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October 13, 2016

Mr. Neil Patel
Vice President Acquisition & Development
Excel Hotel Group
10660 Scripps Ranch Boulevard, Suite 100
San Diego, CA 92131

Subject: Biological Resources Technical Memorandum for the Carmel Valley Hotel Project

Dear Mr. Patel:

This biological resources technical memorandum documents the results of a jurisdictional assessment conducted by HELIX Environmental Planning, Inc. (HELIX) for the Carmel Valley Hotel Project (project) located at the address of 3510 Valley Centre Drive in the Carmel Valley neighborhood in the City of San Diego, California. The assessment focuses on an off-site area located to the west of the project site demonstrated herein to be a man-made storm water retention facility that is maintained and lacks naturally-occurring wetlands. The assessment is based on project information provided to HELIX, review of readily available database information, and a site visit performed by HELIX on October 4, 2016.

PROJECT LOCATION AND BREIF DESCRIPTION

The project site is located at 3510 Valley Centre Drive in the Carmel Valley neighborhood of the City of San Diego in western San Diego County. The site consists of one 1.46-acre parcel and is assigned assessor parcel number (APN) 307-240-02-00. The site is developed with a one-story, approximately 8,669-square-foot restaurant that is surrounded by paved parking areas and associated driveways, sidewalks, and landscaping. The surrounding area is developed primarily with a mix of commercial and office uses, hotels, and open space. The site is located immediately south of a Marriott hotel and parking structure; north of Carmel Valley Road, Ted Williams Parkway, and an existing gas station; east of Interstate 5 (I-5); and west of a vacant site proposed for mixed-use development.

The project proposes a Site Development Permit (SDP) and Coastal Development Permit (CDP) to construct a five-story, 127-guestroom hotel with a pool and spa, meeting space, outdoor amenity area, surface parking, and one level of subterranean parking. Public utilities, including sewer, water, and fire mains, would connect with existing lines within Valley Centre Drive to serve the proposed project. To prepare the site for construction, the project would demolish the

8,669-SF restaurant building, parking lot, curbs, and sidewalks; remove existing vegetation; and conduct site grading.

METHODS

HELIX reviewed current and historical aerial imagery (Google Earth 2016; NETROnline 2016), topographic mapping provided by U.S. Geological Survey (USGS) and others, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (USFWS 2016b); U.S. Department of Agriculture (USDA) soils data (USDA 2016), and as-built drawings of existing developments and facilities. Other resources reviewed for this study included the City's Environmentally Sensitive Lands regulations (City of San Diego 2012), sensitive species (USFWS 2016a, County of San Diego 2016), City Multiple Species Conservation Program (MSCP) information (City of San Diego 1997), and maintenance records for the existing man-made storm water retention facility.

HELIX Principal Biologist, Karl Osmundson, performed a general biological survey and jurisdictional assessment of the project site and immediate vicinity on October 4, 2016. The survey focused on assessment of existing natural and man-made waterways and wetlands. General existing conditions information was obtained with an emphasis on vegetation, soils, hydrology, disturbance, and land uses.

RESULTS

General Conditions

Database information, maintenance records, and conditions observed during the 2016 survey confirmed the presence of an off-site, man-made storm water retention facility located approximately 50 feet west of the site. The facility includes a man-made retention basin, stand pipe in the center of the basin, storm drain outfalls at the perimeter of the basin, black perimeter fencing, and concrete maintenance road.

Figure 1 to the right depicts the general location of the retention basin, perimeter fencing, and existing maintenance road leading down to the retention basin. The primary function of the facility is to receive, retain, and treat storm water running off the surrounding developments.

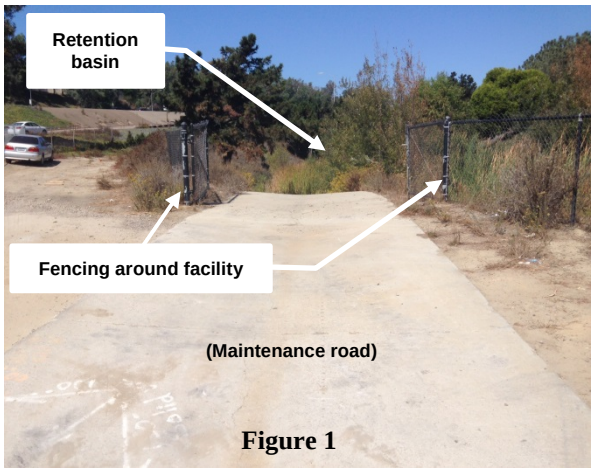


Figure 1

Given the general vegetation, soils, and hydrology conditions observed, the retention basin likely supports wetland conditions, which is not uncommon to man-made storm water facilities in the region; ***however***, it is evident that any wetland conditions present are not natural and only sustained within the basin because of man-made activities, as explained further below.

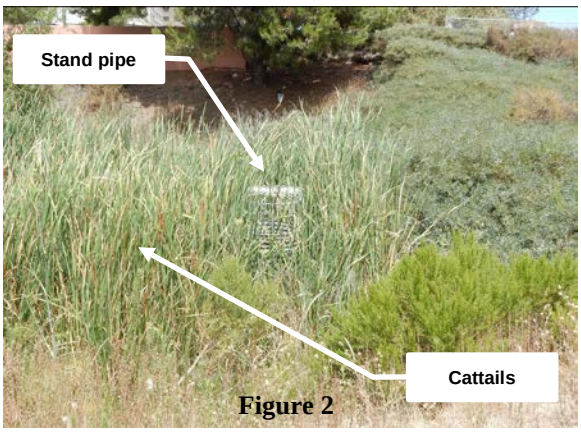


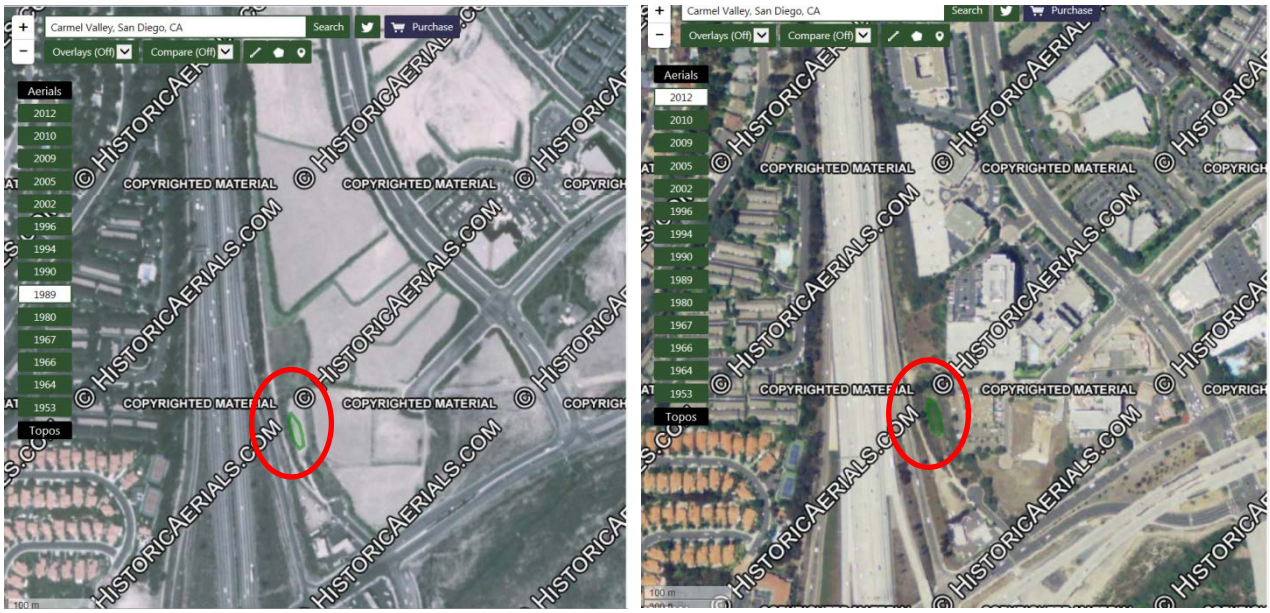
Figure 2

Figure 2 to the left depicts the retention basin, including the stand pipe (overflow drain pipe) and representative vegetation. Vegetation in the basin is strongly dominated by cattail (*Typha* sp.), which is commonly found in storm water facilities throughout the City, including those that support wetland conditions. Although no soil samples were taken, the soils in the lowest portions of the basin were dark, saturated, and likely hydric due to regular, artificial hydrology inputs collecting and settling at the bottom of the basin. No standing water was observed, although soils were saturated and other indications of the presence of water or hydrology sign were observed.

Historical Imagery and Origin

Review of historical imagery (NETROnline 2016) dating back to 1953 confirms that the storm water facility was constructed sometime between 1980 and 1989. Figure 3 below provides side-by-side images from 1989 and 2012, with the generally location of the basin for the facility shown as a green polygon within the red circle.

Figure 3



From the imagery, it is apparent that the facility was constructed when previous mass grading activities occurred for the existing commercial, medical office, transportation, and other developments in the general area. The large bare earth areas in the image on the left from 1989 show the presence of graded pads and the graded storm water facility, including basin and maintenance road. There was apparently a historic drainage that trended north-south in the general location of the present-day facility; however, that drainage and its watershed upstream

had been filled and substantially modified prior to 1964 and before the storm water facility was constructed.

Evidence of Maintenance and Other Man-Made Activities

The storm water facility was originally constructed with the intent to be maintained and, based on records provided by the owner, has been maintained as recent as 2016. Evidence of facility maintenance further reinforces that the area is subject to man-made activities and conditions are controlled to promote the primary function and service of the facility, which is to provide retention and treatment of artificial runoff and storm water from the surrounding developed lands.

Specific man-made activities noted to be associated with the facility and surrounding areas include, but are not limited to: development and manipulation of the natural watershed and surrounding land; creation of the basin itself; creation of storm drains outfalling into the basin; artificial hydrology inputs from urban runoff, such as landscape irrigation; intent to maintain the facility since its origin, as evidenced by facility fencing and maintenance road for access; and regular maintenance activities, as evidenced by maintenance records held by the owner.

National Wetlands Inventory Data

Data from the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) identify Freshwater Emergent Wetland (Code PEMCh) over the approximate location of the basin within the storm water facility. It is not uncommon for USFWS NWI data to include man-made features such as storm water basins, artificially-created ponds, and others. Although the USFWS NWI data can be a useful tool in identifying features that may support wetland conditions, drainage courses, riparian habitat and/or other attributes, the data does not and is not meant to identify regulated waters and wetlands.

General Requirements for Regulated Waters and Wetlands

In the context of this assessment and for which the USFWS NWI data does not represent, regulated waters and wetlands include wetland and non-wetland waters of the U.S. subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA); wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the State Water Resources Control Board and Regional Water Quality Control Board pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act; streambed and riparian habitat subject to the regulatory jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600 *et seq*. of the California Fish and Game Code (CFG Code); Environmentally Sensitive Lands (ESL) wetlands, including wetlands within the coastal overlay zone, subject to the regulatory jurisdiction of the City pursuant to their Land Development Code (LDC) Biology Guidelines and ESL Regulations, and Local Coastal Program (LCP); and coastal wetlands subject to the regulatory jurisdiction of the California Coastal Commission pursuant to the California Coastal Act.

Activities resulting in impacts (e.g., fill, dredge, discharge) on regulated waters and wetlands require notification and permitting with the agencies referenced above. Avoidance, minimization, compensatory mitigation, and development setbacks are often requirements of agency permits and approvals associated with regulated waters and wetlands. Of particular note, developments in the City require avoidance and setbacks from regulated waters and wetlands that meet the definition for ESL wetlands. These setbacks typically start at 50 feet from the regulated water and/or wetland boundary, but can go to 200 feet or more for highly sensitive resources, such as vernal pools. Similarly, developments in the coastal zone require avoidance and setbacks from regulated waters and wetlands that meet the definition for coastal wetlands. These setbacks typically start at 50 feet from riparian habitat and 100 feet from wetlands associated with regulated waters and wetlands.

CONCLUSION

Despite the USFWS NWI overlay, the off-site storm water facility is a maintained facility and any wetland conditions that are present are artificially created and should not constitute regulated waters and wetlands, including wetlands defined by the City that typically require avoidance and setbacks.

The City's Biology Guidelines and ESL state the following on pages 5 and 6 about wetlands:

> *Wetlands support many of the species included in the MSCP (i.e. Covered Species). The definition of wetlands in ESL is intended to differentiate uplands (terrestrial areas) from wetlands, and furthermore to differentiate naturally occurring wetland areas from those created by human activities. Except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses,* ***it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas*** *unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Game.*

The City's Biology Guidelines and ESL also state the following about wetlands on page 7:

> *Areas that contain wetland vegetation, soils or hydrology created by human activities in historically non-wetland areas do not qualify as wetlands under this definition unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Game.* ***Artificially created wetlands consist of the following:*** *wetland vegetation growing in brow ditches and similar drainage structures outside of natural drainage courses, wastewater treatment ponds, stock watering,* ***desiltation and retention basins****, water ponding on landfill surfaces, road ruts created by vehicles and artificially irrigated areas which would revert to uplands if the irrigation ceased. Areas of historic wetlands can be assessed using historic aerial photographs, existing environmental reports (EIRs, biology surveys, etc.), and other collateral material such as soil surveys.*

After review of information collected in the field and from historical imagery and other data, it is evident that there would not be naturally-occurring wetlands at the location of the present-day

storm water facility had it not been for the creation of the retention basin feature and impoundment and manipulation of the watershed from surrounding developments. The basin does not support naturally-occurring wetlands and was artificially created in historically non-wetland areas for the sole purpose of collecting, retaining, and treating storm water runoff from the adjacent developments. Therefore, the basin should not constitute wetlands and no avoidance or setbacks should be required for the project.

Please do not hesitate to contact me or Joanne Dramko at (619) 462-1515 if you have any questions or concerns regarding this letter.

Sincerely,

Karl Osmundson
Principal Biologist / Biology Group Manager
HELIX Environmental Planning, Inc.

REFERENCES

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SOIL
EXPLORATION
COMPANY, INC.

Soil Engineering, Environmental Engineering, Materials Testing, Geology

May 25, 2016

Project No. 1674-01

TO: Excel Hotel Group
10660 Scripps Ranch Blvd., Ste. 100
San Diego, CA 92131

ATTENTION: Neil Patel

SUBJECT: Preliminary Soil Investigation Report, Proposed Five-Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego (Carmel Valley), California 92130

Introduction

In accordance with your authorization, Soil Exploration Co., Inc. has performed a preliminary soil investigation for the subject site. The accompanying report presents a summary of our findings, conclusions, recommendations and limitations of our work for construction of proposed five-story hotel with one-story underground parking and related improvements.

Scope of Work

- Review soils, geologic, seismic, groundwater data and maps in our files.
- Perform exploration of the site by means of four 8" diameter borings, 21.5 feet in depth at readily accessible locations.
- Field engineer (California Registered Engineer) for logging, sampling of select soils, observation of excavation resistance, record SPT blow counts, and water seepage (if any).
- Perform basic laboratory testing of select soil samples, including moisture, density, expansion index, shear strength and corrosion potential (pH, resistivity, chlorides and water soluble sulfates).
- Perform digitized search of known faults within a 50-mile radius of the site.
- Determine CBC (2013) seismic parameters.
- Consult with project design engineer.
- Prepare a report of our findings, conclusions and recommendations for site preparation, including overexcavation/removal depth, allowable bearing value, foundation recommendations, footings/slabs-on-grade depth/thickness, excavation characteristics of earth materials, lateral earth pressures, tentative parking and driveway pavement sections, general earthwork and grading specifications, California Building Code (2013) seismic design coefficients and Cal/OSHA soil classification.

Site Conditions

The subject flat site is located at the southwest end of Valley Center Drive in the Carmel Valley area of the City of San Diego, California. Valley Center Drive is a paved cul-de-sac with curbs, gutters and sidewalks. A chain link fence and block wall border the site on the west side. An existing restaurant building is located on the central portion of the site and an existing parking structure is located on adjacent property to the north. Adjacent property to the east is vacant.

The locations of some of the above and other features are shown on Exploratory Boring Location Map, Plate 1. The base map is a copy of Constraints Map prepared by Mega Engineering Consultants of San Diego, California.

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Proposed Development

We understand that the site is proposed for construction of a five-story hotel with one-story underground parking. The super structure will be wood frame supported on reinforced concrete underground construction. The existing restaurant structure at the site will be demolished and debris hauled offsite. Based on flat topography of the site, modest cut and fill grading and no cut or fill slopes are proposed.

Field Work

Four exploratory borings were drilled at the site on May 18, 2016, to a maximum depth of 21.5 feet below existing ground surface utilizing an LER mobile drill rig equipped with 8-inch diameter hollow stem auger. Standard Penetration Test (SPT) blow counts were recorded at regular intervals and utilized in determining the compactness/consistency of the earth materials.

In general, these borings revealed that the site area is underlain by silty sand ("SM") with a 5-feet thick layer of very stiff/stiff clay between a depth of 5 to 10 feet in Borings B-3 and B-4. The silty sands are generally medium dense to dense, however loose silty sand was encountered between 13 to 17 feet in Boring B-3 located at the southerly portion of the site. Very stiff siltstone bedrock was encountered in Borings B-2 and B-4 below a depth of 15 feet. Based on USGS Geologic Map of the San Diego Quadrangle, the site is underlain with old parodic deposits composed of siltstone, sandstone and conglomerate (see Figure 2).

Laboratory Testing

Basic laboratory tests were performed for select soil samples. The tests consisted primarily of natural moisture contents, density and corrosion potential (pH, resistivity, chlorides and water soluble sulfates). The test results are presented in Appendix C, with some of the results shown on Geotechnical Boring Logs in Appendix B.

Seismicity/Faulting

A computer search of known Quaternary major faults within 50 miles of the site is presented in Appendix D. The computer search was performed by EQFAULT (Version 3.00) software. Please note that it is probable that not all-active or potentially active faults in the region have been identified. Furthermore, seismic potential of the smaller and less notable faults is not sufficiently developed for assignment of maximum magnitudes and associated levels of ground shaking that might occur at the site due to these faults.

Secondary Seismic Hazards

Groundwater/Liquefaction

Groundwater was not encountered in our exploratory borings, drilled to a maximum depth of 21.5 feet, at the time this work was performed. Groundwater study is not within the scope of this work. Liquefaction occurs when loose saturated cohesionless soils, such as poorly graded fine sands, are subject to ground shaking during an earthquake of large magnitude. Liquefaction potential in general is greatest when the water table is less than 30 feet below ground surface. Based on the City of San Diego Geologic Hazards and Faults map, the site is not located within a zone of potential liquefaction (see Figure 3).

Ground Rupture

The surface fault rupture occurs along traces of active or potentially active faults. The site is not located within State of California fault hazard zone and no active or potentially active faults are known to exist at the site. The potential for surface fault rupture at the site is therefore considered low.

Landsliding/Lateral Spreading

Considering the flat topography and the absence of significant slopes in the vicinity of the site, the potential for landsliding and lateral spreading is considered low.

Conclusions

- Vegetable matter/soil stockpile, old foundations, underground structures, cesspools, leach fields, seepage pits, buried utilities/irrigation lines, etc. and deleterious materials associated with previous site use would require removal from the proposed building/grading area.

- The earth materials at the site can be excavated with conventional grading equipment in good working condition.

- The onsite soils exclusive of deleterious or oversize (over 8 inches) material may be used as compacted fill materials.

- Based on observation and soil classification, the expansion potential of the predominantly granular soils at the site is expected to be very low.

- The use of spread footings or structural mat foundation supported on compacted fill appears feasible for the proposed construction.

- The site is located approximately 3.0 miles from the Rose Canyon fault. The site is located in a region of generally high seismicity, as is all of Southern California. During its design life, the site is expected to experience moderate to strong ground motions from earthquakes on regional and/or local causative faults.

- There is a 2 percent probability in 50 years (2475 year return period) that ground acceleration at the site will exceed 0.936g (see Appendix D).

- Based on available data and maps, the site is not located in a zone of liquefaction potential.

- Flooding potential of the site should be evaluated and considered in planning and design by the civil engineering consultant.

- No groundwater and/or seepage were encountered during our subsurface investigation. However, the potential for rain or irrigation water moving along sandy soils and locally seeping through from adjacent and/or higher areas cannot be precluded. Our experience indicates that surface or near-surface groundwater conditions can develop in areas where groundwater conditions did not exist prior to site development, especially in areas where a substantial increase in surface water infiltration results from landscape irrigation. We have no way of predicting depth to the groundwater which may fluctuate with seasonal changes and from one year to the next. Subdrains, horizontal drains or other devices may be recommended in future for graded areas that exhibit nuisance seepage conditions.

Recommendations

Site Preparation

All grading and backfills should be performed in accordance with the attached General Earthwork and Grading Specifications (Appendix E), except as modified in the text of this report. Undocumented fills, trash, vegetation, trees, roots, old foundations, leach fields, seepage pits, septic tanks and any deleterious material associated with previous use of the site should be traced and removed offsite. Suitable soils (free from deleterious materials and oversize rock) can be used for compacted fills.

Compacted Fills/Imported Soils

Any soil to be placed as fill, whether presently onsite or import, should be approved by the soil engineer or his representative prior to its placement. All onsite soils to be used as fill should be cleansed of any roots or other deleterious materials. Cobbles larger than 3 inches in diameter should not be placed in the vicinity of foundations and utility lines. All fills should be placed in 6 to 8 inch loose lifts, thoroughly watered, mixed and compacted to at least 90 percent relative compaction. This is relative to the maximum dry density determined by ASTM D1557-12 Test Method.

Any imported soils should be sandy (preferably (USCS "SM" or "SW" and very low in expansion potential, EI<20) and approved by the soil engineer. The soil engineer or his representative should observe the placement of fill and take sufficient tests to verify the moisture content and the uniformity and degree of compaction obtained.

Foundation Design

The use of shallow spread footings, preferably mat foundation, is feasible for the proposed structure. The footings/mat foundation should be supported on at least 5-feet thick engineered compacted fill. A net allowable bearing value of 4000 psf is recommended. This bearing value may be increased by one-third for temporary (wind or seismic) loads. The spread footings or mat foundation should be designed by a qualified structural engineer in accordance with the latest applicable building codes and structural considerations may govern. A subgrade modulus (k) of 200 pci can be used in the design of mat foundation.

Special Considerations

Slab-on-grade thickness and reinforcement should be evaluated by the structural engineer and designed in compliance with applicable codes. Excess soils generated from foundation excavations should not be placed on building pad without proper moisture and compaction. All slab subgrades should be verified to contain 1.2 times the soil optimum moisture content to a depth of 6 inches prior to placement of slab building materials. Moisture content should be tested in the field by the soil engineer. Slabs subgrade should be kept moist and the surface should not be allowed to desiccate. The addition of fiber mesh in the concrete and careful control of water/cement ratios may lessen the potential for slab cracking. In hot or windy weather, the contractor must take appropriate curing precautions after the placement of concrete.

The use of mechanically compacted/dense low slump concrete (not exceeding 4 inches at the time of placement) is recommended. We recommend that a slipsheet (or equivalent) be utilized if grouted tiles or other crack sensitive flooring (such as marble tiles) is planned directly on concrete slabs.

Retaining Walls/Lateral Earth Pressures

The following lateral earth pressures and soil parameters in conjunction with the above-recommended bearing value (4000 psf), may be used for design of retaining walls with free draining compacted backfills. If passive earth pressure and friction are combined to provide required resistance to lateral forces, the value of the passive pressure should be reduced to two-thirds the following recommendations.

Active Earth Pressure with level backfill (P_a)	40 psf (EFP), drained, yielding, cantilever wall plus any surcharge
At Rest Pressure (P_0)	50 psf (EFP), drained, non-yielding (part of building wall) plus any surcharge
Passive Earth Pressure (P_p)	200 psf (EFP), drained, maximum of 2000 psf
Horizontal Coefficient of Friction (μ)	0.35
Unit Soil Weight (γ_t)	120 pcf

Waterproofing of the basement walls should be per project architect's recommendations.

We recommend drainage for retaining walls to be provided in accordance with Plate 2 of this report. Maximum precautions should be taken when placing drainage materials and during backfilling. All wall backfills should be properly compacted to at least 90 percent relative compaction.

Shoring/Temporary Construction Excavations

Shoring for excavation required near northerly property margins or any other areas should consider the following:

• Overexcavation	At least 5 feet below basement level
• Temporary Cuts	5 feet vertical, 1:1 (horizontal:vertical) above
• Lateral Loading/Active Earth Pressure (P_a)	40 psf/ft (EFP) + any surcharge
• Lateral Resistance	200 psf/ft (maximum 2000 psf)
• Shoring Deflection	Not to exceed ½ inch

All Shoring should be designed by a qualified/experienced shoring/structural engineer.

Concrete Joints

The joints spacing for concrete slabs should be determined by the project architect. Joints should be laid out to form approximately square panels (equal transverse and longitudinal joint spacing). Rectangular panels, with the long dimension no more than one-and-one-half times the short, may be used when square panels are not feasible. The depth of longitudinal and transverse joints should be one-fourth the depth of the slab thickness.

Joint layout should be adjusted so that the joints will line up with the corners of structures, small foundations and other built-in structures. Acute angles or small pieces of slab curves as a result of joints layout should not be permitted.

Concrete Curing

Fresh concrete should be cured by protecting it against loss of moisture, rapid temperature change and mechanical injury for at least 3 days after placement. Moist curing, waterproof paper, white polyethylene sheeting, white liquid membrane compound, or a combination thereof may be used. After finishing operations have been completed, the entire surface of the newly place concrete should be covered by whatever curing medium is applicable to local conditions and approved by the engineer. The edges of concrete slabs exposed by the removal of forms should be protected immediately to provide these surfaces with continuous curing treatment equal to the method selected for curing the slab surfaces. The contractor should have at hand, and ready to install before actual placement begins, the equipment needed for adequate curing of the concrete.

Tentative Pavement Design

Based on classification, the tentative minimum AC pavement design may consist of the following:

Location	TI	Estimated R-Value	Recommended Tentative Pavement Thickness
Driveways	5.0-5.5	30+	3" AC over 8" AB/Class II
Parking Areas	4.5-5.0	30+	3" AC over 6" AB/Class II

The upper at least 12 inches of subgrade should be scarified, cleaned of roots, deleterious material, etc. and then watered, as necessary, and compacted to at least 95 percent relative compaction per maximum dry density determined by ASTM D1557-09. Imported base (Class II) should also be compacted to at least 95 percent relative compaction. All subgrade and base must be firm and unyielding without "pumping" conditions prior to placement of asphalt concrete.

Final pavement design recommendations may be based on laboratory testing of representative pavement subgrade soils upon the completion of rough grading.

Expansion Index and Corrosion/Soluble Sulfates

Based on observation and soil classification, the expansion potential of the onsite soils is anticipated to be very low (EI<20).

Results of tests performed by Cal Land Engineering, Inc. of Brea, California on a select soil sample indicate negligible soluble sulfate exposure (less than 0.1 percent water soluble sulfates by weight), pH of 8.28, chlorides of 10 ppm and resistivity of 290 ohm-cm (see Appendix C). The resistivity test results indicate severe corrosive potential for ferrous metal/pipes. Concrete, mix, placement and curing for concrete must comply with ACI guidelines. Tentatively we recommend Type II cement and concrete slump not exceeding 4 inches at the time of placement. Ferrous metal/pipes should be protected in accordance with recommendations of your structural or corrosion engineer.

Drainage

Positive drainage should be provided and maintained for the life of the project around the perimeter of the structure and all foundations toward streets or approved drainage devices to minimize erosion and water infiltrating into the underlying natural and engineered fill soils. In addition, finish subgrade adjacent to exterior footings should be sloped down and away to facilitate surface drainage. Roof drainage should be collected and directed away from foundations via nonerosive devices. Water, either natural or by irrigation, should not be permitted to pond or saturate the foundation soils.

Cal/OSHA Classification/Trench Excavations/Backfills

In general, Cal/OSHA classification of onsite soils appears to be Type B.

Temporary trench excavations deeper than five feet should be shored or sloped at an inclination of at least 1:1 (horizontal:vertical) in accordance with Cal/OSHA requirements. All utility trenches and wall backfills should be mechanically compacted to the minimum requirements of at least 90 percent relative compaction. No jetting, ponding, or flooding should be permitted within the building area or where trenches are in zone of influence of footing loads. Excavated material from footing trenches should not be placed in slab-on-grade and driveways areas unless properly compacted and tested.

Seismic Design

The site is located approximately 3.0 miles from the Rose Canyon fault. Moderate to strong ground shaking can be expected at the site. The site soil profile is Class D (stiff soil profile). The structural engineer should consider City/County local codes, California (CBC 2013) Building Code, seismic data presented in Appendix D of this report, the latest requirements of the Structural Engineers Association and any other pertinent data in selecting design parameters.

Foundation Plans Review/Observations and Testing

The recommendations provided in this report are based on preliminary design information and subsurface conditions as interpreted from limited exploratory work. Our conclusions and recommendations should be reviewed, verified during grading and construction, and revised as necessary. Soil Exploration Co., Inc. should review the foundation plans and observe and/or test at the following stages of construction:

- During all overexcavation and grading.
- During foundation excavations and prior to placement of footing materials.
- During wetting of slab subgrade and prior to placement of slab materials.
- During all trench backfills and subgrade/base compaction prior to paving.
- When any unusual conditions are encountered.

Final Compaction Report

A final report of compaction control should be prepared subsequent to the completion of grading. The report should include a summary of work performed, laboratory test results, and the results, locations and elevations of field density tests performed during grading.

Limitation of Investigation

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Geotechnical Engineers practicing in this or similar locations. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The field and laboratory test data are believed representative of the project site; however, soil conditions can vary significantly. As in most projects, conditions revealed during grading may be at variance with preliminary findings. If this condition occurs, the possible variations must be evaluated by the Project Geotechnical Engineer and adjusted as required or alternate design recommended. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractor carry out such recommendations in the field. This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any of the recommended actions 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 occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In additions, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge.

This report was prepared for the client based on client's needs, directions and requirements at the time. This report is not authorized for use by and is not to be relied upon by any party except the client with whom Soil Exploration Co., Inc. contracted for the work. Use of, or reliance on, this report by any other party is at that party's risk. Unauthorized use of or reliance on this report constitutes an agreement to defend and indemnify Soil Exploration Co., Inc. from and against any liability which may arise as a result of such use or reliance, regardless of any fault, negligence, or strict liability of Soil Exploration Co., Inc.

Closure

If you should have any questions regarding this report, please do not hesitate to call our office. We appreciate this opportunity to be of service.

Very truly yours,
Soil Exploration Co., Inc.

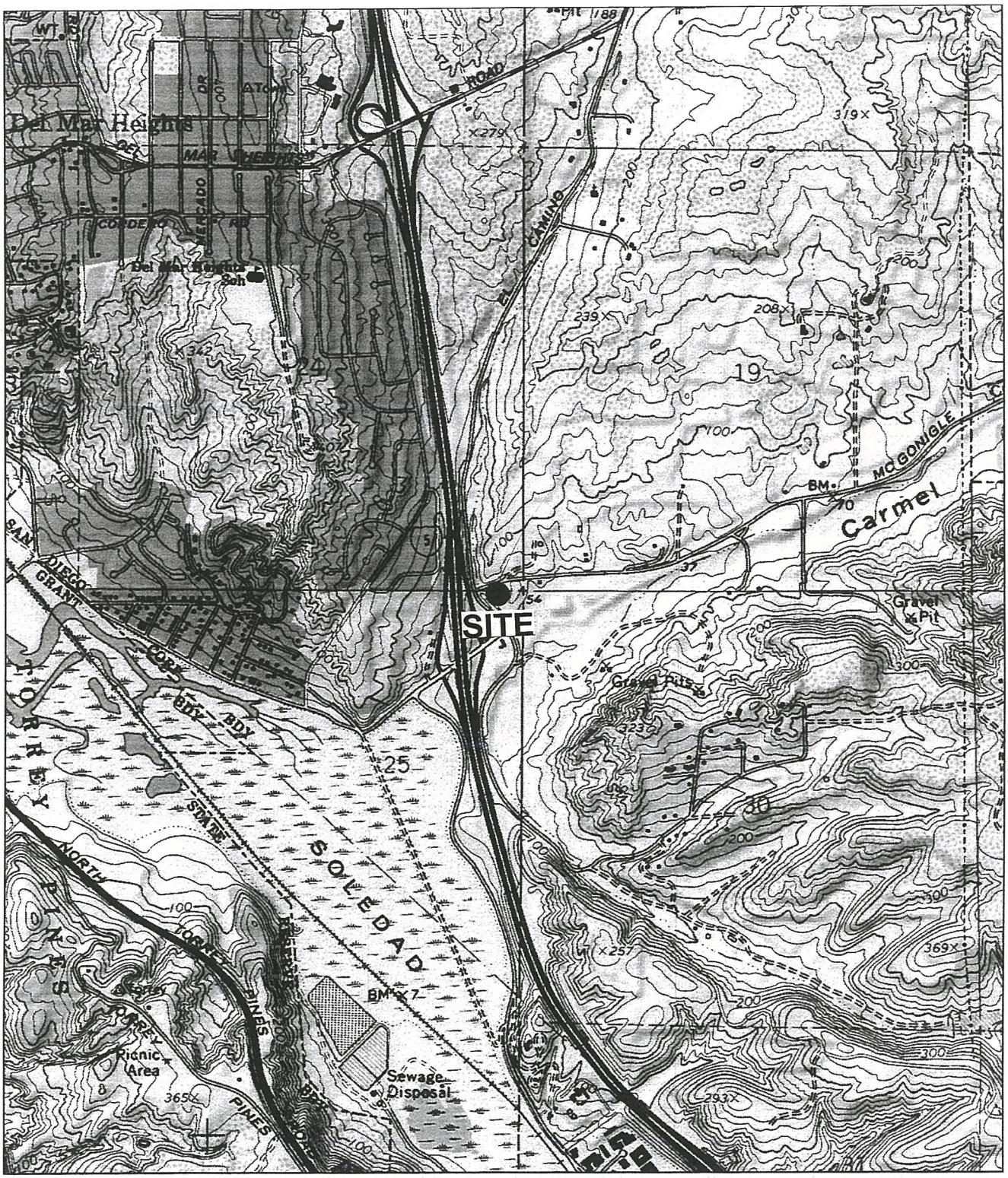
REGISTERED PROFESSIONAL ENGINEER
GENE KINH-TOAN LUU
C 053417
EXP. 6/30/17
CIVIL
STATE OF CALIFORNIA

Gene K. Luu, PE 53417
Project Engineer

Distribution: [2] Addressee

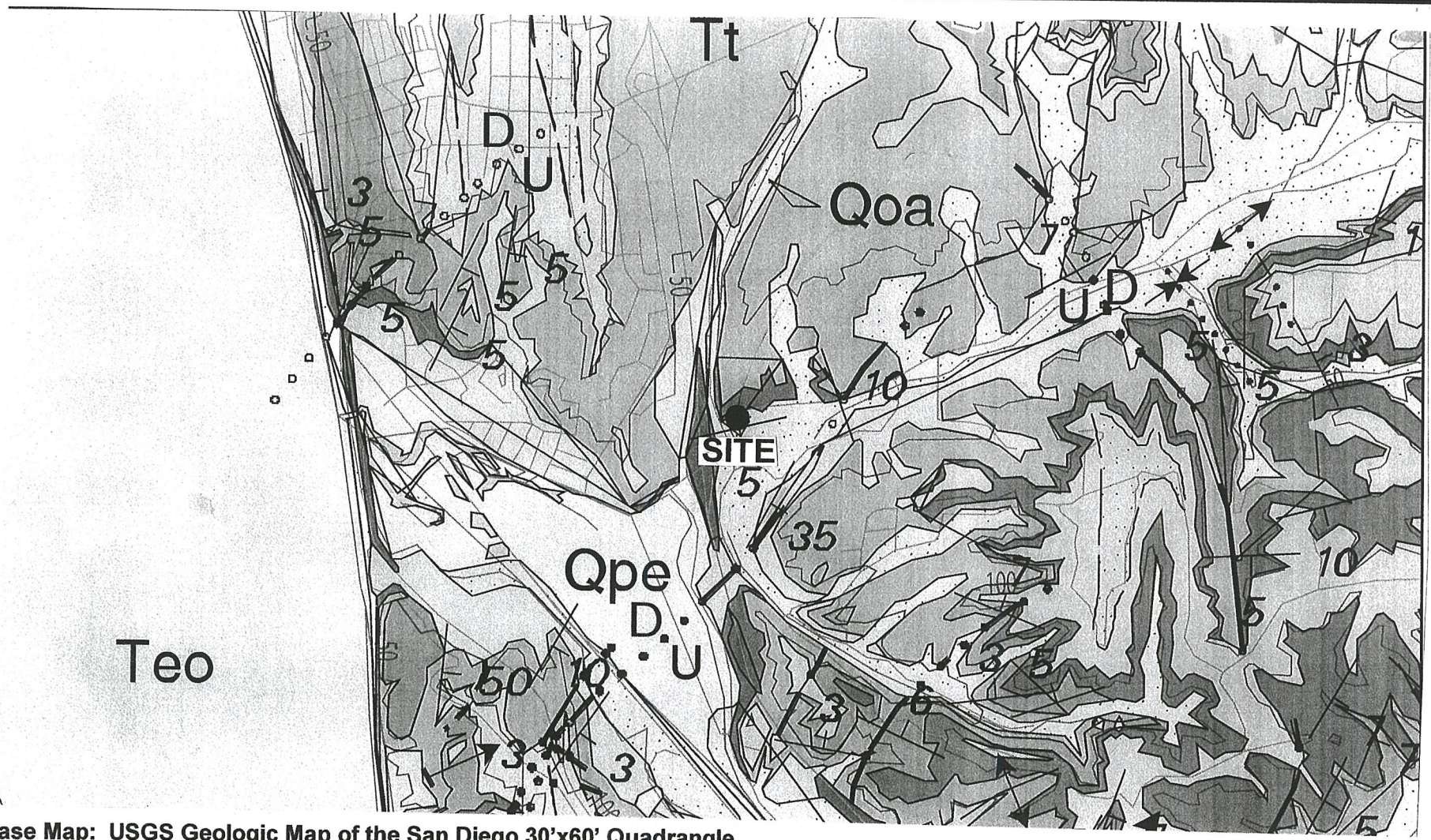
Attachments:

Figure 1	Site Location Map
Figure 2	USGS Geologic Map
Figure 3	Geologic Hazards and Fault Zones Map
Plate 1	Exploratory Boring Location Map
Plate 2	Retaining Wall Backfill and Subdrain Detail
Appendix A	References
Appendix B	Exploratory Boring Logs
Appendix C	Laboratory Test Results
Appendix D	Deterministic and CBC (2013) Seismic Parameters
Appendix E	General Earthwork and Grading Specifications



Map provided by MyTopo.com

Figure 1

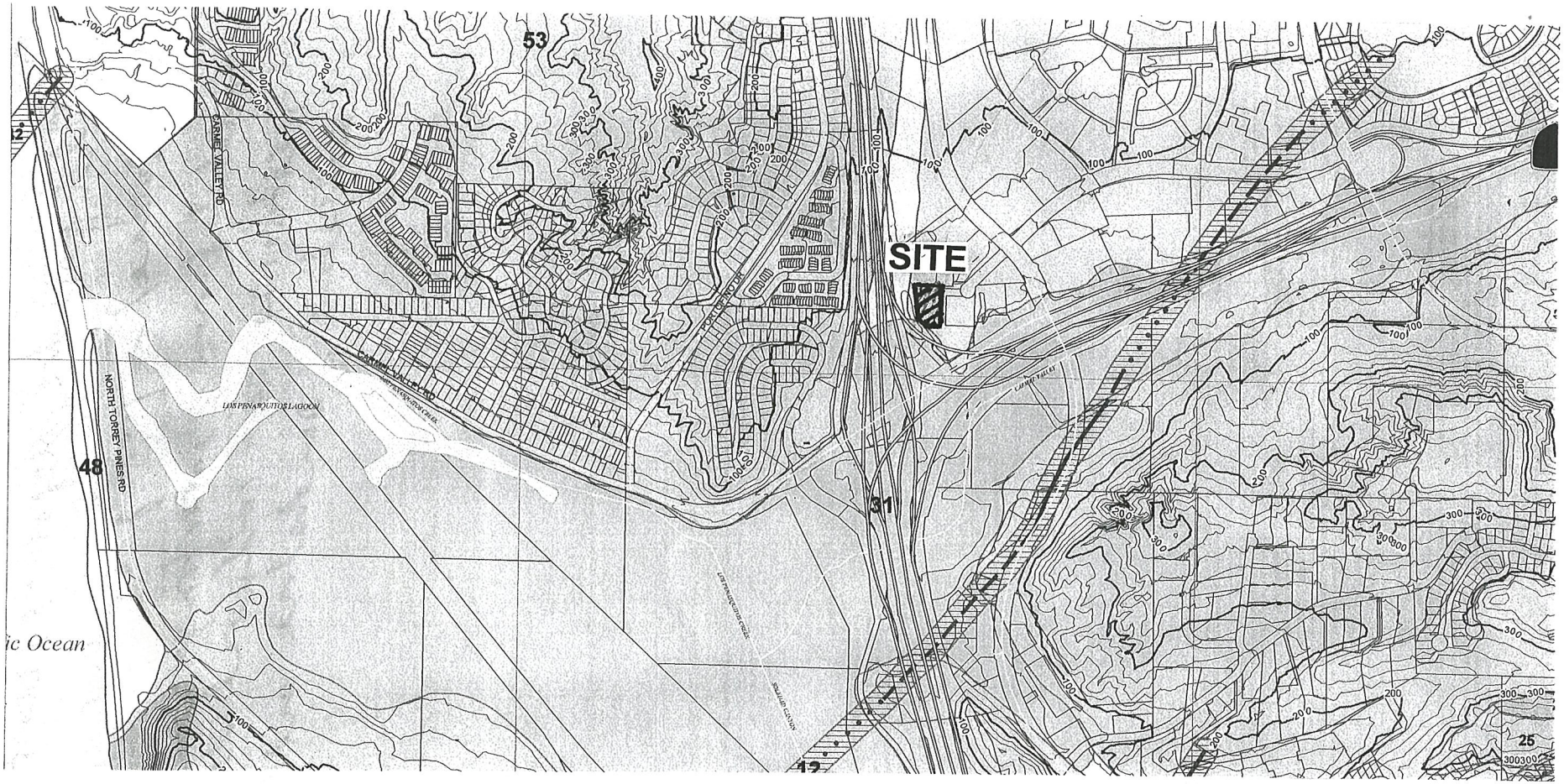


Base Map: USGS Geologic Map of the San Diego 30'x60' Quadrangle.

