850 Del Mar Downs Rd	X	X	
0000475	000	05/15/2006 14:29:50	611	2	850 Del Mar Downs Rd	X	X	
0000476	000	05/15/2006 14:36:03	611	2	850 Del Mar Downs Rd	X	X	
0000539	000	06/02/2006 20:36:47	321	2	850 Del Mar Downs Rd	X	X	
0000557	000	06/05/2006 09:24:47	311	N	850 Del Mar Downs Rd	X	X	
0000627	000	06/27/2006 17:17:55	311	N	850 Del Mar Downs Rd	X	X	
0000641	000	06/30/2006 22:09:57	321	2	850 Del Mar Downs Rd	X	X	
0000664	000	07/04/2006 01:08:07	311	N	850 Del Mar Downs Rd	X	X	
0000668	000	07/05/2006 02:50:33	321	2	850 Del Mar Downs Rd	X	X	
0000715	000	07/17/2006 09:42:08	321	2	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000757	000	07/24/2006 09:30:57	611	2	850 Del Mar Downs Rd	X	X	
0000829	000	08/08/2006 13:51:05	311	N	850 Del Mar Downs Rd	X	X	
0000831	000	08/09/2006 12:16:03	311	N	850 Del Mar Downs Rd	X	X	
0000867	000	08/18/2006 09:47:32	311	N	850 Del Mar Downs Rd	X	X	
0000944	000	09/03/2006 09:14:07	311	N	850 Del Mar Downs Rd	X	X	
0001022	000	09/20/2006 20:31:43	321	2	850 Del Mar Downs Rd	X	X	
0001034	000	09/22/2006 12:02:51	321	N	850 Del Mar Downs Rd	X	X	
0001049	000	09/26/2006 07:31:19	311	N	850 Del Mar Downs Rd	X	X	
0001096	000	10/08/2006 08:43:41	311	N	850 Del Mar Downs Rd	X	X	
0001098	000	10/09/2006 09:55:29	311	N	850 Del Mar Downs Rd	X	X	
0001115	000	10/12/2006 10:41:05	311	N	850 Del Mar Downs Rd	X	X	
0001152	000	10/22/2006 17:18:26	611	N	850 Del Mar Downs Rd	X	X	
0001159	000	10/23/2006 15:48:42	321	2	850 Del Mar Downs Rd	X	X	
0001165	000	10/24/2006 16:08:18	321	2	850 Del Mar Downs Rd	X	X	
0001251	000	11/12/2006 03:00:45	611	N	850 Del Mar Downs Rd	X	X	
0001287	000	11/22/2006 17:27:20	611	N	850 Del Mar Downs Rd	X	X	
0001309	000	11/28/2006 08:09:43	611	3	850 Del Mar Downs Rd	X	X	
0001454	000	12/30/2006 20:50:32	311	N	850 Del Mar Downs Rd	X	X	
0001458	000	12/31/2006 23:41:53	611	N	850 Del Mar Downs Rd	X	X	
0000004	000	01/01/2007 09:11:19	611	N	850 Del Mar Downs Rd	X	X	
0000044	000	01/11/2007 10:56:20	321	N	850 Del Mar Downs Rd	X	X	
0000051	000	01/12/2007 18:17:12	321	2	850 Del Mar Downs Rd	X	X	
0000053	000	01/13/2007 12:27:32	744	2	850 Del Mar Downs Rd	X	X	
0000072	000	01/17/2007 02:52:01	321	2	850 Del Mar Downs Rd	X	X	
0000076	000	01/18/2007 09:05:02	321	2	850 Del Mar Downs Rd	X	X	
0000134	000	02/03/2007 23:41:22	554	N	850 Del Mar Downs Rd	X	X	
0000168	000	02/12/2007 13:31:30	311	N	850 Del Mar Downs Rd	X	X	
0000221	000	02/24/2007 21:10:43	321	N	850 Del Mar Downs Rd	X	X	
0000241	000	03/02/2007 18:01:14	611	N	850 Del Mar Downs Rd	X	X	
0000247	000	03/03/2007 07:57:10	321	2	850 Del Mar Downs Rd	X	X	
0000270	000	03/08/2007 07:45:25	311	N	850 Del Mar Downs Rd	X	X	
0000273	000	03/08/2007 12:55:58	311	N	850 Del Mar Downs Rd	X	X	
0000326	000	03/22/2007 09:48:31	321	N	850 Del Mar Downs Rd	X	X	
0000349	000	03/28/2007 10:39:44	611	4	850 Del Mar Downs Rd	X	X	
0000362	000	04/01/2007 03:21:02	311	N	850 Del Mar Downs Rd	X	X	
0000368	000	04/03/2007 13:01:54	311	N	850 Del Mar Downs Rd	X	X	
0000382	000	04/06/2007 19:04:22	611	2	850 Del Mar Downs Rd	X	X	
0000404	000	04/12/2007 01:11:52	311	N	850 Del Mar Downs Rd	X	X	
0000445	000	04/21/2007 03:01:26	321	2	850 Del Mar Downs Rd	X	X	
0000446	000	04/21/2007 07:33:48	311	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000489	000	05/01/2007 13:25:31	745	2	850 Del Mar Downs Rd	X	X	
0000508	000	05/05/2007 08:42:40	321	N	850 Del Mar Downs Rd	X	X	
0000561	000	05/20/2007 11:44:25	611	N	850 Del Mar Downs Rd	X	X	
0000604	000	05/31/2007 04:56:43	611	2	850 Del Mar Downs Rd	X	X	
0000605	000	05/31/2007 10:22:15	321	N	850 Del Mar Downs Rd	X	X	
0000644	000	06/09/2007 19:48:36	311	N	850 Del Mar Downs Rd	X	X	
0000658	000	06/12/2007 15:35:03	311	N	850 Del Mar Downs Rd	X	X	
0000701	000	06/22/2007 12:19:47	321	2	850 Del Mar Downs Rd	X	X	
0000721	000	06/26/2007 22:10:56	611	2	850 Del Mar Downs Rd	X	X	
0000763	000	07/05/2007 13:25:16	311	N	850 Del Mar Downs Rd	X	X	
0000841	000	07/19/2007 13:49:58	611	N	850 Del Mar Downs Rd	X	X	
0000862	000	07/22/2007 20:58:06	321	2	850 Del Mar Downs Rd	X	X	
0000892	000	07/27/2007 15:32:13	321	2	850 Del Mar Downs Rd	X	X	
0000922	000	08/01/2007 06:31:33	321	N	850 Del Mar Downs Rd	X	X	
0000948	000	08/07/2007 11:09:12	321	2	850 Del Mar Downs Rd	X	X	
0001012	000	08/22/2007 06:42:55	611	N	850 Del Mar Downs Rd	X	X	
0001014	000	08/22/2007 12:31:57	743	2	850 Del Mar Downs Rd	X	X	
0001043	000	08/28/2007 07:28:03	321	N	850 Del Mar Downs Rd	X	X	
0001073	000	09/02/2007 18:11:39	321	2	850 Del Mar Downs Rd	X	X	
0001104	000	09/08/2007 11:33:23	321	N	850 Del Mar Downs Rd	X	X	
0001123	000	09/14/2007 06:24:58	611	N	Duplicate: 850 Del Mar Downs Rd	X	X	
0001123	000	09/14/2007 06:24:58	321	2	Duplicate: 850 Del Mar Downs Rd	X	X	
0001133	000	09/17/2007 11:14:10	311	N	850 Del Mar Downs Rd	X	X	
0001147	000	09/20/2007 17:27:04	321	2	850 Del Mar Downs Rd	X	X	
0001165	000	09/24/2007 19:13:16	311	N	850 Del Mar Downs Rd	X	X	
0001181	000	09/29/2007 06:07:02	321	2	850 Del Mar Downs Rd	X	X	
0001226	000	10/11/2007 18:56:40	611	N	850 Del Mar Downs Rd	X	X	
0001256	000	10/17/2007 15:31:37	321	2	850 Del Mar Downs Rd	X	X	
0001265	000	10/19/2007 10:33:46	311	N	850 Del Mar Downs Rd	X	X	
0001307	000	10/26/2007 18:24:00	321	2	850 Del Mar Downs Rd	X	X	
0001330	000	11/01/2007 13:13:25	611	N	850 Del Mar Downs Rd	X	X	
0001332	000	11/02/2007 06:16:44	321	3	850 Del Mar Downs Rd	X	X	
0001369	000	11/08/2007 14:37:58	321	N	850 Del Mar Downs Rd	X	X	
0001376	000	11/11/2007 05:28:32	321	N	850 Del Mar Downs Rd	X	X	
0001378	000	11/12/2007 05:27:28	311	N	850 Del Mar Downs Rd	X	X	
0001407	000	11/20/2007 06:23:52	321	2	850 Del Mar Downs Rd	X	X	
0001411	000	11/20/2007 19:31:05	321	N	850 Del Mar Downs Rd	X	X	
0001488	000	12/12/2007 16:29:20	611	N	850 Del Mar Downs Rd	X	X	
0001490	000	12/12/2007 17:46:50	611	N	850 Del Mar Downs Rd	X	X	
0001503	000	12/14/2007 21:31:52	311	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0001522	000	12/19/2007 09:35:41	311	N	850 Del Mar Downs Rd	X	X	
0001525	000	12/19/2007 14:14:04	311	N	850 Del Mar Downs Rd	X	X	
0001570	000	12/28/2007 18:25:02	321	N	850 Del Mar Downs Rd	X	X	
0001574	000	12/29/2007 15:14:06	743	N	850 Del Mar Downs Rd	X	X	
0000011	000	01/03/2008 14:05:36	321	N	850 Del Mar Downs Rd	X	X	
0000013	000	01/03/2008 18:37:37	321	N	850 Del Mar Downs Rd	X	X	
0000027	000	01/05/2008 11:07:35	321	2	850 Del Mar Downs Rd	X	X	
0000034	000	01/07/2008 07:38:35	311	N	850 Del Mar Downs Rd	X	X	
0000047	000	01/10/2008 08:23:26	311	N	850 Del Mar Downs Rd	X	X	
0000051	000	01/10/2008 14:09:04	311	N	850 Del Mar Downs Rd	X	X	
0000068	000	01/14/2008 19:09:54	321	2	850 Del Mar Downs Rd	X	X	
0000120	000	01/25/2008 23:03:55	311	N	850 Del Mar Downs Rd	X	X	
0000136	000	01/29/2008 15:34:20	321	2	850 Del Mar Downs Rd	X	X	
0000139	000	01/30/2008 06:57:37	321	2	850 Del Mar Downs Rd	X	X	
0000156	000	02/01/2008 17:27:14	311	N	850 Del Mar Downs Rd	X	X	
0000165	000	02/04/2008 10:52:15	311	N	850 Del Mar Downs Rd	X	X	
0000389	000	03/24/2008 14:40:55	611	4	850 Del Mar Downs Rd	X	X	
0000432	000	04/07/2008 00:17:28	321	2	850 Del Mar Downs Rd	X	X	
0000507	000	04/22/2008 13:06:51	311	N	850 Del Mar Downs Rd	X	X	
0000576	000	05/10/2008 04:00:25	611	4	850 Del Mar Downs Rd	X	X	
0000583	000	05/14/2008 00:33:01	321	2	850 Del Mar Downs Rd	X	X	
0000591	000	05/15/2008 23:45:11	311	N	850 Del Mar Downs Rd	X	X	
0000641	000	05/26/2008 14:30:20	321	N	850 Del Mar Downs Rd	X	X	
0000648	000	05/27/2008 13:32:18	321	N	850 Del Mar Downs Rd	X	X	
0000654	000	05/28/2008 16:57:54	251	2	850 Del Mar Downs Rd	X	X	
0000659	000	05/30/2008 00:10:48	321	N	850 Del Mar Downs Rd	X	X	
0000713	000	06/12/2008 20:13:52	611	4	850 Del Mar Downs Rd	X	X	
0000727	000	06/16/2008 10:45:23	311	2	850 Del Mar Downs Rd	X	X	
0000754	000	06/21/2008 16:35:54	611	4	850 Del Mar Downs Rd	X		
0000772	000	06/24/2008 18:29:05	311	4	850 Del Mar Downs Rd	X	X	
0000787	000	06/29/2008 09:55:21	311	2	850 Del Mar Downs Rd	X	X	
0000796	000	06/30/2008 20:09:14	611	2	850 Del Mar Downs Rd	X	X	
0000804	000	07/02/2008 13:35:33	321	2	850 Del Mar Downs Rd	X	X	
0000805	000	07/02/2008 13:55:19	321	2	850 Del Mar Downs Rd	X	X	
0000838	000	07/09/2008 08:34:47	611	N	850 Del Mar Downs Rd	X	X	
0000892	000	07/21/2008 09:40:17	321	N	850 Del Mar Downs Rd	X	X	
0000897	000	07/22/2008 09:28:59	311	N	850 Del Mar Downs Rd	X	X	
0000909	000	07/24/2008 11:26:49	611	2	850 Del Mar Downs Rd	X	X	
0000934	000	07/31/2008 17:57:06	321	N	850 Del Mar Downs Rd	X	X	
0000973	000	08/09/2008 23:03:55	311	N	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000984	000	08/12/2008 16:14:54	311	N	850 Del Mar Downs Rd	X	X	
0001059	000	08/30/2008 13:26:17	611	2	850 Del Mar Downs Rd	X	X	
0001065	000	08/31/2008 22:50:37	311	2	850 Del Mar Downs Rd	X	X	
0001075	000	09/03/2008 17:09:03	321	2	850 Del Mar Downs Rd	X	X	
0001126	000	09/14/2008 12:04:51	311	4	850 Del Mar Downs Rd	X	X	
0001184	000	09/29/2008 14:28:05	311	N	850 Del Mar Downs Rd	X	X	
0001216	000	10/07/2008 05:02:41	611	4	850 Del Mar Downs Rd	X	X	
0001257	000	10/18/2008 15:06:38	311	N	850 Del Mar Downs Rd	X	X	
0001259	000	10/19/2008 10:57:55	321	N	850 Del Mar Downs Rd	X	X	
0001273	000	10/23/2008 07:33:13	611	2	850 Del Mar Downs Rd	X	X	
0001291	000	10/26/2008 17:34:00	321	2	850 Del Mar Downs Rd	X	X	
0001308	000	10/31/2008 08:34:02	321	N	850 Del Mar Downs Rd	X	X	
0001319	000	11/01/2008 17:41:47	311	2	850 Del Mar Downs Rd	X	X	
0001397	000	11/22/2008 20:33:33	311	2	850 Del Mar Downs Rd	X	X	
0001438	000	12/01/2008 00:50:10	311	N	850 Del Mar Downs Rd	X	X	
0001535	000	12/23/2008 21:26:17	311	2	850 Del Mar Downs Rd	X	X	
0001541	000	12/26/2008 17:38:51	321	2	850 Del Mar Downs Rd	X	X	
0001545	000	12/29/2008 02:56:24	311	1	850 Del Mar Downs Rd	X	X	
0000040	000	01/08/2009 14:33:00	321	N	850 Del Mar Downs Rd	X		
0000051	000	01/12/2009 02:15:04	321	2	850 Del Mar Downs Rd	X	X	
0000058	000	01/13/2009 18:36:33	311	2	850 Del Mar Downs Rd	X	X	
0000060	000	01/14/2009 00:15:05	311	2	850 Del Mar Downs Rd	X	X	
0000085	000	01/19/2009 14:28:52	321	2	850 Del Mar Downs Rd	X	X	
0000086	000	01/19/2009 18:05:21	321	2	850 Del Mar Downs Rd	X	X	
0000087	000	01/19/2009 23:25:31	321	2	850 Del Mar Downs Rd	X	X	
0000088	000	01/20/2009 07:02:29	311	2	850 Del Mar Downs Rd	X	X	
0000131	000	02/01/2009 19:56:57	321	2	850 Del Mar Downs Rd	X	X	
0000135	000	02/02/2009 13:22:54	311	2	850 Del Mar Downs Rd	X	X	
0000148	000	02/06/2009 07:23:26	311	2	850 Del Mar Downs Rd	X	X	
0000195	000	02/19/2009 11:37:50	311	N	850 Del Mar Downs Rd	X	X	
0000228	000	03/01/2009 00:14:19	311	N	850 Del Mar Downs Rd	X	X	
0000233	000	03/02/2009 18:53:25	611	N	850 Del Mar Downs Rd	X	X	
0000236	000	03/03/2009 20:10:34	740	1	850 Del Mar Downs Rd	X	X	
0000249	000	03/08/2009 07:04:40	321	2	850 Del Mar Downs Rd	X	X	
0000324	000	04/04/2009 01:09:34	311	N	850 Del Mar Downs Rd	X	X	
0000338	000	04/07/2009 08:04:43	321	1	850 Del Mar Downs Rd	X	X	
0000341	000	04/07/2009 17:44:54	321	1	850 Del Mar Downs Rd	X	X	
0000366	000	04/13/2009 13:56:55	321	2	850 Del Mar Downs Rd	X	X	
0000383	000	04/18/2009 08:45:03	321	2	850 Del Mar Downs Rd	X	X	
0000439	000	05/04/2009 10:33:07	321	2	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000478	000	05/15/2009 17:09:42	311	4	850 Del Mar Downs Rd	X	X	
0000481	000	05/16/2009 16:28:03	554	1	850 Del Mar Downs Rd	X	X	
0000483	000	05/17/2009 09:28:05	321	2	850 Del Mar Downs Rd	X	X	
0000513	000	05/23/2009 07:44:35	311	N	850 Del Mar Downs Rd	X	X	
0000578	000	06/09/2009 12:46:21	321	1	850 Del Mar Downs Rd	X	X	
0000597	000	06/13/2009 09:40:18	311	N	850 Del Mar Downs Rd	X	X	
0000617	000	06/19/2009 04:39:00	321	1	850 Del Mar Downs Rd	X	X	
0000713	000	07/09/2009 12:46:28	311	2	850 Del Mar Downs Rd	X	X	
0000772	000	07/21/2009 18:58:57	321	2	850 Del Mar Downs Rd	X	X	
0000872	000	08/13/2009 18:01:08	611	N	850 Del Mar Downs Rd	X	X	
0000873	000	08/14/2009 01:19:09	311	2	850 Del Mar Downs Rd	X	X	
0000929	000	08/27/2009 21:48:25	311	2	850 Del Mar Downs Rd	X	X	
0000931	000	08/28/2009 08:33:12	311	2	850 Del Mar Downs Rd	X	X	
0001060	000	10/03/2009 03:45:17	311	2	850 Del Mar Downs Rd	X	X	
0001067	000	10/04/2009 09:21:16	311	2	850 Del Mar Downs Rd	X	X	
0001074	000	10/07/2009 05:29:27	311	2	850 Del Mar Downs Rd	X	X	
0001085	000	10/08/2009 22:27:18	651	N	850 Del Mar Downs Rd	X	X	
0001143	000	10/25/2009 07:12:59	321	2	850 Del Mar Downs Rd	X	X	
0001176	000	11/01/2009 14:05:46	321	N	850 Del Mar Downs Rd	X	X	
0001220	000	11/13/2009 01:47:14	321	2	850 Del Mar Downs Rd	X	X	
0001266	000	11/25/2009 00:09:52	321	2	850 Del Mar Downs Rd	X	X	
0001268	000	11/25/2009 07:16:50	321	2	850 Del Mar Downs Rd	X	X	
0001278	000	11/29/2009 01:02:04	311	N	850 Del Mar Downs Rd	X	X	
0001281	000	11/30/2009 01:46:12	321	2	850 Del Mar Downs Rd	X		
0001295	000	12/04/2009 07:27:50	321	2	850 Del Mar Downs Rd	X	X	
0001299	000	12/04/2009 14:21:23	311	N	850 Del Mar Downs Rd	X	X	
0001301	000	12/05/2009 09:49:06	321	2	850 Del Mar Downs Rd	X	X	
0001327	000	12/09/2009 10:28:32	321	N	850 Del Mar Downs Rd	X	X	
0001329	000	12/09/2009 10:47:54	321	N	850 Del Mar Downs Rd	X	X	
0001348	000	12/12/2009 19:57:41	321	2	850 Del Mar Downs Rd	X	X	
0001351	000	12/14/2009 03:26:05	311	2	850 Del Mar Downs Rd	X	X	
0000046	000	01/11/2010 07:36:03	321	4	850 Del Mar Downs Rd	X		
0000154	000	01/29/2010 17:57:00	321	2	850 Del Mar Downs Rd	X		
0000160	000	01/31/2010 10:40:16	321	2	850 Del Mar Downs Rd	X		
0000193	000	02/11/2010 12:01:09	321	2	850 Del Mar Downs Rd	X		
0000226	000	02/17/2010 15:39:41	321	2	850 Del Mar Downs Rd	X		
0000250	000	02/22/2010 12:32:56	311	N	850 Del Mar Downs Rd	X		
0000292	000	03/06/2010 15:18:21	311	N	850 Del Mar Downs Rd	X		
0000307	000	03/12/2010 16:06:46	321	N	850 Del Mar Downs Rd	X		
0000313	000	03/14/2010 17:08:01	321	N	850 Del Mar Downs Rd	X		

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000330	000	03/19/2010 09:41:55	321	2	850 Del Mar Downs Rd	X	X	
0000354	000	03/28/2010 10:28:31	311	2	850 Del Mar Downs Rd	X		
0000359	000	03/29/2010 00:51:16	311	2	850 Del Mar Downs Rd	X		
0000363	000	03/30/2010 08:34:35	321	2	850 Del Mar Downs Rd	X		
0000414	000	04/12/2010 03:46:30	311	N	850 Del Mar Downs Rd	X		
0000420	000	04/14/2010 15:18:53	311	2	850 Del Mar Downs Rd	X		
0000493	000	05/08/2010 08:43:06	321	4	850 Del Mar Downs Rd	X	X	
0000538	000	05/21/2010 10:44:22	321	2	850 Del Mar Downs Rd	X		
0000540	000	05/21/2010 14:51:24	321	2	850 Del Mar Downs Rd	X		
0000543	000	05/21/2010 22:27:19	321	2	850 Del Mar Downs Rd	X		
0000584	000	06/01/2010 14:57:12	321	N	850 Del Mar Downs Rd	X		
0000655	000	06/20/2010 22:40:21	311	N	850 Del Mar Downs Rd	X		
0000752	000	07/13/2010 18:43:56	321	2	850 Del Mar Downs Rd	X		
0000816	000	07/25/2010 09:10:51	321	2	850 Del Mar Downs Rd	X		
0000939	000	08/19/2010 12:39:41	311	2	850 Del Mar Downs Rd	X	X	
0000994	000	08/30/2010 09:23:11	321	2	850 Del Mar Downs Rd	X		
0001000	000	09/01/2010 09:02:47	321	2	850 Del Mar Downs Rd	X	X	
0001024	000	09/07/2010 09:13:43	321	4	850 Del Mar Downs Rd	X		
0001034	000	09/09/2010 16:20:46	321	2	850 Del Mar Downs Rd	X		
0001084	000	09/21/2010 06:32:26	321	2	850 Del Mar Downs Rd	X		
0001126	000	09/29/2010 09:53:52	311	2	850 Del Mar Downs Rd	X		
0001132	000	09/30/2010 12:40:56	321	2	850 Del Mar Downs Rd	X	X	
0001185	000	10/12/2010 01:09:16	321	2	850 Del Mar Downs Rd	X		
0001191	000	10/13/2010 19:51:43	321	2	850 Del Mar Downs Rd	X		
0001203	000	10/16/2010 04:37:31	321	2	850 Del Mar Downs Rd	X	X	
0001206	000	10/16/2010 16:11:04	311	N	850 Del Mar Downs Rd	X		
0001244	000	10/25/2010 03:12:41	321	2	850 Del Mar Downs Rd	X		
0001289	000	11/04/2010 12:11:38	321	4	850 Del Mar Downs Rd	X	X	
0001346	000	11/20/2010 09:12:56	321	2	850 Del Mar Downs Rd	X		
0001360	000	11/23/2010 16:40:56	321	N	850 Del Mar Downs Rd	X		
0001370	000	11/26/2010 03:33:13	321	2	850 Del Mar Downs Rd	X		
0001399	000	12/04/2010 06:03:38	311	N	850 Del Mar Downs Rd	X		
0001509	000	12/28/2010 03:49:54	321	2	850 Del Mar Downs Rd	X		
0001527	000	12/31/2010 10:13:17	321	2	850 Del Mar Downs Rd	X		
0000030	000	01/08/2011 09:23:05	321	2	850 Del Mar Downs Rd	X	X	
0000031	000	01/09/2011 11:08:38	321	2	850 Del Mar Downs Rd	X		
0000070	000	01/19/2011 09:36:27	321	2	850 Del Mar Downs Rd	X		
0000091	000	01/23/2011 21:28:42	321	2	850 Del Mar Downs Rd	X	X	
0000103	000	01/26/2011 07:47:27	321	2	850 Del Mar Downs Rd	X		
0000133	000	02/02/2011 02:39:19	321	2	850 Del Mar Downs Rd	X		

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000138	000	02/02/2011 20:17:45	321	2	850 Del Mar Downs Rd	X		
0000193	000	02/14/2011 22:14:56	321	2	850 Del Mar Downs Rd	X		
0000228	000	02/23/2011 11:50:46	321	2	850 Del Mar Downs Rd	X		
0000243	000	02/26/2011 06:40:20	321	2	850 Del Mar Downs Rd	X		
0000357	000	03/23/2011 10:50:43	311	N	850 Del Mar Downs Rd	X		
0000358	000	03/23/2011 11:26:50	311	N	850 Del Mar Downs Rd	X		
0000414	000	04/06/2011 07:14:54	321	2	850 Del Mar Downs Rd	X		
0000433	000	04/10/2011 03:21:22	321	2	850 Del Mar Downs Rd	X		
0000473	000	04/19/2011 14:50:15	321	2	850 Del Mar Downs Rd	X		
0000481	000	04/21/2011 06:02:12	321	2	850 Del Mar Downs Rd	X		
0000486	000	04/21/2011 21:55:01	321	2	850 Del Mar Downs Rd	X		
0000530	000	05/02/2011 21:19:34	321	2	850 Del Mar Downs Rd	X		
0000670	000	06/08/2011 03:42:27	321	2	850 Del Mar Downs Rd	X	X	
0000778	000	07/03/2011 06:50:42	321	2	850 Del Mar Downs Rd	X		
0000852	000	07/18/2011 18:54:21	321	2	850 Del Mar Downs Rd	X	X	
0000862	000	07/21/2011 09:40:53	321	N	850 Del Mar Downs Rd	X	X	
0000893	000	07/28/2011 02:39:03	522	N	850 Del Mar Downs Rd	X		
0000949	000	08/09/2011 19:10:23	321	2	850 Del Mar Downs Rd	X		
0000966	000	08/12/2011 18:38:39	321	N	850 Del Mar Downs Rd	X	X	
0000986	000	08/17/2011 02:23:07	311	2	850 Del Mar Downs Rd	X	X	
0001000	000	08/21/2011 17:08:31	311	2	850 Del Mar Downs Rd	X	X	
0001014	000	08/24/2011 10:40:41	321	2	850 Del Mar Downs Rd	X		
0001044	000	08/31/2011 05:58:40	321	2	850 Del Mar Downs Rd	X	X	
0001067	000	09/04/2011 15:30:56	311	N	850 Del Mar Downs Rd	X		
0001074	000	09/05/2011 17:56:08	321	2	850 Del Mar Downs Rd	X	X	
0001115	000	09/17/2011 07:53:15	321	2	850 Del Mar Downs Rd	X	X	
0001201	000	10/13/2011 21:48:46	321	2	850 Del Mar Downs Rd	X	X	
0001227	000	10/18/2011 17:14:19	321	2	850 Del Mar Downs Rd	X	X	
0001237	000	10/20/2011 22:04:37	321	2	850 Del Mar Downs Rd	X		
0001286	000	11/03/2011 06:18:45	321	2	850 Del Mar Downs Rd	X	X	
0001291	000	11/04/2011 06:49:16	311	N	850 Del Mar Downs Rd	X	X	
0001293	000	11/04/2011 16:12:55	321	4	850 Del Mar Downs Rd	X		
0001320	000	11/12/2011 08:39:51	321	2	850 Del Mar Downs Rd	X	X	
0001403	000	11/28/2011 22:31:41	321	2	850 Del Mar Downs Rd	X		
0001454	000	12/08/2011 16:06:45	321	N	850 Del Mar Downs Rd	X		
0001483	000	12/14/2011 17:32:47	321	2	850 Del Mar Downs Rd	X	X	
0001509	000	12/21/2011 13:30:24	321	2	850 Del Mar Downs Rd	X	X	
0001519	000	12/23/2011 18:05:18	311	4	850 Del Mar Downs Rd	X	X	
0000005	000	01/01/2012 20:03:25	321	2	850 Del Mar Downs Rd	X	X	
0000033	000	01/08/2012 18:42:03	321	2	850 Del Mar Downs Rd	X	X	