LEGEND:

Qop_6: Old parodic deposits, Unit 6 (late to middle Pleistocene) – Poorly sorted, moderately permeable, reddish brown, interfingered strand-line, beach, estuarine and colluvial deposits composed of siltstone, sandstone and conglomerate.

3510 Valley Center Drive City of San Diego, California	Soil Exploration Co., Inc. Project No.: 1674-01 Date: May 25, 2016 Figure: 2



Base Map: City of San Diego, Seismic Safety Study/Geologic Hazards and Faults, 4/3/2008.

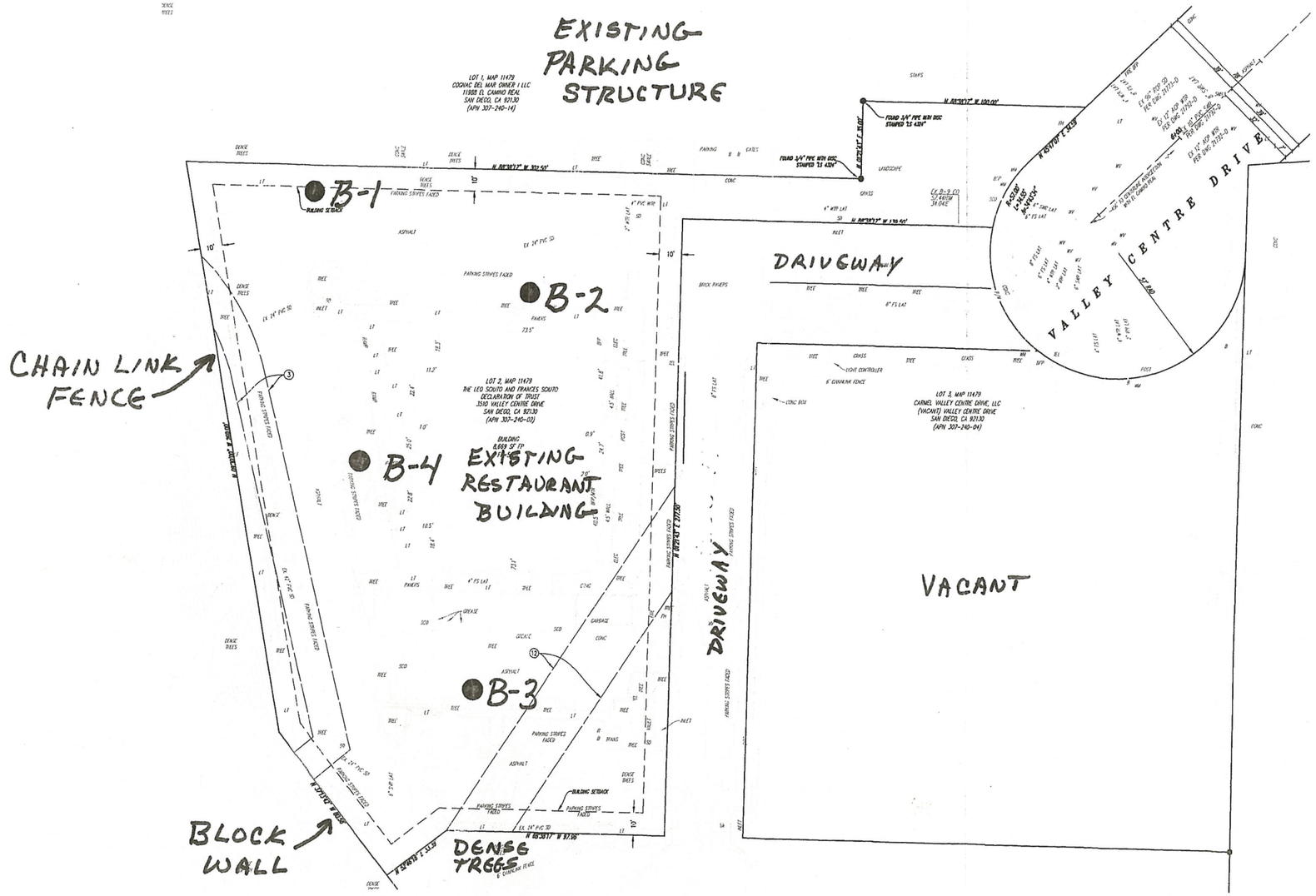
LEGEND:

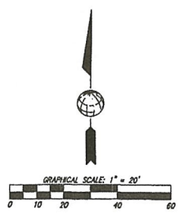
52: Other level areas, gently sloping to steep terrain, favorable geologic structure, low risk.

3510 Valley Center Drive **City of San Diego, California**	**Soil Exploration Co., Inc.** **Project No.: 1674-01** **Date: May 25, 2016** **Figure: 3**

CONSTRAINTS MAP

HYATT PLACE HOTEL
3510 VALLEY CENTRE DRIVE SAN DIEGO, CA 92130





EXPLORATORY BORING LOCATION MAP PLATE 1	
LEGEND B-4 ● Approximate Location of Boring	
Soil Exploration Co., Inc.	
Project No. 1674-01	May 25, 2016

LEGEND:

ITEM	SYMBOL
RIGHT OF WAY / PROPERTY LINE	
EXISTING EASEMENT LINE	
SETBACK LINE	
STREET CENTERLINE	
EXISTING SPOT ELEVATIONS	
EXISTING CONTOUR	
EXISTING WATER LINE	
EXISTING SEWER LINE	
EXISTING FIRE HYDRANT ASSEMBLY	
EXISTING STORM DRAIN	
EXISTING STORM DRAIN INLET	
EXISTING CURB & GUTTER	
EXISTING DRAINAGE PATTERN	
EXISTING UTILITY BOX LABELED PER PLAN	
EXISTING CONCRETE	
FOUND RECORDED MONUMENT PER PLAN	●

OWNER:

LEO SCIUTO, TRUSTEE AND FRANCES SCIUTO, TRUSTEE UNDER DECLARATION OF TRUST DATED OCTOBER 21, 1976

SITE ADDRESS:

3510 VALLEY CENTRE DRIVE
SAN DIEGO, CA 92130

ASSESSOR'S PARCEL NUMBER:

307-240-02

LEGAL DESCRIPTION:

LOT 2 OF PARDEE VISITOR CENTER, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 11479, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, APRIL 2, 1986.

NON-EXCLUSIVE EASEMENTS FOR PURPOSES SET OUT IN THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS OF THE VISITOR CENTER RECORDED DECEMBER 18, 1991 AS FILE NO. 1991-0650567 OVER LOTS 1 THROUGH 5 OF MAP 11479 ARE MORE FULLY CONTAINED AND DESCRIBED IN SAID DOCUMENT, SUBJECT TO THE CONDITIONS CONTAINED THEREIN. THE EXACT LOCATION OF SAID EASEMENTS ARE NOT PLOTTABLE BASED ON THE INFORMATION CONTAINED IN SAID DOCUMENT.

ZONING:

ZONING: CARMEL VALLEY PLANNED DISTRICT-VISITOR COMMERCIAL (CVPD-VC)
DEVELOPMENT REGULATION: CV-1-1

MINIMUM LOT AREA: 15,000 SQUARE FEET
MINIMUM LOT WIDTH: 100 FEET
MINIMUM STREET FRONTAGE: 100 FEET
MINIMUM LOT DEPTH: 100 FEET

MINIMUM FRONT SETBACK: 10 FEET
MINIMUM SIDE SETBACK: 10 FEET
MINIMUM REAR SETBACK: 10 FEET

MAXIMUM STRUCTURE HEIGHT: 60 FEET
MAXIMUM FLOOR AREA RATIO: 2.0

FURTHER REGULATIONS APPLY TO PEDESTRIAN PATHS, BUILDING ARTICULATION, PARKING LOT ORIENTATION, REFUSE AND RECYCLABLE MATERIAL STORAGE, LOADING DOCK AND OVERHEAD DOOR SIZEZING REGULATIONS.

GROSS AREA SUMMARY:

63,008 SQUARE FEET (1.460 ACRES)

VERTICAL BENCHMARK:

CITY OF SAN DIEGO VERTICAL BENCHMARK
BRASS PLUG IN TOP OF INLET OF NORTHEAST CURB RETURN AT INTERSECTION OF VALLEY CENTRE DRIVE (FORMERLY CARMEL VIEW) ROAD AND EL CAMINO REAL.

ELEVATION: 55.345' (M.S.L.)

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF VALLEY CENTRE DRIVE (FORMERLY CARMEL VIEW ROAD) PER MAP 11479 BEING N 45°47'07" E.

SOURCE OF TOPOGRAPHY:

TOPOGRAPHY PROVIDED BY PHOTOGEODETIC, INC. DATE FLOWN: 10/28/2014 AND SUPPLEMENTED BY FIELD SURVEY PERFORMED BY OMEGA LAND SURVEYING, INC. ON OCTOBER 30, NOVEMBER 25, AND DECEMBER 10, 2014.

FLOOD ZONE:

F.E.M.A. FLOOD ZONE "X" PER FLOOD INSURANCE RATE MAP NUMBER 06073C1338G, MAP REVISED MAY 16, 2012.

TITLE INFORMATION:

TITLE INFORMATION FOR THIS SURVEY BASED ON A PRELIMINARY REPORT PREPARED BY ORANGE COAST TITLE COMPANY AS ORDER NUMBER 140-1611638-68, DATED OCTOBER 31, 2014.

ABBREVIATIONS:

AC	ASPHALT CONCRETE	SCO	SEWER CLEAN-OUT
B	BOLLARD	SD	STORM DRAIN UTILITIES
CAP	UNIDENTIFIED CAP	SDMH	STORM DRAIN MANHOLE
ELEC	ELECTRICAL UTILITIES	SMH	SEWER MANHOLE
FH	FIRE HYDRANT	SWR	SEWER UTILITIES
FIRE	FIRE WATER SERVICE	TEL	TELEPHONE UTILITIES
GAS	GAS FACILITIES	WMB	WATER METER BOX
IRR	IRRIGATION SERVICES	WMH	WATER MANHOLE
LP	LIGHT POLE	WTR	WATER UTILITIES
MH	MANHOLE	WV	WATER VALVE
PP	POWER POLE		

EXCEPTIONS AND EXCLUSIONS:

THE FOLLOWING IS A LIST OF EASEMENTS EFFECTING THE SUBJECT PROPERTY AS LISTED IN SCHEDULE "B" OF THE ABOVE REFERENCED PRELIMINARY REPORT. THE EFFECTS OF TAXES, PERMITS, LIENS, COVENANTS, CONDITIONS AND RESTRICTIONS, RESOLUTIONS, AGREEMENTS, ASSESSMENTS, LEASES, OR FINANCING STATEMENTS THAT APPEAR IN SAID REPORT ARE NOT INCLUDED IN THIS LIST.

(3) AN EASEMENT FOR WATER, DRAINAGE, BUILDING RESTRICTIONS AND INCIDENTAL PURPOSES, AS DELINEATED ON MAP NO. 11479.

(12) AN EASEMENT FOR PUBLIC DRAINAGE AND INCIDENTAL PURPOSES, RECORDED MAY 9, 1985 AS INSTRUMENT NO. 85-163612, OF OFFICIAL RECORDS.

15 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED OCTOBER 23, 1985 AS INSTRUMENT NO. 85-393883, OF OFFICIAL RECORDS. (DOES NOT APPEAR TO ENCUMBER SAID PROPERTY)

18 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED JUNE 17, 1986 AS INSTRUMENT NO. 86-243083, OF OFFICIAL RECORDS. (DOES NOT APPEAR TO ENCUMBER SAID PROPERTY)

25 AN EASEMENT FOR SAN DIEGO GAS & ELECTRIC COMPANY RECORDED MARCH 4, 1992 AS INSTRUMENT NO. 92-119586. SAID EASEMENT IS ENCOMPASS ALL UTILITIES AND ALL THE AREA WITHIN 3 FEET OF THE EXTERIOR SIDELINES OF ANY AND ALL UTILITIES EXISTING ON MARCH 1, 1992.

OMEGA
ENGINEERING CONSULTANTS
3340 VIEWRIDGE AVE. SUITE B
SAN DIEGO, CALIFORNIA 92123
PH:(858) 634-8620 FAX:(858) 634-8627

ANDREW J. KANN R.C.E. 50940
MY REGISTRATION EXPIRES 9-30-17

11/20/2015
DATE

REGISTERED PROFESSIONAL ENGINEER — ANDREW J. KANN — No.50940 Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

jones | ballard ARCHITECTS

HYATT PLACE HOTEL @ Carmel Valley

3510 VALLEY CENTRE DRIVE
SAN DIEGO, CALIFORNIA 92103

SITE DEVELOPMENT / COASTAL DEVELOPMENT PERMIT SUBMITTAL

HYATT PLACE

EXCEL HOTEL GROUP

ISSUE DATES

No.	Date	Description
	2015-11-17	SDPT CDP Completeness Check
	2015-12-01	First Submittal

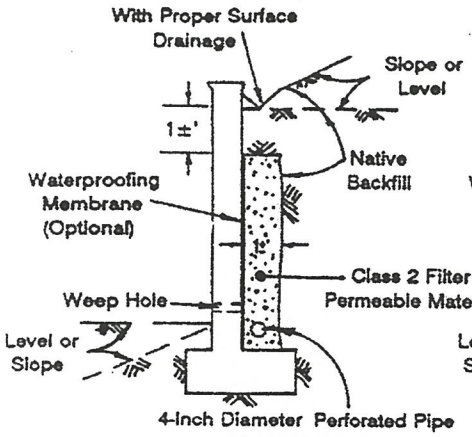
CONSTRAINTS MAP

DRAWING I.D.:
Project No.: 0343
Date: 2015 - 10 - 21
SHEET NO.:

C-1
SHEET OF

SUBDRAIN OPTIONS FOR NATIVE MATERIAL BACKFILL

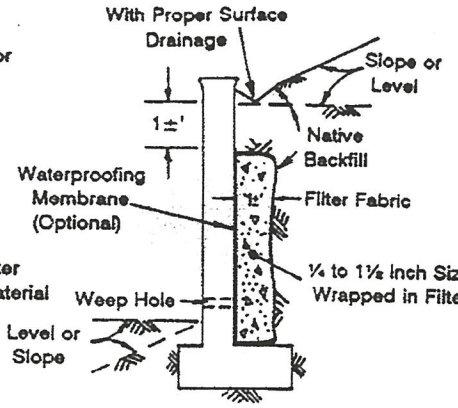
OPTION N2: Pipe Surrounded with Class 2 Material



Class 2 Filter Permeable Material Grading Per Caltrans Specifications

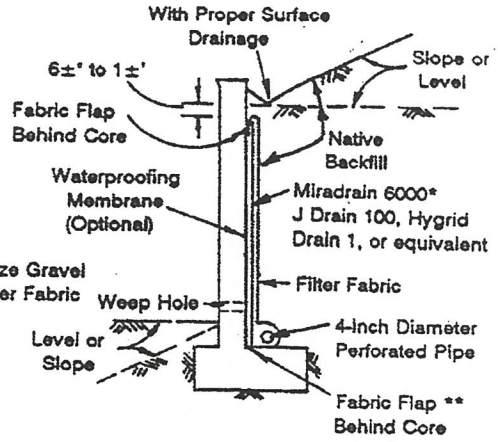
Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

OPTION N1: Gravel Wrapped in Filter Fabric



Proper Outlet Should be Provided for Gravel Subdrain (See Notes)

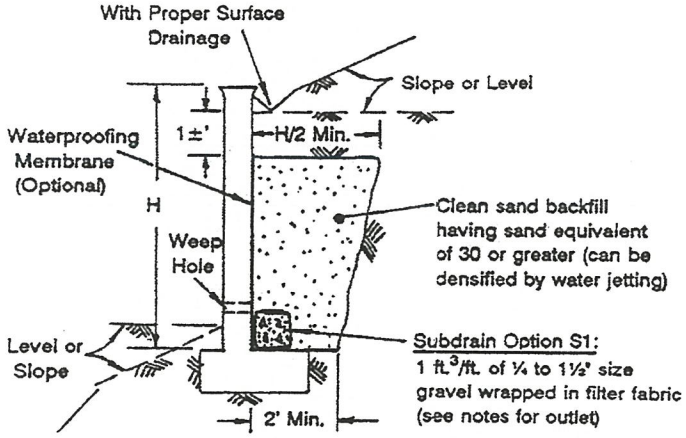
OPTION N3: Geotextile Drain

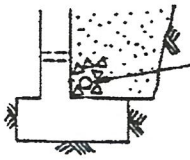


*Miradrain 6000 or J Drain 100 for non-waterproofed walls; Miradrain 6200 or J Drain 200 for completed waterproofed walls

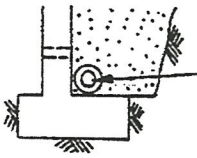
**Peel back the bottom fabric flap, place pipe next to core, wrap fabric around pipe and tuck behind core.

SUBDRAIN OPTIONS FOR CLEAN SAND BACKFILL





Subdrain Option S2:
4" diameter perforated pipe surrounded with 1 ft.³/ft. of Class 2 filter material per Caltrans specifications as above



Subdrain Option S3:
4" diameter perforated pipe wrapped in filter fabric

Notes:

- Pipe type should be ASTM D1527 Acrylonitrile Butediene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down.
- Filter fabric should be Mirafi 140N, 140NS, Supac 4NP, Amoco 4545, Trevira 1114, or approved equivalent.
- All drains should have a gradient of 1 percent minimum.
- Outlet portion for gravel subdrain should have a 4"-diameter pipe with the perforated portion inserted into the gravel approximately 2' minimum and the nonperforated portion extending approximately 1' outside the gravel. Proper sealing should be provided at the pipe insertion enabling water to run from the gravel portion into rather than outside the pipe.
- Waterproofing membrane may be required for a specific retaining wall such as a stucco or basement wall.
- Weephole should be 2" minimum diameter and provided at 25' minimum in length of wall. If exposure is permitted, weephole should be located at 3±" above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to discharge through the curb face or equivalent should be provided, or for a basement-type wall, a proper subdrain outlet system should be provided. Open vertical masonry joints (i.e., omit mortar from joints of first course above finished grade) at 32" maximum intervals may be substituted for weepholes. Screening such as with a filter fabric should be provided for weepholes/open joints to prevent earth materials from entering the holes/joints.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL

Soil Exploration Co. Inc.

Plate: 2

APPENDIX A

REFERENCES

CDMG, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada, Dated February 1998.

USGS Geologic Map of the San Diego 30'x60' Quadrangle, California.

City of San Diego, Seismic Safety Study/Geologic Hazards and Faults, April 3, 2008.

APPENDIX B

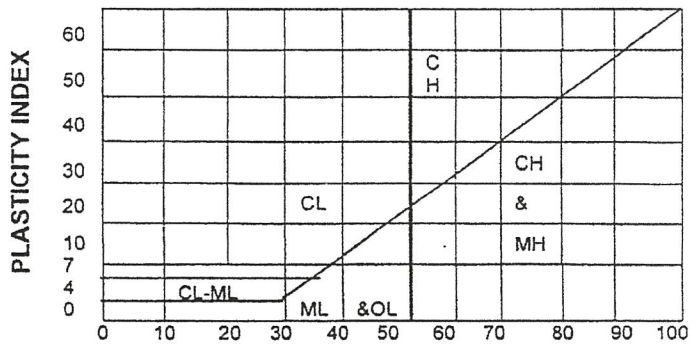
MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS (More than ½ of soil < No. 200 sieve)	GRAVELS (More than ½ of coarse fraction > No. 4 sieve size)	GW		Well-graded gravels or gravel-sand mixtures, little or no fines
		GP		Poorly graded gravels or gravel-sand mixtures, little or no fines
		GM		Silty gravels, gravel-sand-silt mixtures
		GC		Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than ½ of coarse fraction < No. 4 sieve size)	SW		Well-graded sands or gravely sands, little or no fines
		SP		Poorly graded sands or gravelly sands, little or no fines
		SM		Silty sands, sand-salt mixtures
		SC		Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (More than ½ of soil < No. 200 sieve)	SILTS & CLAYS LL < 50	ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		OL		Organic silts and organic silty clays of low plasticity.
	SILTS & CLAYS LL > 50	MH		Inorganic silts, caceous or diatonaceous fine sandy or silty soils, elastic silts
		CH		Inorganic clays of medium to high plasticity, organic silty clays, organic silts
		OH		Organic clays of medium to high plasticity, organic silty clays, organic silts
	HIGHLY ORGANIC SOILS	Pt		Peat and other highly organic soils

CLASSIFICATION CHART

(UNIFIED SOIL CLASSIFICATION SYSTEM)

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDER	ABOVE 12"	ABOVE 305
COBBLES	3" to 12"	305 to 76.2
GRAVEL	3" to No. 4	762 to 4.76
COARSE	3" TO ¾"	76.2 to 19.1
FINE	¾"to No. 4	19.1 to 4.76
SAND	No. 4 to 200	4.76 to 0.074
COARSE	No. 4 to 10	4.76 to 2.00
MEDIUM	No. 10 to 40	2.00 to 0.420
FINE	No. 40 to 200	0.420 to 0.074
SILT & CLAY	BELOW No. 200	BELOW 0.074

GRAIN SIZE CHART



PLASTICITY CHART

Ring Sample	Bag Sample	**NR** No Recovery
SPT Sample	= Seepage	

Classification in accordance with ASTM D2487
Description and visual observation in accordance with ASTM D2488
All Sieve Sizes shown are US Standard
SPT Refusal is defined as one of the following:
10 blows for no apparent displacement
50 blows for less than 6 inches advancement
100 blows for 6 to 18 inches advancement

GEOTECHNICAL BORING LOGS

Drill Hole No. B-1

Date: May 18, 2016
Drilling Company: Baja Exploration
Hole Diameter: 8" **Drive Weight:** 140 lbs. **Drop:** 30"

Project No. 1674-01
Type of Rig: LER
Elevation: 54±

DEPTH (feet)	TYPE OF TEST	SAMPLE TEST	BLOWS PER 6 INCH	DRY DENSITY (%)	MOISTURE (%)	SOIL CLASSIFICATION USCS	GEOTECHNICAL DESCRIPTION LOGGED BY: GL SAMPLED BY: GL
1							2.5" AC/7.5'base
2						SM	**SILTY SAND:** Gray/tan, fine to medium grained, slightly moist, medium dense
3							
4							
5							
6			24/50/4"	-	-	Bedrock	**SANDSTONE:**, Slightly moist, dense
7							
8							
9							
10							
11		X	10/19/24	-	-		Tan, slightly moist, dense
12							
13							
14							
15							
16		X	10/18/20	-	-		Tan, slightly moist, dense
17							
18							
19							
20							
21		X	19/22/42	-	-		Light olive, slightly moist, very dense
22							TOTAL DEPTH = 21.5. FEET NO GROUNDWATER NO CAVING BORING BACKFILLED
23							
24							
25							

GEOTECHNICAL BORING LOGS

Drill Hole No. B-2

Date: May 18, 2016
Drilling Company: Baja Exploration
Hole Diameter: 8" **Drive Weight:** 140 lbs. **Drop:** 30"

Project No. 1674-01
Type of Rig: LER
Elevation: 56±

DEPTH (feet)	TYPE OF TEST	SAMPLE TEST	BLOWS PER 6 INCH	DRY DENSITY (%)	MOISTURE (%)	SOIL CLASSIFICATION USCS	GEOTECHNICAL DESCRIPTION LOGGED BY: GL SAMPLED BY: GL
1							2.5" AC/9/5" Base
2						SM	**SILTY SAND:** Tan, fine to medium grained, slightly moist, dense
3							
4							
5							
6			30/50/6"	108.8	11.2		Slightly moist, dense
7							
8							
9							
10							
11			21/26/37	109.2	5.2		Slightly moist, dense
12							
13							
14							
15							
16			10/23/37	-	-	ML (Bedrock)	**SILTSTONE:** Olive, slightly moist, very stiff
17							
18							
19							
20							
21			12/22 50/2"	-	-		Slightly moist, very stiff
22							TOTAL DEPTH = 21.5 FEET
23							NO GROUNDWATER
24							NO CAVING
25							BORING BACKFILLED

GEOTECHNICAL BORING LOGS

Drill Hole No. B-3

Date: May 18, 2016
Drilling Company: Baja Exploration
Hole Diameter: 8" **Drive Weight:** 140 lbs. **Drop:** 30"

Project No. 1674-01
Type of Rig: LEr
Elevation: 54±

DEPTH (feet)	TYPE OF TEST	SAMPLE TEST	BLOWS PER 6 INCH	DRY DENSITY (%)	MOISTURE (%)	SOIL CLASSIFICATION USCS	GEOTECHNICAL DESCRIPTION LOGGED BY: GL SAMPLED BY: GL
1							3" AC/8" Base
2						SM	**SILTY SAND:** Tan, fine to medium grained, slightly moist, medium dense
3							
4							
5							
6			8/14/18	-	-	CL	**CLAY:** Gray/light brown, slightly moist, very stiff ϕ = 11°, C = 1340 psf, peak ϕ = 10°, C = 1020 psf, residual
7							
8							
9							
10							
11			7/11/19	112.7	17.1	SM	**SILTY SAND:** Light brown/gray, fine to medium grained, moist, medium dense
12							
13							
14							
15							
16			2/4/6	-	-		Dark gray, fine to coarse grained, moist, loose
17							
18							
19							
20							
21			6/8/8	-	-		Slightly moist, medium dense
22							
23							TOTAL DEPTH = 21.5 FEET NO GROUNDWATER NO CAVING BORING BACKFILLED
24							
25							

GEOTECHNICAL BORING LOGS

Drill Hole No. B-4

Date: May 18, 2016
Drilling Company: Baja Exploration
Hole Diameter: 8" Drive Weight: 140 lbs. Drop: 30"

Project No. 1674-01
Type of Rig: LER
Elevation: 56±

DEPTH (feet)	TYPE OF TEST	SAMPLE TEST	BLOWS PER 6 INCH	DRY DENSITY (%)	MOISTURE (%)	SOIL CLASSIFICATION USCS	GEOTECHNICAL DESCRIPTION LOGGED BY: GL SAMPLED BY: GL
1							2.5" AC/7.5" Base
2						SM	**SILTY SAND WITH GRAVEL:** Light brown, fine to medium grained, slightly moist, medium dense
3							
4							
5							
6		X	4/6/8	-	-	CL	**SILTY CLAY:** Gray, moist, stiff
7							
8							
9							
10							
11		X	6/6/5	-	-	SM	**SILTY SAND:** Light brown, fine to medium grained, slightly moist, medium dense
12							
13							
14							
15							
16		■	15/38/28	-	-	ML (Bedrock)	**SILTSTONE:** Gray, slightly moist, very stiff
17							
18							
19							
20							
21		X	10/16/26	-	-		Slightly moist, very stiff
22							
23							TOTAL DEPTH = 21.5 FEET NO GROUNDWATER NO CAVING BORING BACKFILLED
24							
25							

APPENDIX C

Cal Land Engineering, Inc.
dba Quartech Consultants
Geotechnical, Environmental & Civil Engineering

May 26, 2016

Soil Exploration Company Inc.
7535 Jurupa Avenue, Unit C
Riverside, California 92504

Attn: Mr. Gene Luu

RE: LABORATORY TEST RESULTS/REPORT
Client: Excel Hotel Group
Project: Corrosion Potential/ Direct Shear
Project No.: 1674-01
QCI Job No.: 16-183-005g

Gentlemen:

We have completed the testing program conducted on sample for above project. The tests were performed in accordance with testing procedures as follows:

TEST	METHOD
Corrosion Potential	CT- 417, CT- 422, CT- 532 (643)
Direct Shear	ASTM D3080

Enclosed is Summary of Laboratory Test Results.

We appreciate the opportunity to provide testing services to Soil Exploration Company Inc. Should you have any questions, please call the undersigned.

Sincerely yours,
Cal Land Engineering, Inc. (CLE)
dba Quartech Consultants (QCI)

Keith Au
Project Engineer

Enclosure

Cal Land Engineering, Inc.
dba Quartech Consultants
Geotechnical, Environmental, and Civil Engineering

Soil Exploration Company Inc.
7535 Jurupa Avenue, Suite C
Riverside, California 92504

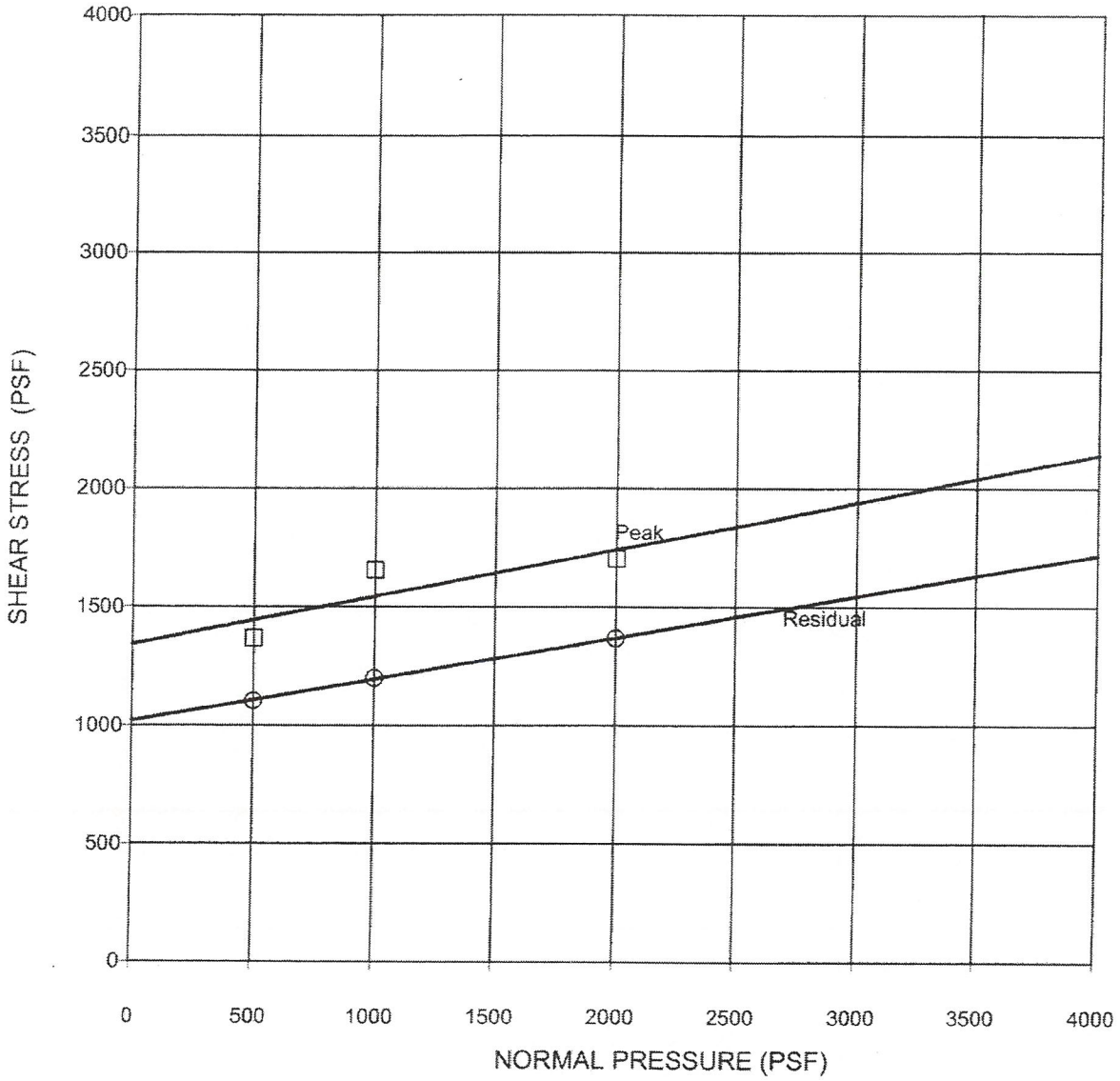
QCI Project No.: 16-183-005g
Date: May 26, 2016
Summarized by: KA

Client: Excel Hotel Group
Project: Corrosion Potential
Project No.: 1674-01

Corrosivity Test Results

Sample ID	Sample Depth	pH CT-532 (643)	Chloride CT-422 (ppm)	Sulfate CT-417 % By Weight	Resistivity CT-532 (643) (ohm-cm)
B-3	5'	8.28	10	0.0360	290

576 East Lambert Road, Brea, California 92821; Tel: 714-671-1050; Fax: 714-671-1090



SYMBOL	BOREHOLE NUMBER	SAMPLE NUMBER	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	COHESION (PSF)	FRICTION ANGLE (DEG)
□	B-3	N/A	5.0	RING	CL	1340	11
○						1020	10

Vertical Loads (PSF)	Moisture Content Before Test(%)	Moisture Content After test (%)
500	13.0	24.5
1000	13.0	22.3
2000	13.0	21.6

Cal Land Engineering, Inc.
dba Quartech Consultants
Geotechnical, Environmental & Civil Engineering Services

Address:

Soil Exploration
Project No. 1674-01
Excel Hotel Group

DIRECT SHEAR

(ASTM D3080)

5/16

FIGURE

APPENDIX D

```
**********
*        *
*  E Q F A U L T  *
*        *
*  Version 3.00  *
*        *
**********
```

DETERMINISTIC ESTIMATION OF
PEAK ACCELERATION FROM DIGITIZED FAULTS

JOB NUMBER: 1674-01

DATE: 05-13-2016

JOB NAME: Excel Hotel Group
CALCULATION NAME: Test Run Analysis
FAULT-DATA-FILE NAME: CDMGFLTE.DAT
SITE COORDINATES:
SITE LATITUDE: 32.9349
SITE LONGITUDE: 117.2401
SEARCH RADIUS: 50 mi
ATTENUATION RELATION: 3) Boore et al. (1997) Horiz. - NEHRP D (250)
UNCERTAINTY (M=Median, S=Sigma): M Number of Sigmas: 0.0
DISTANCE MEASURE: cd_2drp
SCOND: 0
Basement Depth: 5.00 km Campbell SSR: Campbell SHR:
COMPUTE PEAK HORIZONTAL ACCELERATION
FAULT-DATA FILE USED: CDMGFLTE.DAT
MINIMUM DEPTH VALUE (km): 0.0

EQFAULT SUMMARY

DETERMINISTIC SITE PARAMETERS

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi (km)	ESTIMATED MAX. EARTHQUAKE EVENT: MAXIMUM EARTHQUAKE MAG.(Mw)	PEAK SITE ACCEL. g	EST. SITE INTENSITY MOD.MERC.
ROSE CANYON	3.0(4.8)	6.9	0.471	X
CORONADO BANK	16.2(26.0)	7.4	0.226	IX
NEWPORT-INGLEWOOD (Offshore)	18.8(30.3)	6.9	0.155	VIII
ELSINORE-JULIAN	32.3(52.0)	7.1	0.114	VII
ELSINORE-TEMECULA	33.2(53.5)	6.8	0.095	VII
EARTHQUAKE VALLEY	41.8(67.3)	6.5	0.068	VI
PALOS VERDES	47.1(75.8)	7.1	0.085	VII
ELSINORE-GLEN IVY	49.3(79.4)	6.8	0.070	VI

-END OF SEARCH- 8 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.
THE ROSE CANYON FAULT IS CLOSEST TO THE SITE. IT IS ABOUT 3.0 MILES (4.8 km)
AWAY. LARGEST MAXIMUM-EARTHQUAKE SITE ACCELERATION: 0.4710 g

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**********
*        *
*  E Q F A U L T  *
*        *
*  Version 3.00  *
*        *
**********
```

DETERMINISTIC ESTIMATION OF
PEAK ACCELERATION FROM DIGITIZED FAULTS

JOB NUMBER: 1674-01

DATE: 05-13-2016

JOB NAME: Excel Hotel Group
CALCULATION NAME: Test Run Analysis
FAULT-DATA-FILE NAME: CDMGFLTE.DAT
SITE COORDINATES:
SITE LATITUDE: 32.9349
SITE LONGITUDE: 117.2401
SEARCH RADIUS: 50 mi
ATTENUATION RELATION: 3) Boore et al. (1997) Horiz. - NEHRP D (250)
UNCERTAINTY (M=Median, S=Sigma): S Number of Sigmas: 1.0
DISTANCE MEASURE: cd_2drp
SCOND: 0
Basement Depth: 5.00 km Campbell SSR: Campbell SHR:
COMPUTE PEAK HORIZONTAL ACCELERATION
FAULT-DATA FILE USED: CDMGFLTE.DAT
MINIMUM DEPTH VALUE (km): 0.0

EQFAULT SUMMARY

DETERMINISTIC SITE PARAMETERS

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi (km)	ESTIMATED MAX. EARTHQUAKE EVENT: MAXIMUM EARTHQUAKE MAG.(Mw)	ESTIMATED MAX. EARTHQUAKE EVENT: PEAK SITE ACCEL. g	ESTIMATED MAX. EARTHQUAKE EVENT: EST. SITE INTENSITY MOD.MERC.
ROSE CANYON	3.0(4.8)	6.9	0.792	XI
CORONADO BANK	16.2(26.0)	7.4	0.379	X
NEWPORT-INGLEWOOD (Offshore)	18.8(30.3)	6.9	0.260	IX
ELSINORE-JULIAN	32.3(52.0)	7.1	0.191	VIII
ELSINORE-TEMECULA	33.2(53.5)	6.8	0.160	VIII
EARTHQUAKE VALLEY	41.8(67.3)	6.5	0.114	VII
PALOS VERDES	47.1(75.8)	7.1	0.143	VIII
ELSINORE-GLEN IVY	49.3(79.4)	6.8	0.118	VII

-END OF SEARCH- 8 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.
THE ROSE CANYON FAULT IS CLOSEST TO THE SITE. IT IS ABOUT 3.0 MILES (4.8 km)
AWAY. LARGEST MAXIMUM-EARTHQUAKE SITE ACCELERATION: 0.7923 g

2013 CBC – SEISMIC PARAMETERS		
Site Coordinates	**Latitude**	**Longitude**
	32.9349	**-117.2401**
Mapped Spectral Response Acceleration	**S_S = 1.127**	**S_1 = 0.434**
Site Coefficients (Class "D")	**F_a = 1.049**	**F_v = 1.566**
Maximum Considered Earthquake (MCE) Spectral Response Acceleration	**S_{MS} = 1.183**	**S_{M1} = 0.680**
Design Spectral Response Acceleration Parameters	**S_{DS} = 0.788**	**S_{D1} = 0.453**
Seismic Design Category	**D**	
Peak Ground Acceleration (PGA)	**0.936g**	

References:

- Earthquake.usgs.gov/research/hazmaps/design
- 2013 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 2 of 2, Section 1613, Earthquake Loads

APPENDIX E

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

1.0 GENERAL INTENT

These specifications present general procedures and requirements for grading and earthwork as shown on the approved grading plans, including preparation of areas to be filled, placement of fill, installations of subdrains, and excavations. The recommendations contained in the geotechnical report are a part of the earthwork and grading specifications and shall supersede the provisions contained hereinafter in the case of conflict. Evaluations performed by the consultant during the course of grading may result in new recommendations which could supersede these specifications or the recommendations of the geotechnical report.

2.0 EARTHWORK OBSERVATIONS AND TESTING

Prior to the commencement of grading, a qualified geotechnical consultant (soils engineer and engineering geologist, and their representatives) shall be employed for the purpose of observing earthwork procedures and testing the fills for conformance with the recommendations of the geotechnical report and these specifications. It will be necessary that the consultant provide adequate testing and observations so that he may determine that the work was accomplished as specified. It shall be the responsibility of the contractor to assist the consultant and keep him apprised of work schedules and changes so that he may schedule his personnel accordingly.

It shall be the sole responsibility of the contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications and approved grading plans. If, in the opinion of the consultant, unsatisfactory conditions, such as questionable soil, poor moisture conditions, inadequate compaction, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the consultant will be empowered to reject the work and recommend that construction be stopped until the unsatisfactory conditions are rectified.

Maximum dry density tests used to determine the degree of compaction will be performed in accordance with the American Society of Testing and Materials, test method ASTM D1557-09.

3.0 PREPARATION OF AREAS TO BE FILLED

3.1 Clearing and Grubbing

All brush, vegetation, and debris shall be removed or piled and otherwise disposed of.

3.2 Processing

The existing ground which is determined to be satisfactory for support of fill shall be scarified to a minimum depth of 6 inches. Existing ground which is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until the soils are broken down and free of large clay lumps or clods and until the working surface is reasonably uniform and free of uneven features which would inhibit uniform compaction.

3.3 Overexcavation

Soft, dry, spongy, highly fractured or otherwise unsuitable ground, extending to such depth that surface processing cannot adequately improve the condition, shall be overexcavated down to firm ground, approved by the consultant.

3.4 Moisture Conditioning

Overexcavated and processed soils shall be watered, dried-back, blended, and/or mixed, as required to attain a uniform moisture content near optimum.

3.5 Recompaction

Overexcavation and processed soils which have been properly mixed and moisture-conditioned shall be recompacted to a minimum relative compaction of 90 percent.

3.6 *Benching*

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal : vertical), the ground shall be stepped or benched. The lowest bench shall be a minimum of 15 feet wide, shall be at least 2 feet deep, shall expose firm materials, and shall be approved by the consultant. Other benches shall be excavated in firm materials for a minimum width of 4 feet. Ground sloping flatter than 5:1 (horizontal : vertical) shall be benched or otherwise overexcavated when considered necessary by the consultant.

3.7 *Approval*

All areas to receive fill, including processed areas, removal areas and toe-of-fill benches shall be approved by the consultant prior to fill placement.

4.0 FILL MATERIAL

4.1 *General*

Material to be placed as fill shall be free of organic matter and other deleterious substances, and shall be approved by the consultant. Soils of poor gradation, expansion, or strength characteristics shall be placed in areas designated by consultant or shall be mixed with other soils to serve as satisfactory fill material.

4.2 *Oversize*

Oversize materials defined as rock, or other irreducible material with maximum dimension greater than 12 inches, shall not be buried or placed in fills, unless the location, materials, and disposal methods are specifically approved by the consultant. Oversize disposal operations shall be such that nesting of oversize material does not occur, and such that the oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 feet vertically of finish grade or within the range of future utilities or underground construction, unless specifically approved by the consultant.

4.3 *Import*

If importing of fill material is required for grading, the import material shall meet the requirements of Section 4.1.

5.0 FILL PLACEMENT and COMPACTION

5.1 *Fill Lifts*

Approved fill material shall be placed in areas prepared to receive fill in near-horizontal layers not exceeding 6 inches in compacted thickness. The consultant may approve thicker lifts if testing indicates the grading procedures are such that adequate compaction is being achieved with lifts of greater thickness. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to attain uniformity of material and moisture in each layer.

5.2 *Fill Moisture*

Fill layers at a moisture content less than optimum shall be watered and mixed, and wet fill layers shall be aerated by scarification or shall be blended with drier material. Moisture conditioning and mixing of fill layers shall continue until the fill material is at a uniform moisture content at or near optimum.

5.3 *Compaction of Fill*

After each layer has been evenly spread, moisture-conditioned, and mixed, it shall be uniformly compacted to not less than 90 percent of maximum dry density. Compaction equipment shall be adequately sized and shall be either specifically designed for soil compaction or of proven reliability, to efficiently achieve the specified degree of compaction.

5.4 *Fill Slopes*

Compacting of slopes shall be accomplished, in addition to normal compacting procedures, by backrolling of slopes with sheepsfoot rollers at frequent increments of 2 to 3 feet in fill elevation gain, or by other methods producing satisfactory results. At the completion of grading, the relative compaction of the slope out to the slope face shall be at least 90 percent.

5.5 *Compaction Testing*

Field-tests to check the fill moisture and degree of compaction will be performed by the consultant. The location and frequency of tests shall be at the consultant's discretion. In general, the tests will be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of embankment.

6.0 SUBDRAIN INSTALLATION

Subdrain systems, if required, shall be installed in approved ground to conform to the approximate alignment and details shown on the plans or herein. The subdrain location or materials shall not be changed or modified without the approval of the consultant. The consultant, however, may recommend and upon approval, direct changes in subdrain line, grade or material. All subdrains should be surveyed for line and grade after installation and sufficient time shall be allowed for the surveys, prior to commencement of filling over the subdrain.

7.0 EXCAVATION

Excavations and cut slopes will be examined during grading. If directed by the consultant, further excavation or overexcavation and refilling of cut areas shall be performed, and/or remedial grading of cut slopes shall be performed. Where fill-over-cut slopes are to be graded, unless otherwise approved, the cut portion of the slope shall be made and approved by the consultant prior to placement of materials for construction of the fill portion of the slope.

8.0 TRENCH BACKFILLS

Trench excavations for utility pipes shall be backfilled under engineering supervision.

After the utility pipe has been laid, the space under and around the pipe shall be backfilled with clean sand or approved granular soil to a depth of at least one foot over the top of the pipe. The sand backfill shall be uniformly jetted into place before the controlled backfill is placed over the sand.

The onsite materials, or other soils approved by the soil engineer, shall be watered and mixed as necessary prior to placement in lifts over the sand backfill.

The controlled backfill shall be compacted to at least 90 percent of the maximum dry density as determined by the ASTM D1557-09 test method.

Field density tests and inspection of the backfill procedures shall be made by the soil engineer during backfilling to see that proper moisture content and uniform compaction is being maintained. The contractor shall provide test holes and exploratory pits as required by the soil engineer to enable sampling and testing.

SOIL
EXPLORATION
COMPANY, INC.

Soil Engineering, Environmental Engineering, Materials Testing, Geology

October 31, 2017

Project No. 1674-01

TO: Excel Hotel Group
10174 Old Grove Rd., Suite 200
San Diego, CA 92131

ATTENTION: Neil Patel

SUBJECT: Soil Engineering Addendum/Geologic Report, City Review Comments Dated 8/3/2017, Proposed Five-Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego, California

REFERENCE: Soil Exploration Co. Inc., "Preliminary Soil Investigation Report, Proposed Five-Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego (Carmel Valley), California 92130", Dated May 25, 2016 (Project No. 1674-01).

Introduction/Response

Per your authorization, we have prepared the following geotechnical/geologic response and revised foundation recommendations for the subject site.

Item 2 The site is proposed for construction of a five-story hotel with a one-story (12± feet below the existing ground) parking. The existing restaurant structure at the site will be demolished and debris hauled offsite.

Items 3 & 4 The undersigned geologist has made an attempt to obtain previous soils report with respect to the site previous grading from the County and City of San Diego but no reports were found. As part of our additional investigation, we also have reviewed available historic topographic maps for the Del Mar Quadrangle. We performed additional subsurface investigation in order to delineate subsurface materials and bedrock within the footprint of the planned hotel site. Our investigation included 3 bucket auger borings and 3 hollow stem borings. All borings were advanced into bedrock, except Boring BA-3 where we encountered water seepage and caving and boring was terminated at 33 feet below surface. We encountered man-made fill within western and southern portions of the planned hotel with a maximum thickness of 42 feet overlying bedrock. The bedrock consisted of sequence of friable to semi-friable and moderately hard sandstone and very stiff claystone. In light of the new findings, we have revised our foundation recommendations and are recommending the portion of the building and pool encroaching onto the undocumented fill areas be supported by structural slab, grade beam and cast-in-place deep foundations, embedded into competent bedrock. The undersigned geologist should be present at the site during the grading phase of the project and inspect all cuts and foundations. The location of the additional exploratory borings are shown on the attached Plate 1, Geologic Map.

Item 5 The requested geological cross-sections are provided on attached Plates 2 and 3, which show our interpretation of the subsurface conditions. Additional exploratory borings are recommended after the demolition of the existing restaurant building.

Foundation Design

Considering the undocumented/man-made fill and groundwater, the southwest portion of the basement mat foundation should be supported on caissons extending at least 15 feet into underlying bedrock. The mat foundation and caissons should be designed by a qualified structural engineer. A subgrade modulus (k) of 200 pci can be used in the design of mat foundation. The following axial, frictional and bearing values for bedrock may be used in the design:

- Allowable tip bearing value (caisson) — 4000 psf*
- Friction coefficient — 0.40
- Allowable Lateral Bearing — 400 lbs./sq.ft./ft (maximum value 2000)

* The caissons may be belled at the bottom for increased bearing.

Shoring/Temporary Construction Excavations

Shoring for excavation required near northerly property margins or any other areas should consider the following:

- Overexcavation — At least 5 feet below basement level
- Temporary Cuts — 5 feet vertical, 1:1 (horizontal:vertical) above
- Lateral Loading/Active Earth Pressure (P_a) — 40 psf/ft (EFP) + any surcharge
- Lateral Resistance — 200 psf/ft (maximum 2000 psf)
- Shoring Deflection — Not to exceed ½ inch

All shoring should be designed by a qualified/experienced shoring/structural engineer.

Additional Observations/Testing During Grading and Construction

Soil Exploration Co., Inc. should review the foundation plans, observe and/or test at the following stages of construction:

- During all overexcavation and grading.
- During foundation excavations and prior to placement of footing materials.
- During wetting of slab subgrade and prior to placement of slab materials.
- During all trench backfills and subgrade/base compaction prior to paving.
- When any unusual conditions are encountered.

Closure

If you should have any questions or concerns regarding this report, please do not hesitate to call our office. We appreciate this opportunity to be of service.

Very truly yours,
Soil Exploration Co., Inc.

REGISTERED PROFESSIONAL ENGINEER
GENE KINH-TOAN LUU
C 053417
Exp. 6/30/19
CIVIL
STATE OF CALIFORNIA

Gene K. Luu, PE 53417
Project Engineer

PROFESSIONAL GEOLOGIST
FRED AFLAKIAN
No. 2051
Certified
Engineering
Geologist
STATE OF CALIFORNIA

Fred Aflakian, CEG 2051

REGISTERED PROFESSIONAL ENGINEER
SID SIDDIQUI
No. 775
Exp 9/30/19
GEOTECHNICAL
STATE OF CALIFORNIA

Sid A. Siddiqui, M.Sc, PE, GE 775
Principal Geotechnical Engineer

Distribution: [1] Addressee

Attachments:

Plate 1	Geologic Map
Plates 2 & 3	Geologic Cross-Sections A-A' and B-B'
Appendix A	Boring Logs

CONCEPTUAL GRADING PLAN

HYATT PLACE HOTEL
3510 VALLEY CENTRE DRIVE SAN DIEGO, CA 92130

LEGEND

Af	Man-Made Fill
Tt + Td	Torrey Sandstone and Del Mar Formation (Undifferentiated)
	Geologic Contact, Approximately Located
BA-1	Approximate Location of Bucket Auger Boring
BH-1	Approximate Location of Hollow Stem Boring
A A	Geological Cross-Section

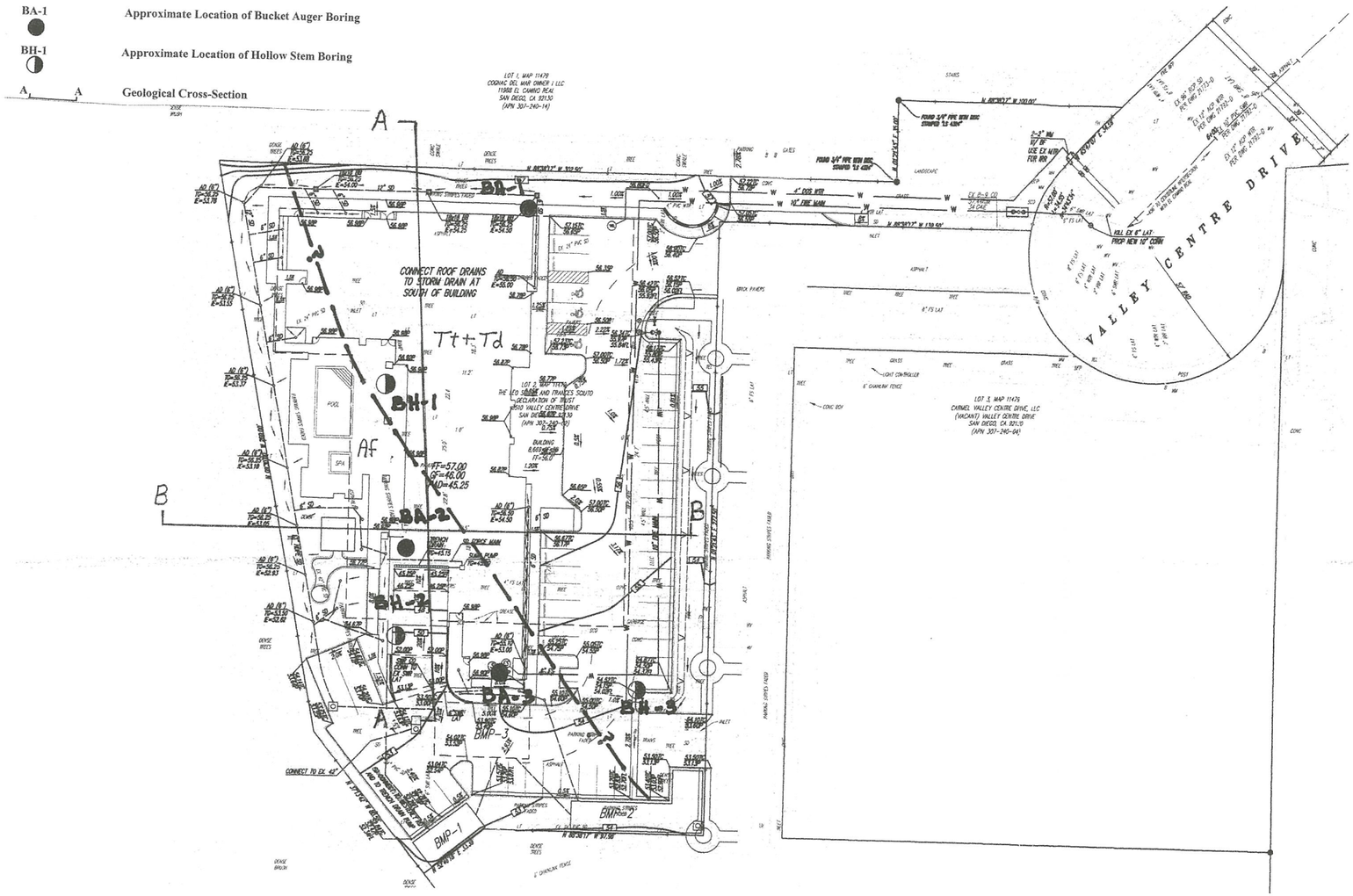
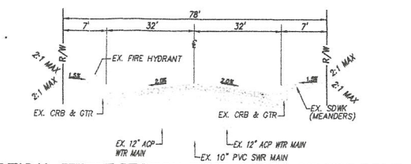


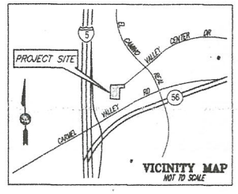
PLATE 1



TYPICAL STREET SECTION-EXIST. VALLEY CENTRE DRIVE
NOT TO SCALE

LEGEND:

ITEM	SYMBOL
RIGHT OF WAY / PROPERTY LINE	
EXISTING EASEMENT LINE	
SETBACK LINE	
STREET CENTERLINE	
EXISTING SPOT ELEVATIONS	
EXISTING CONTOUR	
EXISTING WATER LINE	
EXISTING SEWER LINE	
EXISTING FIRE HYDRANT ASSEMBLY	
EXISTING STORM DRAIN	
EXISTING STORM DRAIN INLET	
EXISTING CURB & GUTTER	
EXISTING DRAINAGE PATTERN	
EXISTING UTILITY BOX, LABELED PER PLAN	
EXISTING CONCRETE	
FOUND RECORDED MONUMENT PER PLAN	
PROPOSED CONTOUR	570
PROPOSED BUILDING FOOTPRINT	
PROPOSED FINISH FLOOR ELEVATION	FF=52.00
PROPOSED GARAGE FLOOR ELEVATION	GF=40.00
PROPOSED TOP OF CURB ELEVATION	374.00TC
PROPOSED PAVEMENT ELEVATION	374.00P
PROPOSED TOP OF WALL ELEVATION	374.00TW
PROPOSED BASE OF WALL ELEVATION	374.00BW
PROPOSED FLOWLINE ELEVATION	374.00FL
PROPOSED FINISHED GRADE ELEVATION	374.00FG
PROPOSED GRADIENT	1.75%
PROPOSED CURB (PVT)	
PROPOSED CURB & GUTTER (PVT)	
PROPOSED RETAINING WALL (PVT)	
PROPOSED AREA DRAIN (PVT)	
PROPOSED STORM DRAIN (PVT)	SIZE & TYPE PER PLAN
PROPOSED WATER LATERAL (PVT)	SIZE & TYPE PER PLAN
PROPOSED FIRE HYDRANT (PVT)	
PROPOSED FIRE SERVICE FDC (PVT)	
PROPOSED WATER SERVICE WATER METER (PVT)	WM
PROPOSED BACKFLOW (PVT)	
PROPOSED FIRE SERVICE BACKFLOW (PVT)	
PROPOSED DOMESTIC WATER POINT OF CONNECTION	W
PROPOSED FIRE POINT OF CONNECTION	F
PROPOSED SEWER POINT OF CONNECTION	S
PROPOSED SEWER LATERAL (PVT)	SIZE & TYPE PER PLAN
PROPOSED SEWER CLEANOUT (PVT)	
PROPOSED A-4 CLEANOUT (PVT)	
PROPOSED BIORETENTION BASIN (PVT)	BMP
PROPOSED HYDROMODIFICATION STORAGE FACILITY (PVT)	BMP
PROPOSED BROOKS BOX INLET (PVT)	



GRADING

CUT (TO FINISH SURFACE):	12,000 CY
FILL (TO FINISH SURFACE):	500 CY
EXPORT:	11,500 CY

PUBLIC DISTRICTS AND UTILITIES

GAS AND ELECTRIC	SDG&E
TELEPHONE	
CABLE TV	
FIRE PROTECTION	
WATER	CITY OF SAN DIEGO
SEWER	CITY OF SAN DIEGO
SCHOOL DISTRICT	

GEOLOGIC MAP
Project No. 1674-01
PLATE 1

OMEGA
ENGINEERING CONSULTANTS
4340 VIEWRIDGE AVE, SUITE B
SAN DIEGO, CALIFORNIA 92123
PH: (858) 634-8630 FAX: (858) 634-8627

ANDREW J. KANN R.C.E. 50840
MY REGISTRATION EXPIRES 9-30-17
11/30/2015 DATE

jones | ballard ARCHITECTS

HYATT PLACE HOTEL @ Carmel Valley
3510 VALLEY CENTRE DRIVE
SAN DIEGO, CALIFORNIA 92103
SITE DEVELOPMENT / COASTAL DEVELOPMENT PERMIT SUBMITTAL

HYATT PLACE
EXCEL HOTEL GROUP

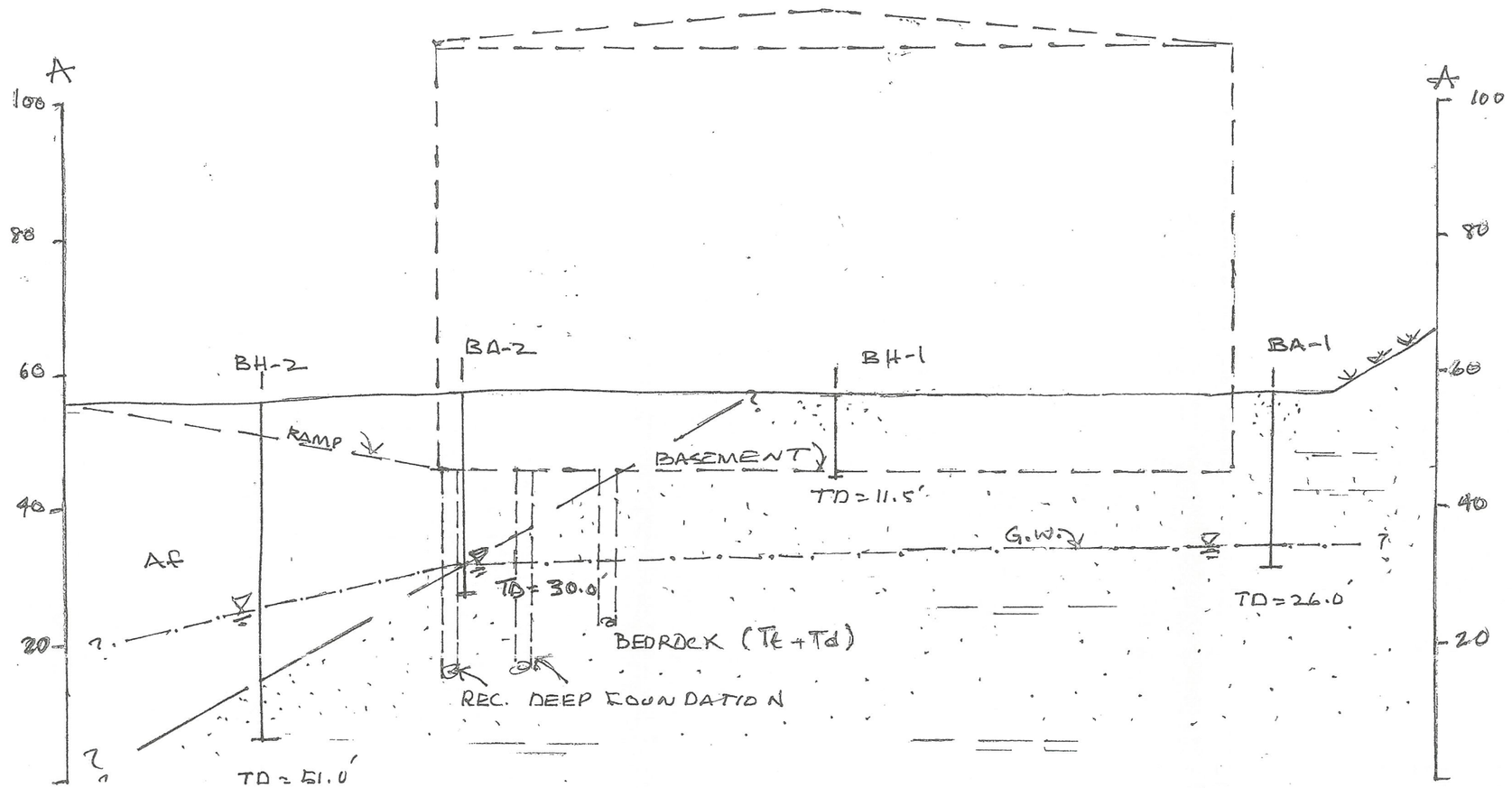
ISSUE DATES

No.	Date	Description
	2015-11-17	SDP / CDP Completeness Check
	2015-12-01	First Submittal

CONCEPTUAL GRADING

DRAWING I.D.:
Project No.: 0343
Date: 2015 - 10 - 21
SHEET NO.:

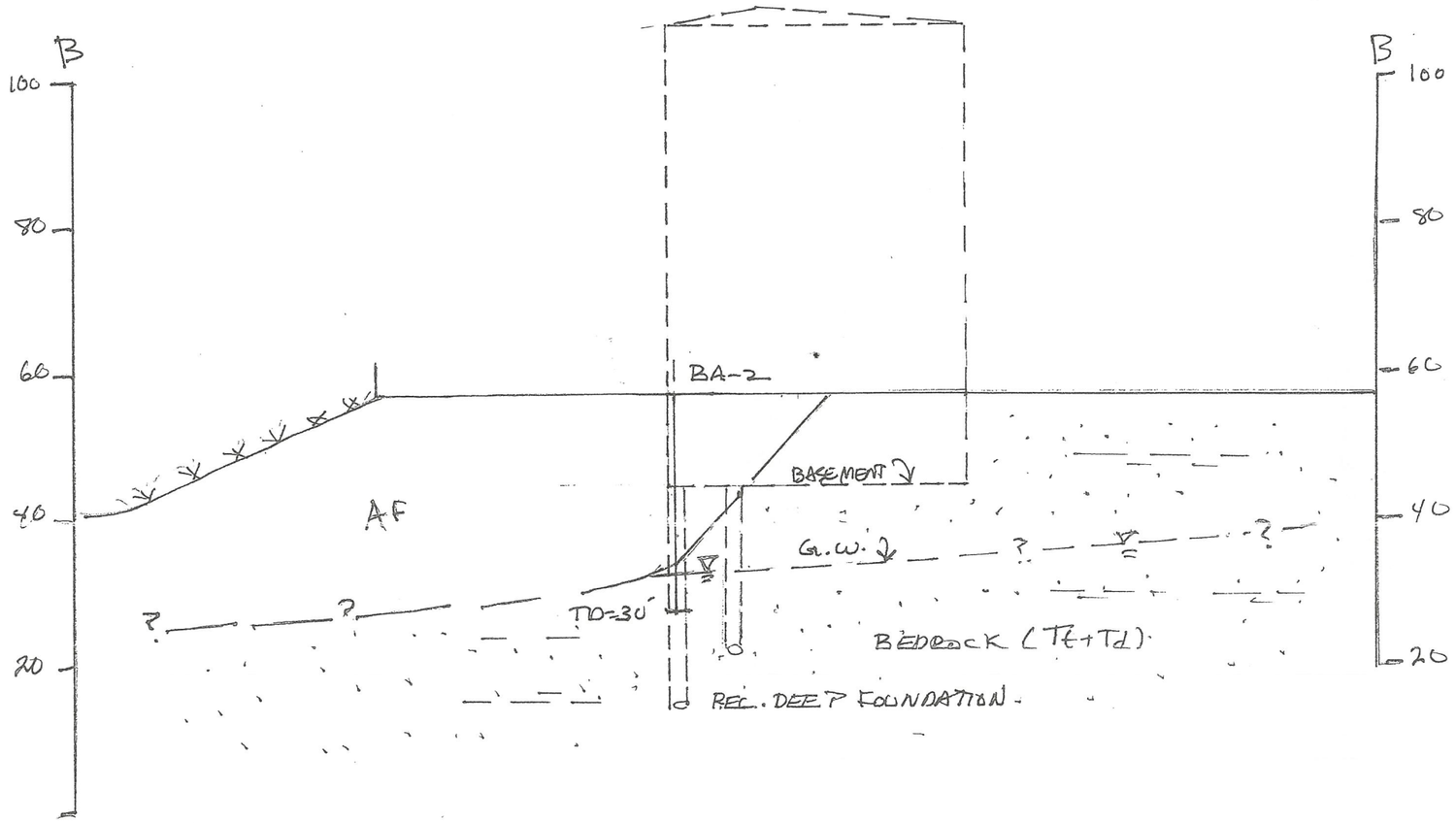
C-1
SHEET OF



CROSS-SECTION A-A'

1" = 20'

Project No. 1674-01
PLATE 2



CROSS-SECTION B-B'

1" = 20'

Project No. 1674-01
PLATE 3

APPENDIX A

LOG OF EXPLORATORY BORING

CLIENT:		**DRILLER:**	Dave's Drilling	**LOGGED BY:**	FA
PROJECT NAME:	3510 VALLEY CREST	**DRILL METHOD:**	BUCKET AUGER	**OPERATOR:**	Dave
PROJECT NO.:		**HAMMER:**	N/A	**RIG TYPE:**	24"
LOCATION:	SAN DIEGO			**DATE:**	10/12/2017

BORING *BA-1*

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ one foot	SAMPLES: Sample Number	Graphic	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					2" AC over 6" AB **BEDROCK**, Sandstone, light brown, slightly moist, friable, massive, medium grained			
10					@ 7', grades to coarse graind sandstone, yellowish brown, slightly moist, semi friable; at 9.5' undulating contact with lower dark gray claystone, contact relatively flat @ 11.5', sandstone, yellow brown, fine to coarse grained; at 13.5', undulating contact with lower gray-olive claystone; 14', to coarse sandstone, friable, yellowish brown; at 15.5' to dark gray claystone, N60W, 5SW			
20					@ 18-18.5', 6' fine sandstone, yellow to orange, fine grained, undulatory contact with lower claystone @ 21', one foot dark gray-blk fossilferos clay bed, containing white sea shell fragments			
					@ 22' to yellow sandstone, moderately hard, moist @ 23' water seepage			
30					TOTAL DEPTH 26.0' WATER SEEPAGE AT 23' HOLE WAS BACKFILLED WITH BENTONITE AND SOIL CUTTINGS			
40								
50								
60								

LEGEND

Sample type: —Ring —SPT —Small Bulk —Large Bulk —No Recovery —Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Hydrocollasped test; MD = Maximum Density

CLIENT: **DRILLER:** Dave's Drilling **LOGGED BY:** FA

LOG OF EXPLORATORY BORING

PROJECT NAME:	3510 VALLEY CREST	**DRILL METHOD:**	BUCKET AUGER	**OPERATOR:**	Dave
PROJECT NO.:		**HAMMER:**	N/A	**RIG TYPE:**	24"
LOCATION:	SAN DIEGO			**DATE:**	10/12/2017

De	SAMPLES: Sampl	SAMPLES: Blows / one foot	SAMPLES: Sample Numb	Graphic	**BORING *BA-2*** / **MATERIAL DESCRIPTION AND COMMENTS**	Laboratory Testing: Water Conte	Laboratory Testing: Dry Densi ty	Laboratory Testing: Othe rs
					2" AC over 5" AB			
					FILL: Siltysand to sandy clay-clayey sand, moist to very moist, light brown to brown, firm to medium dense			
10					@ 10', Dark brown to blk silty sand, very moist, organic odor, some decaying roots			
20					@ 18'-25', silty sand to sand, very moist, loose and poorly compacted			
					@ 25', water seepage; contact with lower sandstone, fine grained, gray to olive, very moist to moist, massive, friable to moderately hard			
30					WATER SEEPAGE AT 25' TOTAL DEPTH= 30'			
					HOLE WAS BACKFILLED WITH BENTONITE AND SOIL CUTTINGS			
40								
50								

LEGEND

Sample type: ▬ —Ring ▬ —SPT ▨ —Small Bulk ▩ —Large Bulk ☐ —No Recovery ▽ —Water Table

Lab testing:

AL = Atterberg Limits	EI = Expansion Index	SA = Sieve Analysis	RV = R-Value Test
SR = Sulfate/Resisitivity Test	SH = Shear Test	HC= Hydrocollasped test	MD = Maximum Density

CLIENT:

DRILLER: Dave's Drilling **LOGGED BY:** FA

LOG OF EXPLORATORY BORING

PROJECT NAME: 3510 VALLEY CREST
PROJECT NO.:
LOCATION: SAN DIEGO

DRILL METHOD: BUCKET AUGER
HAMMER: N/A

OPERATOR: Dave
RIG TYPE: 24"
DATE: 10/12/2017

BORING *BA-3*

De	SAMPLES: Sampl	SAMPLES: Blows / one foot	SAMPLES: Sample Numb	Graphic	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Conte	Laboratory Testing: Dry Density	Laboratory Testing: Others
					2" AC over 6" AB			
					FILL: Siltysand to sandy clay-clayey sand, light brown to olive brown, firm to medium dense			
10					Trace roots at 10'			
20					@ 20' to Dark gray clayey Sand, very moist			
					@ 25', Silty Sand, light brown, very moist			
30					@ 31.5, Sand to silty Sand, light brow, loose, no headway below 33' due to caving			
					TOTAL DEPTH =33'			
					WATER SEEPAGE AT 31.5'			
40					HOLE WAS BACKFILLED WITH BENTONITE AND SOIL CUTTINGS			
50								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:

AL = Atterberg Limits	EI = Expansion Index	SA = Sieve Analysis	RV = R-Value Test
SR = Sulfate/Resisitivity Test	SH = Shear Test	HC= Hydrocollasped test	MD = Maximum Density

CLIENT:

DRILLER: Dave's Drilling

LOGGED BY: FA

LOG OF EXPLORATORY BORING

PROJECT NAME: 3510 VALLEY CREST
PROJECT NO.:
LOCATION: SAN DIEGO
DRILL METHOD: HOLLOW STEM
HAMMER: N/A
OPERATOR: Dave
RIG TYPE: 8'
DATE: 10/21/2017

De	SAMPLES: Samp	Blows / foot	Sample Numb	Graphic	BORING *BH-1* / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Conte	Dry Densi ty	Othe rs
					2" AC over 6" AB			
					FILL: Silty Sand, dark brown, slightly moist, medium dense			
					@ 2', **Sandstone**, yellowish brown, slightly moist, friable, weathered			
10		50			Bedrock becomes denser, less weathered at 10 feet			
					TOTAL DEPTH = 11'			
					NO GROUNDWATER			
					HOLE WAS BACKFILLED WITH BENTONITE AND SOIL CUTTINGS			
20								
30								
40								
50								

LEGEND

Sample type: ---Ring —SPT —Small Bulk —Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Hydrocollasped test; MD = Maximum Density

CLIENT:
DRILLER: Dave's Drilling
LOGGED BY: FA

LOG OF EXPLORATORY BORING

PROJECT NAME: 3510 VALLEY CREST
PROJECT NO.:
LOCATION: SAN DIEGO

DRILL METHOD: HOLLOW STEM
HAMMER: N/A

OPERATOR: Dave
RIG TYPE: 8'
DATE: 10/21/2017

De	SAMPLES: Sampl	SAMPLES: Blows / one foot	SAMPLES: Samp le Numb	Graphic	BORING *BH-2* / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Wate r Conte	Dry Densi ty	Othe rs
					2" AC over 6" AB			
					FILL: Siltysand to sandy clay-clayey sand, light brown to olive brown, firm to medium dense			
10								
20					@ 20', Dark gray clayey Sand, very moist			
		9			@ 25'. Silty Sand, very moist, white to light gray			
30		2, push			@ 30', gray to grayish brown silty sand to clayey sand, mottled dark brown, wet loose			
					@ 31.5, water seepage			
40								
					@ 42', **Sandstone**, light brown, fine to medium grained, friable			
50					@ 50.5' to clayystone, olive, moist, very stiff, contact is sandstone flat			
					TOTAL DEPTH = 51' GW = 31.5'			

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Hydrocollasped test; MD = Maximum Density

CLIENT:

DRILLER: Dave's Drilling

LOGGED BY: FA

LOG OF EXPLORATORY BORING

PROJECT NAME: 3510 VALLEY CREST
PROJECT NO.:
LOCATION: SAN DIEGO

DRILL METHOD: HOLLOW STEM
HAMMER: N/A

OPERATOR: Dave
RIG TYPE: 8'
DATE: 10/21/2017

Depth	SAMPLES: Sample	SAMPLES: Blows / one foot	SAMPLES: Sample Number	Graphic	BORING *BH-3* / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content	Laboratory Testing: Dry Density	Laboratory Testing: Others
					2" AC over 6" AB **FILL:** Siltysand to sandy clay-clayey sand, light brown to olive brown, firm to medium dense			
		15			**Sandstone**, tan brown, weathered, friable, slightly moist			
10					TOTAL DEPTH = 10' NO GW			
20								
30								
40								
50								

LEGEND

Sample type: Ring | SPT | Small Bulk | Large Bulk | No Recovery | Water Table

Lab testing: AL = Atterberg Limits; SR = Sulfate/Resisitivity Test; EI = Expansion Index; SH = Shear Test; SA = Sieve Analysis; HC= Hydrocollasped test; RV = R-Value Test; MD = Maximum Density

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: Carmel Valley Hotel Project

Property Address: 3510 Valley Centre Drive