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000102	000	01/26/2012 04:38:49	321	2	850 Del Mar Downs Rd	X		
0000116	000	01/29/2012 19:16:37	321	2	850 Del Mar Downs Rd	X		
0000117	000	01/29/2012 20:35:44	321	2	850 Del Mar Downs Rd	X		
0000118	000	01/29/2012 20:47:10	321	N	850 Del Mar Downs Rd	X		
0000119	000	01/29/2012 21:06:16	321	2	850 Del Mar Downs Rd	X	X	
0000134	000	02/01/2012 19:54:46	321	2	850 Del Mar Downs Rd	X	X	
0000159	000	02/05/2012 16:24:31	321	2	850 Del Mar Downs Rd	X	X	
0000205	000	02/15/2012 11:10:41	321	2	850 Del Mar Downs Rd	X	X	
0000212	000	02/16/2012 11:46:31	321	2	850 Del Mar Downs Rd	X	X	
0000220	000	02/18/2012 20:44:59	311	2	850 Del Mar Downs Rd	X		
0000259	000	03/02/2012 16:18:20	321	2	850 Del Mar Downs Rd	X	X	
0000262	000	03/03/2012 10:26:03	321	2	850 Del Mar Downs Rd	X		
0000322	000	03/16/2012 20:41:48	321	N	850 Del Mar Downs Rd	X	X	
0000326	000	03/18/2012 06:39:06	311	2	850 Del Mar Downs Rd	X		
0000392	000	04/03/2012 08:08:56	311	2	850 Del Mar Downs Rd	X		
0000405	000	04/04/2012 21:11:12	321	2	850 Del Mar Downs Rd	X		
0000407	000	04/04/2012 21:45:52	321	2	850 Del Mar Downs Rd	X		
0000433	000	04/10/2012 18:30:22	321	2	850 Del Mar Downs Rd	X	X	
0000471	000	04/18/2012 22:38:25	321	2	850 Del Mar Downs Rd	X		
0000528	000	05/01/2012 19:38:48	321	2	850 Del Mar Downs Rd	X	X	
0000529	000	05/01/2012 20:03:42	321	2	850 Del Mar Downs Rd	X		
0000546	000	05/07/2012 07:02:41	311	2	850 Del Mar Downs Rd	X		
0000556	000	05/09/2012 20:14:09	321	2	850 Del Mar Downs Rd	X		
0000603	000	05/21/2012 08:46:41	311	N	850 Del Mar Downs Rd	X	X	
0000640	000	06/01/2012 01:11:49	321	2	850 Del Mar Downs Rd	X		
0000646	000	06/02/2012 14:34:15	321	2	850 Del Mar Downs Rd	X		
0000677	000	06/09/2012 22:58:51	321	2	850 Del Mar Downs Rd	X		
0000683	000	06/11/2012 06:03:30	321	2	850 Del Mar Downs Rd	X		
0000689	000	06/11/2012 18:52:18	321	2	850 Del Mar Downs Rd	X		
0000729	000	06/21/2012 14:25:10	321	2	850 Del Mar Downs Rd	X	X	
0000798	000	07/07/2012 17:49:16	321	2	850 Del Mar Downs Rd	X		
0000807	000	07/09/2012 16:59:13	321	2	850 Del Mar Downs Rd	X		
0000916	000	08/02/2012 07:48:41	311	2	850 Del Mar Downs Rd	X		
0000995	000	08/18/2012 14:23:23	321	2	850 Del Mar Downs Rd	X	X	
0001013	000	08/22/2012 17:32:18	311	2	850 Del Mar Downs Rd	X		
0001018	000	08/23/2012 14:35:49	321	2	850 Del Mar Downs Rd	X		
0001025	000	08/24/2012 05:56:47	321	2	850 Del Mar Downs Rd	X		
0001054	000	08/31/2012 11:22:59	321	2	850 Del Mar Downs Rd	X		
0001089	000	09/08/2012 11:35:46	321	2	850 Del Mar Downs Rd	X		
0001100	000	09/09/2012 21:17:38	321	2	850 Del Mar Downs Rd	X		

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0001111	000	09/11/2012 14:50:35	321	2	850 Del Mar Downs Rd	X		
0001265	000	10/15/2012 10:01:56	311	N	850 Del Mar Downs Rd	X		
0001266	000	10/15/2012 14:48:28	311	2	850 Del Mar Downs Rd	X		
0001307	000	10/25/2012 08:13:28	321	2	850 Del Mar Downs Rd	X	X	
0001325	000	10/29/2012 14:25:07	321	2	850 Del Mar Downs Rd	X		
0001418	000	11/18/2012 14:23:06	321	2	850 Del Mar Downs Rd	X		
0001421	000	11/18/2012 20:27:58	321	2	850 Del Mar Downs Rd	X		
0001451	000	11/23/2012 22:58:00	311	2	850 Del Mar Downs Rd	X		
0001528	000	12/07/2012 19:56:58	321	2	850 Del Mar Downs Rd	X		
0001537	000	12/09/2012 06:05:12	321	2	850 Del Mar Downs Rd	X		
0001563	000	12/17/2012 09:19:09	321	N	850 Del Mar Downs Rd	X		
0001568	000	12/19/2012 02:02:43	321	2	850 Del Mar Downs Rd	X		
0001571	000	12/19/2012 10:58:02	321	N	850 Del Mar Downs Rd	X		
0001578	000	12/19/2012 22:04:53	321	2	850 Del Mar Downs Rd	X		
0001617	000	12/31/2012 14:24:40	321	2	850 Del Mar Downs Rd	X		
0000008	000	01/02/2013 17:56:48	321	2	850 Del Mar Downs Rd	X		
0000020	000	01/05/2013 07:04:32	321	2	850 Del Mar Downs Rd	X		
0000030	000	01/06/2013 20:35:04	321	2	850 Del Mar Downs Rd	X		
0000032	000	01/07/2013 06:12:56	321	2	850 Del Mar Downs Rd	X	X	
0000045	000	01/10/2013 00:51:32	321	2	850 Del Mar Downs Rd	X		
0000081	000	01/16/2013 21:21:57	321	2	850 Del Mar Downs Rd	X		
0000085	000	01/17/2013 13:17:32	321	N	850 Del Mar Downs Rd	X		
0000099	000	01/20/2013 14:23:36	321	2	850 Del Mar Downs Rd	X		
0000109	000	01/22/2013 17:28:00	321	N	850 Del Mar Downs Rd	X		
0000111	000	01/22/2013 19:34:55	321	2	850 Del Mar Downs Rd	X		
0000122	000	01/24/2013 18:38:54	321	2	850 Del Mar Downs Rd	X		
0000141	000	01/28/2013 15:02:24	611	N	850 Del Mar Downs Rd	X		
0000171	000	02/04/2013 20:56:16	321	2	850 DEL MAR DOWNS Rd	X		
0000188	000	02/07/2013 09:43:58	321	2	850 Del Mar Downs Rd	X	X	
0000190	000	02/07/2013 19:11:17	321	2	850 Del Mar Downs Rd	X	X	
0000223	000	02/13/2013 20:22:48	321	2	850 Del Mar Downs Rd	X		
0000250	000	02/21/2013 14:23:12	321	2	850 Del Mar Downs Rd	X		
0000251	000	02/21/2013 16:18:57	321	2	850 Del Mar Downs Rd	X	X	
0000279	000	02/28/2013 23:08:04	321	2	850 Del Mar Downs Rd	X		
0000287	000	03/03/2013 12:54:49	321	2	850 Del Mar Downs Rd	X		
0000331	000	03/11/2013 22:21:12	321	2	850 Del Mar Downs Rd	X		
0000347	000	03/14/2013 20:05:01	321	2	850 Del Mar Downs Rd	X		
0000350	000	03/15/2013 23:59:19	321	2	850 Del Mar Downs Rd	X		
0000362	000	03/18/2013 21:05:17	321	2	850 Del Mar Downs Rd	X		
0000364	000	03/19/2013 12:22:46	321	2	850 Del Mar Downs Rd	X		

Number	Exp	Alarm Time	Type	Aid	Location	Complete	Reviewed	Released
0000370	000	03/20/2013 15:42:04	321	2	850 Del Mar Downs Rd	X		
0000426	000	03/31/2013 09:04:14	321	2	850 Del Mar Downs Rd	X		X
0000464	000	04/11/2013 18:49:55	321	2	850 Del Mar Downs Rd	X		
0000470	000	04/14/2013 18:11:26	321	2	850 Del Mar Downs Rd	X		
0000476	000	04/15/2013 23:52:16	321	2	850 Del Mar Downs Rd	X		
0000483	000	04/17/2013 19:54:46	321	2	850 Del Mar Downs Rd	X		
0000534	000	05/04/2013 07:06:30	311	N	850 Del Mar Downs Rd	X		
0000554	000	05/07/2013 10:02:46	321	N	850 Del Mar Downs Rd	X		
0000568	000	05/09/2013 08:39:23	311	N	850 Del Mar Downs Rd	X		
0000583	000	05/11/2013 20:11:03	321	2	850 Del Mar Downs Rd	X		
0000585	000	05/12/2013 04:53:16	321	2	850 Del Mar Downs Rd	X		
0000587	000	05/12/2013 20:52:00	321	2	850 Del Mar Downs Rd	X		
0000606	000	05/15/2013 11:33:39	321	2	850 Del Mar Downs Rd	X		
0000620	000	05/17/2013 13:00:09	321	N	850 Del Mar Downs Rd	X		
0000632	000	05/19/2013 04:04:30	321	2	850 Del Mar Downs Rd	X		
0000659	000	05/25/2013 22:00:44	321	2	850 Del Mar Downs Rd	X		
0000662	000	05/27/2013 03:40:04	321	2	850 Del Mar Downs Rd	X		
0000668	000	05/28/2013 02:51:55	321	2	850 Del Mar Downs Rd	X		
0000701	000	06/03/2013 19:19:47	321	2	850 Del Mar Downs Rd	X		
0000713	000	06/07/2013 10:26:55	321	N	850 Del Mar Downs Rd	X		
0000726	000	06/09/2013 09:23:11	311	N	850 Del Mar Downs Rd	X		
0000748	000	06/14/2013 11:14:04	321	N	850 Del Mar Downs Rd	X		
0000774	000	06/19/2013 18:25:21	321	2	850 Del Mar Downs Rd	X		
0000789	000	06/22/2013 10:03:07	321	2	850 Del Mar Downs Rd	X		
0000791	000	06/23/2013 09:40:22	321	2	850 Del Mar Downs Rd	X		
0000818	000	06/27/2013 13:58:22	321	2	850 Del Mar Downs Rd	X		
0000840	000	07/03/2013 15:57:02	321	2	850 Del Mar Downs Rd	X		
0000850	000	07/05/2013 23:11:07	321	2	850 Del Mar Downs Rd	X		
0000857	000	07/07/2013 20:15:55	321	2	850 Del Mar Downs Rd	X		
0000917	000	07/20/2013 15:31:18	321	2	850 Del Mar Downs Rd	X		
0000934	000	07/25/2013 18:27:31	321	N	850 Del Mar Downs Rd	X		
0000945	000	07/28/2013 10:49:44	321	2	850 Del Mar Downs Rd	X		
0000954	000	07/29/2013 21:15:24	311	2	850 Del Mar Downs Rd	X		
0000961	000	07/31/2013 04:23:20	321	2	850 Del Mar Downs Rd	X		
0000969	000	08/01/2013 08:15:54	321	2	850 Del Mar Downs Rd	X		
0000998	000	08/06/2013 18:35:13	321	2	850 Del Mar Downs Rd	X		
0001009	000	08/08/2013 18:22:23	321	2	850 Del Mar Downs Rd	X		
0001012	000	08/09/2013 07:36:47	321	2	850 Del Mar Downs Rd	X		
0001014	000	08/09/2013 16:11:34	321	2	850 Del Mar Downs Rd	X		
0001015	000	08/09/2013 22:18:14	321	2	850 Del Mar Downs Rd	X		

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0001069	000	08/19/2013 17:35:52	321	N	850 Del Mar Downs Rd	X
0001077	000	08/21/2013 22:10:25	321	2	850 Del Mar Downs Rd	X
0001082	000	08/22/2013 18:51:46	321	2	850 Del Mar Downs Rd	X
0001092	000	08/24/2013 19:12:34	321	2	850 Del Mar Downs Rd	X
0001106	000	08/27/2013 21:19:01	321	2	850 Del Mar Downs Rd	X
0001138	000	09/02/2013 19:33:57	321	2	850 Del Mar Downs Rd	X
0001188	000	09/16/2013 06:10:06	321	2	850 Del Mar Downs Rd	X
0001193	000	09/17/2013 11:37:52	311	2	850 Del Mar Downs Rd	X
0001197	000	09/18/2013 07:50:29	554	2	850 Del Mar Downs Rd	X
0001218	000	09/21/2013 22:01:19	321	2	850 Del Mar Downs Rd	X
0001225	000	09/22/2013 22:16:58	321	2	850 Del Mar Downs Rd	X
0001282	000	10/05/2013 19:54:09	311	2	850 Del Mar Downs Rd	X
0001289	000	10/07/2013 12:51:49	321	2	850 Del Mar Downs Rd	X
0001314	000	10/13/2013 17:10:48	321	2	850 Del Mar Downs Rd	X
0001315	000	10/13/2013 19:18:14	321	2	850 Del Mar Downs Rd	X
0001317	000	10/14/2013 00:13:27	622	2	850 Del Mar Downs Rd	X
0001321	000	10/14/2013 15:21:59	321	N	850 Del Mar Downs Rd	X
0001328	000	10/16/2013 10:23:54	321	2	850 Del Mar Downs Rd	X
0001342	000	10/18/2013 18:36:50	321	2	850 Del Mar Downs Rd	X
0001366	000	10/24/2013 09:56:27	321	2	850 Del Mar Downs Rd	X
0001369	000	10/25/2013 06:39:52	321	2	850 Del Mar Downs Rd	X
0001372	000	10/25/2013 14:10:05	353	2	850 Del Mar Downs Rd	X
0001379	000	10/27/2013 12:36:03	321	2	850 Del Mar Downs Rd	X
0001380	000	10/27/2013 14:59:32	321	2	850 Del Mar Downs Rd	X
0001451	000	11/12/2013 19:19:34	321	2	850 Del Mar Downs Rd	X
0001462	000	11/15/2013 00:16:16	321	2	850 Del Mar Downs Rd	X
0001471	000	11/18/2013 05:43:34	321	2	850 Del Mar Downs Rd	X
0001529	000	11/29/2013 17:12:56	321	2	850 Del Mar Downs Rd	X
0001568	000	12/09/2013 21:35:29	321	2	850 Del Mar Downs Rd	X
0001571	000	12/10/2013 09:19:11	321	2	850 Del Mar Downs Rd	X
0001576	000	12/11/2013 07:57:14	321	2	850 Del Mar Downs Rd	X
0001585	000	12/12/2013 12:45:57	321	2	850 Del Mar Downs Rd	X
0001591	000	12/13/2013 22:31:33	321	2	850 Del Mar Downs Rd	X
0001598	000	12/14/2013 20:19:20	321	2	850 Del Mar Downs Rd	X
0001601	000	12/15/2013 12:33:46	311	N	850 Del Mar Downs Rd	X
0001614	000	12/17/2013 08:02:28	321	2	850 Del Mar Downs Rd	X
0001628	000	12/20/2013 22:34:37	321	2	850 Del Mar Downs Rd	X
0001633	000	12/23/2013 18:57:05	321	2	850 Del Mar Downs Rd	X
0001646	000	12/27/2013 03:06:59	311	2	850 Del Mar Downs Rd	X
0001652	000	12/29/2013 02:11:31	321	2	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0001668	000	12/31/2013 02:49:42	321	2	850 Del Mar Downs Rd	X
0000003	000	01/01/2014 08:10:37	321	2	850 Del Mar Downs Rd	X
0000016	000	01/03/2014 04:02:43	311	2	850 Del Mar Downs Rd	X
0000019	000	01/04/2014 04:24:52	321	2	850 Del Mar Downs Rd	X
0000029	000	01/06/2014 11:21:38	311	2	850 Del Mar Downs Rd	X
0000058	000	01/12/2014 04:17:12	321	2	850 Del Mar Downs Rd	X
0000072	000	01/15/2014 00:19:15	321	2	850 Del Mar Downs Rd	X
0000076	000	01/15/2014 20:29:51	321	2	850 Del Mar Downs Rd	X
0000077	000	01/16/2014 04:25:01	321	2	850 Del Mar Downs Rd	X
0000117	000	01/25/2014 07:20:06	321	N	850 Del Mar Downs Rd	X
0000155	000	02/02/2014 19:09:38	321	2	850 Del Mar Downs Rd	X
0000161	000	02/03/2014 19:24:22	321	2	850 Del Mar Downs Rd	X
0000187	000	02/11/2014 18:57:01	321	2	850 Del Mar Downs Rd	X
0000210	000	02/15/2014 04:53:49	321	N	850 Del Mar Downs Rd	X
0000228	000	02/19/2014 09:58:37	321	N	850 Del Mar Downs Rd	X
0000231	000	02/20/2014 07:22:40	321	2	850 Del Mar Downs Rd	X
0000237	000	02/21/2014 16:52:41	321	2	850 Del Mar Downs Rd	X
0000250	000	02/24/2014 03:24:45	321	N	850 Del Mar Downs Rd	X
0000254	000	02/25/2014 06:17:39	311	2	850 Del Mar Downs Rd	X
0000277	000	03/02/2014 22:28:31	321	2	850 Del Mar Downs Rd	X
0000279	000	03/03/2014 15:30:51	321	2	850 Del Mar Downs Rd	X
0000369	000	03/23/2014 16:33:57	321	2	850 Del Mar Downs Rd	X
0000378	000	03/25/2014 05:47:45	321	2	850 Del Mar Downs Rd	X
0000426	000	04/05/2014 12:55:27	321	2	850 Del Mar Downs Rd	X
0000430	000	04/05/2014 14:22:16	311	2	850 Del Mar Downs Rd	X
0000476	000	04/17/2014 18:57:10	321	2	850 Del Mar Downs Rd	X
0000505	000	04/25/2014 18:10:10	321	2	850 Del Mar Downs Rd	X
0000564	000	05/05/2014 15:30:39	611E	2	850 Del Mar Downs Rd	X
0000571	000	05/07/2014 12:44:34	311	N	850 Del Mar Downs Rd	X
0000587	000	05/10/2014 03:54:46	321	2	850 Del Mar Downs Rd	X
0000661	000	05/27/2014 06:35:55	321	2	850 Del Mar Downs Rd	X
0000662	000	05/27/2014 06:46:51	321	N	850 Del Mar Downs Rd	X
0000675	000	05/30/2014 09:35:14	321	2	850 Del Mar Downs Rd	X
0000682	000	05/31/2014 04:38:53	321	2	850 Del Mar Downs Rd	X
0000694	000	06/02/2014 12:58:11	321	2	850 Del Mar Downs Rd	X
0000709	000	06/05/2014 06:50:07	311	2	850 Del Mar Downs Rd	X
0000723	000	06/06/2014 14:13:33	321	2	850 Del Mar Downs Rd	X
0000740	000	06/10/2014 09:58:31	321	N	850 Del Mar Downs Rd	X
0000757	000	06/13/2014 11:06:26	321	2	850 Del Mar Downs Rd	X
0000783	000	06/18/2014 02:19:02	311	N	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0000795	000	06/19/2014 19:26:52	321	2	850 Del Mar Downs Rd	X
0000806	000	06/21/2014 18:23:07	321	2	850 Del Mar Downs Rd	X
0000819	000	06/23/2014 20:15:34	321	2	850 Del Mar Downs Rd	X
0000832	000	06/26/2014 20:18:24	321	2	850 Del Mar Downs Rd	X
0000870	000	07/02/2014 20:23:21	321	2	850 Del Mar Downs Rd	X
0000880	000	07/04/2014 22:03:25	321	2	850 Del Mar Downs Rd	X
0000901	000	07/08/2014 18:16:26	321	N	850 Del Mar Downs Rd	X
0000910	000	07/09/2014 22:29:16	321	2	850 Del Mar Downs Rd	X
0000911	000	07/10/2014 05:22:50	321	2	850 Del Mar Downs Rd	X
0000914	000	07/10/2014 19:21:54	321	2	850 Del Mar Downs Rd	X
0000939	000	07/16/2014 06:32:21	321	2	850 Del Mar Downs Rd	X
0000941	000	07/16/2014 14:37:35	321	2	850 Del Mar Downs Rd	X
0000970	000	07/20/2014 20:03:04	321	N	850 Del Mar Downs Rd	X
0000975	000	07/21/2014 13:59:43	321	2	850 Del Mar Downs Rd	X
0000978	000	07/21/2014 19:15:31	321	2	850 Del Mar Downs Rd	X
0000981	000	07/22/2014 03:58:39	321	2	850 Del Mar Downs Rd	X
0000994	000	07/23/2014 15:27:37	321	N	850 Del Mar Downs Rd	X
0001035	000	07/31/2014 19:43:05	321	2	850 Del Mar Downs Rd	X
0001042	000	08/02/2014 06:13:03	321	2	850 Del Mar Downs Rd	X
0001052	000	08/03/2014 09:12:24	311	2	850 Del Mar Downs Rd	X
0001087	000	08/10/2014 16:30:16	321	2	850 Del Mar Downs Rd	X
0001091	000	08/11/2014 14:41:16	311	2	850 Del Mar Downs Rd	X
0001102	000	08/13/2014 15:47:35	311	N	850 Del Mar Downs Rd	X
0001112	000	08/15/2014 16:57:53	321	2	850 Del Mar Downs Rd	X
0001129	000	08/19/2014 19:42:51	321	2	850 Del Mar Downs Rd	X
0001134	000	08/21/2014 13:55:17	321	2	850 Del Mar Downs Rd	X
0001177	000	08/29/2014 23:35:56	321	2	850 Del Mar Downs Rd	X
0001204	000	09/03/2014 18:08:49	321	2	850 Del Mar Downs Rd	X
0001251	000	09/14/2014 03:13:51	622	2	850 Del Mar Downs Rd	X
0001252	000	09/14/2014 11:08:22	321	1	850 Del Mar Downs Rd	X
0001269	000	09/17/2014 16:20:24	321	2	850 Del Mar Downs Rd	X
0001298	000	09/24/2014 15:42:46	321	2	850 Del Mar Downs Rd	X
0001305	000	09/26/2014 15:23:46	321	2	850 Del Mar Downs Rd	X
0001326	000	10/02/2014 15:16:39	311	N	850 Del Mar Downs Rd	X
0001341	000	10/04/2014 18:28:13	321	2	850 Del Mar Downs Rd	X
0001343	000	10/04/2014 19:31:44	321	2	850 Del Mar Downs Rd	X
0001346	000	10/05/2014 07:46:03	321	2	850 Del Mar Downs Rd	X
0001351	000	10/05/2014 23:11:26	321	2	850 Del Mar Downs Rd	X
0001355	000	10/07/2014 15:38:03	321	2	850 Del Mar Downs Rd	X
0001435	000	10/24/2014 14:39:44	321	2	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0001442	000	10/25/2014 04:38:35	321	2	850 Del Mar Downs Rd	X
0001445	000	10/26/2014 19:43:27	321	2	850 Del Mar Downs Rd	X
0001466	000	11/01/2014 17:25:05	321	2	850 Del Mar Downs Rd	X
0001473	000	11/04/2014 08:28:23	321	2	850 Del Mar Downs Rd	X
0001496	000	11/09/2014 05:42:57	321	2	850 Del Mar Downs Rd	X
0001501	000	11/09/2014 22:56:37	321	2	850 Del Mar Downs Rd	X
0001508	000	11/11/2014 18:46:56	321	2	850 Del Mar Downs Rd	X
0001522	000	11/16/2014 11:53:54	321	N	850 Del Mar Downs Rd	X
0001537	000	11/19/2014 20:26:29	311	N	850 Del Mar Downs Rd	X
0001568	000	11/26/2014 13:38:39	321	2	850 Del Mar Downs Rd	X
0001603	000	12/05/2014 15:58:14	321	2	850 Del Mar Downs Rd	X
0001619	000	12/10/2014 13:06:38	321	2	850 Del Mar Downs Rd	X
0001634	000	12/12/2014 11:43:33	321	2	850 Del Mar Downs Rd	X
0001635	000	12/12/2014 16:20:47	321	2	850 Del Mar Downs Rd	X
0001645	000	12/14/2014 19:49:57	321	2	850 Del Mar Downs Rd	X
0001650	000	12/15/2014 18:56:14	321	2	850 Del Mar Downs Rd	X
0001652	000	12/16/2014 05:13:33	321	2	850 Del Mar Downs Rd	X
0001692	000	12/23/2014 19:30:32	554	2	850 Del Mar Downs Rd	X
0000024	000	01/06/2015 18:37:46	321	2	850 Del Mar Downs Rd	X
0000025	000	01/07/2015 00:12:10	321	2	850 Del Mar Downs Rd	X
0000036	000	01/11/2015 02:48:54	321	2	850 Del Mar Downs Rd	X
0000043	000	01/12/2015 17:16:04	321	2	850 Del Mar Downs Rd	X
0000049	000	01/13/2015 15:35:43	321	2	850 Del Mar Downs Rd	X
0000084	000	01/21/2015 03:22:18	321	2	850 Del Mar Downs Rd	X
0000093	000	01/22/2015 21:58:19	311	2	850 Del Mar Downs Rd	X
0000098	000	01/24/2015 16:27:12	321	N	850 Del Mar Downs Rd	X
0000112	000	01/27/2015 21:53:41	321	2	850 Del Mar Downs Rd	X
0000128	000	02/01/2015 04:32:22	321	2	850 Del Mar Downs Rd	X
0000178	000	02/10/2015 13:29:52	321	1	850 Del Mar Downs Rd	X
0000189	000	02/11/2015 20:15:15	321	2	850 Del Mar Downs Rd	X
0000190	000	02/11/2015 21:40:39	321	2	850 Del Mar Downs Rd	X
0000208	000	02/15/2015 14:30:36	321	2	850 Del Mar Downs Rd	X
0000231	000	02/20/2015 21:45:19	321	2	850 Del Mar Downs Rd	X
0000235	000	02/22/2015 04:02:12	321	2	850 Del Mar Downs Rd	X
0000236	000	02/22/2015 06:28:55	321	2	850 Del Mar Downs Rd	X
0000237	000	02/22/2015 09:16:01	321	2	850 Del Mar Downs Rd	X
0000251	000	02/25/2015 08:47:30	321	2	850 Del Mar Downs Rd	X
0000315	000	03/07/2015 20:25:42	321	2	850 Del Mar Downs Rd	X
0000327	000	03/09/2015 14:36:42	321	2	850 Del Mar Downs Rd	X
0000335	000	03/11/2015 03:17:53	321	N	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0000364	000	03/16/2015 19:44:48	321	2	850 Del Mar Downs Rd	X
0000370	000	03/18/2015 15:46:15	311	2	850 Del Mar Downs Rd	X
0000376	000	03/19/2015 22:50:23	311	2	850 Del Mar Downs Rd	X
0000387	000	03/21/2015 23:08:17	321	2	850 Del Mar Downs Rd	X
0000389	000	03/22/2015 03:44:07	321	2	850 Del Mar Downs Rd	X
0000401	000	03/23/2015 22:30:24	321	2	850 Del Mar Downs Rd	X
0000408	000	03/24/2015 19:25:26	321	2	850 Del Mar Downs Rd	X
0000419	000	03/27/2015 01:16:19	321	2	850 Del Mar Downs Rd	X
0000423	000	03/27/2015 22:28:59	321	2	850 Del Mar Downs Rd	X
0000424	000	03/27/2015 22:42:25	321	2	850 Del Mar Downs Rd	X
0000425	000	03/28/2015 08:53:30	321	2	850 Del Mar Downs Rd	X
0000430	000	03/29/2015 13:26:08	321	2	850 Del Mar Downs Rd	X
0000432	000	03/29/2015 18:33:36	321	2	850 Del Mar Downs Rd	X
0000481	000	04/05/2015 07:31:15	321	2	850 Del Mar Downs Rd	X
0000549	000	04/18/2015 14:48:57	321	2	850 Del Mar Downs Rd	X
0000555	000	04/19/2015 09:26:12	321	2	850 Del Mar Downs Rd	X
0000560	000	04/20/2015 14:08:59	321	N	850 Del Mar Downs Rd	X
0000579	000	04/24/2015 17:34:38	311	2	850 Del Mar Downs Rd	X
0000596	000	04/27/2015 09:01:50	321	2	850 Del Mar Downs Rd	X
0000599	000	04/27/2015 17:22:13	321	2	850 Del Mar Downs Rd	X
0000623	000	05/02/2015 13:26:53	321	2	850 Del Mar Downs Rd	X
0000625	000	05/02/2015 14:52:02	321	2	850 Del Mar Downs Rd	X
0000632	000	05/03/2015 20:31:29	321	2	850 Del Mar Downs Rd	X
0000640	000	05/07/2015 10:54:08	321	2	850 Del Mar Downs Rd	X
0000666	000	05/11/2015 19:38:13	321	2	850 Del Mar Downs Rd	X
0000736	000	05/26/2015 21:51:20	321	2	850 Del Mar Downs Rd	X
0000745	000	05/28/2015 09:43:40	321	N	850 Del Mar Downs Rd	X
0000769	000	05/31/2015 19:32:41	311	2	850 Del Mar Downs Rd	X
0000869	000	06/18/2015 13:07:09	321	2	850 Del Mar Downs Rd	X
0000873	000	06/19/2015 16:13:19	321	2	850 Del Mar Downs Rd	X
0001008	000	07/16/2015 21:36:27	321	2	850 Del Mar Downs Rd	X
0001066	000	07/27/2015 08:15:18	321	N	850 Del Mar Downs Rd	X
0001111	000	08/01/2015 05:06:49	554	N	850 Del Mar Downs Rd	X
0001170	000	08/10/2015 17:06:54	321	2	850 Del Mar Downs Rd	X
0001218	000	08/21/2015 15:34:50	321	2	850 Del Mar Downs Rd	X
0001251	000	08/28/2015 14:47:27	321	2	850 Del Mar Downs Rd	X
0001282	000	09/05/2015 18:53:22	321	2	850 Del Mar Downs Rd	X
0001294	000	09/08/2015 20:31:27	321	N	850 Del Mar Downs Rd	X