Applicant Name/Co.: Excel Hotel Group

Contact Phone: (858) 621-4908 Contact Email: npatel@excelhotelgroup.com

Was a consultant retained to complete this checklist? ■ Yes ☐ No If Yes, complete the following

Consultant Name: Victor Ortiz Contact Phone: (619) 462-1515

Company Name: HELIX Environmental Planning, Inc. Contact Email: VictorO@helixepi.com

Project Information

1. What is the size of the project (acres)? 1.46
2. Identify all applicable proposed land uses:
   - ☐ Residential (indicate # of single-family units):
   - ☐ Residential (indicate # of multi-family units):
   - ■ Commercial (total square footage): 78,375 GSF hotel, 28,300 GSF parking
   - ☐ Industrial (total square footage):
   - ☐ Other (describe):
3. Is the project or a portion of the project located in a Transit Priority Area? ■ Yes ☐ No
4. Provide a brief description of the project proposed:

The Project proposes a Site Development Permit and Coastal Development Permit to construct a five-story, 127-guestroom hotel with a pool and spa, meeting space, outdoor amenity area, surface parking, and one level of subterranean parking.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR, B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR, C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?	☑	☐

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

As a proposed hotel, the Project will be consistent with the site's Carmel Valley Community Plan land use and zoning designations, Visitor Commercial and Carmel Valley Planned District: Visitor Commercial (CVPD-VC), and the site's General Plan land use designation, Commercial Employment, Retail, & Services. As such, this item is answered in the affirmative under option A.

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs*. • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component. Through thermoplastic polyolefin (TPO) roofing the Project will include materials with a minimum 3 year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under the California Green Building Standards Code (CalGreen). As such, this item was answered in the affirmative under the first bullet.	☑	☐	☐

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings* With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following: Residential buildings: • Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; • Standard dishwashers: 4.25 gallons per cycle; • Compact dishwashers: 3.5 gallons per cycle; and • Clothes washers: water factor of 6 gallons per cubic feet of drum capacity? Nonresidential buildings: • Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and • Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)? Check "N/A" only if the project does not include any plumbing fixtures or fittings. The Project's fixtures and fittings will not exceed the maximum flow rates specified in Table A5.303.2.3.1 of CalGreen, and the appliances and fixtures for commercial applications will meet the provisions of Section A5.303.3 of CalGreen.	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use			
3. *Electric Vehicle Charging* • Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents? • Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces. This measure is not applicable to the proposed Project, as the Project does not meet the 500 or more room threshold for these requirements.	☐	☐	☑

Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
4. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project. The Project will provide nine short-term bicycle parking spaces, more than the eight short-term bicycle parking spaces required by the City's Municipal Code. Since the project does not propose more than 10 employees, no long-term bicycle parking spaces are required per Municipal Code Section 142.0530 (e)(2)(A), and none are provided.	☑	☐	☐

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

Project operation would have up to 10 on-site employees; shower facilities provisions would not be applicable to the Project as it would not meet the greater than 10 employee threshold for providing such facilities.

☐ ☐ ☑

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

In accordance with designated parking space requirements in a Transit Priority Area (TPA), the Project would provide 11 carpool/zero emission spaces.

☑ ☐ ☐

7. *Transportation Demand Management Program* If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes: At least one of the following components: • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development And at least three of the following components: • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies • Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees). This measure is not applicable to the proposed Project, as the Project does not meet the over 50 employee threshold for the program.	☐	☐	☑

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

Table 2	Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan
Fixture Type	**Maximum Flow Rate**
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

Table 3	**Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**	
Appliance/Fixture Type	**Standard**	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations*.	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.

Acronyms:
L = liter
L/h = liters per hour
L/s = liters per second
psi = pounds per square inch (unit of pressure)
kPa = kilopascal (unit of pressure)

HYDROLOGY REPORT
FOR
HYATT PLACE HOTEL
3510 Valley Centre Drive
San Diego, California 92130

July 11th, 2016

PTS: 454123
IO:
Drawing No:

Prepared By:

OMEGA Engineering Consultants
4340 Viewridge Ave, Suite B
San Diego, CA 92123
Ph: (858) 634-8620

I hereby declare that I am the engineer of work for this project, that I have exercised responsible charge over the design of the project as defined in section 6703 of the business and professions code, and that the design is consistent with current standards. I understand that the check of the project drawings and specifications by the City of San Diego is confined to a review only and does not relieve me, as an engineer of work, of my responsibilities for project design.

_____

Patric de Boer RCE 83583
Registration Expires 3-31-2019

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

SITE AND PROJECT DESCRIPTION

This Hydrology and Hydraulics report has been prepared as part of the grading plan for the proposed hotel at 3510 Valley Centre Drive. The structure and associated hardscape will cover most of the property and will drain to the existing 42" storm drain in the southwest corner of the site. See Figure 2 for the existing drainage limits. See Figure 3 for the proposed drainage limits.

METHODOLOGY

This drainage report has been prepared in accordance with current City of San Diego regulations and procedures, with the exception of the drainage basin weighted C values. These were calculated according to the *San Diego County Hydrology Manual*. All of the proposed conduits and conveyances have been designed to intercept and convey the 100-year storm. The Modified Rational Method was used to compute the anticipated runoff. See the attached calculations for particulars. The following references have been used in preparation of this report:

(1) Handbook of Hydraulics, E.F. Brater & H.W. King, 6th Ed., 1976.
(2) Modern Sewer Design, American Iron & Steel Institute, 1st Ed., 1980.
(3) City of San Diego Drainage Design Manual, 1984
(4) County of San Diego Hydrology Manual, 2003

Culvert Design and Analysis

The storm drain culverts were sized using the K' values from King's Handbook Appendix 7-14, (Appendix 7.0 of this report). The following formula was used:

Q= (K'/n)*d^(8/3)*s^(0.5)

K'= Discharge Factor
d = Diameter of Conduit (ft)
n = Manning's Coefficient
Q = Runoff Discharge (cfs)
s = Pipe Slope (ft/ft)

Rational Method

Q=CIA

Q = peak discharge, in cubic feet per second (cfs)
C = runoff coefficient, proportion of the rainfall that runs off the surface (no units)
= (0.90*(% impervious)+C_p*(1-% Impervious)) page 5, County Hydrology Manual
I = average rainfall intensity for a duration equal to the Tc for the area, (in/hr)
= $7.44*P_6*T_c^{-0.645}$
A = drainage area contributing to the design location, in acres
C_p = Pervious Coefficient Runoff Value, City Drainage Design Manual min. of 0.50
$T_c = \frac{1.8\,(1.1-C)*(L)^{0.5}}{S^{0.33}}$
S = Slope of drainage course*
L = Length of drainage course

EXISTING CONDITIONS:

The existing 1.33 acre site is already developed, with an 8,669 square foot commercial building and associated hardscape. The majority of the site (EX-1 as shown in Figure 2) drains to the southwest to an existing 42" storm drain which outlets into an offsite detention basin (DP-1). A sliver of the site (EX-2 as shown in figure 2) drains to the southeast (DP-2) where it enters a curb inlet and confluences in the MS4 with the flow from EX-1 further downstream. Each Basin has a slope of 1-2%. The site is not subject to storm water run-on from off-site areas. There is no evidence of wetlands or jurisdictional waters on-site.

DEVELOPED CONDITIONS:

This project proposes the construction of a new multistory hotel with associated hardscape. The project will disturb the entirety of the site but will decrease the imperviousness from 78.3% to 74.1%. This will decrease the runoff flow rates produced by the site during the 100-year storm from 4.84 cfs to 4.75 cfs. In the developed condition, there will be no flow to Discharge Point Two (DP-2); therefore all flow will be directed to Discharge Point One (DP-1).

Runoff from the impervious areas of the site will be conveyed to a biofiltration basin for treatment and flow control. There are 2 parts of the basin that are hydraulically linked to function as one. Hydromodification control and pollutant treatment will be provided in the basin per this project's SWQMP. The runoff will be discharged at a controlled rate to the existing 42" pipe storm drain facility at the southwesterly corner of the site (DP-1)

EXISTING RUNOFF ANALYSIS:

The runoff generated by the westerly basin has 2 paths. The parking lot drains via sheet flow into a ribbon gutter, which flows to an inlet in the southwesterly corner of the site. The roof and some area drain into a storm drain that will also enter the same segment of the 42" storm drain resulting in the same ultimate discharge point. The small, easterly basin abuts the easterly property line and flow discharges into an inlet roughly 50 feet north of the southeasterly corner of the site. An area weighted runoff coefficient for each basin was developed in which the pervious surfaces have a runoff coefficient of 0.35 and pavement is 0.9 (Table 3-1 of the *San Diego County Hydrology Manual*). The rational method calculations were computed in accordance with the *San Diego County Hydrology Manual*.
See the attached calculations for details.

DEVELOPED RUNOFF ANALYSIS:

The proposed site was modeled as one basin in which the developed condition's flow drains to the Existing 42" storm drain eliminating DP-2. All of the site's flow will drain to the biofiltration basin. The site ultimately goes to the same connection point of the 42" storm drain (DP-1). A runoff coefficient of 0.76 was used for the basin. The rational calculations and weighted C values were calculated according to *San Diego County Hydrology Manual* (Table 3-1, page 3-6).

Proposed drainage conduits will be PVC or HDPE with sizing provided at final submittal.

RESULTS AND CONCLUSIONS

The redevelopment of the site shall result in a decrease in generated peak flow rates for the 100 year event. This is due to the decrease in impervious area of the site. The site impervious area fraction of the existing site is 78.3% and the proposed site is 74.1%. The result is a peak discharge flow rate that is lower than the existing condition for all storm events. Modeling the proposed site as one basin eliminates the second discharge point and allows for all of the developed discharge to be treated. Therefore there is either reduced or eliminated flow to the existing discharge points.

Due to there being no evidence of wetlands or jurisdictional waters onsite, a 401/404 permit will not be required. Hydromodification flow control and treatment per this project's SWQMP will eliminate any negative impacts of the proposed runoff once the runoff leaves the site. This project proposes no impacts to wetlands or jurisdictional waters.

It is the opinion of Omega Engineering Consultants that the project will not cause adverse effects to the downstream facilities or receiving waters. A separate Storm Water Quality Management Plan (SQWMP) has been prepared to discuss the water quality impacts for the proposed development.

HYATT PLACE HOTEL
HYDROLOGY AND HYDRAULICS CALCS (Table No. 1)

7/11/2016

BASIN	AREA (SF)	AREA (AC)	% Imp	"C" Value
EX-1	51,430	1.18	83.9%	0.81
EX-2	6,348	0.15	33.1%	0.53
EX. TOTAL	**57,778**	**1.33**	78.3%	0.78
A-1	57,778	1.33	74.1%	0.76
PROP TOTAL	**57,778**	**1.33**	74.1%	0.76

Basin Confluence	Symbol

(A) "DP#1" DISHCARGE POINT #1

(B) C value for bare ground is 0.35 (Table 3-1 County Hydrology Manual)
C value for impervious surfaces is 0.9
Basins with mixed surface type use a weighted average
of these 2 values. (impervious % x 0.9)+(pervious % x 0.35)

HYATT PLACE HOTEL 7/11/2016

HYDROLOGY AND HYDRAULICS CALCS (Table No. 2)

Sub-Basin	AREA Ac.	"C"	CA	L (ft) Travel	H (ft) (elev)	S(%) (avg.)	Tc min.	T tot mins	I in/hr	Q cfs	Q tot cfs	L (ft) (Pipe)	S (%) (Pipe)	Dia. (in)	K'	D\d	pipe #	NOTES 85th % storm
EX-1	1.18	0.81	0.96	325	4.00	1.23	8.7	8.74	0.20	0.19	0.19							
DP#1								8.74	0.20	0.19	0.19							
								DP#1 Existing Runoff=			**0.19**	**CFS**						
EX-2	0.15	0.53	0.08	260	4.00	1.54	14.3	14.28	0.20	0.02	0.02							
DP#2								14.28	0.20	0.02	0.02							
								DP#2 Existing Runoff=			**0.02**	**CFS**						
A-1.1	1.33	0.76	1.01	300	4.00	1.33	9.7	9.69	0.20	0.20	0.20							
DP#1								9.69	0.20		0.20							
								DP#1 Proposed Runoff =			**0.20**	**CFS**						

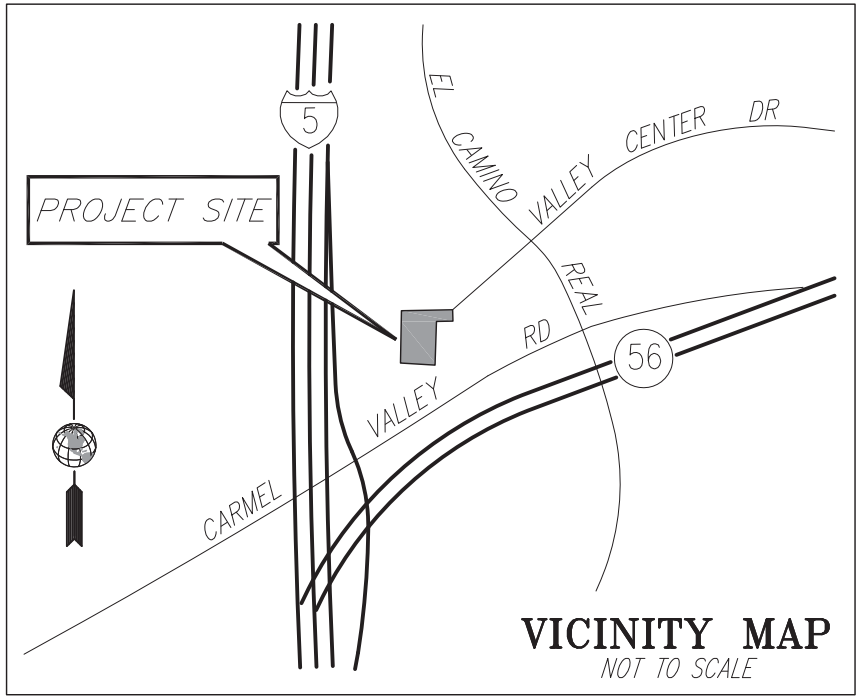
*** No runoff to DP#2 for Proposed Conditions**

HYATT PLACE HOTEL 7/11/2016

HYDROLOGY AND HYDRAULICS CALCS (Table No. 3)

Sub-Basin	AREA Ac.	"C"	CA	L (ft) Travel	H (ft) (elev)	S(%) (avg.)	Tc min.	T tot mins	I in/hr	Q cfs	Q tot cfs	L (ft) (Pipe)	S (%) (Pipe)	Dia. (in)	K'	D\d	pipe #	NOTES 100-yr Storm Event
																	P(6)=	**2.75**
EX-1	1.18	0.81	0.96	325	4.00	1.23	8.7	8.74	5.05	4.84	4.84							
DP#1								8.74	5.05	4.84	4.84							
								CP#1 Existing Runoff=			**4.84**	**CFS**						
EX-2	0.15	0.53	0.08	260	4.00	1.54	14.3	14.28	3.68	0.29	0.29							
DP#2								14.28	3.68	0.29	0.29							
								CP#2 Existing Runoff=			**0.29**	**CFS**						
A-1	1.33	0.76	1.01	300	4.00	1.33	9.7	9.69	4.73	4.75	4.75							
DP#1								9.69	4.73		4.75							
								DP#1 Proposed Runoff =			**4.75**	**CFS**						

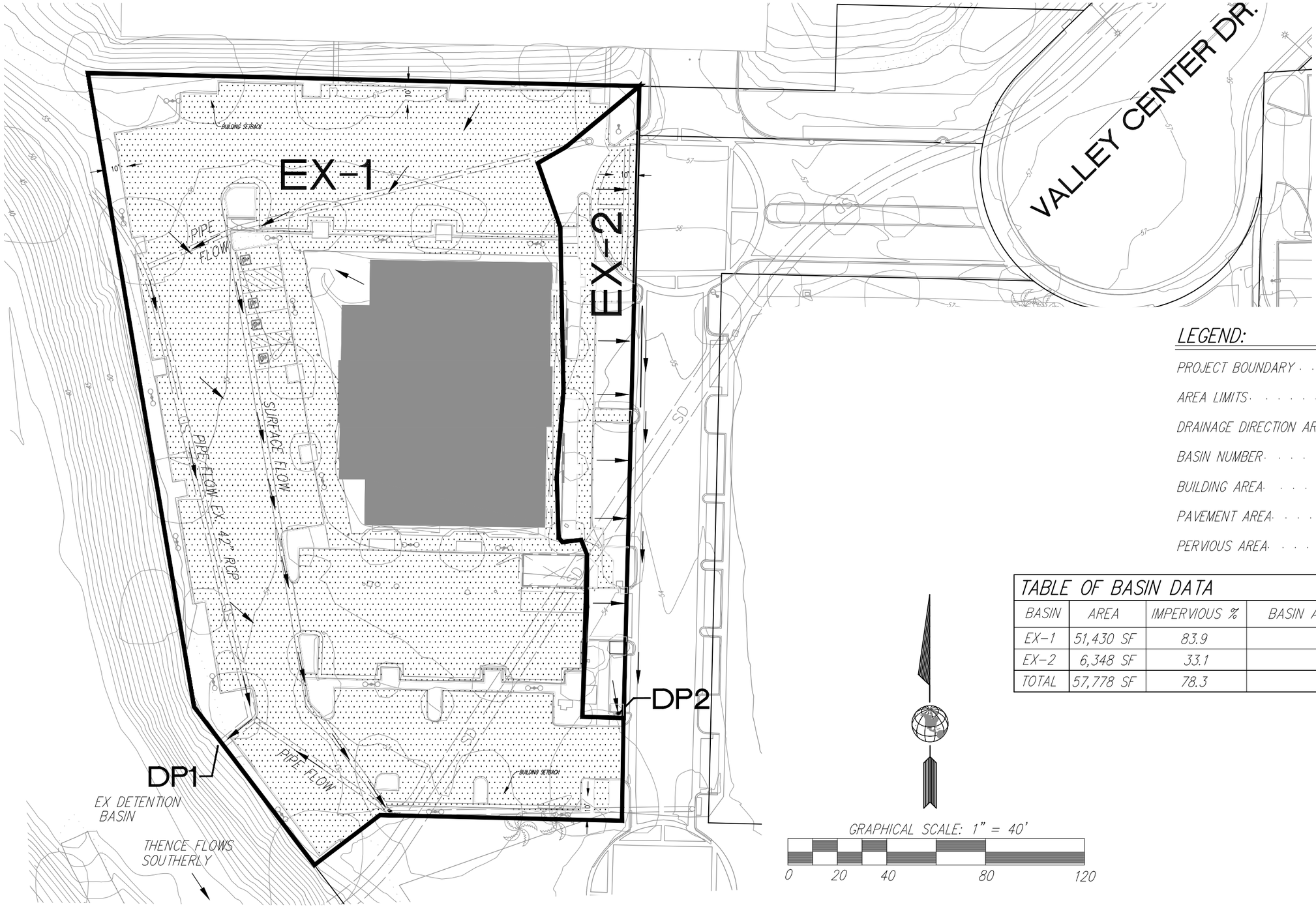
*** No runoff to DP#2 for Proposed Conditions**



VICINITY MAP

NOT TO SCALE

CARMEL VALLEY HOTEL
EXISTING HYDROLOGY EXHIBIT



LEGEND:

- PROJECT BOUNDARY
- AREA LIMITS
- DRAINAGE DIRECTION ARROW
- BASIN NUMBER — EX-#
- BUILDING AREA
- PAVEMENT AREA
- PERVIOUS AREA

TABLE OF BASIN DATA

BASIN	AREA	IMPERVIOUS %	BASIN AREA % OF TOTAL AREA	Q_{100}
EX-1	51,430 SF	83.9	89.0	4.84 CFS
EX-2	6,348 SF	33.1	11.0	0.29 CFS
TOTAL	57,778 SF	78.3	–	–

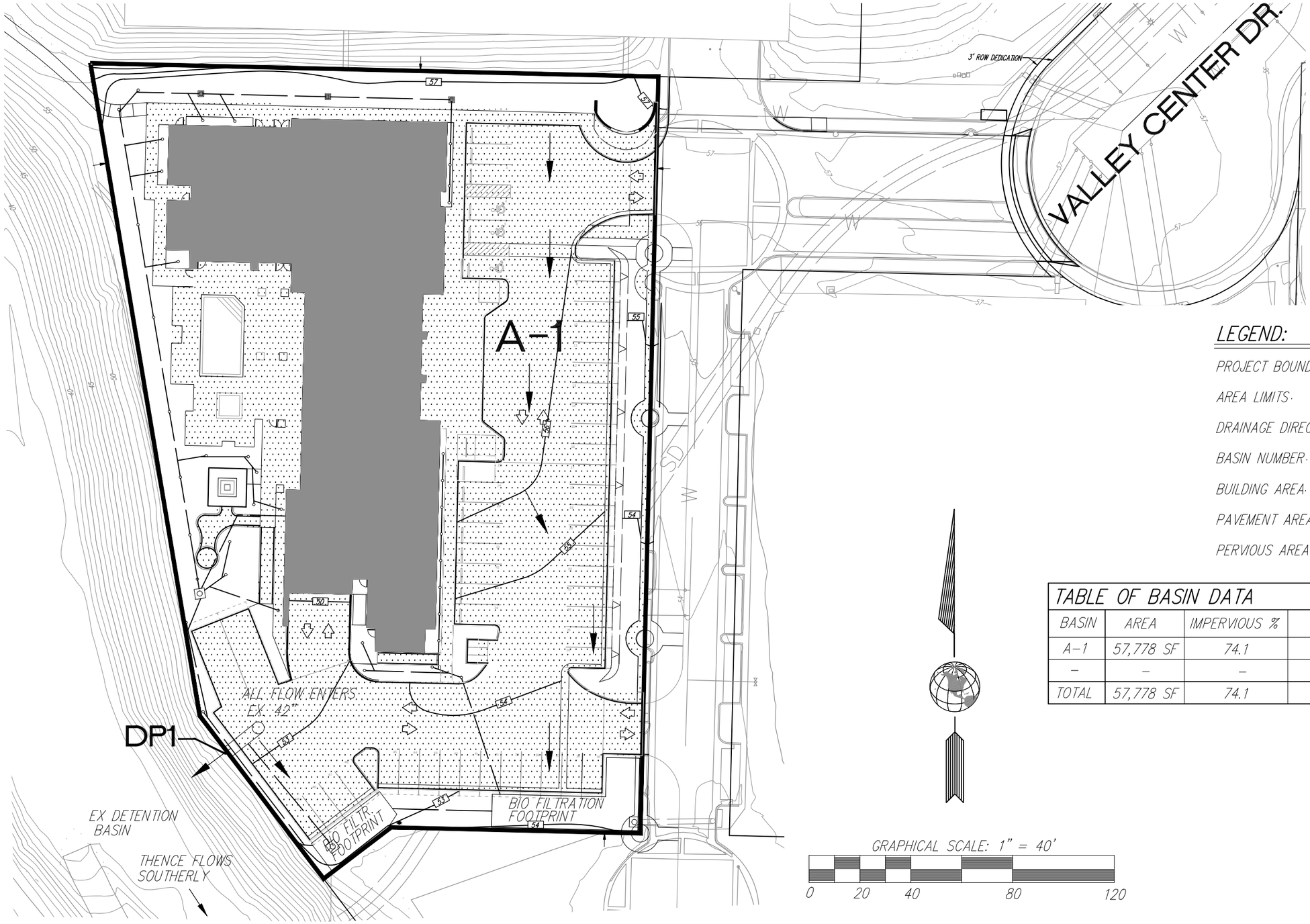
GRAPHICAL SCALE: 1" = 40'

0 20 40 80 120

OMEGA ENGINEERING CONSULTANTS
4340 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA 92123
PH:(858) 634-8620 FAX:(858) 634-8627

FIGURE 2

CARMEL VALLEY HOTEL
PROPOSED HYDROLOGY EXHIBIT



LEGEND:

PROJECT BOUNDARY	———
AREA LIMITS	———
DRAINAGE DIRECTION ARROW	→ → →
BASIN NUMBER	A-#
BUILDING AREA	
PAVEMENT AREA	
PERVIOUS AREA	

TABLE OF BASIN DATA

BASIN	AREA	IMPERVIOUS %	BASIN AREA % OF TOTAL AREA	Q_{100}
A-1	57,778 SF	74.1	100	4.75 CFS
–	–	–	–	–
TOTAL	57,778 SF	74.1	–	–

GRAPHICAL SCALE: 1" = 40'

0 20 40 80 120

OMEGA ENGINEERING CONSULTANTS
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FIGURE 3

APPENDICES

County of San Diego Hydrology Manual

Soil Hydrologic Groups

Orange County

Riverside County

Imperial County

Mexico

Pacific Ocean

PROJECT SITE

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
CHULA VISTA
IMPERIAL BEACH

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'

33°30' 33°15' 33°00' 32°45' 32°30'

Legend

Soil Groups

- Group A
- Group B
- Group C
- Group D
- Undetermined
- Data Unavailable

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Geographic Information Services

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N W E S

3 0 3 Miles

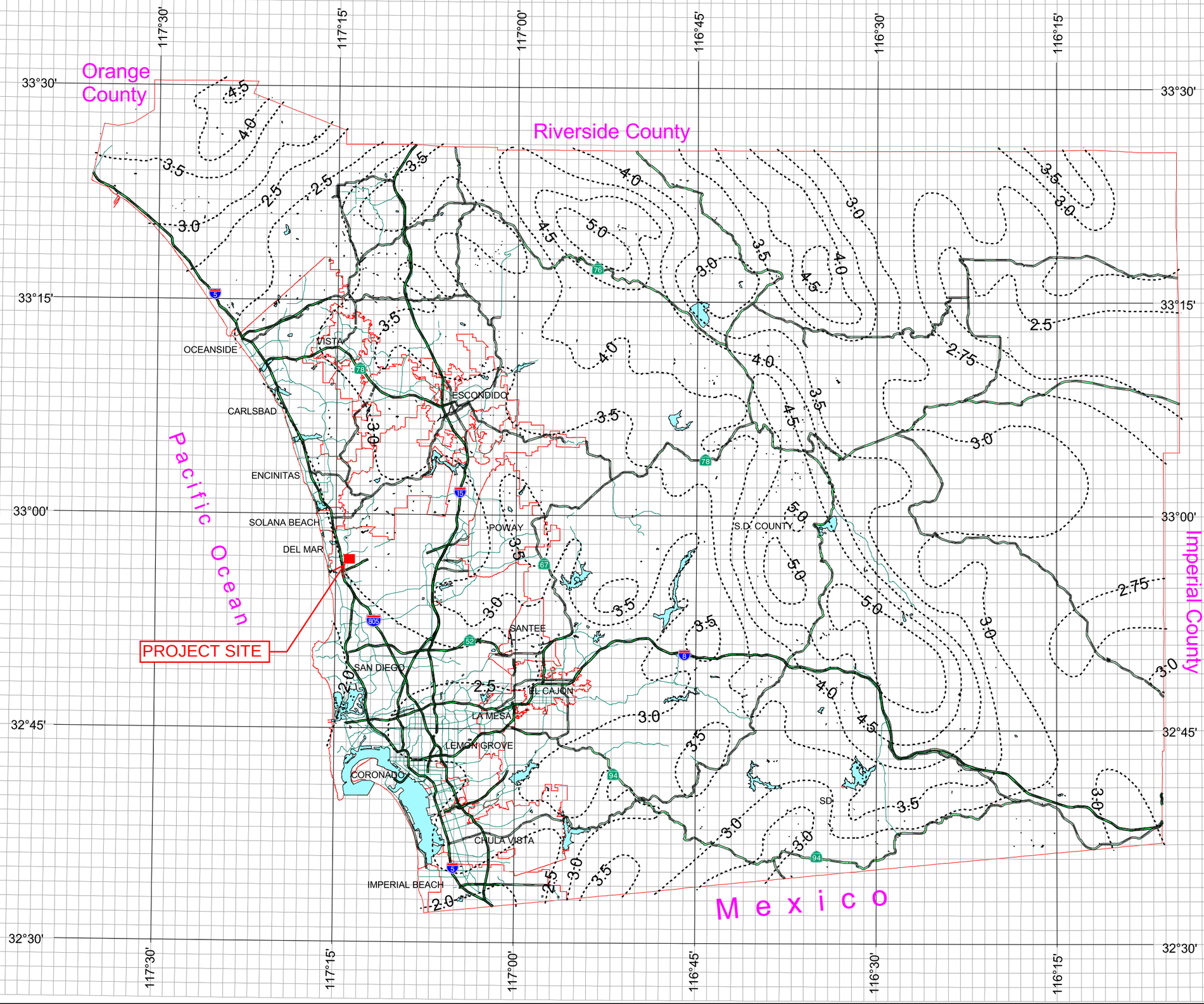
APPENDIX 1.0

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

Isopluvial (inches)



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APPENDIX 2.0

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 24 Hours

Isopluvial (inches)

Orange County

Riverside County

Imperial County

Pacific Ocean

Mexico

PROJECT SITE

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
CHULA VISTA
IMPERIAL BEACH
SD

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'
33°30' 33°15' 33°00' 32°45' 32°30'

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Geographic Information Services

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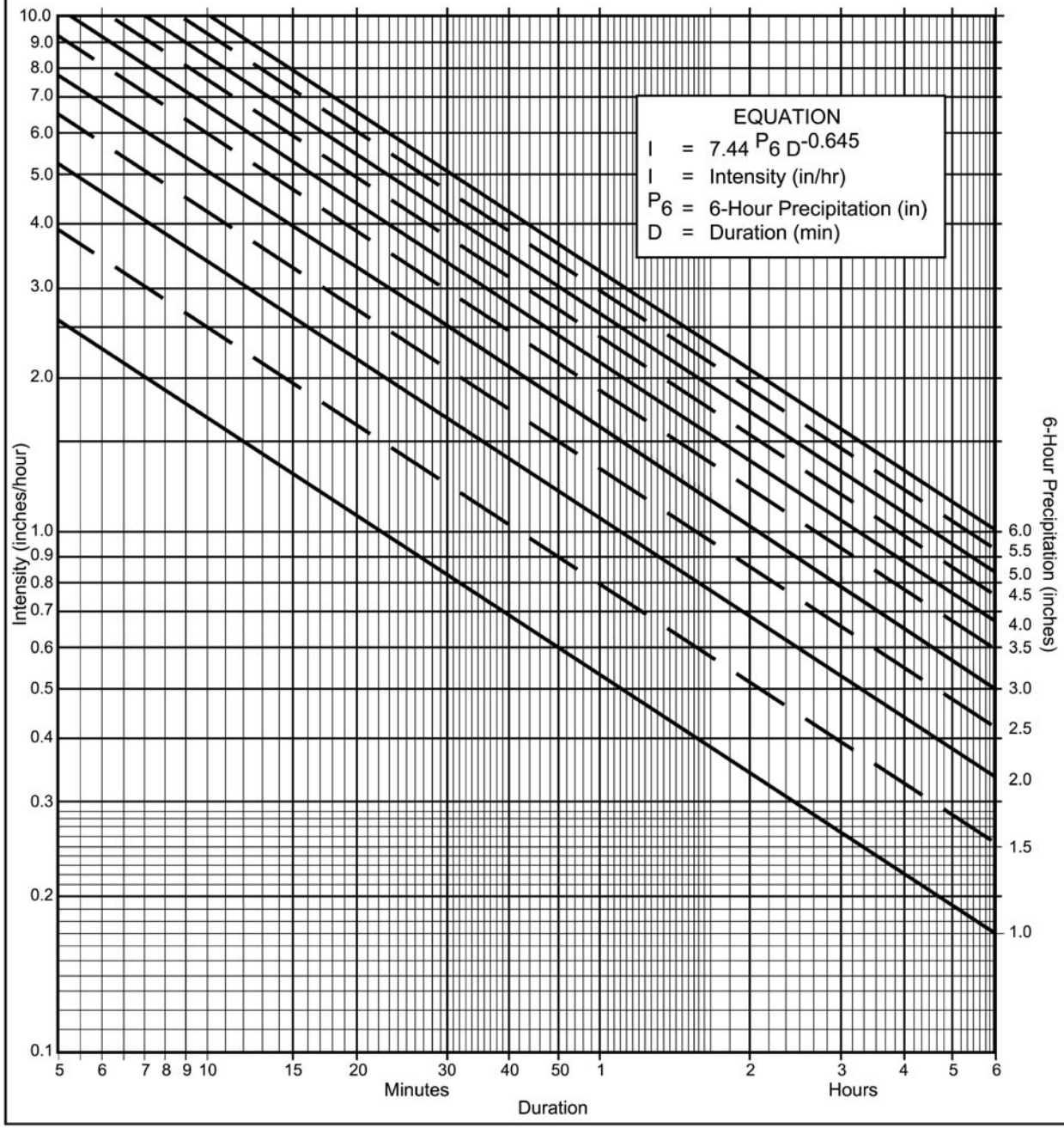
3 0 3 Miles

APPENDIX 3.0



Directions for Application:

(1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).

(2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicaple to Desert).

(3) Plot 6 hr precipitation on the right side of the chart.

(4) Draw a line through the point parallel to the plotted lines.

(5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

(a) Selected frequency 100 year

(b) P_6 = 2.75 in., P_{24} = 4.25, $\frac{P_6}{P_{24}}$ = 64.7 %(2)

(c) Adjusted P_6(2) = 2.75 in.

(d) t_x = _____ min. see calculations for values of each basin

(e) I = _____ in./hr. See methodology to see the equations used for Intensity and time of concentration

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration	I	I	I	I	I	I	I	I	I	I	I
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE 3-1

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

The City of San Diego

PRIORITY DEVELOPMENT PROJECT (PDP) STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR

Hyatt Place Carmel Valley
Permit Application No.
PTS 454123
I.O. No. TBD

ENGINEER OF WORK:

Patric de Boer RCE 83583 Exp: 3/31/2019

PREPARED FOR:

Excel Hotel Group
10660 Scripps Ranch Blvd Suite 100
San Diego, CA 92131
(858) 621-4908

PREPARED BY:

Omega Engineering Consultants, Inc.
4340 Viewridge Avenue, Suite B
San Diego, CA 92123
858-634-8620

DATE:

December 14, 2017

Approved by: City of San Diego Date

Project Name: Hyatt Place Carmel Valley

TABLE OF CONTENTS

ACRONYMS

APN	Assessor's Parcel Number
ASBS	Area of Special Biological Significance
BMP	Best Management Practice
CEQA	California Environmental Quality Act
CGP	Construction General Permit
DCV	Design Capture Volume
DMA	Drainage Management Areas
ESA	Environmentally Sensitive Area
GLU	Geomorphic Landscape Unit
GW	Ground Water
HMP	Hydromodification Management Plan
HSG	Hydrologic Soil Group
HU	Harvest and Use
INF	Infiltration
LID	Low Impact Development
LUP	Linear Underground/Overhead Projects
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
PDP	Priority Development Project
PE	Professional Engineer
POC	Pollutant of Concern
SC	Source Control
SD	Site Design
SDRWQCB	San Diego Regional Water Quality Control Board
SIC	Standard Industrial Classification
SWPPP	Stormwater Pollutant Protection Plan
SWQMP	Storm Water Quality Management Plan
TMDL	Total Maximum Daily Load
WMAA	Watershed Management Area Analysis
WPCP	Water Pollution Control Program
WQIP	Water Quality Improvement Plan

CERTIFICATION PAGE

Project Name: **Hyatt Place Carmel Valley**
Permit Application Number: **454123**

I hereby declare that I am the Engineer in Responsible Charge of design of storm water BMPs for this project, and that I have exercised responsible charge over the design of the project as defined in Section 6703 of the Business and Professions Code, and that the design is consistent with the requirements of the Storm Water Standards, which is based on the requirements of SDRWQCB Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100 (MS4 Permit).

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 Storm Water Standards. I certify that this PDP SWQMP has been completed to the best of my ability and accurately reflects the project being proposed and the applicable source control and site design 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 SWQMP 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.

#83583 Exp: 3/31/19

Engineer of Work's Signature, PE Number & Expiration Date

Patric de Boer

Print Name

Omega Engineering Consultants, Inc.

Company

Date

Engineer's Stamp

SUBMITTAL RECORD

Project Name: Hyatt Place Carmel Valley

SUBMITTAL RECORD

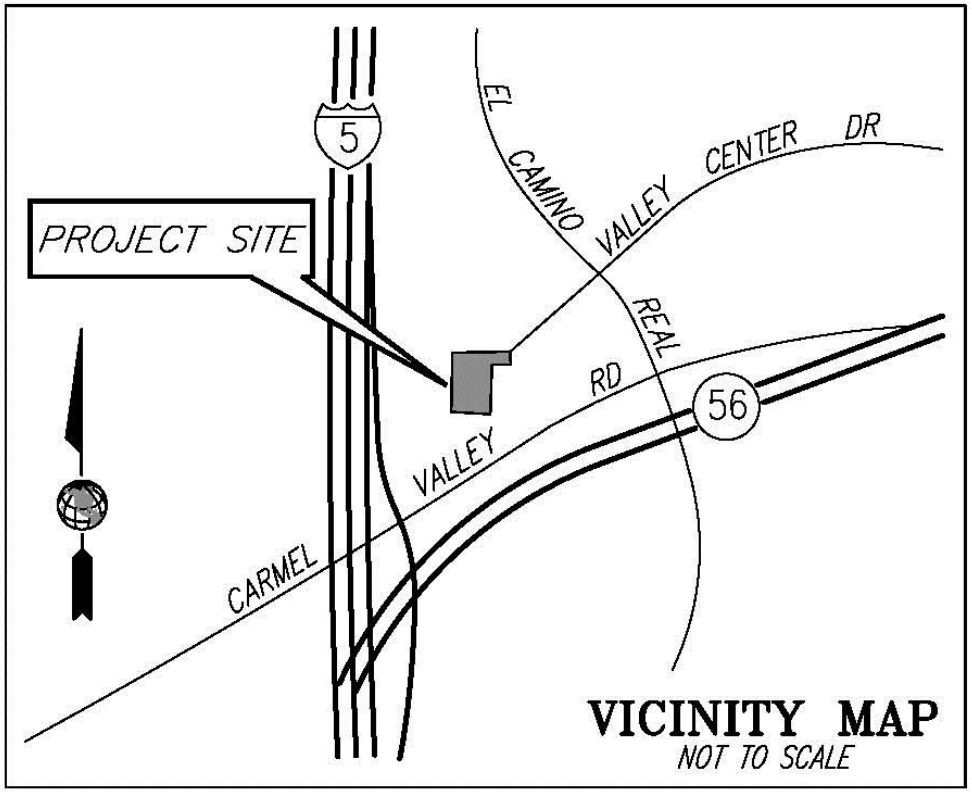
Use this Table to keep a record of submittals of this PDP SWQMP. Each time the PDP SWQMP is re-submitted, provide the date and status of the project. In last column indicate changes that have been made or indicate if response to plancheck comments is included. When applicable, insert response to plancheck comments.

Submittal Number	Date	Project Status	Changes
1		◉ Preliminary Design/Planning/CEQA ○ Final Design	Initial Submittal
2	7/11/16	◉ Preliminary Design/Planning/CEQA ○ Final Design	2nd Submittal revised to new template of SWQMP
3	Enter a date.	○ Preliminary Design/Planning/CEQA ◉ Final Design	Click here to enter text.
4	Enter a date.	◉ Preliminary Design/Planning/CEQA ○ Final Design	Click here to enter text.

PROJECT VICINITY MAP

Project Name: **Hyatt Place Carmel Valley**
Permit Application Number: **454123**

Insert Project Vicinity Map



City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101
(619) 446-5000

THE CITY OF SAN DIEGO

Storm Water Requirements Applicability Checklist

FORM DS-560
FEBRUARY 2016

Project Address:	Project Number *(for City Use Only)*:
3510 VALLEY CENTRE DRIVE, SAN DIEGO, CA 92130	

SECTION 1. Construction Storm Water BMP Requirements:

All construction sites are required to implement construction BMPs in accordance with the performance standards in the Storm Water Standards Manual. Some sites are additionally required to obtain coverage under the State Construction General Permit (CGP)[1], which is administered by the State Water Resources Control Board.

For all project complete PART A: If project is required to submit a SWPPP or WPCP, continue to PART B.

PART A: Determine Construction Phase Storm Water Requirements.

1. Is the project subject to California's statewide General NPDES permit for Storm Water Discharges Associated with Construction Activities, also known as the State Construction General Permit (CGP)? (Typically projects with land disturbance greater than or equal to 1 acre.)

   ☑ Yes; SWPPP required, skip questions 2-4 ☐ No; next question

2. Does the project propose construction or demolition activity, including but not limited to, clearing, grading, grubbing, excavation, or any other activity that results in ground disturbance and contact with storm water runoff?

   ☐ Yes; WPCP required, skip 3-4 ☐ No; next question

3. Does the project propose routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility? (Projects such as pipeline/utility replacement)

   ☐ Yes; WPCP required, skip 4 ☐ No; next question

4. Does the project only include the following Permit types listed below?
   - Electrical Permit, Fire Alarm Permit, Fire Sprinkler Permit, Plumbing Permit, Sign Permit, Mechanical Permit, Spa Permit.
   - Individual Right of Way Permits that exclusively include only ONE of the following activities: water service, sewer lateral, or utility service.
   - Right of Way Permits with a project footprint less than 150 linear feet that exclusively include only ONE of the following activities: curb ramp, sidewalk and driveway apron replacement, pot holing, curb and gutter replacement, and retaining wall encroachments.

   ☐ Yes; no document required

Check one of the boxes to the right, and continue to PART B:

☑ If you checked "Yes" for question 1, **a SWPPP is REQUIRED. Continue to PART B**

☐ If you checked "No" for question 1, and checked "Yes" for question 2 or 3, **a WPCP is REQUIRED.** If the project proposes less than 5,000 square feet of ground disturbance AND has less than a 5-foot elevation change over the entire project area, a Minor WPCP may be required instead. **Continue to PART B.**

☐ If you checked "No" for all questions 1-3, and checked "Yes" for question 4 PART B **does not apply and no document is required. Continue to Section 2.**

1. More information on the City's construction BMP requirements as well as CGP requirements can be found at: www.sandiego.gov/stormwater/regulations/index.shtml

PART B: Determine Construction Site Priorit

This prioritization must be completed within this form, noted on the plans, and included in the SWPPP or WPCP. The city reserves the right to adjust the priority of projects both before and after construction. Construction projects are assigned an inspection frequency based on if the project has a "high threat to water quality." The City has aligned the local definition of "high threat to water quality" to the risk determination approach of the State Construction General Permit (CGP). The CGP determines risk level based on project specific sediment risk and receiving water risk. Additional inspection is required for projects within the Areas of Special Biological Significance (ASBS) watershed. **NOTE:** The construction priority does **NOT** change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by city staff.

Complete PART B and continued to Section 2

1. ☐ **ASBS**
   a. Projects located in the ASBS watershed.

2. ☑ **High Priority**
   a. Projects 1 acre or more determined to be Risk Level 2 or Risk Level 3 per the Construction General Permit and not located in the ASBS watershed.
   b. Projects 1 acre or more determined to be LUP Type 2 or LUP Type 3 per the Construction General Permit and not located in the ASBS watershed.

3. ☐ **Medium Priority**
   a. Projects 1 acre or more but not subject to an ASBS or high priority designation.
   b. Projects determined to be Risk Level 1 or LUP Type 1 per the Construction General Permit and not located in the ASBS watershed.

4. ☐ **Low Priority**
   a. Projects requiring a Water Pollution Control Plan but not subject to ASBS, high, or medium priority designation.

SECTION 2. Permanent Storm Water BMP Requirements.

Additional information for determining the requirements is found in the Storm Water Standards Manual.

PART C: Determine if Not Subject to Permanent Storm Water Requirements.

Projects that are considered maintenance, or otherwise not categorized as "new development projects" or "redevelopment projects" according to the Storm Water Standards Manual are not subject to Permanent Storm Water BMPs.

If "yes" is checked for any number in Part C, proceed to Part F and check "Not Subject to Permanent Storm Water BMP Requirements".

If "no" is checked for all of the numbers in Part C continue to Part D.

1.	Does the project only include interior remodels and/or is the project entirely within an existing enclosed structure and does not have the potential to contact storm water?	☐ Yes ☑ No
2.	Does the project only include the construction of overhead or underground utilities without creating new impervious surfaces?	☐ Yes ☑ No