0001307	000	09/11/2015 11:33:44	321	2	850 Del Mar Downs Rd	X
0001318	000	09/13/2015 07:34:04	321	N	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0001321	000	09/14/2015 15:18:48	321	N	850 Del Mar Downs Rd	X
0001323	000	09/14/2015 17:54:44	321	2	850 Del Mar Downs Rd	X
0001341	000	09/18/2015 08:45:52	311	2	850 Del Mar Downs Rd	X
0001423	000	10/09/2015 00:04:38	311	2	850 Del Mar Downs Rd	X
0001426	000	10/09/2015 19:51:30	321	2	850 Del Mar Downs Rd	X
0001451	000	10/17/2015 04:13:15	321	2	850 Del Mar Downs Rd	X
0001452	000	10/17/2015 07:32:57	321	2	850 Del Mar Downs Rd	X
0001476	000	10/22/2015 10:39:01	321	2	850 Del Mar Downs Rd	X
0001480	000	10/22/2015 22:42:01	321	2	850 Del Mar Downs Rd	X
0001496	000	10/25/2015 12:31:56	321	2	850 Del Mar Downs Rd	X
0001515	000	10/28/2015 09:30:06	321	N	850 Del Mar Downs Rd	X
0001536	000	11/01/2015 21:14:48	611E	2	850 Del Mar Downs Rd	X
0001549	000	11/04/2015 12:23:11	321	N	850 Del Mar Downs Rd	X
0001601	000	11/16/2015 15:31:37	321	2	850 Del Mar Downs Rd	X
0001635	000	11/21/2015 19:11:28	321	2	850 Del Mar Downs Rd	X
0001708	000	12/09/2015 11:59:45	321	2	850 Del Mar Downs Rd	X
0001710	000	12/09/2015 13:32:15	321	N	850 Del Mar Downs Rd	X
0001759	000	12/16/2015 16:44:47	321	2	850 Del Mar Downs Rd	X
0001783	000	12/20/2015 17:23:52	321	2	850 Del Mar Downs Rd	X
0001784	000	12/21/2015 10:06:25	321	2	850 Del Mar Downs Rd	X
0000005	000	01/01/2016 17:07:41	321	2	850 Del Mar Downs Rd	X
0000026	000	01/06/2016 19:25:27	321	2	850 Del Mar Downs Rd	X
0000043	000	01/08/2016 19:29:04	321	2	850 Del Mar Downs Rd	X
0000074	000	01/16/2016 21:38:36	321	2	850 Del Mar Downs Rd	X
0000094	000	01/20/2016 16:08:07	321	2	850 Del Mar Downs Rd	X
0000102	000	01/23/2016 16:18:48	321	2	850 Del Mar Downs Rd	X
0000103	000	01/23/2016 18:04:28	321	N	850 Del Mar Downs Rd	X
0000104	000	01/23/2016 21:14:44	321	2	850 Del Mar Downs Rd	X
0000112	000	01/25/2016 08:01:14	321	2	850 Del Mar Downs Rd	X
0000118	000	01/26/2016 04:01:59	554	N	850 Del Mar Downs Rd	X
0000187	000	02/04/2016 10:07:58	321	2	850 Del Mar Downs Rd	X
0000189	000	02/04/2016 18:32:49	321	2	850 Del Mar Downs Rd	X
0000195	000	02/05/2016 17:03:27	321	2	850 Del Mar Downs Rd	X
0000207	000	02/08/2016 23:38:22	321	2	850 Del Mar Downs Rd	X
0000211	000	02/09/2016 16:59:13	321	2	850 Del Mar Downs Rd	X
0000214	000	02/10/2016 09:36:36	321	2	850 Del Mar Downs Rd	X
0000235	000	02/13/2016 18:01:56	321	2	850 Del Mar Downs Rd	X
0000253	000	02/17/2016 12:11:16	321	2	850 Del Mar Downs Rd	X
0000259	000	02/19/2016 15:31:47	321	2	850 Del Mar Downs Rd	X
0000268	000	02/20/2016 17:51:54	321	2	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
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0000336	000	03/07/2016 01:46:33	321	2	850 Del Mar Downs Rd	X
0000347	000	03/07/2016 22:56:48	321	2	850 Del Mar Downs Rd	X
0000383	000	03/12/2016 11:09:03	321	N	850 Del Mar Downs Rd	X
0000419	000	03/18/2016 12:29:26	321	2	850 Del Mar Downs Rd	X
0000455	000	03/24/2016 11:20:24	321	2	850 Del Mar Downs Rd	X
0000462	000	03/25/2016 11:18:41	321	2	850 Del Mar Downs Rd	X
0000473	000	03/28/2016 14:18:19	321	1	850 Del Mar Downs Rd	X
0000526	000	04/08/2016 07:55:26	321	2	850 Del Mar Downs Rd	X
0000553	000	04/15/2016 22:01:39	321	2	850 Del Mar Downs Rd	X
0000562	000	04/17/2016 13:28:46	321	2	850 Del Mar Downs Rd	X
0000574	000	04/20/2016 07:06:00	321	2	850 Del Mar Downs Rd	X
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0000582	000	04/22/2016 06:32:20	321	2	850 Del Mar Downs Rd	X
0000650	000	05/07/2016 17:40:51	321	2	850 Del Mar Downs Rd	X
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0000660	000	05/11/2016 15:37:03	321	N	850 Del Mar Downs Rd	X
0000716	000	05/20/2016 04:02:38	321	2	850 Del Mar Downs Rd	X
0000721	000	05/20/2016 22:41:34	321	2	850 Del Mar Downs Rd	X
0000744	000	05/29/2016 03:45:40	321	2	850 Del Mar Downs Rd	X
0000758	000	06/01/2016 13:48:09	321	N	850 Del Mar Downs Rd	X
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0000859	000	06/22/2016 04:54:35	321	2	850 Del Mar Downs Rd	X
0000861	000	06/22/2016 17:42:56	321	2	850 Del Mar Downs Rd	X
0000873	000	06/24/2016 13:58:40	321	2	850 Del Mar Downs Rd	X
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0000883	000	06/26/2016 02:30:05	321	2	850 Del Mar Downs Rd	X
0000891	000	06/27/2016 01:10:56	321	2	850 Del Mar Downs Rd	X
0000944	000	07/06/2016 08:27:59	321	2	850 Del Mar Downs Rd	X
0000971	000	07/11/2016 11:52:16	321	2	850 Del Mar Downs Rd	X
0001021	000	07/22/2016 00:34:34	554	N	850 Del Mar Downs Rd	X
0001042	000	07/26/2016 08:17:13	554	N	850 Del Mar Downs Rd	X
0001074	000	08/01/2016 20:33:59	321	2	850 Del Mar Downs Rd	X
0001075	000	08/02/2016 09:13:41	321	N	850 Del Mar Downs Rd	X
0001088	000	08/05/2016 18:56:44	321	2	850 Del Mar Downs Rd	X
0001134	000	08/14/2016 22:16:07	321	2	850 Del Mar Downs Rd	X
0001163	000	08/21/2016 03:40:18	321	2	850 Del Mar Downs Rd	X
0001170	000	08/22/2016 05:56:44	550	2	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
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0001235	000	09/06/2016 06:58:52	321	2	850 Del Mar Downs Rd	X
0001249	000	09/07/2016 23:27:48	554	2	850 Del Mar Downs Rd	X
0001251	000	09/08/2016 11:12:12	321	2	850 Del Mar Downs Rd	X
0001252	000	09/08/2016 14:02:36	554	2	850 Del Mar Downs Rd	X
0001311	000	09/22/2016 00:42:40	554	N	850 Del Mar Downs Rd	X
0001335	000	09/25/2016 07:54:26	321	2	850 Del Mar Downs Rd	X
0001343	000	09/26/2016 12:23:00	321	N	850 Del Mar Downs Rd	X
0001376	000	09/30/2016 23:28:02	611	2	850 Del Mar Downs Rd	X
0001388	000	10/03/2016 07:05:37	321	2	850 Del Mar Downs Rd	X
0001391	000	10/03/2016 19:25:59	321	2	850 Del Mar Downs Rd	X
0001463	000	10/17/2016 20:25:01	622	2	850 Del Mar Downs Rd	X
0001474	000	10/20/2016 11:21:34	321	2	850 Del Mar Downs Rd	X
0001551	000	11/03/2016 03:14:00	321	2	850 Del Mar Downs Rd	X
0001565	000	11/05/2016 03:31:55	554	N	850 DEL MAR DOWNS Rd	X
0001585	000	11/10/2016 08:40:26	321	2	850 Del Mar Downs Rd	X
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0001663	000	11/22/2016 11:59:55	321	N	Duplicate: 850 Del Mar Downs Rd	X
0001668	000	11/23/2016 08:42:12	321	2	850 Del Mar Downs Rd	X
0001717	000	12/02/2016 12:47:53	321	2	850 Del Mar Downs Rd	X
0001751	000	12/09/2016 16:07:19	321	2	850 Del Mar Downs Rd	X
0001844	000	12/26/2016 12:14:59	321	2	850 Del Mar Downs Rd	X
0000049	000	01/12/2017 07:09:06	321	2	850 Del Mar Downs Rd	X
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0000085	000	01/18/2017 11:13:19	321	2	850 Del Mar Downs Rd	X
0000094	000	01/19/2017 17:15:14	321	2	850 Del Mar Downs Rd	X
0000117	000	01/22/2017 21:21:09	321	2	850 Del Mar Downs Rd	X
0000193	000	02/04/2017 19:01:53	321	2	850 Del Mar Downs Rd	X
0000220	000	02/09/2017 06:46:36	321	N	850 Del Mar Downs Rd	X
0000222	000	02/09/2017 14:33:04	321	2	850 Del Mar Downs Rd	X
0000276	000	02/19/2017 17:54:03	321	2	850 Del Mar Downs Rd	X
0000279	000	02/20/2017 13:26:07	321	2	850 Del Mar Downs Rd	X
0000306	000	02/26/2017 21:14:22	321	2	850 Del Mar Downs Rd	X
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0000371	000	03/07/2017 13:30:24	321	N	850 Del Mar Downs Rd	X
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0000397	000	03/12/2017 05:21:03	321	2	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
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0000589	000	04/20/2017 23:07:10	321	2	850 Del Mar Downs Rd # RM 308	X
0000675	000	05/08/2017 18:49:15	321	N	850 Del Mar Downs Rd	X
0000711	000	05/15/2017 14:32:51	321	N	850 Del Mar Downs Rd # RM 316	X
0000714	000	05/15/2017 20:38:01	321	2	850 Del Mar Downs Rd # RM 316	X
0000747	000	05/22/2017 07:31:37	321	2	850 Del Mar Downs Rd # APT 322	X
0000786	000	06/04/2017 09:54:49	321	2	850 Del Mar Downs Rd	X
0000788	000	06/05/2017 14:46:25	321	2	850 Del Mar Downs Rd # RM 316	X
0000804	000	06/09/2017 05:54:58	321	2	850 Del Mar Downs Rd # RM 302	X
0000812	000	06/10/2017 23:07:42	321	N	850 Del Mar Downs Rd # APT 240	X
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0000889	000	06/27/2017 14:25:05	321	2	850 Del Mar Downs Rd # EXERCISE	X
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0000955	000	07/10/2017 03:21:30	321	2	850 DEL MAR DOWNS Rd # RM 135	X
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0000978	000	07/15/2017 00:06:15	321	2	850 Del Mar Downs Rd # RM 415	X
0000980	000	07/15/2017 12:43:21	321	2	850 Del Mar Downs Rd # RM 315	X
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0001114	000	08/06/2017 18:24:10	321	2	850 Del Mar Downs Rd # RM 329	X
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0001168	000	08/18/2017 09:11:31	321	N	850 Del Mar Downs Rd # RM 329	X
0001181	000	08/19/2017 23:24:52	554	2	850 Del Mar Downs Rd # RM 329	X
0001236	000	09/01/2017 01:48:38	321	N	850 Del Mar Downs Rd # RM 311	X
0001257	000	09/05/2017 03:22:13	321	2	850 Del Mar Downs Rd # RM 214	X
0001260	000	09/05/2017 10:33:31	321	N	850 Del Mar Downs Rd # RM 239	X
0001269	000	09/06/2017 17:50:58	321	2	850 Del Mar Downs Rd # RM 224	X
0001276	000	09/09/2017 02:04:04	321	2	850 Del Mar Downs Rd # UNIT 329	X
0001370	000	10/02/2017 11:01:46	321	N	850 Del Mar Downs Rd # UNIT 230	X
0001386	000	10/05/2017 01:15:16	321	2	850 Del Mar Downs Rd # RM 412	X
0001395	000	10/06/2017 07:45:24	321	2	850 Del Mar Downs Rd # RM 329	X
0001510	000	10/29/2017 13:24:52	321	N	850 Del Mar Downs Rd	X
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0001543	000	11/04/2017 08:31:15	321	2	850 Del Mar Downs Rd # DINNING RM	X
0001547	000	11/05/2017 08:28:10	321	2	850 Del Mar Downs Rd # RM 225	X
0001551	000	11/06/2017 06:34:10	321	2	850 Del Mar Downs Rd # RM 240	X
0001553	000	11/06/2017 14:20:55	611E	N	850 Del Mar Downs Rd # RM 316	X
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Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
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0001617	000	11/17/2017 04:14:29	554	N	850 Del Mar Downs Rd # RM 214	X
0001618	000	11/17/2017 07:58:41	321	2	850 Del Mar Downs Rd # RM 210	X
0001631	000	11/19/2017 03:07:02	554	N	850 Del Mar Downs Rd # RM 424	X
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0001697	000	12/01/2017 00:20:24	554	N	850 Del Mar Downs Rd # RM 418	X
0001700	000	12/01/2017 09:20:37	321	2	850 Del Mar Downs Rd	X
0001705	000	12/02/2017 16:15:52	321	2	850 Del Mar Downs Rd # RM 329	X
0001715	000	12/05/2017 20:56:40	321	2	850 Del Mar Downs Rd # RM 129	X
0001723	000	12/07/2017 06:06:14	321	2	850 Del Mar Downs Rd # UNIT 302	X
0001730	000	12/07/2017 19:56:00	321	2	850 Del Mar Downs Rd # RM 129	X
0001769	000	12/15/2017 11:06:50	321	2	850 Del Mar Downs Rd # UNIT 338	X
0001772	000	12/15/2017 11:53:14	321	2	850 Del Mar Downs Rd # APT 306	X
0001775	000	12/16/2017 05:20:27	510	N	850 Del Mar Downs Rd # RM 418	X
0001785	000	12/17/2017 16:36:09	321	2	850 Del Mar Downs Rd # RM 214	X
0001833	000	12/23/2017 11:13:23	321	2	850 Del Mar Downs Rd # RM 316	X
0001864	000	12/29/2017 09:19:37	321	2	850 Del Mar Downs Rd # RM 213	X
0000011	000	01/03/2018 00:45:20	554	N	850 Del Mar Downs Rd # RM 204	X
0000027	000	01/03/2018 21:51:21	611	N	850 Del Mar Downs Rd # APT 234	X
0000045	000	01/06/2018 02:01:26	321	2	850 Del Mar Downs Rd # RM 426	X
0000062	000	01/11/2018 00:59:03	321	2	850 Del Mar Downs Rd # RM 329	X
0000068	000	01/12/2018 02:09:36	321	2	850 Del Mar Downs Rd # APT 329	X
0000091	000	01/16/2018 23:27:55	321	2	850 Del Mar Downs Rd # RM 418	X
0000098	000	01/18/2018 06:21:49	321	2	850 Del Mar Downs Rd # RM 132	X
0000102	000	01/19/2018 04:16:29	321	N	850 Del Mar Downs Rd # RM 424	X
0000132	000	01/27/2018 05:47:51	321	2	850 Del Mar Downs Rd # RM 329	X
0000133	000	01/27/2018 07:19:46	321	2	850 Del Mar Downs Rd # RM 215	X
0000142	000	01/29/2018 03:02:02	321	2	850 Del Mar Downs Rd # RM 329	X
0000146	000	01/29/2018 10:31:26	321	2	850 Del Mar Downs Rd # RM 316	X
0000160	000	02/01/2018 11:59:33	321	2	850 Del Mar Downs Rd # OFFICE	X
0000293	000	02/27/2018 11:40:45	321	N	850 Del Mar Downs Rd # RM 316	X
0000294	000	02/27/2018 17:59:03	321	2	850 Del Mar Downs Rd # RM 225	X
0000303	000	03/01/2018 22:08:11	321	2	850 Del Mar Downs Rd # APT 322	X
0000305	000	03/02/2018 09:55:50	321	2	850 Del Mar Downs Rd	X
0000332	000	03/07/2018 12:23:36	321	2	850 Del Mar Downs Rd # RM 337	X
0000357	000	03/11/2018 23:33:38	321	2	850 Del Mar Downs Rd # RM 408	X
0000368	000	03/15/2018 10:01:18	321	N	850 Del Mar Downs Rd # RM 337	X
0000375	000	03/16/2018 08:57:59	321	2	850 Del Mar Downs Rd	X

Number	Exp	Alarm Time	Type	Aid	Location	Complete Reviewed Released
0000379	000	03/17/2018 17:29:23	321	2	850 Del Mar Downs Rd # RM 316	X
0000384	000	03/18/2018 03:13:04	321	2	850 Del Mar Downs Rd # RM 337	X
0000389	000	03/18/2018 19:01:00	321	2	850 Del Mar Downs Rd # RM 337	X
0000391	000	03/18/2018 19:33:41	321	2	850 Del Mar Downs Rd # RM 220	X
0000399	000	03/20/2018 07:30:16	321	2	850 DEL MAR DOWNS Rd # RM 215	X

_____ End of Report _____

RM
RhodesMoore LLC

To: The City of Solana Beach

Subject: Analysis of Schools Nearby to the Genevieve Seniors Care Site

One of the community concerns that was brought up was the nearby schools that may be impacted by the Assisted Living Facility. We followed up on the three nearby facilities and here is a summary of each based on research and interviews.

LaPorte Montessori School. 1010 Solana Drive. This school is primarily a nursery school for infants and toddlers. It does have regular classes for K-6 for 10 months per year and various other classes and programs during the summer. The total student count during the main school session is 165 students (2017 school year) and only 28 are ages 5-12 attending the K-6 classes according to the school director. They expect that fewer than 5 live close enough to walk to school. They are aware of one family that has students that regularly walk, bike or take a golf cart to school accompanied by parents. The school has two student drop off/parking locations and there is a 5 foot concrete sidewalk along the frontage of the school.

Unitarian Church//School. 1036 Solana Drive. The Unitarian Church runs a day care center for children ages 1-4 from 9 AM to 1 PM. They typically have about 50 children per day weekdays. It is unlikely that these children walk to school. Nursery attendees are dropped off in the parking areas that is off a long drive up from the street. There is no sidewalk along the street frontage of the Church.

Lindamood Bell School. 445 Marine View Avenue. The Lindamood Bell School is in the Timbers Building. This is an educational services company that provides one on one tutoring to special needs children (ADHD, Autistic Spectrum) weekdays from 8 AM-5 PM. These children do not walk to school but are dropped off and often accompanied by their parents for their sessions. The students are dropped off in the parking area of the Timbers Building and there is a sidewalk in front on Marineview.

Appendix 5.12-3 Community Enhancements

Appendices

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Overall Neighborhood Mobility Concept Options