3.	Does the project fall under routine maintenance? Examples include, but are not limited to: roof or exterior structure surface replacement, resurfacing or reconfiguring surface parking lots or existing roadways without expanding the impervious footprint, and routine replacement of damaged pavement (grinding, overlay, and pothole repair).	☐ Yes ☑ No

PART D: PDP Exempt Requirements.

PDP Exempt projects are required to implement site design and source control BMPs.

If "yes" was checked for any questions in Part D, continue to Part F and check the box labeled "PDP Exempt."

If "no" was checked for all questions in Part D, continue to Part E.

1. Does the project ONLY include new or retrofit sidewalks, bicycle lanes, or trails that:
   - Are designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas? Or;
   - Are designed and constructed to be hydraulically disconnected from paved streets and roads? Or;
   - Are designed and constructed with permeable pavements or surfaces in accordance with the Green Streets guidance in the City's Storm Water Standards manual?

   ☐ Yes; PDP exempt requirements apply ☑ No; next question

2. Does the project ONLY include retrofitting or redeveloping existing paved alleys, streets or roads designed and constructed in accordance with the Green Streets guidance in the City's Storm Water Standards Manual?

   ☐ Yes; PDP exempt requirements apply ☑ No; project not exempt. PDP requirements apply

PART E: Determine if Project is a Priority Development Project (PDP).
Projects that match one of the definitions below are subject to additional requirements including preparation of a Storm Water Quality Management Plan (SWQMP).

If "yes" is checked for any number in PART E, continue to PART F.

If "no" is checked for every number in PART E, continue to PART F and check the box labeled "Standard Development Project".

1.	**New Development that creates 10,000 square feet or more of impervious surfaces collectively over the project site.** This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.	☐ Yes ☑ No
2.	**Redevelopment project that creates and/or replaces 5,000 square feet or more of impervious surfaces on an existing site of 10,000 square feet or more of impervious surfaces**. This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.	☑ Yes ☐ No
3.	**New development or redevelopment of a restaurant.** Facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC 5812), and where the land development creates and/or replace 5,000 square feet or more of impervious surface.	☑ Yes ☐ No
4.	**New development or redevelopment on a hillside.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site) and where the development will grade on any natural slope that is twenty-five percent or greater.	☐ Yes ☑ No
5.	**New development or redevelopment of a parking lot that creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).**	☑ Yes ☐ No
6.	**New development or redevelopment of streets, roads, highways, freeways, and driveways.** The project creates and/or replaces 5,000 square feet or more of impervious surface (collectively over the project site).	☐ Yes ☑ No

7. **New development or redevelopment discharging directly to an Environmentally Sensitive Area.** The project creates and/or replaces 2,500 square feet of impervious surface (collectively over project site), and discharges directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). ☐ Yes ☑ No

8. **New development or redevelopment projects of a retail gasoline outlet (RGO) that create and/or replaces 5,000 square feet of impervious surface.** The development project meets the following criteria: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. ☐ Yes ☑ No

9. **New development or redevelopment projects of an automotive repair shops that creates and/or replaces 5,000 square feet or more of impervious surfaces.** Development projects categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539. ☐ Yes ☑ No

10. **Other Pollutant Generating Project.** The project is not covered in the categories above, results in the disturbance of one or more acres of land and is expected to generate pollutants post construction, such as fertilizers and pesticides. This does not include projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces of if they sheet flow to surrounding pervious surfaces. ☐ Yes ☑ No

PART F: Select the appropriate category based on the outcomes of PART C through PART E.

1. The project is **NOT SUBJECT TO STORM WATER REQUIREMENTS**. ☐
2. The project is a **STANDARD DEVELOPMENT PROJECT**. Site design and source control BMP requirements apply. See the Storm Water Standards Manual for guidance. ☐
3. The project is **PDP EXEMPT**. Site design and source control BMP requirements apply. See the Storm Water Standards Manual for guidance. ☐
4. The project is a **PRIORITY DEVELOPMENT PROJECT**. Site design, source control, and structural pollutant control BMP requirements apply. See the Storm Water Standards Manual for guidance on determining if project requires a hydromodification plan management ☑

Name of Owner or Agent *(Please Print):* Mark Burt Title: Agent

Signature: [signature] Date: 7-8-16

Applicability of Permanent, Post-Construction Storm Water BMP Requirements (Storm Water Intake Form for all Development Permit Applications)	**Form I-1**

Project Identification

Project Name: Hyatt Place Carmel Valley	
Permit Application Number: 454123	Date: 7/11/16

Determination of Requirements

The purpose of this form is to identify permanent, post-construction requirements that apply to the project. This form serves as a short summary of applicable requirements, in some cases referencing separate forms that will serve as the backup for the determination of requirements.

Answer each step below, starting with Step 1 and progressing through each step until reaching "Stop".
Refer to Part 1 of Storm Water Standards sections and/or separate forms referenced in each step below.

Step	Answer	Progression
Step 1: Is the project a "development project"? See Section 1.3 of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.	(●) Yes	Go to Step 2.
		Stop. Permanent BMP requirements do not apply. No SWQMP will be required. Provide discussion below.
Discussion / justification if the project is not a "development project" (e.g., the project includes only interior remodels within an existing building):		
Step 2: Is the project a Standard Project, Priority Development Project (PDP), or exception to PDP definitions? To answer this item, see Section 1.4 of the BMP Design Manual (Part 1 of Storm Water Standards) in its entirety for guidance, AND complete Storm Water Requirements Applicability Checklist.	( ) Standard Project	Stop. Standard Project requirements apply.
	(●) PDP	PDP requirements apply, including PDP SWQMP. Go to Step 3.
	( ) PDP Exempt	Stop. Standard Project requirements apply. Provide discussion and list any additional requirements below.
Discussion / justification, and additional requirements for exceptions to PDP definitions, if applicable:		

Project Name: Hyatt Place Carmel Valley

Form I-1 Page 2		
Step	Answer	Progression
Step 3. Is the project subject to earlier PDP requirements due to a prior lawful approval? See Section 1.10 of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.	○ Yes	Consult the City Engineer to determine requirements. Provide discussion and identify requirements below. Go to Step 4.
	◉ No	BMP Design Manual PDP requirements apply. Go to Step 4.
Discussion / justification of prior lawful approval, and identify requirements (not required if prior lawful approval does not apply):		
Step 4. Do hydromodification control requirements apply? See Section 1.6 of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.	◉ Yes	PDP structural BMPs required for pollutant control (Chapter 5) and hydromodification control (Chapter 6). Go to Step 5.
	○ No	Stop. PDP structural BMPs required for pollutant control (Chapter 5) only. Provide brief discussion of exemption to hydromodification control below.
Discussion / justification if hydromodification control requirements do not apply:		
Step 5. Does protection of critical coarse sediment yield areas apply? See Section 6.2 of the BMP Design Manual (Part 1 of Storm Water Standards) for guidance.	○ Yes	Management measures required for protection of critical coarse sediment yield areas (Chapter 6.2). Stop.
	◉ No	Management measures not required for protection of critical coarse sediment yield areas. Provide brief discussion below. Stop.
Discussion / justification if protection of critical coarse sediment yield areas does not apply: Project does not contain CCSYA. The project also does not receive run-on from CCSYA areas.		

Project Name: Hyatt Place Carmel Valley

Site Information Checklist For PDPs	Form I-3B
Project Summary Information	
Project Name	Hyatt Place Carmel Valley
Project Address	3510 Valley Center Drive San Diego, CA 92130
Assessor's Parcel Number(s) (APN(s))	307-240-02-00
Permit Application Number	PTS: 454123
Project Watershed	Penasquitos 906
Hydrologic subarea name with Numeric Identifier up to two decimal paces (9XX.XX)	906.10
Project Area (total area of Assessor's Parcel(s) associated with the project or total area of the right-of-way)	1.46 Acres
Area to be disturbed by the project (Project Footprint)	1.33 Acres
Project Proposed Impervious Area (subset of Project Footprint)	0.98 Acres
Project Proposed Pervious Area (subset of Project Footprint)	0.35Acres
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Project Area.	
The proposed increase or decrease in impervious area in the proposed condition as compared to the pre-project condition.	The project decreases total site impervious area from 78.3% to 74.1%

Form I-3B Page 2 of 11

Description of Existing Site Condition and Drainage Patterns

Current Status of the Site (select all that apply):
☒ Existing development
☐ Previously graded but not built out
☐ Agricultural or other non-impervious use
☐ Vacant, undeveloped/natural
Description / Additional Information:

Existing site is the location of a restaurant.

Existing Land Cover Includes (select all that apply):
☒ Vegetative Cover
☐ Non-Vegetated Pervious Areas
☒ Impervious Areas
Description / Additional Information:

Site is mostly impervious with landscape buffers.

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 is greater than 20 Feet.This is estimated based on topography.

Existing Natural Hydrologic Features (select all that apply):
☐ Watercourses
☐ Seeps
☐ Springs
☐ Wetlands
☒ None
Description / Additional Information:

No natural features on site. The project site is currently developed.

Form I-3B Page 3 of 11

Description of Existing Site Topography and Drainage:

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. If runoff from offsite is conveyed through the site? If yes, quantification of 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 storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, and natural and constructed channels;
4. Identify all discharge locations from the existing project along with a summary of the 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.

Description / Additional Information:

1. Runoff is conveyed to a City MS4 that runs under the southerly boundary of the site. The conveyance is hardened (Urban)
2. Site receives no run-on from offsite areas.
3. Site surface drains via sheet flow and ribbon gutters to an inlet along the southerly border. No Stormwater Treatment Facilities exist on the site.
4. The existing site has 2 discharge points. The existing 1.33 acre site has an 8,669 square foot commercial building and associated hardscape. The majority of the site (EX-1 as shown in Figure 2 of the hydrology report) drains to the southwest to an existing 42" storm drain which outlets into an offsite detention basin. This is Discharge Point 1 (DP-1). A sliver of the site (EX-2 as shown in figure 2 of the hydrology report) drains to the southeast (DP-2) where it enters a curb inlet and confluences in the MS4 with the flow from EX-1 further downstream. This is Discharge Point 2. The total conveyance capacity of these pipes is unknown. The flows discharged to each of these points can be found in the Hydrology & Hydraulics report, which can be found in Attachment 5 of this report.

Form I-3B Page 4 of 11
Description of Proposed Site Development and Drainage Patterns
Project Description / Proposed Land Use and/or Activities: This proposed site will be the location of a multi-story hotel with associated hardscape, pool, and food prep areas.
List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features): The hotel will include a parking lot and associated walkways.
List/describe proposed pervious features of the project (e.g., landscape areas): Landscaped buffer areas will be placed throughout the site.
Does the project include grading and changes to site topography? ◉ Yes ○ No Description / Additional Information: The project proposes grading on the site, but the topography will not be changed significantly.

Form I-3B Page 5 of 11

Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

- **Yes**

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 and 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.

Description / Additional Information:

In the developed condition, there will be no flow to Discharge Point Two (DP-2); therefore all flow will be directed to Discharge Point One (DP-1).

Runoff from the impervious areas of the site will be conveyed to a biofiltration basin for treatment and flow control. The water will be conveyed via private storm drain system and gutter flow to the basin. There are 2 parts of the basin that are hydraulically linked to function as one. Hydromodification control and pollutant treatment will be provided in the basin per thisreport. The runoff will be discharged at a controlled rate to the existing 42" pipe storm drain facility at the southwesterly corner of the site (DP-1).

Due to a decrease in impervious areas the 100 year discharge to DP-1 is less than existing conditions. The runoff in proposed conditions does not encounter existing facilities until the discharge point. Therefore the site will not have any impact to existing facilities. All proposed on-site facilities will be sized in ministerial review. See the Hydrology report in Attachment 5 for additional details.

Form I-3B Page 6 of 11

Identify whether any of the following features, activities, and/or pollutant source areas will be present (select all that apply):

- ☒ On-site storm drain inlets
- ☒ Interior floor drains and elevator shaft sump pumps
- ☒ Interior parking garages
- ☐ Need for future indoor & structural pest control
- ☒ 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
- ☒ Fire Sprinkler Test Water
- ☒ Miscellaneous Drain or Wash Water
- ☒ Plazas, sidewalks, and parking lots
- ☐ Large Trash Generating Facilities
- ☐ Animal Facilities
- ☐ Plant Nurseries and Garden Centers
- ☐ Automotive-related Uses

Description / Additional Information:

Form I-3B Page 7 of 11
Identification and Narrative of Receiving Water
Narrative describing flow path from discharge location(s), through urban storm conveyance system, to receiving creeks, rivers, and lagoons and ultimate discharge location to Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable) The site drains to a city MS-4 located under the southerly boundary of the site. Runoff is conveyed for several hundred yards to an outfall to the Peñasquitos Lagoon. Runoff from the site will flow through the lagoon, eventually reaching the Pacific Ocean 1.25 miles from the site
Provide a summary of all beneficial uses of receiving waters downstream of the project discharge locations. The Beneficial Uses for the Pacific Ocean and Penasquitos Lagoon are as follows: BIOL, COMM, EST, IND, MAR, MIGR, NAV, RARE, REC1, REC2, SHELL, WILD, AQUA, SPWN
Identify all ASBS (areas of special biological significance) receiving waters downstream of the project discharge locations. No ASBS downstream
Provide distance from project outfall location to impaired or sensitive receiving waters. Approximately 0.5 miles to the Penasquitos Lagoon.
Summarize information regarding the proximity of the permanent, post-construction storm water BMPs to the City's Multi-Habitat Planning Area and environmentally sensitive lands N/A the area is urban.

Form I-3B Page 8 of 11

Identification of Receiving Water Pollutants of Concern

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
Penasquitos Lagoon	Sedimentation/Siltation	TMDL Est. Completion 2019

Identification of Project Site Pollutants*

*Identification of project site pollutants is only required if flow-thru 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 anticipated from the project site based on all proposed use(s) of the site (see BMP Design Manual (Part 1 of Storm Water Standards) Appendix B.6): **Biofiltration to be used. Section not required**

Pollutant	Not Applicable to the Project Site	Anticipated from the Project Site	Also a Receiving Water Pollutant of Concern
Sediment	◉	○	○
Nutrients	◉	○	○
Heavy Metals	○	◉	○
Organic Compounds	◉	○	○
Trash & Debris	○	◉	○
Oxygen Demanding Substances	◉	○	○
Oil & Grease	○	◉	○
Bacteria & Viruses	○	◉	○
Pesticides	○	◉	○

Form I-3B Page 9 of 11

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 water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.
- ( ) 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 water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.
- ( ) 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):

N/A

Critical Coarse Sediment Yield Areas*

*This Section only required if hydromodification management requirements apply

Based on Section 6.2 and Appendix H does CCSYA exist on the project footprint or in the upstream area draining through the project footprint?

- ( ) Yes
- (●) No, No critical coarse sediment yield areas to be protected based on WMAA maps

Discussion / Additional Information:

Form I-3B Page 10 of 11

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 site has 2 discharge points off the property but both discharge points travel in hardened MS4 conveyance before they confluence. Therefore the project is modeled as 1 POC.

Modeling as 1 POC is more accurate. The runoff leaves the property in 2 different locations but, the runoff from the discharge to the east confluences in storm drain flow with the runoff from the remainder of the existing site immediately downstream of the property. To capture the full site a point immediately downstream of the property was chosen as the point of compliance.

Flow control will be accomplished through the use of the biofiltration basin storage along with an outlet control structure with orifice and weir.

SWMM analysis was used to compare POC-1-EX and POC-2-PROP. The results and input file are included in attachment 2.

Has a geomorphic assessment been performed for the receiving channel(s)?

- (●) 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:

N/A

Discussion / Additional Information: (optional)

N/A

Form I-3B Page 11 of 11
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. N/A
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.

Project Name: Hyatt Place Carmel Valley

Source Control BMP Checklist for All Development Projects	Form I-4

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 (Part 1 of the Storm Water Standards) 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 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: Storm Drain Stenciling and Signage will be used and staff will be trained to dispose of discharges to the correct locations.			
SC-2 Storm Drain Stenciling or Signage	◉ Yes	○ No	○ N/A
Discussion / justification if SC-2 not implemented: Stenciling will be used on on-site inlets.			
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: No outdoor storage areas proposed.			
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: No outdoor work areas proposed.			
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: Trash areas will be protected from wind and run-on.			

Project Name: Hyatt Place Carmel Valley

Form I-4 Page 2 of 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	◉ Yes	○ No	○ N/A
Refuse areas	◉ Yes	○ No	○ N/A
Industrial processes	○ Yes	○ No	◉ N/A
Outdoor storage of equipment or materials	○ 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
SC-6A: Large Trash Generating Facilities	○ Yes	○ No	◉ N/A
SC-6B: Animal Facilities	○ Yes	○ No	◉ N/A
SC-6C: Plant Nurseries and Garden Centers	○ Yes	○ No	◉ N/A
SC-6D: Automotive-related Uses	○ 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.

A. All onsite inlets will be Marked "No Dumping" or similar
B. Interior Floor Drains and Elevator Shaft Sump Pumps shall be plumbed to the sanitary sewer
C. Parking garage floor drains will be plumbed to sanitary sewer
E. A minimum amount of pesticides will be used to maintain landscape
F. A sewer connection will be located within a hose distance to the pool
G. Food service floor drains will be routed to a grease interceptor as necessary before being plumbed to the sanitary sewer.
H. Refuse areas will remain covered and protected from wind and run-on. Signs will be posted with the words "Do not dump hazardous materials or liquids here" or similar.
O. Fire sprinkler test water will be drained to the sanitary sewer
P. Rooftop equipment with a potential to produce pollutants shall be roofed or have secondary containment.
Q. Owner shall be responsible for sweeping plazas and sidewalks regularly
All items marked "N/A" are not applicable because the project does not include these items.

Project Name: Hyatt Place Carmel Valley

Site Design BMP Checklist for All Development Projects	Form I-5

Site Design BMPs

All development projects must implement site design BMPs SD-1 through SD-8 where applicable and feasible. See Chapter 4 and Appendix E of the BMP Design Manual (Part 1 of Storm Water Standards) 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 BMP as described in Chapter 4 and/or Appendix E of the 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.

A site map with implemented site design BMPs must be included at the end of this checklist.

Site Design Requirement	Applied?		
SD-1 Maintain Natural Draiange Pathways and Hydrologic Features	○ Yes	○ No	◉ N/A
Discussion / justification if SD-1 not implemented: No natural drainage pathways or hydrologic features exist on this previously developed site.			
1-1 Are existing natural drainage pathways and hydrologic features mapped on the site map?	○ Yes	○ No	◉ N/A
1-2 Are street trees implemented? If yes, are they shown on the site map?	○ Yes	○ No	◉ N/A
1-3 Implemented street trees meet the design criteria in SD-1 Fact Sheet (e.g. soil volume, maximum credit, etc.)?	○ Yes	○ No	◉ N/A
1-4 Is street tree credit volume calculated using Appendix B.2.2.1 and SD-1 Fact Sheet in Appendix E?	○ Yes	○ No	◉ N/A
SD-2 Have natural areas, soils and vegetation been conserved?	○ Yes	○ No	◉ N/A
Discussion / justification if SD-2 not implemented: No natural areas, or vegetation exist on this previously developed site.			

Project Name: Hyatt Place Carmel Valley

Form I-5 Page 2 of 4			
Site Design Requirement	Applied?		
SD-3 Minimize Impervious Area	◉ Yes	○ No	○ N/A
Discussion / justification if SD-3 not implemented: The site plan attempts to minimize impervious area with underground parking and successfully reduces impervious area from exsisting.			
SD-4 Minimize Soil Compaction	◉ Yes	○ No	○ N/A
Discussion / justification if SD-4 not implemented: Soil will only be compacted as necessary.			
SD-5 Impervious Area Dispersion	◉ Yes	○ No	○ N/A
Discussion / justification if SD-5 not implemented: This will be implemented on the westerly side of the site but the site is laid out so as to not require credits from this to meet water quality standards. No credit is used for the current planning stage to adequately reserve space for BMPs.			
5-1 Is the pervious area receiving runon from impervious area identified on the site map?	○ Yes	◉ No	
5-2 Does the pervious area satisfy the design criteria in SD-5 Fact Sheet in Appendix E (e.g. maximum slope, minimum length, etc.)	○ Yes	◉ No	
5-3 Is impervious area dispersion credit volume calculated using Appendix B.2.1.1 and SD-5 Fact Sheet in Appendix E?	○ Yes	◉ No	

Form I-5 Page 3 of 4			
Site Design Requirement	Applied?		
SD-6 Runoff Collection	○ Yes	◉ No	○ N/A
Discussion / justification if SD-6 not implemented: Runoff collection is deemed unnecessary because entire site will be collected in biofiltration. Permeable pavement and infiltration is not attempted due to type D soil and the site being located on and near a fill slope.			
6a-1 Are green roofs implemented in accordance with design criteria in SD-6A Fact Sheet? If yes, are they shown on the site map?	○ Yes	◉ No	○ N/A
6a-2 Is green roof credit volume calculated using Appendix B.2.1.2 and SD-6A Fact Sheet in Appendix E?	○ Yes	○ No	◉ N/A
6b-1 Are permeable pavements implemented in accordance with design criteria in SD-6B Fact Sheet? If yes, are they shown on the site map?	○ Yes	◉ No	○ N/A
6b-2 Is permeable pavement credit volume calculated using Appendix B.2.1.3 and SD-6B Fact Sheet in Appendix E?	○ Yes	○ No	◉ N/A
SD-7 Landscaping with Native or Drought Tolerant Species	◉ Yes	○ No	○ N/A
Discussion / justification if SD-7 not implemented: Site will use drought tolerant landscaping.			
SD-8 Harvesting and Using Precipitation	○ Yes	◉ No	○ N/A
Discussion / justification if SD-8 not implemented: Site does not have enough landscaped area to benefit from the harvest and reuse of runoff. Furthermore the proposed use will be a hotel where guest counts will fluctuate and may not have enough demand to use captured water in the 36 hour drawdown time. Feasibility calculations are included and the anticipated use is less than .25 of the DCV. See Attachment 1c			
8-1 Are rain barrels implemented in accordance with design criteria in SD-8 Fact Sheet? If yes, are they shown on the site map?	○ Yes	◉ No	○ N/A
8-2 Is rain barrel credit volume calculated using Appendix B.2.2.2 and SD-8 Fact Sheet in Appendix E?	○ Yes	○ No	◉ N/A

Form I-5 Page 4 of 4
Insert Site Map with all site design BMPs identified:
See DMA Exhibit

Summary of PDP Structural BMPs	Form I-6

PDP Structural BMPs

All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the BMP Design Manual, Part 1 of Storm Water Standards). 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 City at the completion of construction. This includes requiring the project owner or project owner's representative to certify construction of the structural BMPs (complete Form DS-563). PDP structural BMPs must be maintained into perpetuity (see Chapter 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).

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 guidelines of the BMP Design Manual are followed. DCV is calculated and then the hierarchy of BMP selection is followed. Estimates are calculated for Harvest and Reuse Demand and it is determined to not be feasible because not enough of the DCV will be used in the designated 36 hour period.

Next infiltration is considered. Based on NRCS soil survey the site is almost entirely soil type D with little to no infiltration rate. This immediately eliminates full infiltration for preliminary design. The site is also located on fill slope/made land and slope stability is a concern. There is further concern for lateral movement of water near the underground parking structure. For preliminary design no infiltration condition is assumed.