Image Source: USGS

Las Banderas Mobility Concept Options

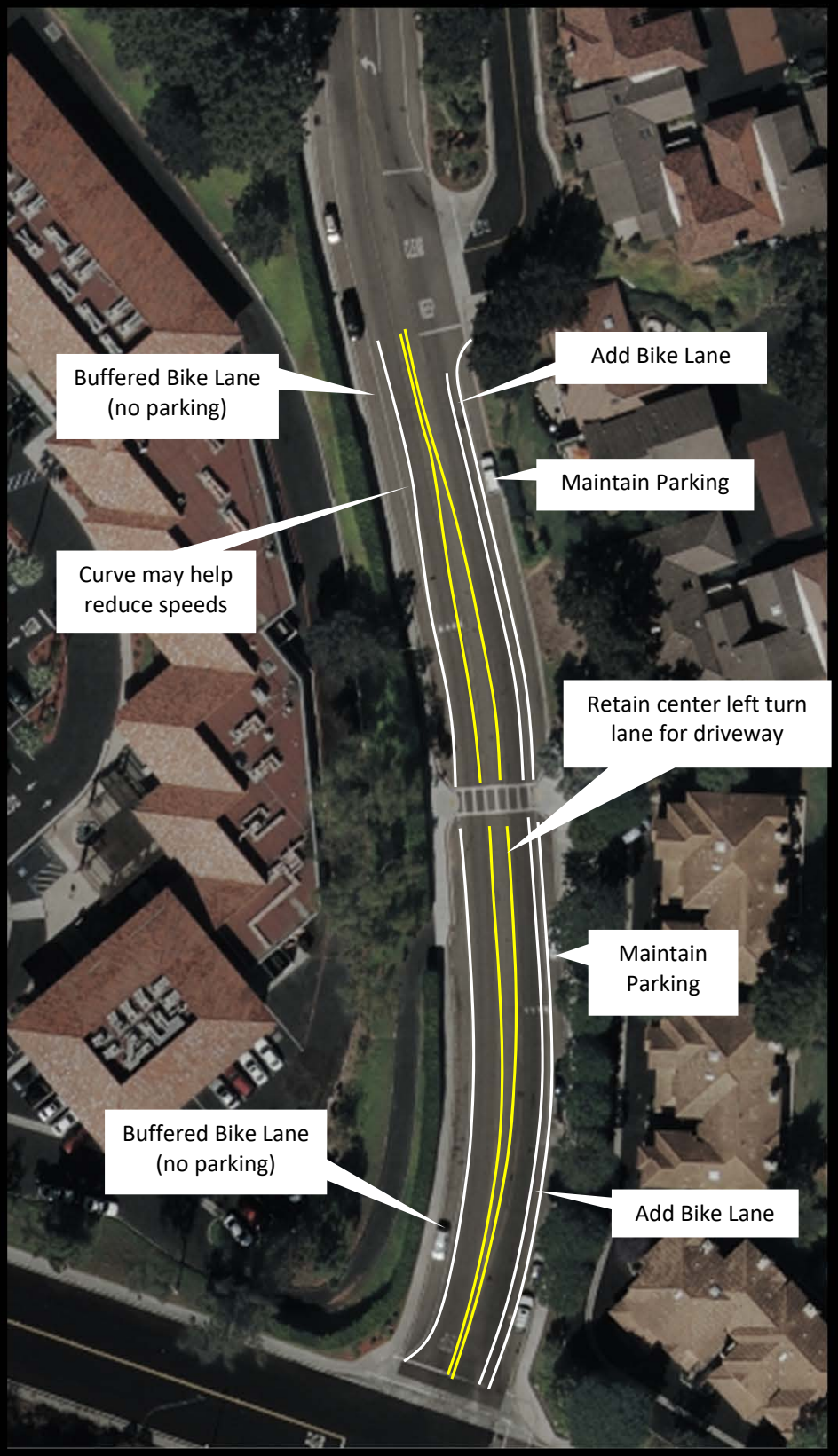

Image Source: USGS

Marine View at Solana Dr Mobility Concept Options

Image Source: USGS

Highland at Avocado Mobility Concept Options

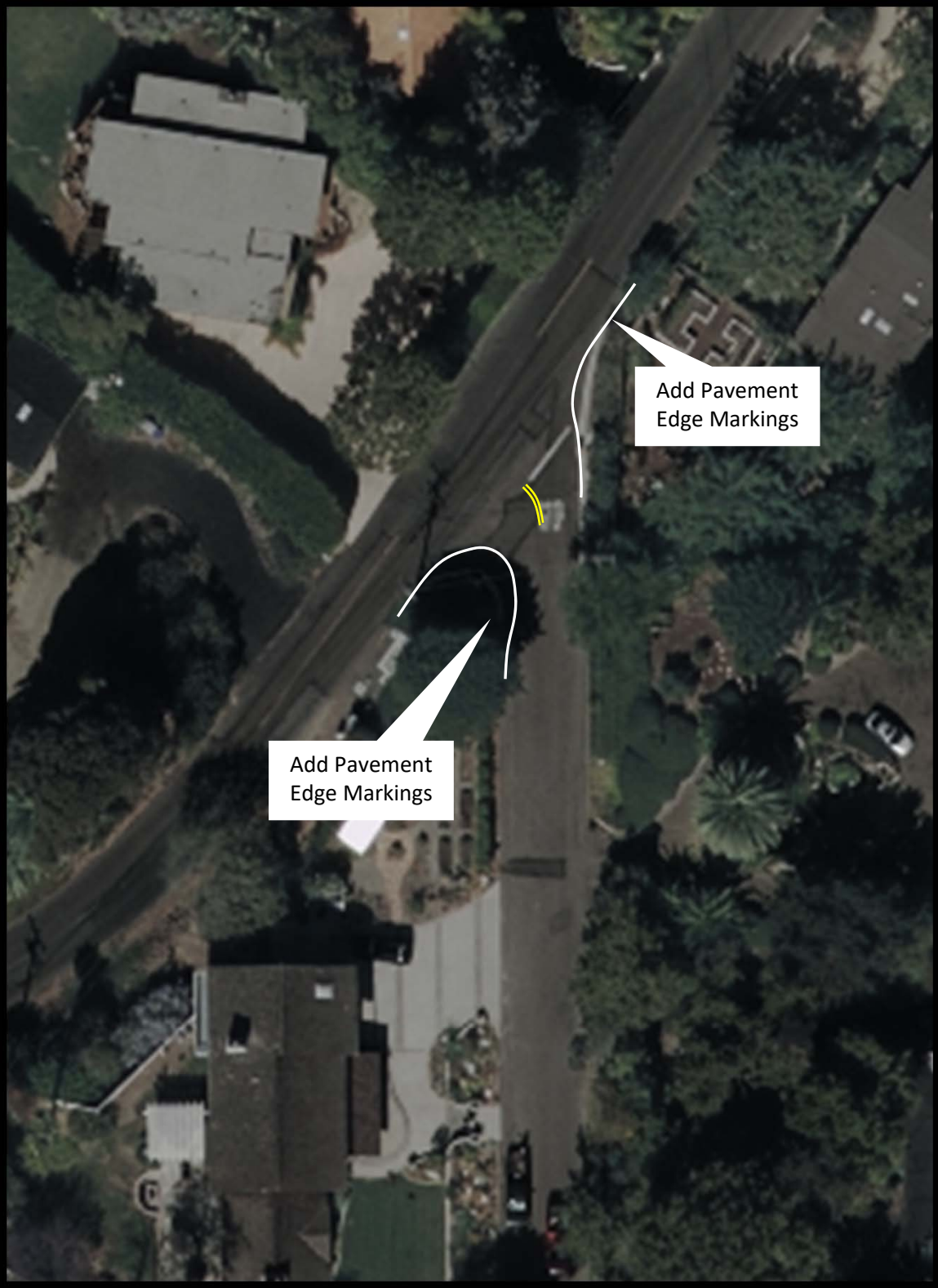

Image Source: USGS

Highland between Solana and San Andres Mobility Concept Options

Image Source: USGS

Appendix 5.12-3 Community Enhancements

Appendices

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Overall Neighborhood Mobility Concept Options

Image Source: USGS

Las Banderas Mobility Concept Options

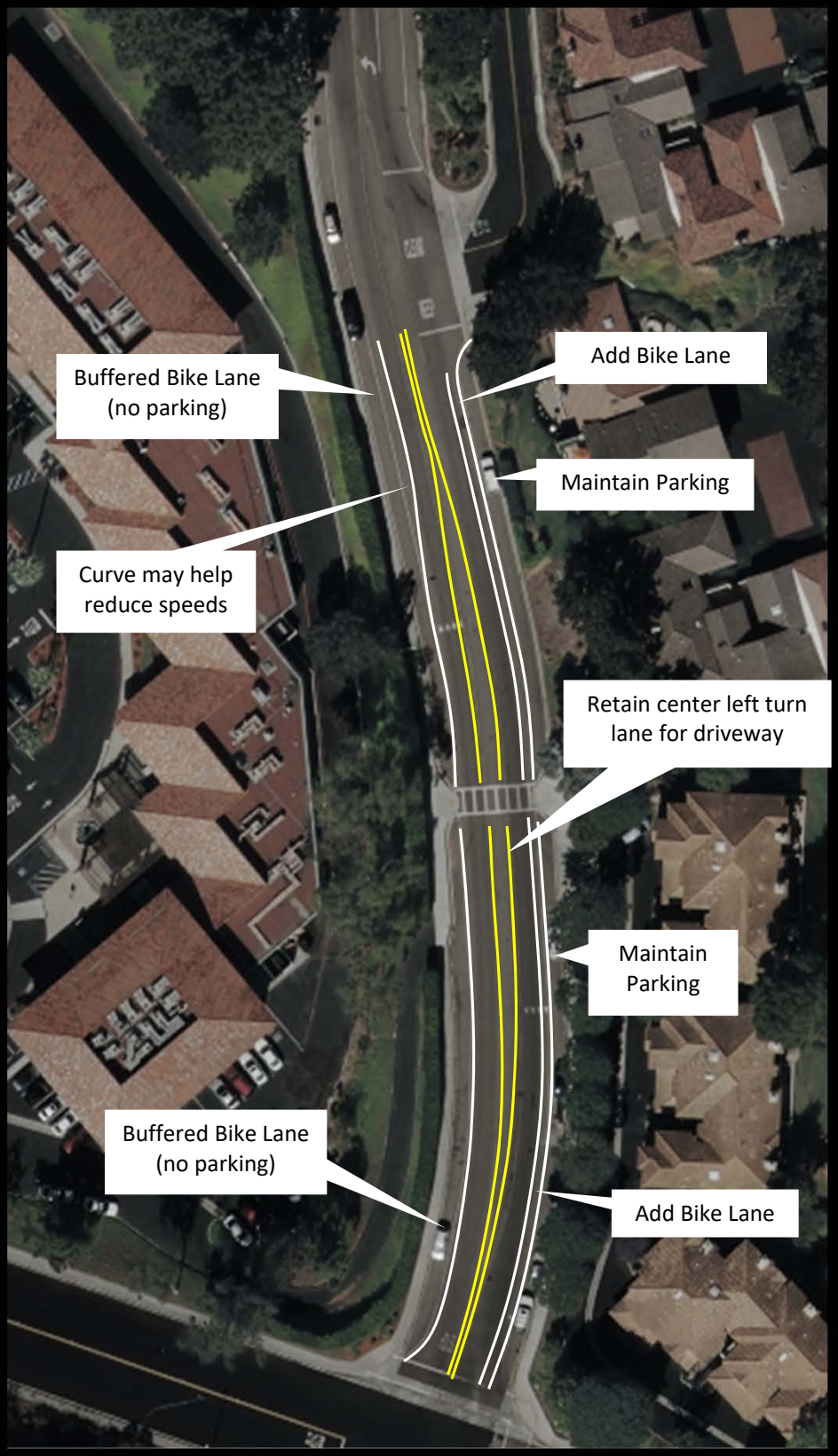

Image Source: USGS

Marine View at Solana Dr Mobility Concept Options

Image Source: USGS

Highland at Avocado Mobility Concept Options

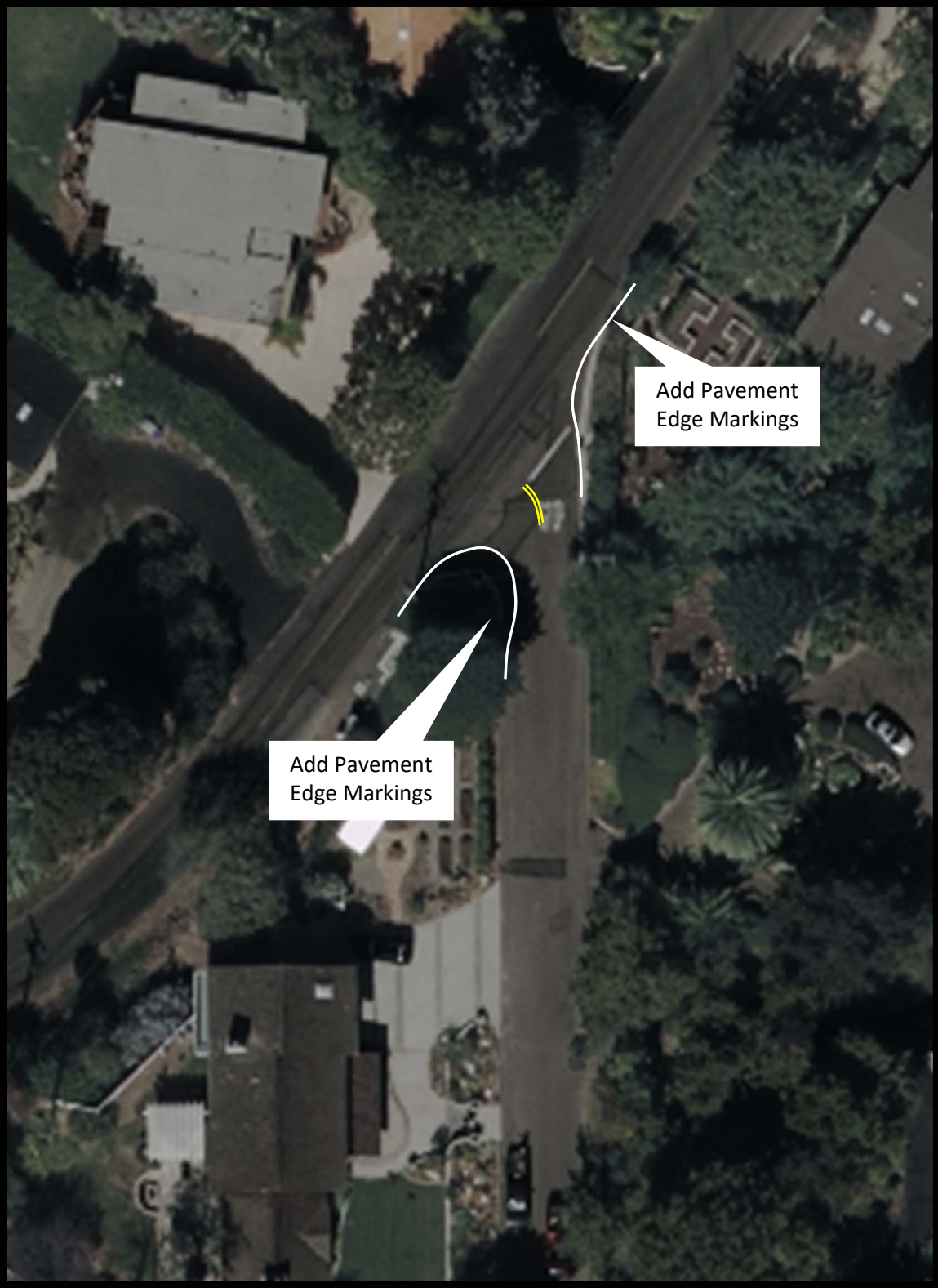

Image Source: USGS

Highland between Solana and San Andres Mobility Concept Options

Image Source: USGS

Appendix 5.15-1 Energy Calculations

Appendices

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Operation-Related Vehicle Fuel/Energy Usage

PROPOSED COMMUTE

Year	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Proposed Project	688,871	28,341	44,070	4,744	1,345	390	6,324	2,120
Total	**688,871**	**28,341**	**44,070**	**4,744**	**1,345**	**390**	**6,324**	**2,120**

Proposed Facilities

PROPOSED CONDITIONS

Vehicle type	Fleet percent	VMT	
	Congregate Care (Assisted Living)	Congregate Care (Assisted Living)	Total
LDA	58.83%	435,712	435,712
LDT1	4.29%	31,782	31,782
LDT2	18.44%	136,605	136,605
MDV	11.08%	82,054	82,054
LHD1	1.73%	12,808	12,808
LHD2	0.56%	4,116	4,116
MHD	1.55%	11,505	11,505
HHD	2.30%	17,050	17,050
OBUS	0.19%	1,409	1,409
UBUS	0.20%	1,499	1,499
MCY	0.62%	4,578	4,578
SBUS	0.07%	552	552
MH	0.13%	941	941
	100.00%	740,609	740,609

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	271.26	217.80	241.56	740,609	740,609
Total	271.26	217.80	241.56	740,609	740,609

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

PROPOSED CONDITIONS

Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent	
LDA	97.59%	1.10%	0.00%	1.31%	
LDT1	99.77%	0.05%	0.00%	0.18%	
LDT2	99.10%	0.56%	0.00%	0.34%	
MDV	97.65%	2.25%	0.00%	0.10%	
LHD1	53.60%	46.40%	0.00%	0.00%	
LHD2	32.82%	67.18%	0.00%	0.00%	
MHD	14.78%	85.22%	0.00%	0.00%	<< Equal to T6 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
HHD	0.11%	98.36%	1.53%	0.00%	<< Equal to T7 (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
OBUS	56.71%	43.29%	0.00%	0.00%	<< Motor coach, all other buses, and OBUS (https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf)
UBUS	25.84%	1.82%	72.34%	0.00%	
MCY	100.00%	0.00%	0.00%	0.00%	
SBUS	11.54%	88.46%	0.00%	0.00%	
MH	74.66%	25.34%	0.00%	0.00%	