Therefore biofiltration is proposed. This has the benefit of reserving the most conservative amount of space for storm water facilities. The basin was sized using standard methods and the governing factor is the 3% footprint.

The proposed project will collect runoff at the southerly boundary of the site, where it will enter a biofiltration basin. The basin has two parts that are hydraulically connected to act as one. This was done to avoid placing a basin in an easement reserved for a 96" storm drain.

(Continue on page 2 as necessary.)

Form I-6 Page 2 of 4
(Page reserved for continuation of description of general strategy for structural BMP implementation at the site)

(Continued from page 1)

Hydromodification control will be achieved in the same basin by deepening the gravel storage. Therefore this basin in integrated flow control and pollutant control.

It is the opinion of Omega Engineering Consultants that the preliminary design of the site will meet all storm water quality requirements and will not negatively impact downstream systems.

Form I-6 Page 3 of 4 (Copy as many as needed)
Structural BMP Summary Information
Structural BMP ID No. BMP-1
Construction Plan Sheet No. TBD
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) ○ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide (BMP type/description in discussion section below) ○ Flow-thru 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) ○ Flow-thru treatment control with alternative compliance (provide BMP type/description in ○ Detention pond or vault for hydromodification management ○ Other (describe in discussion section below)
Purpose: **Combined pollutant and hydromodification control**

Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification form DS-563	Andrew J. Kann, P.E. 4340 Viewridge Ave, Suite B San Diego, CA 92123 (858) 634-8620
Who will be the final owner of this BMP?	TBD
Who will maintain this BMP into perpetuity?	Owner
What is the funding mechanism for maintenance?	SWMDCMA (DS-3247) (To be provided in final engineering)

Form I-6 Page 4 of 4 (Copy as many as needed)
Structural BMP ID No. BMP-1
Construction Plan Sheet No. TBD

This is a biofiltration basin that has 2 hydraulically connected parts see DMA exhibit for detail.

The total footprint is 1380 square feet. The section is comprised of 6" of ponding, 18" treatment soil, and 36" of gravel storage.

The outlet structure will have a 29/32" orifice on the perforated sub drain. A weir will be at the top of the 6" ponding that is a 0.5' high by 3' wide v-notch. A modified f-inlet will be used for the wier and overflow.

THE CITY OF SAN DIEGO	City of San Diego **Development Services** 1222 First Ave., MD-302 San Diego, CA 92101 (619) 446-5000	**Permanent BMP Construction** **Self-Certification Form**
		FORM DS-563 January 2016

Date Prepared: TBD	Project No.: Click here to enter text.
Project Applicant: Click here to enter text.	Phone: Click here to enter text.
Project Address: Click here to enter text.	
Project Engineer: Click here to enter text.	Phone: Click here to enter text.

The purpose of this form is to verify that the site improvements for the project, identified above, have been constructed in conformance with the approved Storm Water Quality Management Plan (SWQMP) documents and drawings.

This form must be completed by the engineer and submitted prior to final inspection of the construction permit. Completion and submittal of this form is required for all new development and redevelopment projects in order to comply with the City's Storm Water ordinances and NDPES Permit Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100. Final inspection for occupancy and/or release of grading or public improvement bonds may be delayed if this form is not submitted and approved by the City of San Diego.

CERTIFICATION:

As the professional in responsible charge for the design of the above project, I certify that I have inspected all constructed Low Impact Development (LID) site design, source control and structural BMP's required per the approved SWQMP and Construction Permit No. Click here to enter text.; and that said BMP's have been constructed in compliance with the approved plans and all applicable specifications, permits, ordinances and Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100 of the San Diego Regional Water Quality Control Board.

I understand that this BMP certification statement does not constitute an operation and maintenance verification.

Signature: _____

Date of Signature: _ Insert Date___

Printed Name: _Click here to enter text._

Title: _Click here to enter text._

Phone No. _Click here to enter text._

Engineer's Stamp

DS-563 (12-15)

ATTACHMENT 1
BACKUP FOR PDP POLLUTANT CONTROL BMPS

This is the cover sheet for Attachment 1.

Project Name: Hyatt Place Carmel Valley

Indicate which Items are Included:

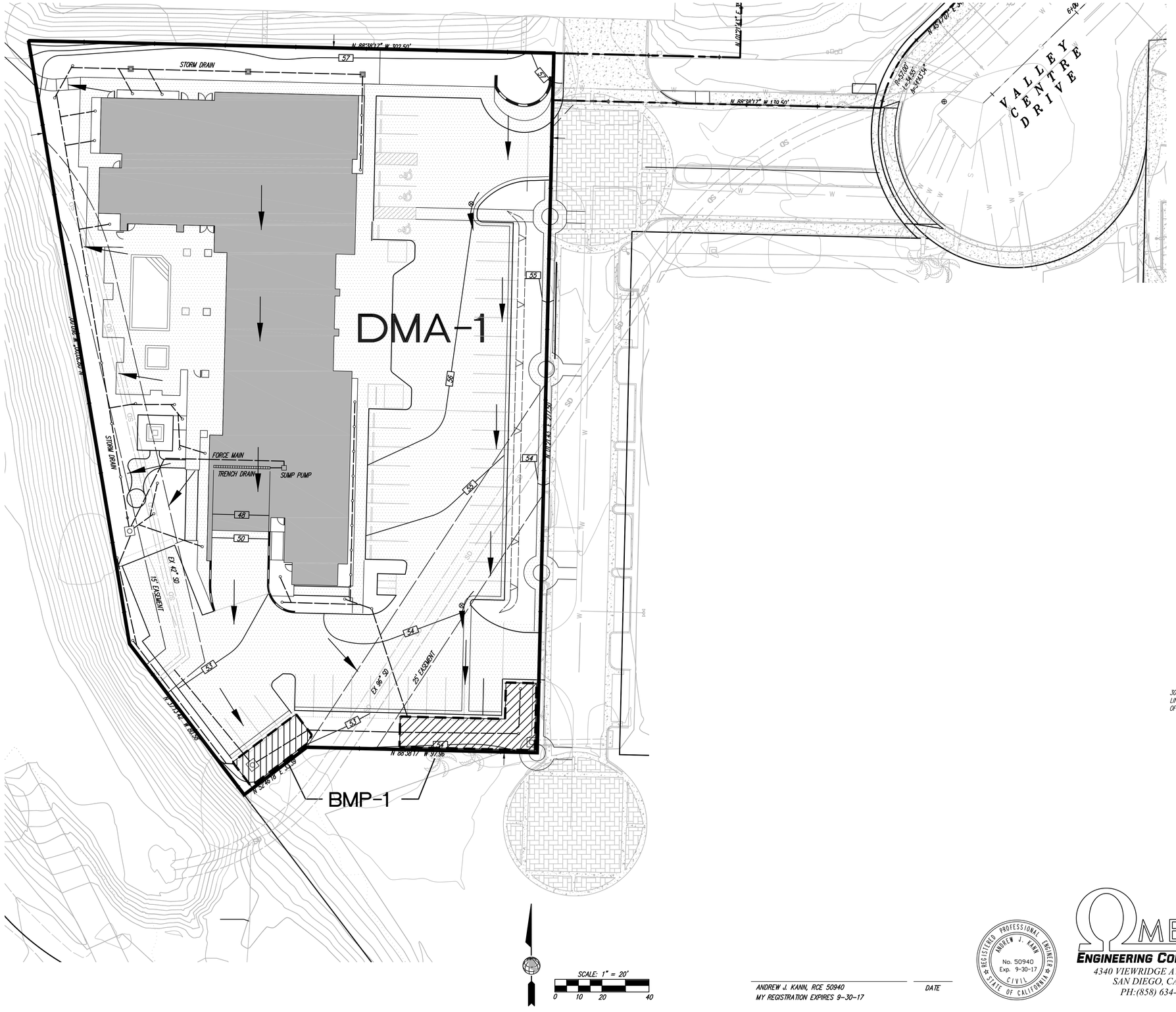
Attachment Sequence	Contents	Checklist
Attachment 1a	DMA Exhibit (Required) See DMA Exhibit Checklist.	☒ Included
Attachment 1b	Tabular Summary of DMAs Showing DMA ID matching DMA Exhibit, DMA Area, and DMA Type (Required)* *Provide table in this Attachment OR on DMA Exhibit in Attachment 1a	◉ Included On DMA Exhibit
Attachment 1c	Form I-7, 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 I-7.	◉ Included
Attachment 1d	Form I-8, 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 I-8.	◉ Included
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 and site design credit calculations	☒ Included

Project Name: Hyatt Place Carmel Valley

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)
☒ 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 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 I-3B)
☒ Structural BMPs (identify location, type of BMP, and size/detail)



LEGEND

- AREA LIMITS
- DRAINAGE DIRECTION ARROW
- DRAINAGE MGMT AREA (DMA) NUMBER — DMA-#
- BMP NUMBER — BMP-#
- LANDSCAPED AREA
- PAVEMENT AREA
- BUILDING AREA
- BEST MANAGEMENT PRACTICE (BMP)

DMA DATA TABLE

DMA-NO.	TOT. AREA	PERVIOUS	IMPERVIOUS	IMPERVIOUS %	DESIGN DCV	TREATED BY
DMA-1	1.33 AC	0.346 AC	0.984 AC	74.1%	1,757 CF	BMP-1
–	–	–	–	–	–	–

BMP DATA TABLE

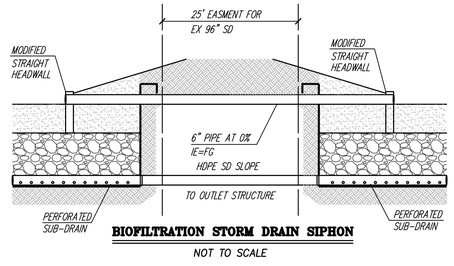
BMP-NO.	TREATING	FOOTPRINT GIVEN	REQ'D FOOTPRINT	NOTES
BMP-1	DMA-1	1380 SF	1291 SF	BIOFILTRATION BASIN* DETAIL**
–		–	–	–
–		–	–	–

*BASINS ARE HYDRAULICALLY CONNECTED TO ACT AS ONE BASIN. BASIN IS NOT CONTIGUOUS TO LIMIT BUILDING IN THE EASMENT RESERVED FOR THE 96" STORM DRAIN. OUTLET STRUCTURE DETAILS TO COME IN FINAL ENGINEERING

**THE BASIN WILL HAVE A 29/32" ORIFICE. THE OUTLET STRUCTURE WILL BE A V SHAPED WEIR 6" HIGH BY 3' WIDE AND WILL BE LOCATED 6" ABOVE THE FINISHED GRADE OF THE BASIN.

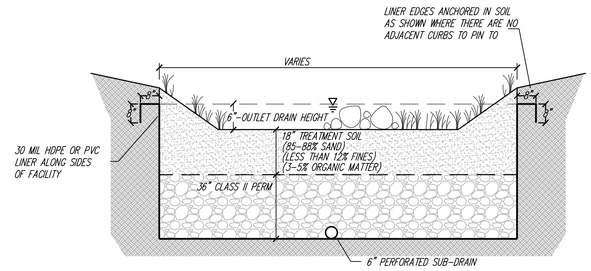
NOTES

1. UNDERLYING NRCS HYDROLOGIC SOIL GROUP FOR SITE IS TYPE D
2. GROUNDWATER DEPTH IS GRATER THAN 20 FEET ESTIMATED FROM TOPOGRAPHY
3. NO EXISTING NATURAL HYDROLOGIC FEATURES
4. NO CRITICAL COARSE SEDIMENT YIELD AREAS ON SITE
5. ALL APPLICABLE SOURCE CONTROL BMPS SHALL BE CONDUCTED
   5.A. SOURCE CONTROL NOTES TO COME IN MINISTERIAL REVIEW



BIOFILTRATION STORM DRAIN SIPHON

NOT TO SCALE



TYPICAL BIOFILTRATION AREA DETAIL

NOT TO SCALE

ANDREW J. KANN, RCE 50940
MY REGISTRATION EXPIRES 9-30-17

DATE

REGISTERED PROFESSIONAL ENGINEER — ANDREW J. KANN — No. 50940 Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

ΩMEGA
ENGINEERING CONSULTANTS
4340 VIEWRIDGE AVE. SUITE B
SAN DIEGO, CA 92123
PH:(858) 634-8620

PRIVATE CONTRACT

DMA MAP & BMP SHEET

HYATT PLACE CARMEL VALLEY

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEETX OF X SHEETS

I.O. NO. _____
PROJECT NO. _____
V.T.M. _____

FOR CITY ENGINEER _____ DATE _____

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	OEC			
AS-BUILTS				

NAD83 COORDINATES

LAMBERT COORDINATES

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

FILENAME: P:\OMEGA\0339 CARMEL VALLEY HOTEL\STORMWATER REPORTS\SWQMP\0339-DMA-EXHIBIT.DWG
DATE: 7/1/2016 8:43:35 PM BY: MARK BUNT

Harvest and Use Feasibility Checklist	Form I-7

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.

Landscape and toilet use was estimated per Appendix B. See the Harvest and Reuse Calculation section provided in attachment 1e. Toilet use for hotel guests is unreliable for determining if there will be enough demand present. Still used 50 guests to calculate and 36 hour demand is still below .25DCV. Demand estimate assuming 50 guests is **1845 gallons**

3. Calculate the DCV using worksheet B-2.1.

DCV = **13,142 Gallons (1,757 CF)**

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 BMP.

☑ No, select alternate BMPs.

Categorization of Infiltration Feasibility Condition	Form I-8

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?

Criteria	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 site infiltration tests, performed on October 7th by Soils Explorations Inc. The native soil on site has infiltration rates ranging from 0.16-0.90 inches per hour. The average of the three tests performed is 0.64 inches per hour. With a factor of safety of 2.0 applied, the assumed infiltration rate is 0.32 inches per hour. This is below the 0.5 inches per hour required for full infiltration.

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 soil onsite cannot infiltrate at rates of 0.5 inches per hour or greater. If it could, it would present a slope stability issue, as the site is located at the top of a fill slope. This creates the risk of infiltrated water moving laterally and piping out the surface of the slope on neighboring properties. This can weaken the slope and lead to slope failures. Additionally, the site has a 96"existing public storm drain running through it. Infiltrating near existing utilities or backfilled trenches creates the risk of water flowing along the existing pipe or trench, which can create stability issues, settling issues and the potential to impact public utilities.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.

Form I-8 Page 2 of 4			
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: The soil onsite cannot infiltrate at rates of 0.5 inches per hour or greater. If it could, it would not create a risk of ground water contamination. 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 soil onsite cannot infiltrate at rates of 0.5 inches per hour or greater. If it could, it would not create a risk of water balance issues. 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	Full infiltration is NOT feasible	

*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 I-8 Page 3 of 4

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:

With a factor of safety of 2.0, the infiltration test shows the site can infiltrate at an average of 0.32 inches per hour. This is an appreciable rate.

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.

Criteria	Screening Question	Yes	No
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.	TBD	TBD

Provide basis:

The site sits atop a fill slope, and has a 96" public storm (per 21773-D) across the southeast portion of the site and a 24" storm drain wrapping around the north and southerly boundaries. Infiltration in any quantity will create slope stability issues or create geotechnical hazards for existing utilities.

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 I-8 Page 4 of 4			
Criteria	Screening Question	**Ye**	**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: Infiltration would not create the risk of groundwater related concerns. 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: Infiltration would not violate downstream water rights 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 infeasible due to geotechnical concerns	

*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

Appendix B: Storm Water Pollutant Control Hydrologic Calculations and Sizing Methods

Worksheet B.2-1 DCV

Design Capture Volume		Worksheet B.2-1		
1	85th percentile 24-hr storm depth from Figure B.1-1	d=	0.49	inches
2	Area tributary to BMP (s)	A=	1.326	acres
3	Area weighted runoff factor (estimate using Appendix B.1.1 and B.2.1)	C=	0.745	unitless
4	Trees Credit Volume	TCV=	0	cubic-feet
5	Rain barrels Credit Volume	RCV=	0	cubic-feet
6	Calculate DCV = (3630 x C x d x A) – TCV - RCV	DCV=	1,757	cubic-feet

- See Calculation table for details

Harvest and Reuse Investigation

Planning level landscape demand:

Using LOW plant water use on Table B.3-3 of the design manual

Gallons per acre of landscaping per 36 hour period following a storm event = **390**

Landscape area = **0.346** acres

Landscape demand= **134.94** Gallons

Toilet and urinal use Using Table B.3-1

Assuming 30, 8 hour shifts per 24 hour Using a total use of 7 gallons peR shift

210 gallons per day for employees

315 Gallons for 36 hour period

Hotel guests will fluctuate. Will use conservative (for drawdown) estimate of 50 guests

Using residential pace

465 gallons per day for guests

1395 Gallons per 36 hour

Total reuse demand

1844.94 Gallons

DCV = 13142 Gallons

.25DCV= 3286 Gallons

Total Reuse Demand < .25DCV

HARVEST AND REUSE IS INFEASABLE

DMA-1 TREATED BY BIO-1

Worksheet B.5-1: Simple Sizing Method for Biofiltration BMPs

Simple Sizing Method for Biofiltration BMPs		Worksheet B.5-1 (Page 1 of 2)	
1	Remaining DCV after implementing retention BMPs	1757	cubic-feet
Partial Retention			
2	Infiltration rate from Worksheet D.5-1 if partial infiltration is feasible	0	in/hr.
3	Allowable drawdown time for aggregate storage below the underdrain	36	hours
4	Depth of runoff that can be infiltrated [Line 2 x Line 3]	0	inches
5	Aggregate pore space *AGGREGATE REPLACED BY RAINSTORE 3	0.4	in/in
6	Required depth of gravel below the underdrain [Line 4/ Line 5]	0	inches
7	Assumed surface area of the biofiltration BMP	1380	sq-ft
8	Media retained pore storage	0.1	in/in
9	Volume retained by BMP [[Line 4 + (Line 12 x Line 8)]/12] x Line 7	207	cubic-feet
10	DCV that requires biofiltration [Line 1 – Line 9]	1,550	cubic-feet
BMP Parameters			
11	Surface Ponding [6 inch minimum, 12 inch maximum]	6	inches
12	Media Thickness [18 inches minimum], also add mulch layer thickness to this line for sizing calculations	18	inches
13	Aggregate Storage above underdrain invert (12 inches typical) – use 0 inches for sizing if the aggregate is not over the entire bottom surface area	12	inches
14	Freely drained pore storage	0.2	in/in
15	Media filtration rate to be used for sizing (5 in/hr. with no outlet control; if the filtration rate is controlled by the outlet use the outlet controlled rate which will be less than 5 in/hr.)	5	in/hr.
Baseline Calculations			
16	Allowable Routing Time for sizing	6	hours
17	Depth filtered during storm [Line 15 x Line 16]	30	inches
18	Depth of Detention Storage [Line 11 + (Line 12 x Line 14) + (Line 13 x Line 5)]	14.4	inches
19	Total Depth Treated [Line 17 + Line 18]	44.4	inches

Note: Line 7 is used to estimate the amount of volume retained by the BMP. Update assumed surface area in Line 7 until its equivalent to the required biofiltration footprint (either Line 21 or Line 23)

Worksheet B.5-1: Simple Sizing Method for Biofiltration BMPs (continued)

Simple Sizing Method for Biofiltration BMPs		Worksheet B.5-1 (Page 2 of 2)	
Option 1 – Biofilter 1.5 times the DCV			
20	Required biofiltered volume [1.5 x Line 10]	2325	cubic-feet
21	Required Footprint [Line 20/ Line 19] x 12	628	sq-ft
Option 2 - Store 0.75 of remaining DCV in pores and ponding			
22	Required Storage (surface + pores) Volume [0.75 x Line 10]	1162.50	cubic-feet
23	Required Footprint [Line 22/ Line 18] x 12	969	sq-ft
Footprint of the BMP			
24	Area draining to the BMP	57,778	sq-ft
25	Adjusted Runoff Factor for drainage area (Refer to Appendix B.1 and B.2)	0.74	
26	BMP Footprint Sizing Factor (Default 0.03 or an alternative minimum footprint sizing factor from Worksheet B.5-2, Line 11)	.03	
27	Minimum BMP Footprint [Line 24 x Line 25 x Line 26]	1290.64	sq-ft
28	Footprint of the BMP = Maximum(Minimum(Line 21, Line 23), Line 27)	1291	sq-ft
Check for Volume Reduction [Not applicable for No Infiltration Condition]			
29	Calculate the fraction of DCV retained in the BMP [Line 9/Line 1]	N/A	unitless
30	Minimum required fraction of DCV retained for partial infiltration condition	0.375	unitless
31	Is the retained DCV ≥ 0.375? If the answer is no increase the footprint sizing factor in Line 26 until the answer is yes for this criterion.	☐ Yes	☐ No

Note:

1. Line 7 is used to estimate the amount of volume retained by the BMP. Update assumed surface area in Line 7 until its equivalent to the required biofiltration footprint (either Line 21 or Line 23)
2. The DCV fraction of 0.375 is based on a 40% average annual percent capture and a 36-hour drawdown time.
3. The increase in footprint for volume reduction can be optimized using the approach presented in Appendix B.5.2. The optimized footprint cannot be smaller than the alternative minimum footprint sizing factor from Worksheet B.5-2.
4. If the proposed biofiltration BMP footprint is smaller than the alternative minimum footprint sizing factor from Worksheet B.5-2, but satisfies Option 1 or Option 2 sizing, it is considered a compact biofiltration BMP and may be allowed at the discretion of the City Engineer, if it meets the requirements in Appendix F.

BMP design follows the City of San Diego Storm Water Standards Manual. The BMP is sized using the standard methods ensuring maximization of retention and pollutant removal.
This BMP is sized to have a minimum footprint of 3% of the contributing area adjusted by the runoff factor. With the proposed BMP parameters the minimum footprint exceeds the footprint required to Biofilter 1.5 times the DCV. It also exceeds the footprint required to store 0.75 of the remaining DCV in pores and ponding

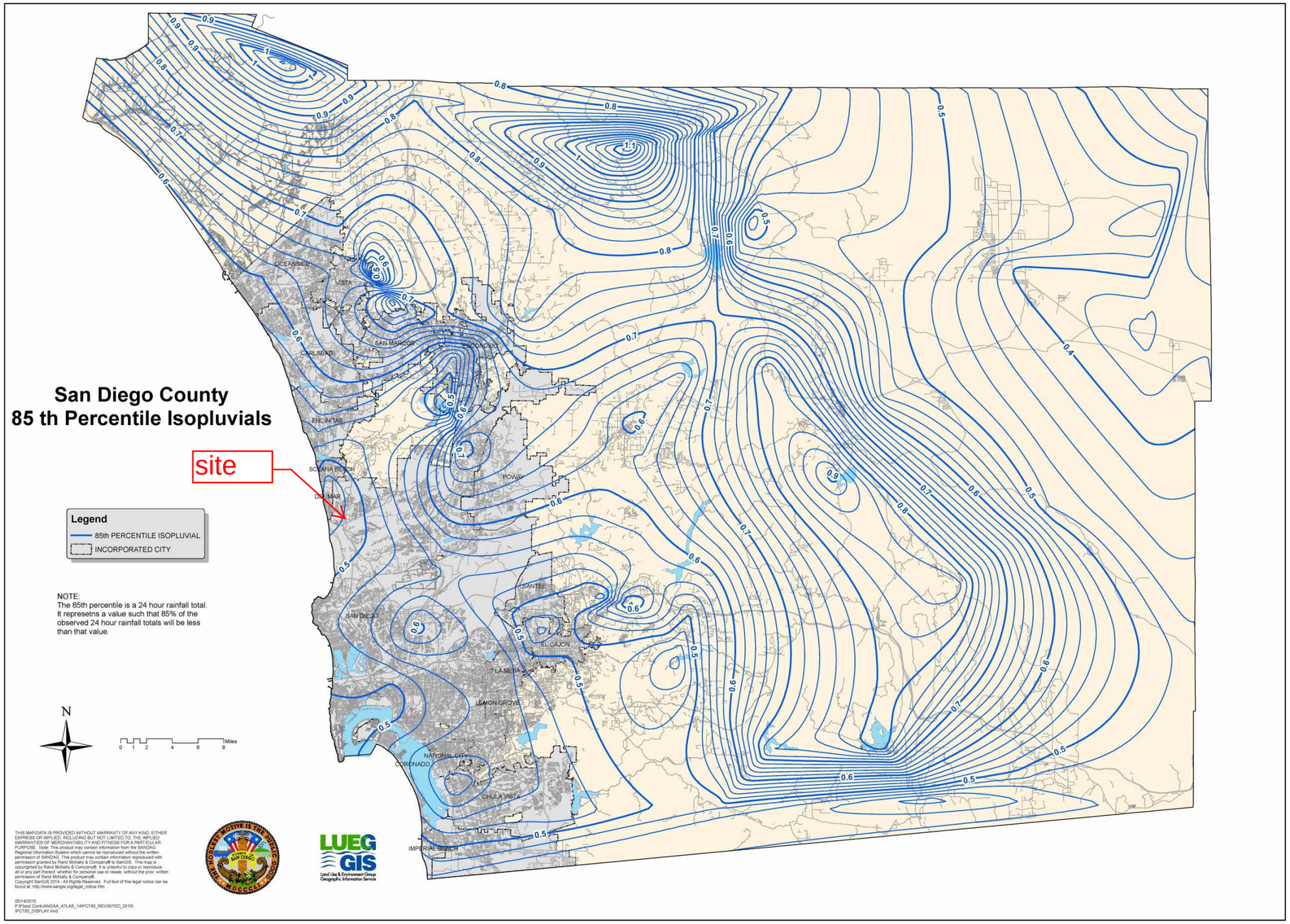
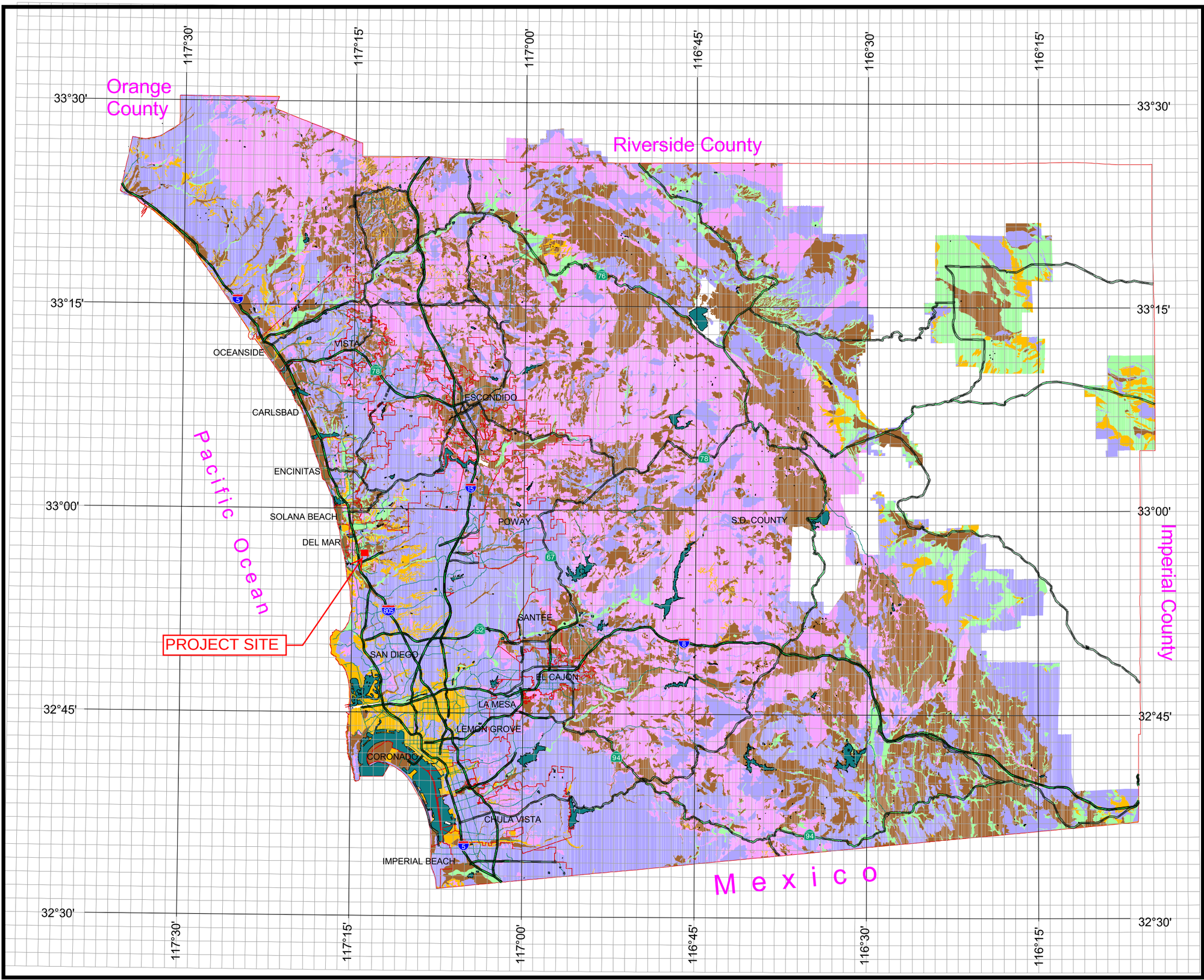


Figure B.1-1: 85th Percentile 24-hour Isopluvial Map

County of San Diego Hydrology Manual

Soil Hydrologic Groups



Legend

Soil Groups

- Group A
- Group B
- Group C
- Group D
- Undetermined
- Data Unavailable

DPW GIS
Department of Public Works
Geographic Information Services

SanGIS
We Have San Diego Covered!

N
W E
S

3 0 3 Miles

SOIL
EXPLORATION
COMPANY, INC.

Soil Engineering, Environmental Engineering, Materials Testing, Geology

October 11, 2016

Project No. 1674-02

TO: Excel Hotel Group
10660 Scripps Ranch Blvd., Ste. 100
San Diego, CA 92131

ATTENTION: Neil Patel

SUBJECT: Infiltration Tests Report for WQMP Design, Proposed Five-Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego (Carmel Valley) California 92130

REFERENCE: Soil Exploration Co., Inc., "Preliminary Soil Investigation Report, Proposed Five Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego (Carmel Valley), California 92130", Dated May 25, 2016 (Project No. 1674-01)

County of San Diego BMP Design Manual, Approved Infiltration Rate Assessment Methods for Selection of Storm Water BMPs, Appendix D, October 7, 2016.

Introduction

Per your request, this report presents the results of infiltration tests and limitation of our work at the subject site (see Figure 1, Site Location Map). The tests were performed on October 7, 2016, at the proposed infiltration area. (see Plate 1, Infiltration Test Location Map).

Infiltration Test (PercolationTest Procedure)

The procedure outlined in the above referenced Handbook was utilized for testing.

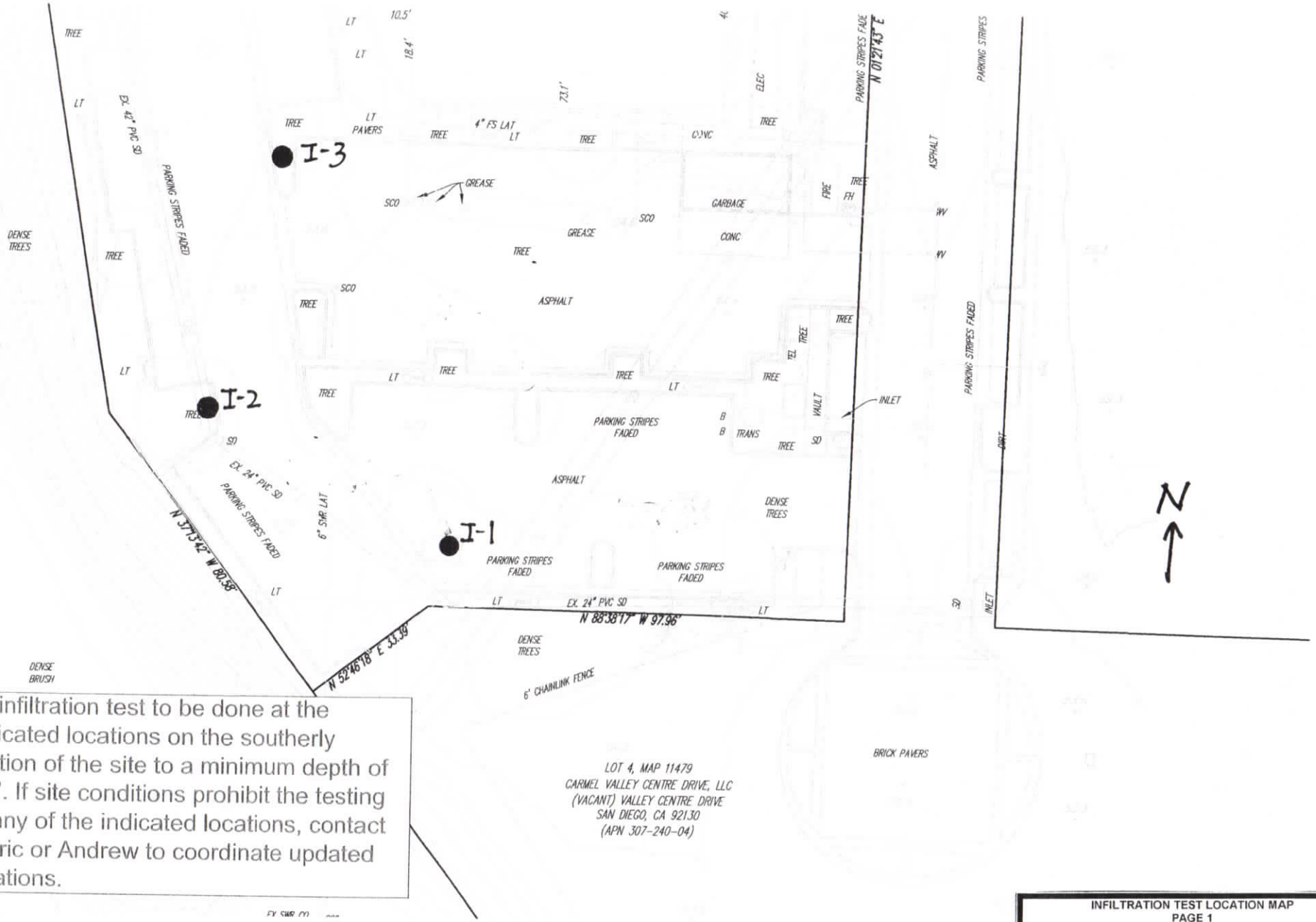
Three 8-inch diameter, 3-feet deep test holes (I-1, I-2 and 1-3) were augured at the suggested infiltration area. The soil at the test locations was visually classified as silty sand. To mitigate any possible caving or sloughing of the test holes, a 6-inch diameter perforated pipe was placed in the holes. The bottom of the holes was covered with 2 inches of gravel.

The testing was conducted after presoaking with water. Two consecutive measurements showed that 6 inches of water seeped in more than 25 minutes for I-1 and I-2 and less than 25 minutes for I-3. The tests were therefore run for additional six hours with measurements taken at 60 minute intervals for I-1 and I-2 and 10 minute intervals for I-3. Water level was adjusted to 20 inches above the bottom of the test hole after each measurement. The drop that occurred during the final reading was used for design rate purposes. Field test data and calculations to convert percolation test rate to infiltration test rate are based on Porchet method and attached

Infiltration Tests/Tabulated Test Results

Test No.	Depth of Test (feet)	Earth Material	Infiltration Rate (in/hr)
I-1	3	Silty Sand ("SM")	0.9
I-2	3	Silty Sand ("SM")	0.16
I-3	3	Silty Sand ("SM")	0.85

7535 Jurupa Ave., Unit C • Riverside, CA 92504 • Tel: (951) 688-7200 • Fax: (951) 688-7100
soilexploration@yahoo.com • www.soilexp.com



All infiltration test to be done at the indicated locations on the southerly portion of the site to a minimum depth of 3.0'. If site conditions prohibit the testing at any of the indicated locations, contact Patric or Andrew to coordinate updated locations.

LOT 4, MAP 11479
CARMEL VALLEY CENTRE DRIVE, LLC
(VACANT) VALLEY CENTRE DRIVE
SAN DIEGO, CA 92130
(APN 307-240-04)

INFILTRATION TEST LOCATION MAP PAGE 1	
LEGEND I-1 ● Approximate Location of Infiltration Test	
Soil Exploration Co., Inc.	
Project No. 1674-02	October 11, 2016

Figure VII.18. Sample Test Data Form for Percolation Test

Percolation Test Data Sheet

Project:	NEIL PATEL	Project No:	1674 - 02	Date:	10-08-16
Test Hole No:	I - 1	Tested By:	EDWARD		
Depth of Test Hole, D_T:	3'	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)			Length	Width	
Diameter (if round)=	8"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	12:32 21	12:57 21	25	23 8	23 3/4	4.25	N
2	12:59 52	1:24 52	25	"	23 1/8	3.875	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Infiltration Rate (min./in.)
1	1:27 03	1:57 03	30	23 8	23 3/8		
2	2:00 -	2:30 -	30	"	23 1/2		
3	2:32 03	3:02 03	30	"	23 1/2		
4	3:03 50	3:33 50	30	"	23 1/2		
5	3:35:12	4:05:12	"	"	"		
6	4:07:23	4:37:23	"	"	"		
7	4:39:34	5:09:34	"	"	"		
8	5:11:45	5:41:45	"	"	"		
9	5:42:00	6:02:00	"	"	"		
10	6:04:12	6:34:12	"	"	"		
11	6:36:24	7:06:24	"	"	"		
12	7:08:36	7:38:36	"	"	"	4.5	0.9
13							
14							
15							

COMMENTS:

Infiltration Rate: $\frac{4 \times 60 \times 4.5}{30\{4+[20+(20-4.5)]\}} = 0.9$ in/hr

Figure VII.18. Sample Test Data Form for Infiltration Test

Infiltration Test Data Sheet

Project:	NIEL PATEL	Project No:	1674-01	Date:	10-07-16
Test Hole No:	I-2	Tested By:	Edmund		
Depth of Test Hole, D_f:	3'	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)			Length	Width	
Diameter (if round)=	8"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	10:30 25	10:55 25	25	2 3/8	2 3 7/8	0.875	N
2	11:36 28	11:21 28	25	"	2 3 7/4	0.75	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Infiltration Rate (min./in.)
1	11:22 25	11:52 25	30	2 3/8	2 3 7/8		
2	11:55-05	12:25 05	30	"	2 3 7/8		
3	12:31 10	1:01 10	30	"	2 3 7/8		
4	1:04:21	1:34:21	"	"	"		
5	1:37:32	2:07:32	"	"	"		
6	2:10:43	2:40:43	"	"	"		
7	2:43:54	3:13:54	"	"	"		
8	3:16:06	3:46:06	"	"	"		
9	3:49:18	4:19:18	"	"	"		
10	4:21:30	4:51:30	"	"	"		
11	4:54:42	5:24:42	"	"	"		
12	5:27:53	5:57:53	"	"	"	0.875	0.16
13							
14							
15							

COMMENTS:

Infiltration Rate: $\frac{4 \times 60 \times 0.875}{30\{4 + [20 + (20 - 0.875)]\}} = 0.16$ in/hr

Figure VII.18. Sample Test Data Form for Infiltration Test

Infiltration Test Data Sheet

Project:	NEIL PATEL	Project No:	1674-01	Date:	10-07-16
Test Hole No:	I-3	Tested By:	EDMUND		
Depth of Test Hole, D_t:	3'	USCS Soil Classification:			
Test Hole Dimensions (inches)			Length	Width	
Diameter (if round)=	8"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	1:36 15	2:01 13	25	262	255 3/4	6 3/4	Y
2	2:03 26	2:28 26	25	11	256 —	6	Y

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Infiltration Rate (min./in.)
1	2:31 26	2:41 26	10	262	260 3/4		
2	2:42 42	2:52 42	10	11	260 1/2		
3	3:58 20	3:08 20	10	11	260 1/2		
4	3:09 43	3:19 43	10	11	260 1/2		
5	3:20 47	3:30 47	10	11	260 1/2		
6	3:31:18	3:41:18	11	11	11	1.5	0.85
7							
8							
9							
10							
11							
12							
13							
14							
15							

COMMENTS:

$$\text{Infiltration Rate} = \frac{4 \times 60 \times 1.5}{10\{4+[20+(20-1.5)]\}} = 0.85 \text{ in/hr.}$$

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.

Project Name: Hyatt Place Carmel Valley

Indicate which Items are Included:

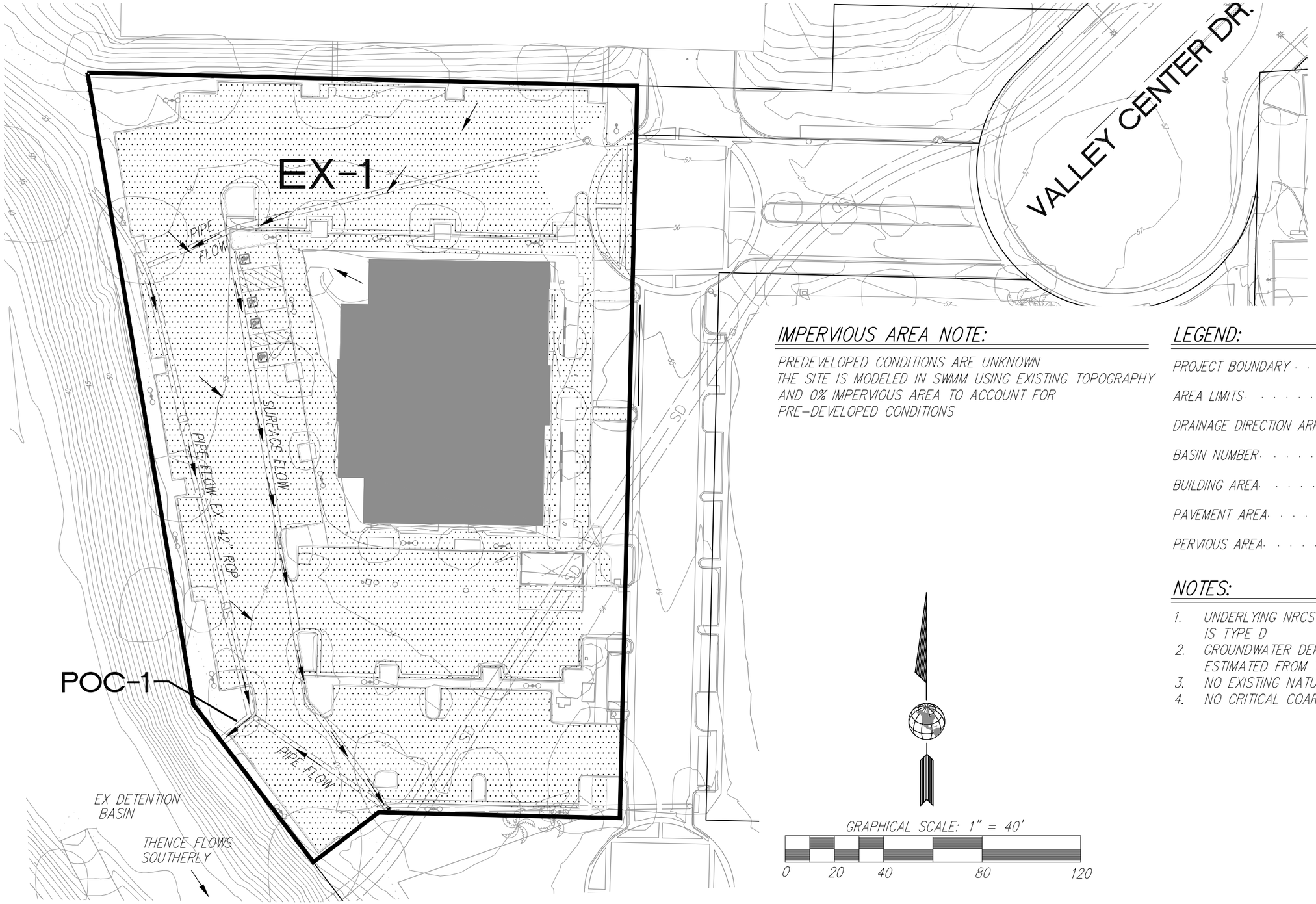
Attachment Sequence	Contents	Checklist
Attachment 2a	Hydromodification Management Exhibit (Required)	☒ Included See Hydromodification Management Exhibit Checklist.
Attachment 2b	Management of Critical Coarse Sediment Yield Areas (WMAA Exhibit is required, additional analyses are optional) See Section 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
Attachment 2d	Flow Control Facility Design and Structural BMP Drawdown Calculations (Required) Overflow Design Summary for each structural BMP 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)

CARMEL VALLEY HOTEL
EXISTING HYDROMODIFICATION EXHIBIT



IMPERVIOUS AREA NOTE:

PREDEVELOPED CONDITIONS ARE UNKNOWN
THE SITE IS MODELED IN SWMM USING EXISTING TOPOGRAPHY AND 0% IMPERVIOUS AREA TO ACCOUNT FOR PRE-DEVELOPED CONDITIONS

LEGEND:

- PROJECT BOUNDARY
- AREA LIMITS
- DRAINAGE DIRECTION ARROW
- BASIN NUMBER — EX-#
- BUILDING AREA
- PAVEMENT AREA
- PERVIOUS AREA

NOTES:

1. UNDERLYING NRCS HYDROLOGIC SOIL GROUP FOR SITE IS TYPE D
2. GROUNDWATER DEPTH IS GRATER THAN 20 FEET ESTIMATED FROM TOPOGRAPHY
3. NO EXISTING NATURAL HYDROLOGIC FEATURES
4. NO CRITICAL COARSE SEDIMENT YIELD AREAS ON SITE

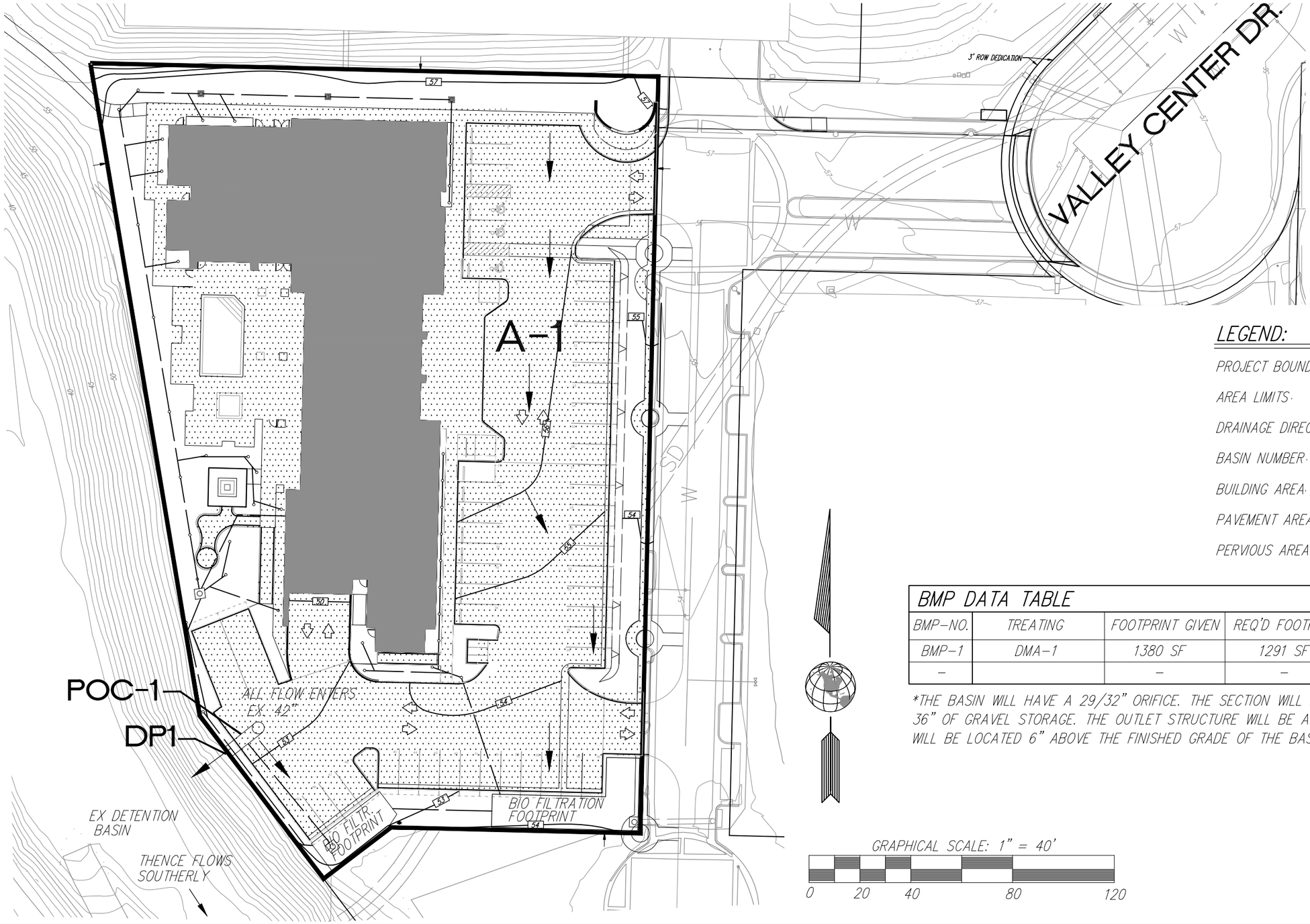
GRAPHICAL SCALE: 1" = 40'

0 20 40 80 120

OMEGA ENGINEERING CONSULTANTS
4340 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA 92123
PH:(858) 634-8620 FAX:(858) 634-8627

EXISTING HYDROMODIFICATION

CARMEL VALLEY HOTEL
PROPOSED HYDROMODIFICATION EXHIBIT



LEGEND:

PROJECT BOUNDARY	———
AREA LIMITS	———
DRAINAGE DIRECTION ARROW	→ → →
BASIN NUMBER	A-#
BUILDING AREA	
PAVEMENT AREA	
PERVIOUS AREA	

BMP DATA TABLE

BMP-NO.	TREATING	FOOTPRINT GIVEN	REQ'D FOOTPRINT	NOTES
BMP-1	DMA-1	1380 SF	1291 SF	DETAIL*
–		–	–	–

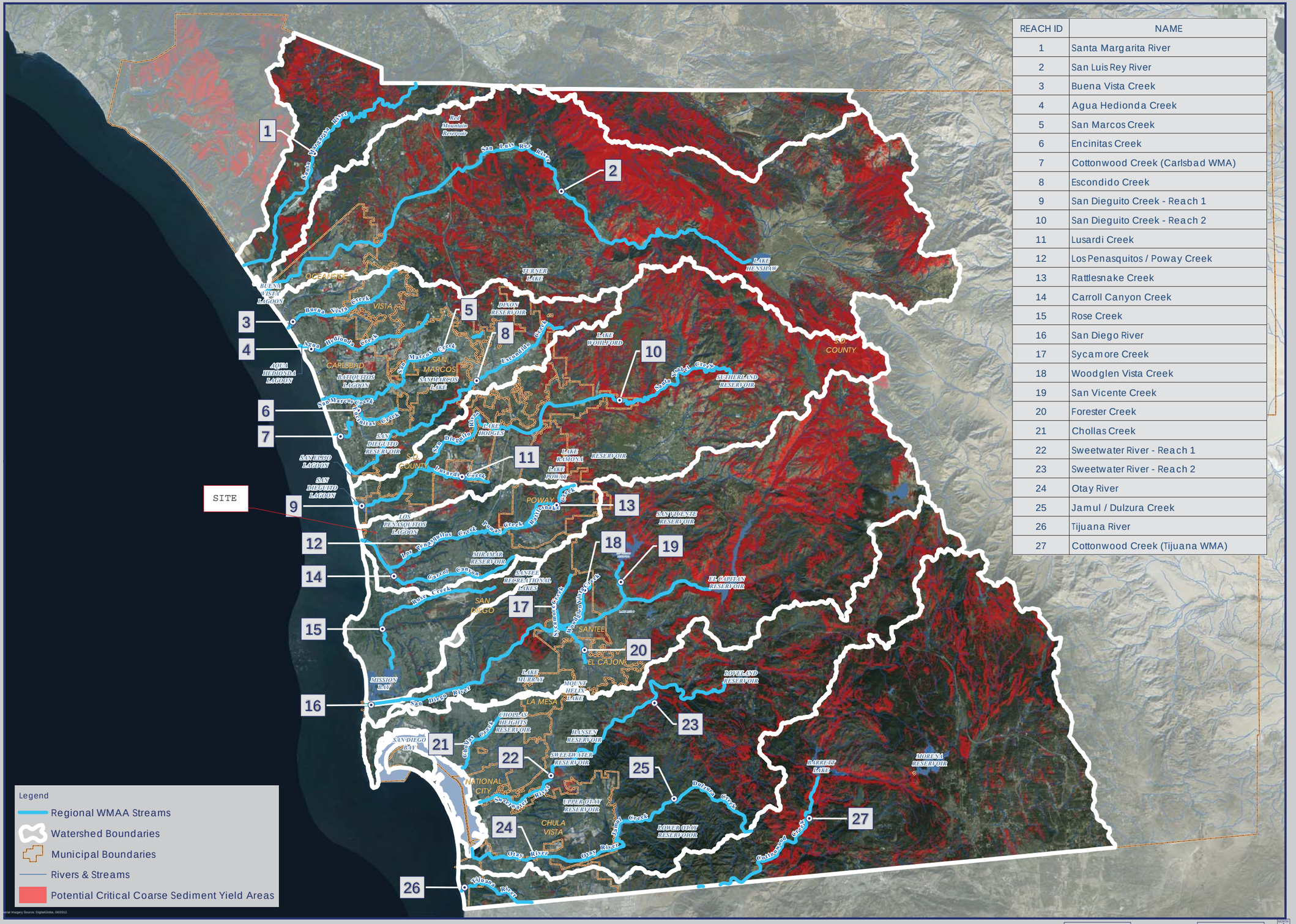
**THE BASIN WILL HAVE A 29/32" ORIFICE. THE SECTION WILL BE 6" PONDING, 18" TREATMENT SOIL, AND 36" OF GRAVEL STORAGE. THE OUTLET STRUCTURE WILL BE A V SHAPED WEIR 6" HIGH BY 3' WIDE AND WILL BE LOCATED 6" ABOVE THE FINISHED GRADE OF THE BASIN. SEE DMA EXHIBIT FOR MORE DETAIL*

GRAPHICAL SCALE: 1" = 40'

0 20 40 80 120

OMEGA ENGINEERING CONSULTANTS
4340 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA 92123
PH:(858) 634-8620 FAX:(858) 634-8627

PROPOSED HYDROMODIFICATION



REACH ID	NAME
1	Santa Margarita River
2	San Luis Rey River
3	Buena Vista Creek
4	Agua Hedionda Creek
5	San Marcos Creek
6	Encinitas Creek
7	Cottonwood Creek (Carlsbad WMA)
8	Escondido Creek
9	San Dieguito Creek - Reach 1
10	San Dieguito Creek - Reach 2
11	Lusardi Creek
12	Los Penasquitos / Poway Creek
13	Rattlesnake Creek
14	Carroll Canyon Creek
15	Rose Creek
16	San Diego River
17	Sycamore Creek
18	Woodglen Vista Creek
19	San Vicente Creek
20	Forester Creek
21	Chollas Creek
22	Sweetwater River - Reach 1
23	Sweetwater River - Reach 2
24	Otay River
25	Jamul / Dulzura Creek
26	Tijuana River
27	Cottonwood Creek (Tijuana WMA)

Potential Critical Coarse Sediment Yield Areas

Regional San Diego County Watersheds

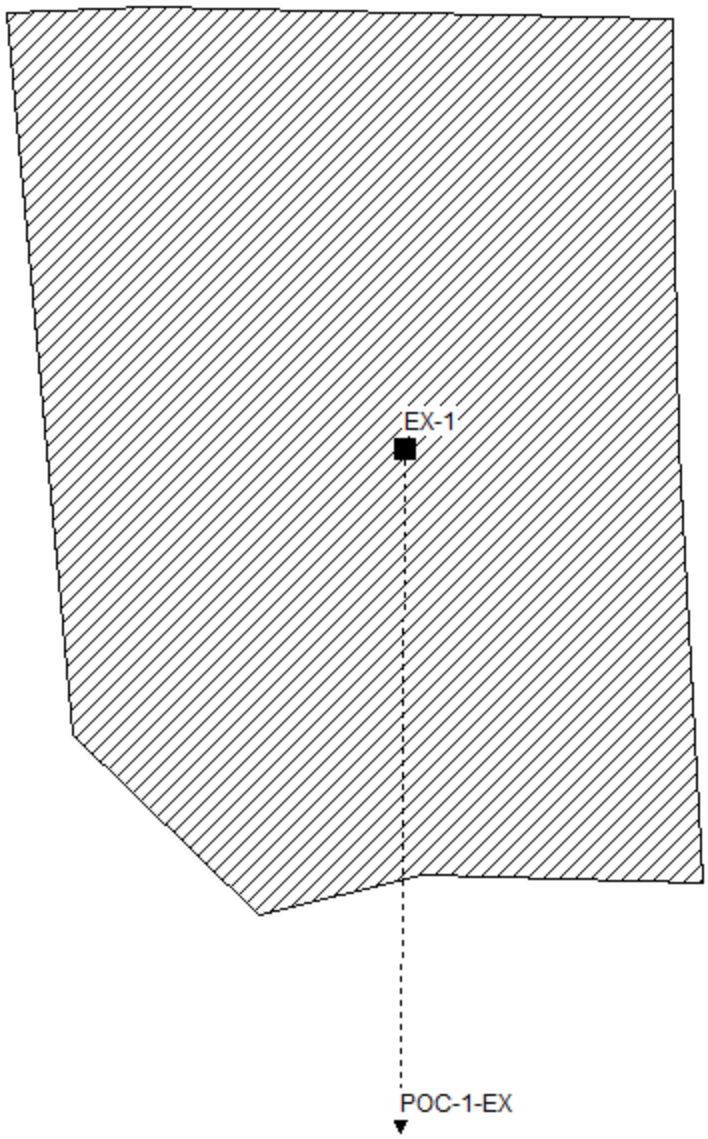
Exhibit Date: Sept. 8, 2014

Geosyntec consultants

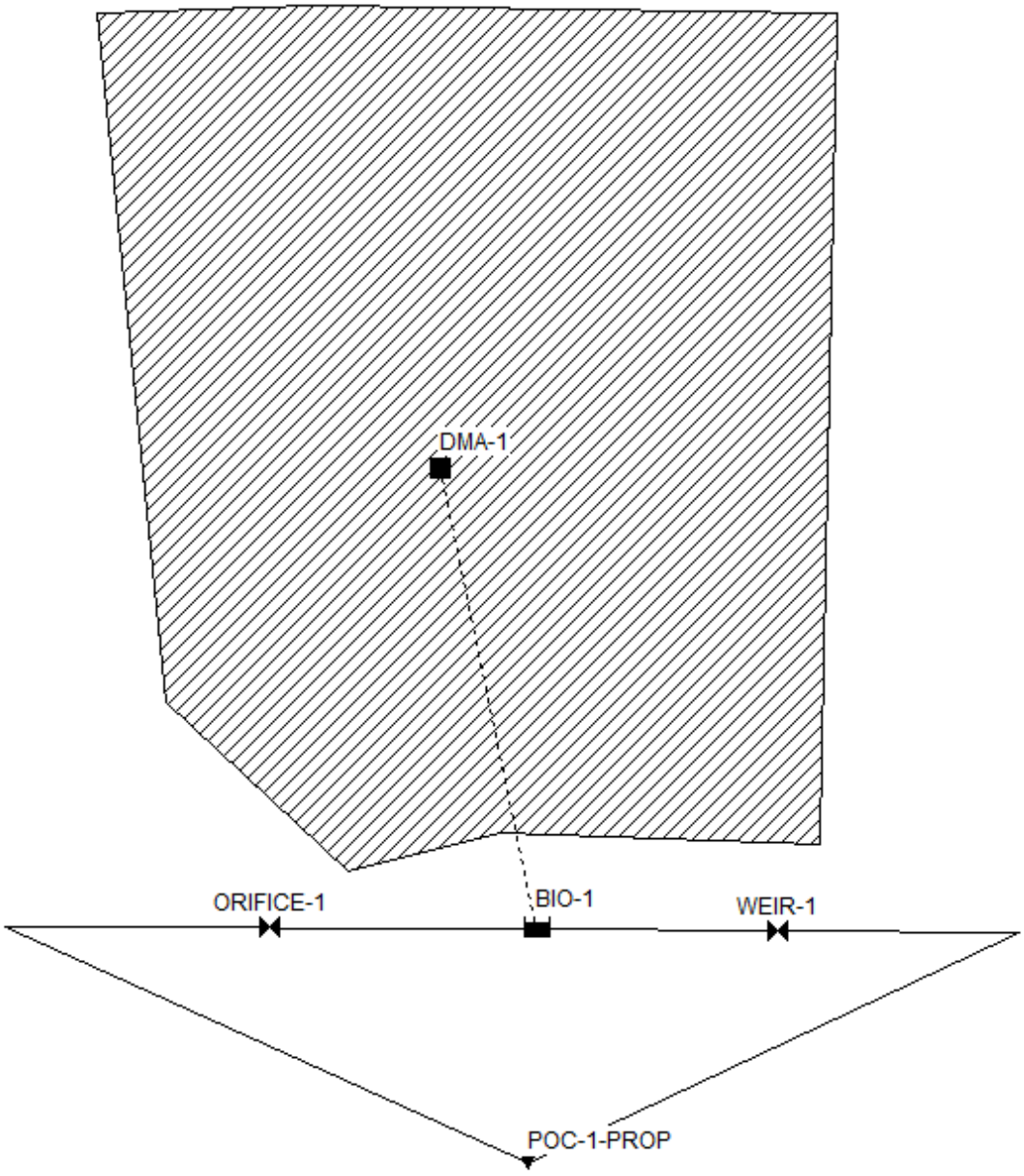
RICK ENGINEERING COMPANY

WMAA Exhibit

SWMM MODELS



Model of Existing conditions



Model of Proposed Conditions

SWMM INPUT

CARMEL VALLEY 2nd sub discretionary text file