PROPOSED CONDITIONS

Vehicle type	Gasoline			Diesel			CNG			Electricity		
	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	425,198	28.97	14,678	4,792	43.50	110	0	0	0	5,722	2.98	1,918
LDT1	31,710	24.49	1,295	15	22.22	1	0	0	0	57	2.98	19
LDT2	135,370	22.17	6,106	771	31.81	24	0	0	0	464	2.98	156
MDV	80,128	18.46	4,341	1,846	24.21	76	0	0	0	81	2.98	27
LHD1	6,865	8.23	835	5,943	17.64	337	0	0	0	0	0.00	0
LHD2	1,351	7.19	188	2,765	15.74	176	0	0	0	0	0.00	0
MHD	1,700	4.65	365	9,804	8.94	1,097	0	0	0	0	0.00	0
HHD	19	3.83	5	16,770	6.10	2,748	260	2.40	109	0	0.00	0
OBUS	799	4.60	173	610	7.39	82	0	0	0	0	0.00	0
UBUS	387	5.38	72	27	4.73	6	1,084	3.86	281	0	0.00	0
MCY	4,578	36.50	125	0	0.00	0	0	0	0	0	0.00	0
SBUS	64	9.17	7	488	7.83	62	0	0	0	0	0.00	0
MH	703	4.63	152	239	9.55	25	0	0	0	0	0.00	0
	688,871		**28,341**	**44,070**		**4,744**	**1,345**		**390**	**6,324**		**2,120**

Appendix C: Evidence Used to Define the Average Number of KWH Required to Displace a Gallong of Gasoline

Table A 3: Evidence from U.S. Department of Energy and U.S. Environmental Protection Agency's fuel economy website[32]

Vehicle	Model year	Electric consumption	Gasoline fuel economy	Number of kWh that are equivalent to 1 gallon
Ford Fusion Energi & Ford C-Max Energi	2013	0.34 kWh per mile	43 mpg	14.6
Chevrolet Volt	2013	0.35 kWh per mile	37 mpg	12.9
Chevrolet Volt	2012	0.36 kWh per mile	37 mpg	13.3
Fisker Karma	2012	0.62 kWh per mile	20 mpg	12.4
Toyota Prius	2013	0.29 kWh per mile & 0.2 gal	50 mpg	13.1
Average for five models	-	-	-	13.3 +/- 0.8

Table A 5: Average power consumption per mile traveled over time for different PEV categories

Year range	2012- 2020	2020-2030	2030-2040	2040-2050	2050
Efficiency improvement per year	0.3%	0.8%	0.9%	0.9%	
Year	2012	2020	2030	2040	2050
Relative energy efficiency	1.000	0.976	0.901	0.823	0.752

https://www.fhwa.dot.gov/environment/climate_change/mitigation/publications_and_tools/ev_deployment/page08.cfm

0.34	14.6
0.35	12.9
0.36	13.3
0.34	13.3

2013	0.34
2014	0.34
2015	0.34
2016	0.34
2017	0.34
2018	0.34
2019	0.34
2020	0.33
2021	0.33
2022	0.33
2023	0.33
2024	0.32
2025	0.32
2026	0.32
2027	0.32
2028	0.31
2029	0.31
2030	0.31
2031	0.31
2032	0.30
2033	0.30
2034	0.30
2035	0.29

EMFAC Fuel Usage: Year 2019

Vehicle type	VMT/day	Gasoline Gallons/day	Miles/gallon	VMT/day
All other buses	0	0	#DIV/0!	29,427
LDA	52,523,886	1,813,130	28.97	591,969
LDT1	5,870,445	239,667	24.49	2,721
LDT2	18,303,424	825,540	22.17	104,229
LHD1	1,338,981	162,786	8.23	1,159,049
LHD2	194,787	27,093	7.19	398,691
MCY	671,702	18,404	36.50	0
MDV	11,949,483	647,368	18.46	275,255
MH	105,761	22,846	4.63	35,905
Motor coach	0	0	#DIV/0!	23,498
OBUS	69,331	15,058	4.60	0
PTO	0	0	#DIV/0!	26,736
SBUS	9,805	1,069	9.17	75,145
T6	189,550	40,724	4.65	1,093,117
T7	1,990	520	3.83	1,781,260
UBUS	37,246	6,926	5.38	2,628
Total	**91,266,393**	**3,821,129**	**23.88**	**5,599,631**
		1394711953		

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Diego (SD)
Calendar Year: 2019
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumpt

Region	CalYr	VehClass	MdlYr	Speed
San Diego (SD)	2019	All Other Buses	Aggregated	Aggregated
San Diego (SD)	2019	LDA	Aggregated	Aggregated
San Diego (SD)	2019	LDA	Aggregated	Aggregated
San Diego (SD)	2019	LDA	Aggregated	Aggregated
San Diego (SD)	2019	LDT1	Aggregated	Aggregated
San Diego (SD)	2019	LDT1	Aggregated	Aggregated
San Diego (SD)	2019	LDT1	Aggregated	Aggregated
San Diego (SD)	2019	LDT2	Aggregated	Aggregated
San Diego (SD)	2019	LDT2	Aggregated	Aggregated
San Diego (SD)	2019	LDT2	Aggregated	Aggregated
San Diego (SD)	2019	LHD1	Aggregated	Aggregated

San Diego (SD)	2019 LHD1	Aggregated	Aggregated
San Diego (SD)	2019 LHD2	Aggregated	Aggregated
San Diego (SD)	2019 LHD2	Aggregated	Aggregated
San Diego (SD)	2019 MCY	Aggregated	Aggregated
San Diego (SD)	2019 MDV	Aggregated	Aggregated
San Diego (SD)	2019 MDV	Aggregated	Aggregated
San Diego (SD)	2019 MDV	Aggregated	Aggregated
San Diego (SD)	2019 MH	Aggregated	Aggregated
San Diego (SD)	2019 MH	Aggregated	Aggregated
San Diego (SD)	2019 Motor Coach	Aggregated	Aggregated
San Diego (SD)	2019 OBUS	Aggregated	Aggregated
San Diego (SD)	2019 PTO	Aggregated	Aggregated
San Diego (SD)	2019 SBUS	Aggregated	Aggregated
San Diego (SD)	2019 SBUS	Aggregated	Aggregated
San Diego (SD)	2019 T6 Ag	Aggregated	Aggregated
San Diego (SD)	2019 T6 CAIRP heavy	Aggregated	Aggregated
San Diego (SD)	2019 T6 CAIRP small	Aggregated	Aggregated
San Diego (SD)	2019 T6 instate construction heavy	Aggregated	Aggregated
San Diego (SD)	2019 T6 instate construction small	Aggregated	Aggregated
San Diego (SD)	2019 T6 instate heavy	Aggregated	Aggregated
San Diego (SD)	2019 T6 instate small	Aggregated	Aggregated
San Diego (SD)	2019 T6 OOS heavy	Aggregated	Aggregated
San Diego (SD)	2019 T6 OOS small	Aggregated	Aggregated
San Diego (SD)	2019 T6 Public	Aggregated	Aggregated
San Diego (SD)	2019 T6 utility	Aggregated	Aggregated
San Diego (SD)	2019 T6TS	Aggregated	Aggregated
San Diego (SD)	2019 T7 Ag	Aggregated	Aggregated
San Diego (SD)	2019 T7 CAIRP	Aggregated	Aggregated
San Diego (SD)	2019 T7 CAIRP construction	Aggregated	Aggregated
San Diego (SD)	2019 T7 NNOOS	Aggregated	Aggregated
San Diego (SD)	2019 T7 NOOS	Aggregated	Aggregated
San Diego (SD)	2019 T7 other port	Aggregated	Aggregated
San Diego (SD)	2019 T7 POLA	Aggregated	Aggregated
San Diego (SD)	2019 T7 Public	Aggregated	Aggregated
San Diego (SD)	2019 T7 Single	Aggregated	Aggregated
San Diego (SD)	2019 T7 single construction	Aggregated	Aggregated
San Diego (SD)	2019 T7 SWCV	Aggregated	Aggregated
San Diego (SD)	2019 T7 SWCV	Aggregated	Aggregated
San Diego (SD)	2019 T7 tractor	Aggregated	Aggregated
San Diego (SD)	2019 T7 tractor construction	Aggregated	Aggregated
San Diego (SD)	2019 T7 utility	Aggregated	Aggregated
San Diego (SD)	2019 T7IS	Aggregated	Aggregated
San Diego (SD)	2019 UBUS	Aggregated	Aggregated
San Diego (SD)	2019 UBUS	Aggregated	Aggregated
San Diego (SD)	2019 UBUS	Aggregated	Aggregated

Diesel			Natural Gas		Electricity
Gallons/day	Miles/gallon	VMT/day	Gallons/day	Miles/gallon	VMT/day
3,487	8.44	0	0	#DIV/0!	0
13,608	43.50	0	0	#DIV/0!	706,843
122	22.22	0	0	#DIV/0!	10,565
3,276	31.81	0	0	#DIV/0!	62,741
65,699	17.64	0	0	#DIV/0!	0
25,329	15.74	0	0	#DIV/0!	0
0	#DIV/0!	0	0	#DIV/0!	0
11,367	24.21	0	0	#DIV/0!	12,089
3,760	9.55	0	0	#DIV/0!	0
3,862	6.08	0	0	#DIV/0!	0
0	#DIV/0!	0	0	#DIV/0!	0
5,681	4.71	0	0	#DIV/0!	0
9,598	7.83	0	0	#DIV/0!	0
122,312	8.94	0	0	#DIV/0!	0
291,858	6.10	27,663	11,542	2.40	0
555	4.73	104,275	27,020	3.86	0
560,516	**9.99**	**131,938**	**38,562**	**3.42**	**792,238**

tion

Fuel	Population	VMT	Trips	Fuel_Consumption
DSL	559.1868303	29426.79953	4697.169374	3.487410705
GAS	1344406.247	52523886.14	6338460.676	1813.1298
DSL	15026.56773	591969.3053	70444.74535	13.60798221
ELEC	18333.83525	706843.1707	91793.86049	0
GAS	164988.733	5870445.074	748122.6427	239.6669216
DSL	144.4296352	2721.383158	486.9054988	0.122472253
ELEC	286.012665	10565.01905	1408.284212	0
GAS	492012.6637	18303424.09	2287564.406	825.5396042
DSL	2366.231951	104229.3644	11677.61487	3.276485661
ELEC	1765.558567	62740.84285	9016.81681	0
GAS	36760.80522	1338981.061	547681.2242	162.7858714

DSL	30036.17125	1159049.221	377817.2488	65.69863562
GAS	5297.23272	194787.1886	78920.87465	27.09307775
DSL	10008.64946	398690.6184	125896.2193	25.32888227
GAS	77891.01626	671702.3837	155782.0325	18.4036948
GAS	325016.4395	11949483.27	1497366.159	647.3676997
DSL	6169.32466	275254.8377	30234.12248	11.36735973
ELEC	336.744095	12089.25876	1723.694329	0
GAS	12216.59668	105760.8051	1222.148331	22.84575502
DSL	3756.201522	35904.97708	375.6201522	3.760271512
DSL	186.2157401	23497.93031	2718.749806	3.861856838
GAS	1285.754091	69330.87235	25725.36785	15.05772279
DSL	0	26735.81766	0	5.680721932
GAS	181.7676098	9804.980315	727.0704393	1.068996654
DSL	2398.072352	75144.66691	27673.42246	9.597623008
DSL	34.90319122	455.0663961	153.5740414	0.050947361
DSL	80.36539463	16108.5545	1173.334762	1.518555353
DSL	42.67873333	2275.634914	623.1095066	0.226828618
DSL	663.6714573	44630.12639	3000.432855	5.672361097
DSL	2315.076779	116728.9836	10466.37211	14.80172043
DSL	2649.770957	353882.5753	30577.98947	37.38888243
DSL	10344.46265	506929.2125	119373.6647	55.87969592
DSL	46.11926841	9262.898491	673.3413188	0.87312007
DSL	24.71980098	1310.254606	360.9090944	0.130673323
DSL	2347.324972	36329.45365	7120.219075	5.157253536
DSL	311.4471011	5204.712395	3581.641663	0.612217151
GAS	3469.654951	189550.1207	69420.85627	40.72352851
DSL	14.28251547	262.0509297	62.84306809	0.045481937
DSL	1709.59245	321070.7891	24960.04978	49.54740282
DSL	168.9670227	32058.20748	763.8933403	5.777942744
DSL	1918.346757	391410.5823	28007.86265	58.83671776
DSL	673.466731	126144.7324	9832.614272	19.90664485
DSL	491.7445351	79503.97902	3737.258467	14.92518608
DSL	218.6770454	26218.46382	1661.945545	5.147175417
DSL	1471.378401	29820.44622	4463.181144	6.013991694
DSL	2055.209502	134646.9218	23716.83271	23.01108629
DSL	1143.709504	79530.51628	5170.666198	15.28934902
DSL	730.6600078	29853.58407	2849.574031	13.46932465
NG	680.6811335	27662.88817	2654.656421	11.5419868
DSL	3290.612789	462625.6334	41790.78242	66.73526914
DSL	936.0035236	65605.674	4231.635538	12.70231953
DSL	123.6167341	2508.905369	1421.592442	0.450545463
GAS	22.61914946	1990.278482	452.5639424	0.520196015
GAS	354.5052362	37246.48827	1418.020945	6.925770879
DSL	25	2628.078835	100	0.555482686
NG	926.1724999	104275.3376	3704.69	27.02021675