```
[TITLE]
;;Project Title/Notes

[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           09/04/1963
START_TIME           04:00:00
REPORT_START_DATE    09/04/1963
REPORT_START_TIME    04:00:00
END_DATE             05/26/2008
END_TIME             00:00:00
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          .03    .05    .08    .11    .13    .15    .15    .13    .11    .08
  .04    .02
DRY_ONLY         NO

[RAINGAGES]
;;Name           Format    Interval SCF      Source
;;-------------- --------- ------ ------ ----------
EncinitasGuage   INTENSITY 1:00     1.0      TIMESERIES EncinitaGauge

[SUBCATCHMENTS]
;;Name           Rain Gage        Outlet           Area     %Imperv  Width    %Slope
  CurbLen  SnowPack
;;-------------- ---------------- ---------------- -------- -------- --------
-------- -------- ----------------
EX-1             EncinitasGuage   POC-1-EX         1.33     0        210      1.6
  0
DMA-1            EncinitasGuage   BIO-1            1.33     74       210      1.38
  0

[SUBAREAS]
```

CARMEL VALLEY 2nd sub discretionary text file

```
;;Subcatchment   N-Imperv   N-Perv     S-Imperv   S-Perv     PctZero    RouteTo
PctRouted
;;-------------- ---------- ---------- ---------- ---------- ---------- ----------
----------
EX-1            0.012      0.1        0.05       0.10       25         OUTLET
DMA-1           0.012      0.1        0.05       0.10       25         OUTLET

[INFILTRATION]
;;Subcatchment   Suction    Ksat       IMD
;;-------------- ---------- ---------- ----------
EX-1            9          .025       .33
DMA-1           9.0        .025       .33

[OUTFALLS]
;;Name           Elevation  Type       Stage Data       Gated    Route To
;;-------------- ---------- ---------- ---------------- -------- ----------------
POC-1-EX        0          FREE                        NO
POC-1-PROP      0          FREE                        NO

[STORAGE]
;;Name           Elev.    MaxDepth   InitDepth  Shape      Curve Name/Params
   N/A      Fevap    Psi      Ksat     IMD
;;-------------- -------- ---------- ---------- ---------- ----------
---------------------------- -------- --------           -------- --------
BIO-1           0        6          0          TABULAR    BIO-1
   0        0

[ORIFICES]
;;Name           From Node        To Node          Type         Offset     Qcoeff
 Gated    CloseTime
;;-------------- ---------------- ---------------- ------------ ----------
---------- -------- ----------
ORIFICE-1       BIO-1            POC-1-PROP       SIDE         0          0.65
 NO       0

[WEIRS]
;;Name           From Node        To Node          Type         CrestHt    Qcoeff
 Gated    EndCon   EndCoeff   Surcharge  RoadWidth  RoadSurf
;;-------------- ---------------- ---------------- ------------ ----------
--------- -------- -------- ---------- ---------- ---------- ----------
WEIR-1          BIO-1            POC-1-PROP       V-NOTCH      5          2.8
 NO       2        0          YES

[XSECTIONS]
;;Link           Shape        Geom1            Geom2      Geom3      Geom4
Barrels    Culvert
;;-------------- ------------ ---------------- ---------- ---------- ----------
---------- ----------
ORIFICE-1       CIRCULAR     .0755            0          0          0
WEIR-1          TRIANGULAR   .5               3          0          0

[CURVES]
;;Name           Type       X-Value    Y-Value
;;-------------- ---------- ---------- ----------
BIO-1           Storage    0          1380
BIO-1                      .01        552
BIO-1                      3          552
BIO-1                      3.01       276
BIO-1                      4.5        276
BIO-1                      4.51       1380
BIO-1                      5          1380
BIO-1                      5.5        1380
```

CARMEL VALLEY 2nd sub discretionary text file

[TIMESERIES]

;;Name	Date	Time	Value
EncinitaGauge	9/4/1963	4:00	0.01
EncinitaGauge	9/4/1963	5:00	0.12
EncinitaGauge	9/4/1963	6:00	0.15
EncinitaGauge	9/4/1963	7:00	0.01
EncinitaGauge	9/4/1963	9:00	0.09
EncinitaGauge	9/4/1963	10:00	0.07
EncinitaGauge	9/4/1963	11:00	0.03
EncinitaGauge	9/17/1963	3:00	0.05
EncinitaGauge	9/17/1963	4:00	0.02
EncinitaGauge	9/17/1963	5:00	0.02
EncinitaGauge	9/17/1963	6:00	0.09
EncinitaGauge	9/17/1963	7:00	0.05
EncinitaGauge	9/17/1963	8:00	0.03
EncinitaGauge	9/17/1963	9:00	0.02
EncinitaGauge	9/17/1963	10:00	0.01
EncinitaGauge	9/17/1963	11:00	0.02
EncinitaGauge	9/17/1963	12:00	0.04
EncinitaGauge	9/17/1963	13:00	0.02
EncinitaGauge	9/17/1963	15:00	0.03
EncinitaGauge	9/17/1963	16:00	0.1
EncinitaGauge	9/17/1963	17:00	0.1
EncinitaGauge	9/17/1963	18:00	0.12
EncinitaGauge	9/17/1963	19:00	0.07
EncinitaGauge	9/17/1963	20:00	0.02
EncinitaGauge	9/17/1963	21:00	0.01
EncinitaGauge	9/18/1963	3:00	0.07
EncinitaGauge	9/18/1963	5:00	0.01
EncinitaGauge	9/18/1963	6:00	0.03
EncinitaGauge	9/18/1963	8:00	0.02
EncinitaGauge	9/18/1963	13:00	0.01
EncinitaGauge	9/18/1963	16:00	0.02
EncinitaGauge	9/18/1963	17:00	0.04
EncinitaGauge	9/18/1963	18:00	0.09
EncinitaGauge	9/18/1963	19:00	0.37
EncinitaGauge	9/18/1963	22:00	0.01
EncinitaGauge	9/18/1963	23:00	0.05
EncinitaGauge	9/18/1963	24:00	0.01
EncinitaGauge	9/19/1963	6:00	0.06
EncinitaGauge	9/19/1963	7:00	0.03
EncinitaGauge	10/16/1963	9:00	0.03
EncinitaGauge	10/16/1963	10:00	0.05
EncinitaGauge	10/16/1963	11:00	0.03
EncinitaGauge	10/16/1963	18:00	0.01
EncinitaGauge	10/18/1963	1:00	0.02
EncinitaGauge	10/18/1963	18:00	0.02
EncinitaGauge	10/18/1963	19:00	0.01
EncinitaGauge	10/18/1963	23:00	0.07
EncinitaGauge	10/18/1963	24:00	0.07
EncinitaGauge	10/19/1963	6:00	0.02
EncinitaGauge	11/1/1963	9:00	0.02
EncinitaGauge	11/4/1963	1:00	0.05
EncinitaGauge	11/4/1963	6:00	0.02
EncinitaGauge	11/4/1963	7:00	0.01
EncinitaGauge	11/6/1963	13:00	0.08
EncinitaGauge	11/6/1963	14:00	0.16
EncinitaGauge	11/6/1963	15:00	0.02
EncinitaGauge	11/6/1963	16:00	0.01
EncinitaGauge	11/6/1963	17:00	0.01
EncinitaGauge	11/6/1963	19:00	0.03
EncinitaGauge	11/6/1963	20:00	0.04

input timeseries continues for 100+ pages
Rainfall data can be found on projectcleanwater.org

OUTPUT RESULTS POC-1

Pre-project Flow Frequency - Long-term Simulation

Statistics - Node POC-1-EX Total Inflow

Rank	Start Date	Event Duration (hours)	Event Peak (CFS)	Exceedance Frequency (percent)	Return Period (years)
1	1/9/1978	34	1.028	0.45	46
2	3/11/1995	9	0.89	0.89	23
3	10/27/2004	8	0.888	1.34	15.33
4	2/24/1998	4	0.828	1.79	11.5
5	1/9/2005	53	0.817	2.23	9.2
6	1/6/1979	4	0.781	2.68	7.67
7	11/25/1983	3	0.757	3.13	6.57
8	1/21/1964	3	0.749	3.57	5.75
9	3/1/1983	65	0.733	4.02	5.11
10	12/18/1967	23	0.695	4.46	4.6
11	1/31/1979	3	0.682	4.91	4.18
12	10/28/1974	20	0.667	5.36	3.83
13	1/3/2005	24	0.642	5.8	3.54
14	2/12/1992	16	0.625	6.25	3.29
15	2/19/2005	2	0.621	6.7	3.07
16	3/8/1968	3	0.62	7.14	2.88
17	8/17/1977	2	0.614	7.59	2.71
18	3/7/1974	12	0.608	8.04	2.56
19	2/15/1986	7	0.606	8.48	2.42
20	1/4/1995	6	0.602	8.93	2.3
21	2/6/1976	3	0.588	9.38	2.19
22	2/18/1980	70	0.579	9.82	2.09
23	1/16/1978	10	0.525	10.27	2
24	2/8/1993	3	0.505	10.71	1.92
25	2/21/2005	11	0.499	11.16	1.84
26	12/4/1974	2	0.495	11.61	1.77
27	10/20/2004	6	0.482	12.05	1.7
28	2/22/2005	9	0.476	12.5	1.64
29	3/8/1975	7	0.47	12.95	1.59
30	3/5/1970	4	0.459	13.39	1.53
31	2/17/1998	8	0.454	13.84	1.48
32	2/25/2003	4	0.446	14.29	1.44
33	3/25/1991	48	0.445	14.73	1.39
34	12/19/1970	5	0.44	15.18	1.35
35	1/28/1980	39	0.435	15.63	1.31
36	2/25/1969	9	0.43	16.07	1.28
37	11/22/1973	29	0.43	16.52	1.24
38	1/12/1997	16	0.421	16.96	1.21
39	12/18/1984	6	0.414	17.41	1.18
40	1/12/1993	35	0.41	17.86	1.15
41	3/17/1982	22	0.406	18.3	1.12
42	11/21/1967	16	0.405	18.75	1.1
43	3/21/1983	19	0.395	19.2	1.07
44	4/14/2003	2	0.389	19.64	1.05
45	2/6/1969	11	0.389	20.09	1.02
46	2/26/2004	3	0.386	20.54	1
47	3/5/2000	6	0.378	20.98	0.98
48	2/8/1998	23	0.378	21.43	0.96
49	7/20/1979	1	0.375	21.88	0.94
50	12/27/1984	4	0.371	22.32	0.92
51	2/11/2003	28	0.36	22.77	0.9
52	12/31/1976	4	0.353	23.21	0.88
53	3/6/1980	5	0.35	23.66	0.87
54	3/15/2003	29	0.348	24.11	0.85
55	1/18/1993	8	0.346	24.55	0.84
56	12/29/1992	4	0.337	25	0.82
57	1/10/1980	37	0.336	25.45	0.81
58	1/15/1993	32	0.336	25.89	0.79

10-year Q: 0.821 cfs
5-year Q: 0.725 cfs
2-year Q: 0.525 cfs

Lower Flow Threshold: 10%

0.1xQ2 (Pre): 0.053 cfs

(Adjust Column "I" to interpolate from Table)

ONLY FIRST PAGE OF DATA GIVEN

Post-project (Mitigated) Flow Frequency - Long-term Simulation

Statistics - Node POC-1-PROP Total Inflow

Rank	Start Date	Event Duration (hours)	Event Peak (CFS)	Exceedance Frequency (percent)	Return Period (years)
1	1/9/1978	67	1.164	0.15	46
2	10/27/2004	50	0.988	0.3	23
3	3/11/1995	40	0.986	0.45	15.33
4	1/5/1979	53	0.902	0.6	11.5
5	1/21/1964	47	0.769	0.75	9.2
6	2/24/1983	211	0.747	0.9	7.67
7	2/12/1992	43	0.73	1.04	6.57
8	1/7/2005	127	0.717	1.19	5.75
9	1/3/1995	64	0.674	1.34	5.11
10	2/13/1980	208	0.653	1.49	4.6
11	1/3/2005	57	0.652	1.64	4.18
12	3/7/1974	47	0.588	1.79	3.83
13	2/17/2005	159	0.573	1.94	3.54
14	12/4/1974	37	0.57	2.09	3.29
15	8/16/1977	53	0.538	2.24	3.07
16	1/14/1978	125	0.523	2.39	2.88
17	1/27/1980	84	0.516	2.54	2.71
18	1/12/1997	52	0.515	2.69	2.56
19	3/17/1982	62	0.482	2.84	2.42
20	1/12/1993	174	0.459	2.99	2.3
21	2/22/1969	122	0.454	3.13	2.19
22	2/7/1993	46	0.454	3.28	2.09
23	10/17/2004	110	0.447	3.43	2
24	11/21/1996	41	0.441	3.58	1.92
25	2/14/1998	96	0.418	3.73	1.84
26	2/26/2004	37	0.407	3.88	1.77
27	11/24/1985	48	0.406	4.03	1.7
28	2/8/1998	46	0.397	4.18	1.64
29	12/18/1967	56	0.393	4.33	1.59
30	3/7/1968	46	0.379	4.48	1.53
31	2/27/1978	158	0.362	4.63	1.48
32	2/22/2008	69	0.352	4.78	1.44
33	12/27/1992	83	0.351	4.93	1.39
34	12/18/1984	69	0.35	5.07	1.35
35	11/30/2007	45	0.347	5.22	1.31
36	2/3/1998	38	0.327	5.37	1.28
37	11/22/1965	55	0.312	5.52	1.24
38	3/4/1970	33	0.306	5.67	1.21
39	12/26/1984	51	0.301	5.82	1.18
40	2/13/1986	79	0.3	5.97	1.15
41	2/27/1991	76	0.292	6.12	1.12
42	1/6/1993	73	0.291	6.27	1.1
43	1/7/1980	171	0.272	6.42	1.07
44	3/25/1991	76	0.235	6.57	1.05
45	2/6/1992	44	0.207	6.72	1.02
46	2/23/1998	45	0.206	6.87	1
47	1/31/1979	87	0.204	7.01	0.98
48	1/22/1967	75	0.188	7.16	0.96
49	1/5/1977	86	0.188	7.31	0.94
50	12/30/1976	52	0.17	7.46	0.92
51	2/3/1976	181	0.145	7.61	0.9
52	11/24/1983	52	0.134	7.76	0.88
53	12/16/1987	44	0.13	7.91	0.87
54	1/24/1969	77	0.125	8.06	0.85
55	12/3/1966	110	0.123	8.21	0.84
56	4/5/1975	108	0.121	8.36	0.82
57	11/29/1985	40	0.12	8.51	0.81
58	4/14/2003	46	0.104	8.66	0.79

10-year Q: 0.815 cfs
5-year Q: 0.669 cfs
2-year Q: 0.447 cfs

Lower Flow Threshold: 10%

0.1xQ2 (Post Mit): 0.045 cfs

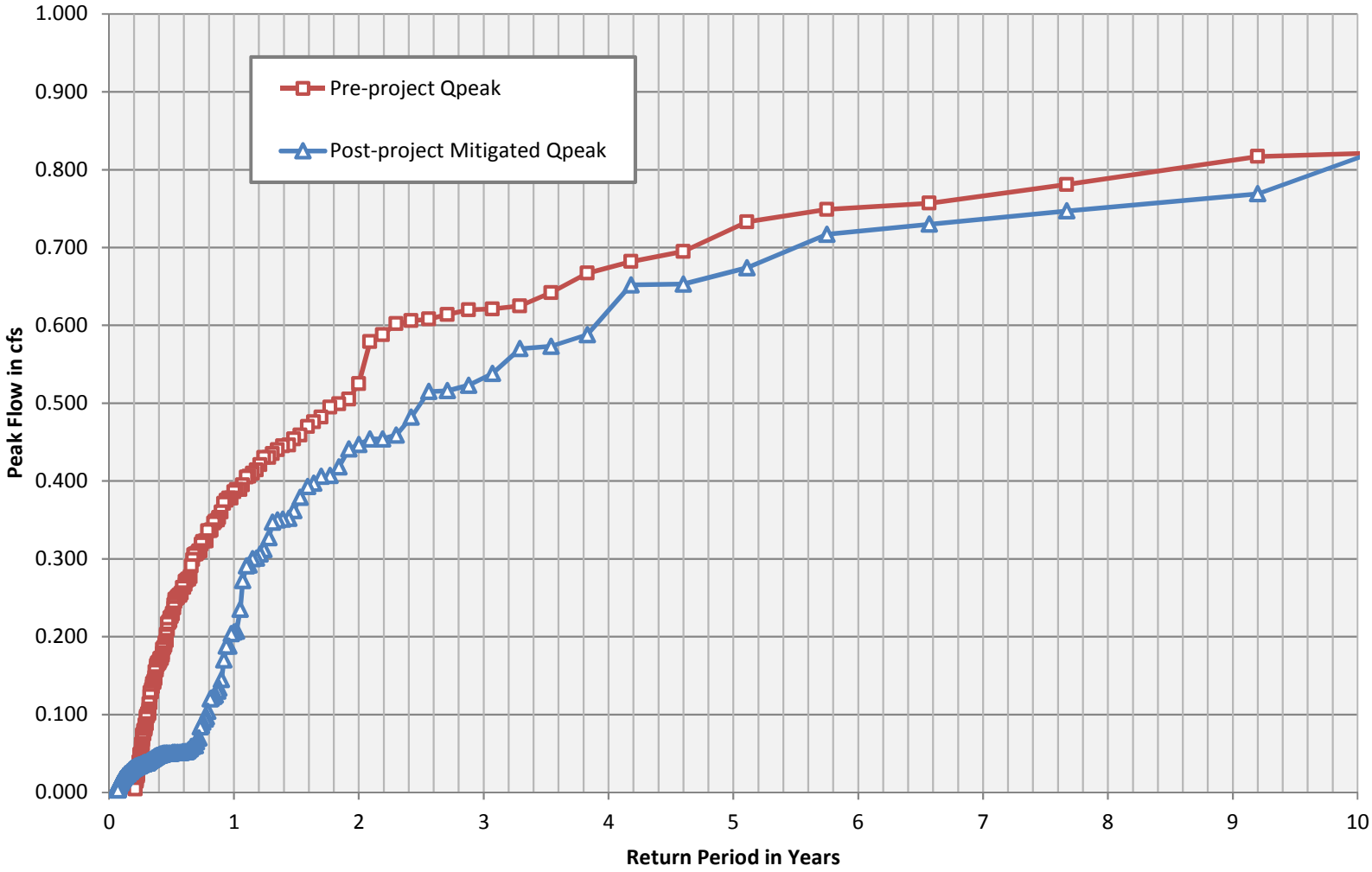
(Adjust Column "I" to interpolate from Table)

ONLY FIRST PAGE OF DATA GIVEN

Peak Flow Frequency Summary

Return Period	Pre-project Qpeak (cfs)	Post-project - Mitigated Q (cfs)
LF = 0.1xQ2	0.053	0.045
2-year	0.525	0.447
5-year	0.725	0.669
10-year	0.821	0.815

Peak Flow Frequency Curves

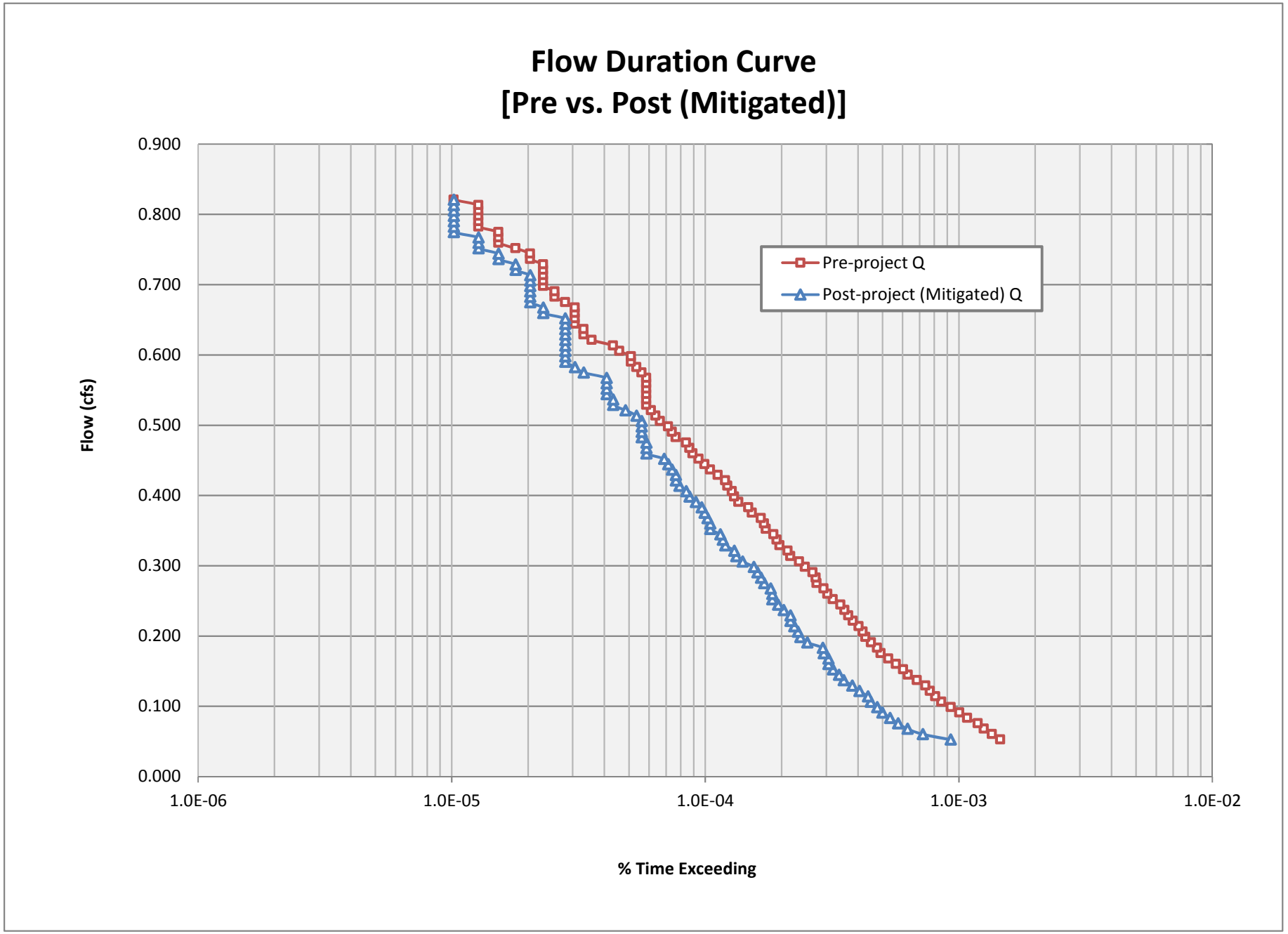


Low-flow Threshold:	10%	
0.1xQ2 (Pre):	0.053	cfs
Q10 (Pre):	0.821	cfs
Ordinate #:	100	
Incremental Q (Pre):	0.00768	cfs
Total Hourly Data:	392060	hours

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	0.053	572	1.46E-03	364	9.28E-04	64%	Pass
1	0.060	530	1.35E-03	283	7.22E-04	53%	Pass
2	0.068	493	1.26E-03	246	6.27E-04	50%	Pass
3	0.076	466	1.19E-03	226	5.76E-04	48%	Pass
4	0.083	424	1.08E-03	210	5.36E-04	50%	Pass
5	0.091	394	1.00E-03	196	5.00E-04	50%	Pass
6	0.099	365	9.31E-04	187	4.77E-04	51%	Pass
7	0.106	335	8.54E-04	176	4.49E-04	53%	Pass
8	0.114	317	8.09E-04	172	4.39E-04	54%	Pass
9	0.122	302	7.70E-04	159	4.06E-04	53%	Pass
10	0.129	290	7.40E-04	149	3.80E-04	51%	Pass
11	0.137	268	6.84E-04	138	3.52E-04	51%	Pass
12	0.145	247	6.30E-04	132	3.37E-04	53%	Pass
13	0.152	237	6.04E-04	125	3.19E-04	53%	Pass
14	0.160	222	5.66E-04	120	3.06E-04	54%	Pass
15	0.168	207	5.28E-04	120	3.06E-04	58%	Pass
16	0.175	193	4.92E-04	115	2.93E-04	60%	Pass
17	0.183	187	4.77E-04	114	2.91E-04	61%	Pass
18	0.191	177	4.51E-04	99	2.53E-04	56%	Pass
19	0.198	168	4.29E-04	93	2.37E-04	55%	Pass
20	0.206	164	4.18E-04	91	2.32E-04	55%	Pass
21	0.214	158	4.03E-04	88	2.24E-04	56%	Pass
22	0.222	150	3.83E-04	85	2.17E-04	57%	Pass
23	0.229	144	3.67E-04	85	2.17E-04	59%	Pass
24	0.237	139	3.55E-04	80	2.04E-04	58%	Pass
25	0.245	134	3.42E-04	76	1.94E-04	57%	Pass
26	0.252	125	3.19E-04	72	1.84E-04	58%	Pass
27	0.260	119	3.04E-04	72	1.84E-04	61%	Pass
28	0.268	115	2.93E-04	71	1.81E-04	62%	Pass
29	0.275	108	2.75E-04	67	1.71E-04	62%	Pass
30	0.283	107	2.73E-04	65	1.66E-04	61%	Pass
31	0.291	104	2.65E-04	63	1.61E-04	61%	Pass
32	0.298	97	2.47E-04	61	1.56E-04	63%	Pass
33	0.306	92	2.35E-04	55	1.40E-04	60%	Pass
34	0.314	85	2.17E-04	52	1.33E-04	61%	Pass
35	0.321	83	2.12E-04	51	1.30E-04	61%	Pass
36	0.329	77	1.96E-04	47	1.20E-04	61%	Pass
37	0.337	75	1.91E-04	46	1.17E-04	61%	Pass
38	0.344	73	1.86E-04	45	1.15E-04	62%	Pass
39	0.352	68	1.73E-04	41	1.05E-04	60%	Pass
40	0.360	67	1.71E-04	41	1.05E-04	61%	Pass
41	0.368	65	1.66E-04	40	1.02E-04	62%	Pass
42	0.375	60	1.53E-04	39	9.95E-05	65%	Pass
43	0.383	58	1.48E-04	38	9.69E-05	66%	Pass
44	0.391	53	1.35E-04	36	9.18E-05	68%	Pass
45	0.398	51	1.30E-04	34	8.67E-05	67%	Pass
46	0.406	50	1.28E-04	33	8.42E-05	66%	Pass
47	0.414	48	1.22E-04	31	7.91E-05	65%	Pass
48	0.421	47	1.20E-04	30	7.65E-05	64%	Pass
49	0.429	44	1.12E-04	30	7.65E-05	68%	Pass
50	0.437	41	1.05E-04	29	7.40E-05	71%	Pass
51	0.444	39	9.95E-05	28	7.14E-05	72%	Pass
52	0.452	37	9.44E-05	27	6.89E-05	73%	Pass
53	0.460	35	8.93E-05	23	5.87E-05	66%	Pass
54	0.467	34	8.67E-05	23	5.87E-05	68%	Pass

Interval	Pre-project Flow (cfs)	Pre-project Hours	Pre-project % Time Exceeding	Post-project Hours	Post-project % Time Exceeding	Percentage	Pass/Fail
55	0.475	33	8.42E-05	23	5.87E-05	70%	Pass
56	0.483	30	7.65E-05	22	5.61E-05	73%	Pass
57	0.490	29	7.40E-05	22	5.61E-05	76%	Pass
58	0.498	28	7.14E-05	22	5.61E-05	79%	Pass
59	0.506	26	6.63E-05	22	5.61E-05	85%	Pass
60	0.513	25	6.38E-05	21	5.36E-05	84%	Pass
61	0.521	24	6.12E-05	19	4.85E-05	79%	Pass
62	0.529	23	5.87E-05	17	4.34E-05	74%	Pass
63	0.537	23	5.87E-05	17	4.34E-05	74%	Pass
64	0.544	23	5.87E-05	16	4.08E-05	70%	Pass
65	0.552	23	5.87E-05	16	4.08E-05	70%	Pass
66	0.560	23	5.87E-05	16	4.08E-05	70%	Pass
67	0.567	23	5.87E-05	16	4.08E-05	70%	Pass
68	0.575	22	5.61E-05	13	3.32E-05	59%	Pass
69	0.583	21	5.36E-05	12	3.06E-05	57%	Pass
70	0.590	20	5.10E-05	11	2.81E-05	55%	Pass
71	0.598	20	5.10E-05	11	2.81E-05	55%	Pass
72	0.606	18	4.59E-05	11	2.81E-05	61%	Pass
73	0.613	17	4.34E-05	11	2.81E-05	65%	Pass
74	0.621	14	3.57E-05	11	2.81E-05	79%	Pass
75	0.629	13	3.32E-05	11	2.81E-05	85%	Pass
76	0.636	13	3.32E-05	11	2.81E-05	85%	Pass
77	0.644	12	3.06E-05	11	2.81E-05	92%	Pass
78	0.652	12	3.06E-05	11	2.81E-05	92%	Pass
79	0.659	12	3.06E-05	9	2.30E-05	75%	Pass
80	0.667	12	3.06E-05	9	2.30E-05	75%	Pass
81	0.675	11	2.81E-05	8	2.04E-05	73%	Pass
82	0.683	10	2.55E-05	8	2.04E-05	80%	Pass
83	0.690	10	2.55E-05	8	2.04E-05	80%	Pass
84	0.698	9	2.30E-05	8	2.04E-05	89%	Pass
85	0.706	9	2.30E-05	8	2.04E-05	89%	Pass
86	0.713	9	2.30E-05	8	2.04E-05	89%	Pass
87	0.721	9	2.30E-05	7	1.79E-05	78%	Pass
88	0.729	9	2.30E-05	7	1.79E-05	78%	Pass
89	0.736	8	2.04E-05	6	1.53E-05	75%	Pass
90	0.744	8	2.04E-05	6	1.53E-05	75%	Pass
91	0.752	7	1.79E-05	5	1.28E-05	71%	Pass
92	0.759	6	1.53E-05	5	1.28E-05	83%	Pass
93	0.767	6	1.53E-05	5	1.28E-05	83%	Pass
94	0.775	6	1.53E-05	4	1.02E-05	67%	Pass
95	0.782	5	1.28E-05	4	1.02E-05	80%	Pass
96	0.790	5	1.28E-05	4	1.02E-05	80%	Pass
97	0.798	5	1.28E-05	4	1.02E-05	80%	Pass
98	0.805	5	1.28E-05	4	1.02E-05	80%	Pass
99	0.813	5	1.28E-05	4	1.02E-05	80%	Pass
100	0.821	4	1.02E-05	4	1.02E-05	100%	Pass


Flow Duration Curve
[Pre vs. Post (Mitigated)]
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Flow (cfs)
1.0E-06
1.0E-05
1.0E-04
1.0E-03
1.0E-02
% Time Exceeding
Pre-project Q
Post-project (Mitigated) Q

ATTACHMENT 3
STRUCTURAL BMP MAINTENANCE INFORMATION

This is the cover sheet for Attachment 3.

Project Name: Hyatt Place Carmel Valley

Indicate which Items are Included:

Attachment Sequence	Contents	Checklist
Attachment 3a	Structural BMP Maintenance Thresholds and Actions (Required)	☒ Included See Structural BMP Maintenance Information Checklist.
Attachment 3b	Maintenance Agreement (Form DS-3247) (when applicable)	○ Included ◉ Not Applicable

Project Name: Hyatt Place Carmel Valley

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)
- ☐ When applicable, frequency of bioretention soil media replacement
- ☐ 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 must include a Storm Water Management and Discharge Control Maintenance Agreement (Form DS-3247). The following information must be included in the exhibits attached to the maintenance agreement:

- ☐ Vicinity map
- ☐ Site design BMPs for which DCV reduction is claimed for meeting the pollutant control obligations.
- ☐ BMP and HMP location and dimensions
- ☐ BMP and HMP specifications/cross section/model
- ☐ Maintenance recommendations and frequency
- ☐ LID features such as (permeable paver and LS location, dim, SF).

TABLE 7-2. Maintenance Indicators and Actions for Vegetated BMPs

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 (e.g. a vegetated swale may require a minimum vegetation height).
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 bioretention, biofiltration with partial retention, or biofiltration areas, or flow-through planter boxes 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.	

Insert Storm Water Management and Discharge Control Maintenance Agreement (To be provided in final engineering)

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 I-6 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 propritery BMPs are used, site specific cross section with outflow, inflow and model number shall be provided. Broucher photocopies are not allowed.

ATTACHMENT 4
COPY OF PLAN SHEETS SHOWING PERMANENT STORM WATER BMPS

This is the cover sheet for Attachment 4.

TO BE PROVIDED IN FINAL ENGINEERING

ATTACHMENT 5
DRAINAGE REPORT

Attach project's drainage report. Refer to Drainage Design Manual to determine the reporting requirements.

HYDROLOGY REPORT
FOR
HYATT PLACE HOTEL
3510 Valley Centre Drive
San Diego, California 92130

July 11th, 2016

PTS: 454123
IO:
Drawing No:

Prepared By:

OMEGA Engineering Consultants
4340 Viewridge Ave, Suite B
San Diego, CA 92123
Ph: (858) 634-8620

I hereby declare that I am the engineer of work for this project, that I have exercised responsible charge over the design of the project as defined in section 6703 of the business and professions code, and that the design is consistent with current standards. I understand that the check of the project drawings and specifications by the City of San Diego is confined to a review only and does not relieve me, as an engineer of work, of my responsibilities for project design.

_____

Andrew J. Kann	RCE 50940
Registration Expires	9-30-2017

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

SITE AND PROJECT DESCRIPTION

This Hydrology and Hydraulics report has been prepared as part of the grading plan for the proposed hotel at 3510 Valley Centre Drive. The structure and associated hardscape will cover most of the property and will drain to the existing 42" storm drain in the southwest corner of the site. See Figure 2 for the existing drainage limits. See Figure 3 for the proposed drainage limits.

METHODOLOGY

This drainage report has been prepared in accordance with current City of San Diego regulations and procedures, with the exception of the drainage basin weighted C values. These were calculated according to the *San Diego County Hydrology Manual*. All of the proposed conduits and conveyances have been designed to intercept and convey the 100-year storm. The Modified Rational Method was used to compute the anticipated runoff. See the attached calculations for particulars. The following references have been used in preparation of this report:

(1) Handbook of Hydraulics, E.F. Brater & H.W. King, 6th Ed., 1976.
(2) Modern Sewer Design, American Iron & Steel Institute, 1st Ed., 1980.
(3) City of San Diego Drainage Design Manual, 1984
(4) County of San Diego Hydrology Manual, 2003

Culvert Design and Analysis

The storm drain culverts were sized using the K' values from King's Handbook Appendix 7-14, (Appendix 7.0 of this report). The following formula was used:

Q= (K'/n)*d^(8/3)*s^(0.5)

K'= Discharge Factor
d = Diameter of Conduit (ft)
n = Manning's Coefficient
Q = Runoff Discharge (cfs)
s = Pipe Slope (ft/ft)

Rational Method

Q=CIA

Q = peak discharge, in cubic feet per second (cfs)
C = runoff coefficient, proportion of the rainfall that runs off the surface (no units)
= (0.90*(% impervious)+C_p*(1-% Impervious)) page 5, County Hydrology Manual
I = average rainfall intensity for a duration equal to the Tc for the area, (in/hr)
= $7.44*P_6*T_c^{-0.645}$
A = drainage area contributing to the design location, in acres
C_p = Pervious Coefficient Runoff Value, City Drainage Design Manual min. of 0.50
$T_c = \frac{1.8\,(1.1-C)*(L)^{0.5}}{S^{0.33}}$
S = Slope of drainage course*
L = Length of drainage course

EXISTING CONDITIONS:

The existing 1.33 acre site is already developed, with an 8,669 square foot commercial building and associated hardscape. The majority of the site (EX-1 as shown in Figure 2) drains to the southwest to an existing 42" storm drain which outlets into an offsite detention basin (DP-1). A sliver of the site (EX-2 as shown in figure 2) drains to the southeast (DP-2) where it enters a curb inlet and confluences in the MS4 with the flow from EX-1 further downstream. Each Basin has a slope of 1-2%. The site is not subject to storm water run-on from off-site areas. There is no evidence of wetlands or jurisdictional waters on-site.

DEVELOPED CONDITIONS:

This project proposes the construction of a new multistory hotel with associated hardscape. The project will disturb the entirety of the site but will decrease the imperviousness from 78.3% to 74.1%. This will decrease the runoff flow rates produced by the site during the 100-year storm from 4.84 cfs to 4.75 cfs. In the developed condition, there will be no flow to Discharge Point Two (DP-2); therefore all flow will be directed to Discharge Point One (DP-1).

Runoff from the impervious areas of the site will be conveyed to a biofiltration basin for treatment and flow control. There are 2 parts of the basin that are hydraulically linked to function as one. Hydromodification control and pollutant treatment will be provided in the basin per this project's SWQMP. The runoff will be discharged at a controlled rate to the existing 42" pipe storm drain facility at the southwesterly corner of the site (DP-1)

EXISTING RUNOFF ANALYSIS:

The runoff generated by the westerly basin has 2 paths. The parking lot drains via sheet flow into a ribbon gutter, which flows to an inlet in the southwesterly corner of the site. The roof and some area drain into a storm drain that will also enter the same segment of the 42" storm drain resulting in the same ultimate discharge point. The small, easterly basin abuts the easterly property line and flow discharges into an inlet roughly 50 feet north of the southeasterly corner of the site. An area weighted runoff coefficient for each basin was developed in which the pervious surfaces have a runoff coefficient of 0.35 and pavement is 0.9 (Table 3-1 of the *San Diego County Hydrology Manual*). The rational method calculations were computed in accordance with the *San Diego County Hydrology Manual*.
See the attached calculations for details.

DEVELOPED RUNOFF ANALYSIS:

The proposed site was modeled as one basin in which the developed condition's flow drains to the Existing 42" storm drain eliminating DP-2. All of the site's flow will drain to the biofiltration basin. The site ultimately goes to the same connection point of the 42" storm drain (DP-1). A runoff coefficient of 0.76 was used for the basin. The rational calculations and weighted C values were calculated according to *San Diego County Hydrology Manual* (Table 3-1, page 3-6).

Proposed drainage conduits will be PVC or HDPE with sizing provided at final submittal.

RESULTS AND CONCLUSIONS

The redevelopment of the site shall result in a decrease in generated peak flow rates for the 100 year event. This is due to the decrease in impervious area of the site. The site impervious area fraction of the existing site is 78.3% and the proposed site is 74.1%. The result is a peak discharge flow rate that is lower than the existing condition for all storm events. Modeling the proposed site as one basin eliminates the second discharge point and allows for all of the developed discharge to be treated. Therefore there is either reduced or eliminated flow to the existing discharge points.

Due to there being no evidence of wetlands or jurisdictional waters onsite, a 401/404 permit will not be required. Hydromodification flow control and treatment per this project's SWQMP will eliminate any negative impacts of the proposed runoff once the runoff leaves the site. This project proposes no impacts to wetlands or jurisdictional waters.

It is the opinion of Omega Engineering Consultants that the project will not cause adverse effects to the downstream facilities or receiving waters. A separate Storm Water Quality Management Plan (SQWMP) has been prepared to discuss the water quality impacts for the proposed development.

HYATT PLACE HOTEL
HYDROLOGY AND HYDRAULICS CALCS (Table No. 1)

7/11/2016

BASIN	AREA (SF)	AREA (AC)	% Imp	"C" Value
EX-1	51,430	1.18	83.9%	0.81
EX-2	6,348	0.15	33.1%	0.53
EX. TOTAL	**57,778**	**1.33**	78.3%	0.78
A-1	57,778	1.33	74.1%	0.76
PROP TOTAL	**57,778**	**1.33**	74.1%	0.76

Basin Confluence	Symbol

(A) "DP#1" DISHCARGE POINT #1

(B) C value for bare ground is 0.35 (Table 3-1 County Hydrology Manual)
C value for impervious surfaces is 0.9
Basins with mixed surface type use a weighted average
of these 2 values. (impervious % x 0.9)+(pervious % x 0.35)

HYATT PLACE HOTEL 7/11/2016

HYDROLOGY AND HYDRAULICS CALCS (Table No. 2)

Sub-Basin	AREA Ac.	"C"	CA	L (ft) Travel	H (ft) (elev)	S(%) (avg.)	Tc min.	T tot mins	I in/hr	Q cfs	Q tot cfs	L (ft) (Pipe)	S (%) (Pipe)	Dia. (in)	K'	D\d	pipe #	NOTES 85th % storm
EX-1	1.18	0.81	0.96	325	4.00	1.23	8.7	8.74	0.20	0.19	0.19							
DP#1								8.74	0.20	0.19	0.19							
								DP#1 Existing Runoff=			**0.19**	**CFS**						
EX-2	0.15	0.53	0.08	260	4.00	1.54	14.3	14.28	0.20	0.02	0.02							
DP#2								14.28	0.20	0.02	0.02							
								DP#2 Existing Runoff=			**0.02**	**CFS**						
A-1.1	1.33	0.76	1.01	300	4.00	1.33	9.7	9.69	0.20	0.20	0.20							
DP#1								9.69	0.20		0.20							
								DP#1 Proposed Runoff =			**0.20**	**CFS**						

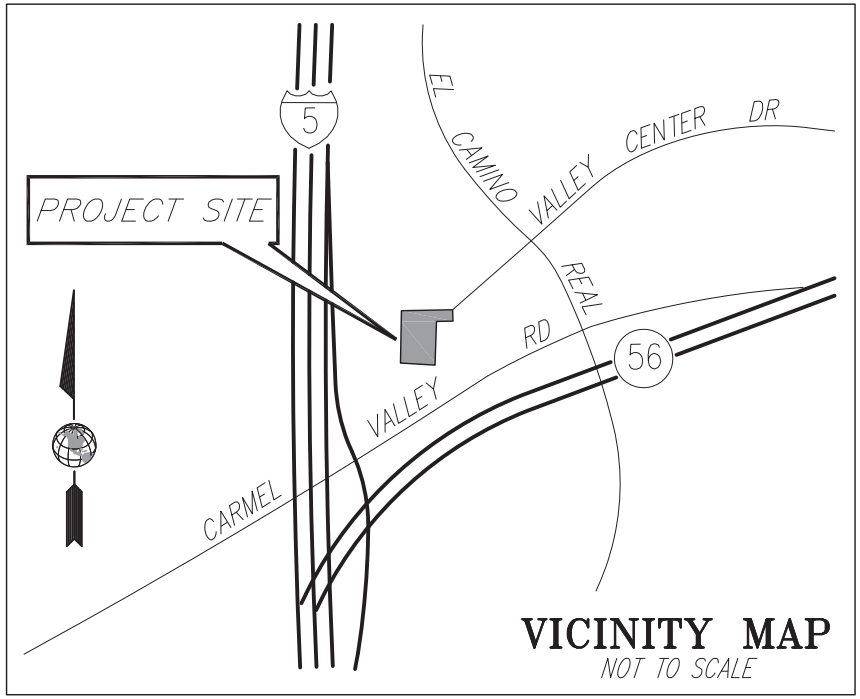
*** No runoff to DP#2 for Proposed Conditions**

HYATT PLACE HOTEL 7/11/2016

HYDROLOGY AND HYDRAULICS CALCS (Table No. 3)

Sub-Basin	AREA Ac.	"C"	CA	L (ft) Travel	H (ft) (elev)	S(%) (avg.)	Tc min.	T tot mins	I in/hr	Q cfs	Q tot cfs	L (ft) (Pipe)	S (%) (Pipe)	Dia. (in)	K'	D\d	pipe #	NOTES 100-yr Storm Event
																	P(6)=	**2.75**
EX-1	1.18	0.81	0.96	325	4.00	1.23	8.7	8.74	5.05	4.84	4.84							
DP#1								8.74	5.05	4.84	4.84							
								CP#1 Existing Runoff=			**4.84**	**CFS**						
EX-2	0.15	0.53	0.08	260	4.00	1.54	14.3	14.28	3.68	0.29	0.29							
DP#2								14.28	3.68	0.29	0.29							
								CP#2 Existing Runoff=			**0.29**	**CFS**						
A-1	1.33	0.76	1.01	300	4.00	1.33	9.7	9.69	4.73	4.75	4.75							
DP#1								9.69	4.73		4.75							
								DP#1 Proposed Runoff =			**4.75**	**CFS**						

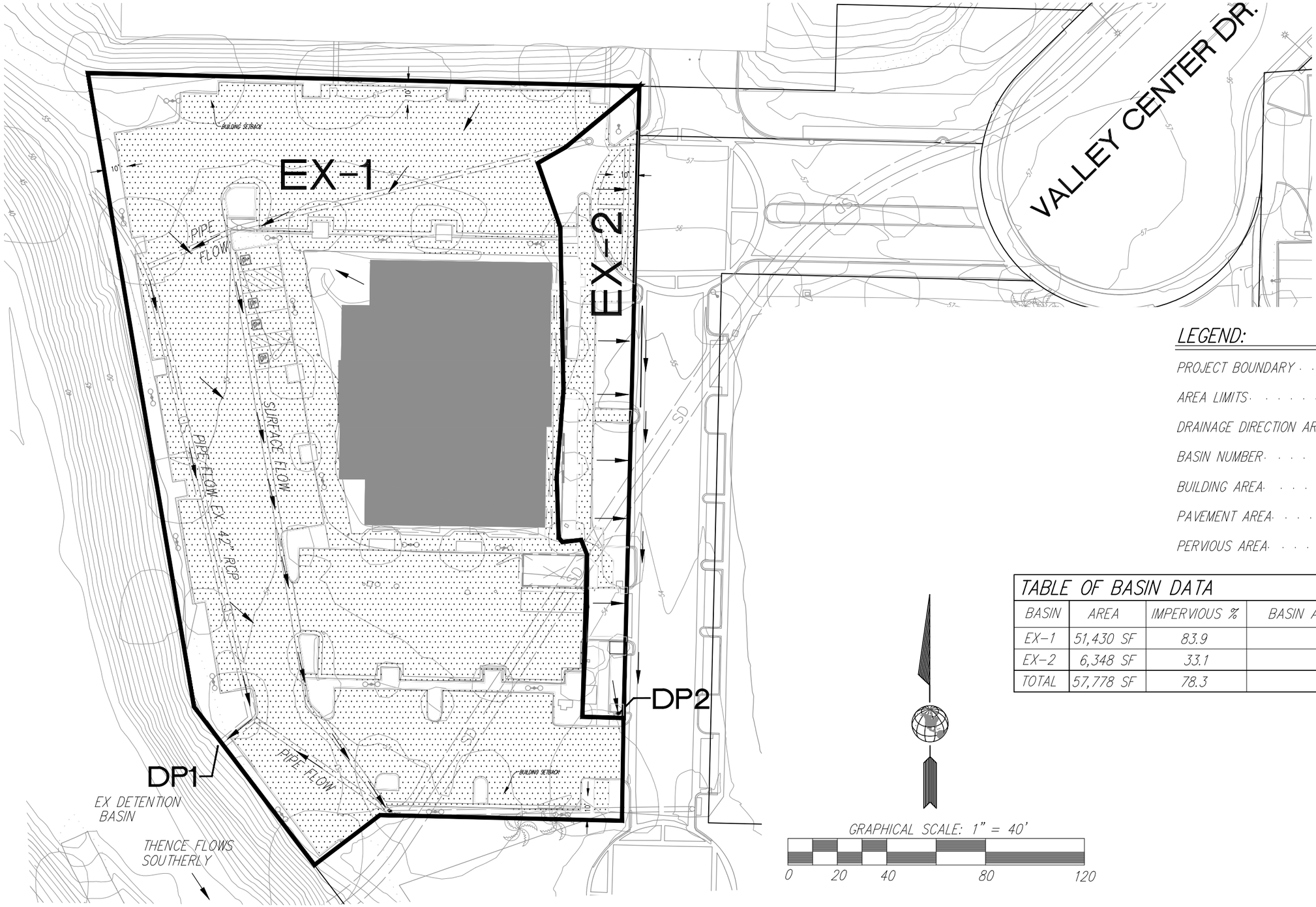
*** No runoff to DP#2 for Proposed Conditions**



VICINITY MAP

NOT TO SCALE

CARMEL VALLEY HOTEL
EXISTING HYDROLOGY EXHIBIT



LEGEND:

- PROJECT BOUNDARY
- AREA LIMITS
- DRAINAGE DIRECTION ARROW
- BASIN NUMBER — EX-#
- BUILDING AREA
- PAVEMENT AREA
- PERVIOUS AREA

TABLE OF BASIN DATA

BASIN	AREA	IMPERVIOUS %	BASIN AREA % OF TOTAL AREA	Q_{100}
EX-1	51,430 SF	83.9	89.0	4.84 CFS
EX-2	6,348 SF	33.1	11.0	0.29 CFS
TOTAL	57,778 SF	78.3	–	–

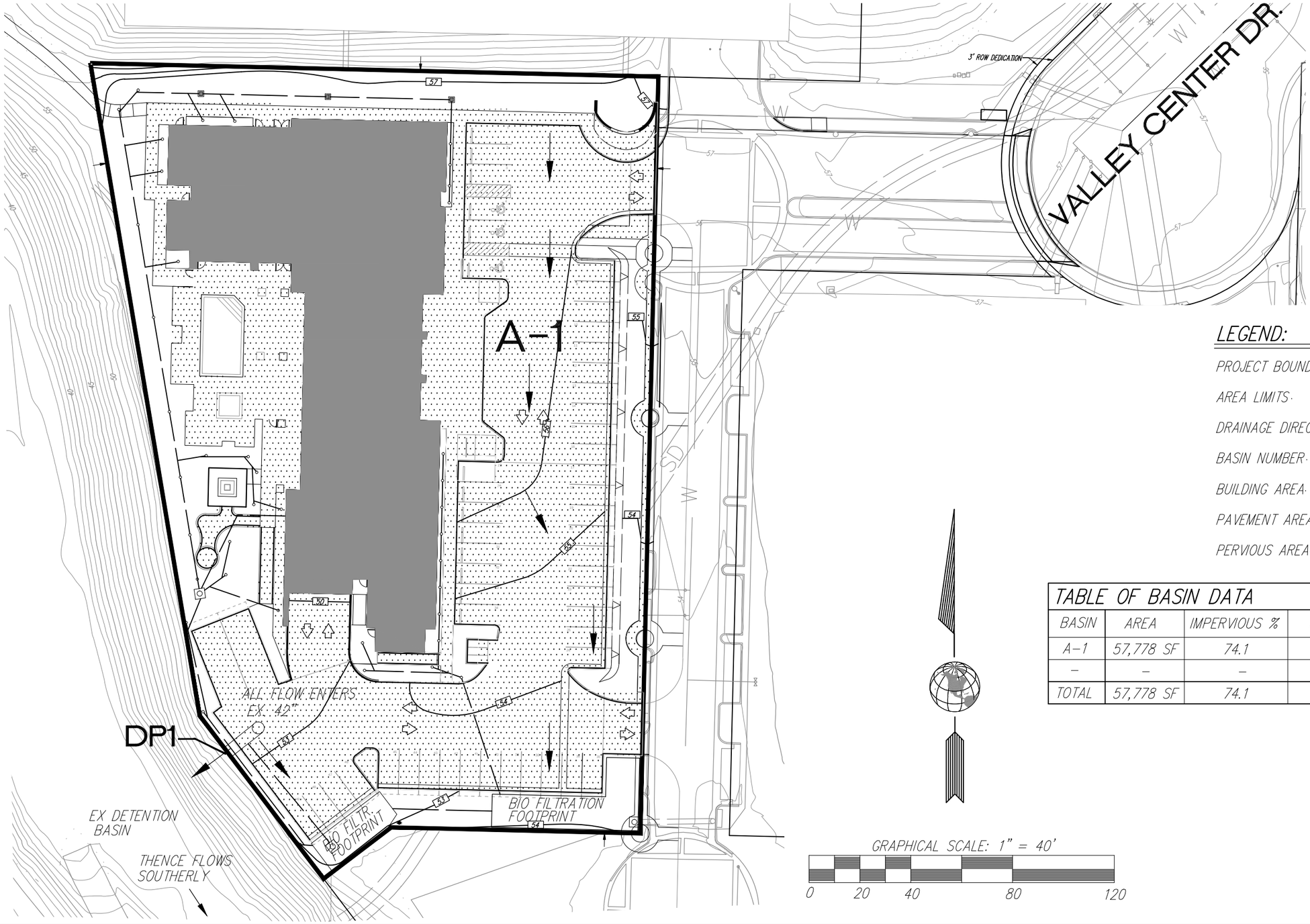
GRAPHICAL SCALE: 1" = 40'

0 20 40 80 120

OMEGA ENGINEERING CONSULTANTS
4340 VIEWRIDGE AVENUE, SUITE B
SAN DIEGO, CALIFORNIA 92123
PH:(858) 634-8620 FAX:(858) 634-8627

FIGURE 2

CARMEL VALLEY HOTEL
PROPOSED HYDROLOGY EXHIBIT



LEGEND:

PROJECT BOUNDARY	———
AREA LIMITS	———
DRAINAGE DIRECTION ARROW	→ → →
BASIN NUMBER	A-#
BUILDING AREA	
PAVEMENT AREA	
PERVIOUS AREA	

TABLE OF BASIN DATA

BASIN	AREA	IMPERVIOUS %	BASIN AREA % OF TOTAL AREA	Q_{100}
A-1	57,778 SF	74.1	100	4.75 CFS
–	–	–	–	–
TOTAL	57,778 SF	74.1	–	–

GRAPHICAL SCALE: 1" = 40'

0 20 40 80 120

OMEGA

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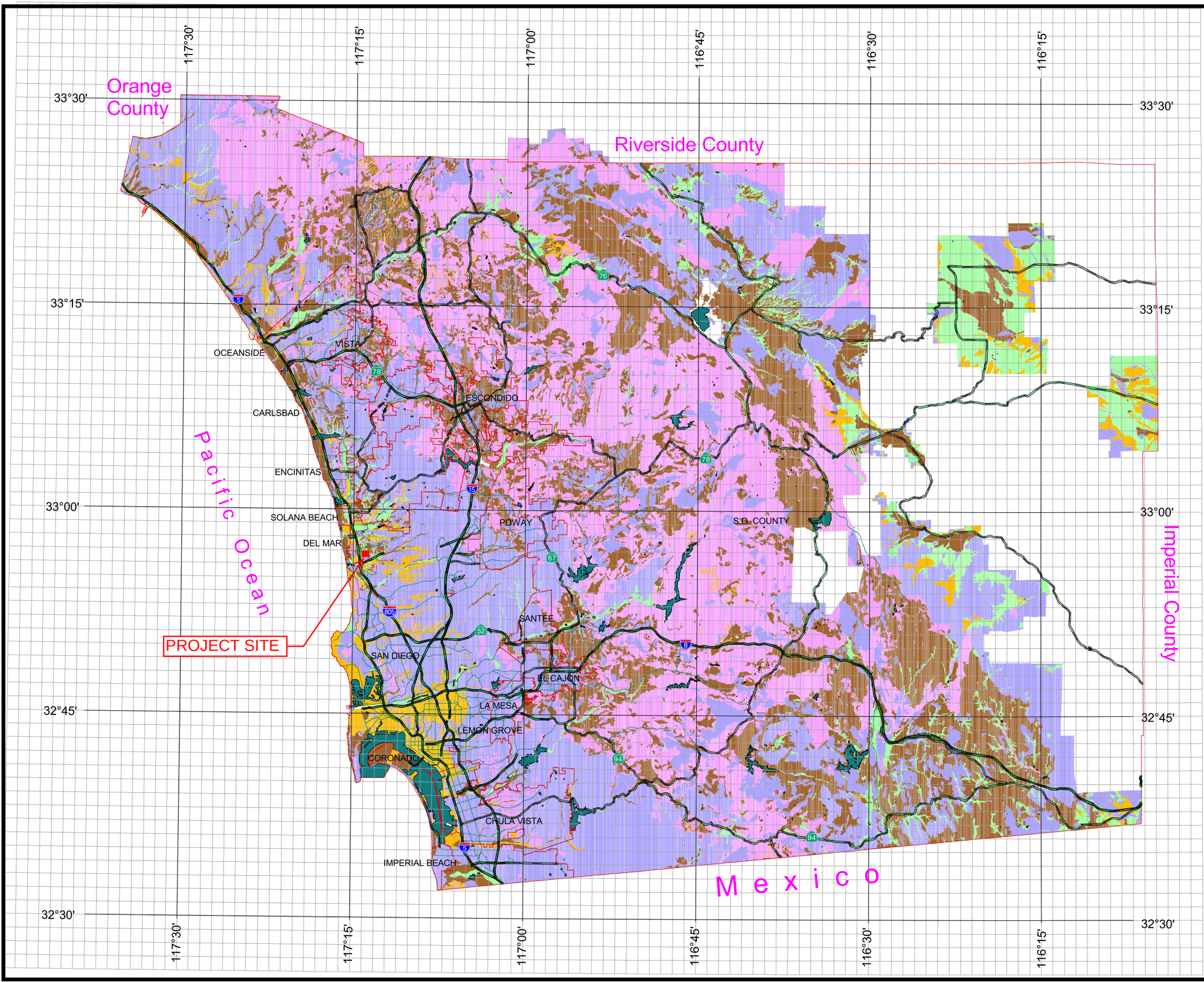
FIGURE 3

APPENDICES

County of San Diego Hydrology Manual

Soil Hydrologic Groups



Legend

Soil Groups

- Group A
- Group B
- Group C
- Group D
- Undetermined
- Data Unavailable

DPW GIS
Department of Public Works
Geographic Information Services

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N
W E
S

3 0 3 Miles

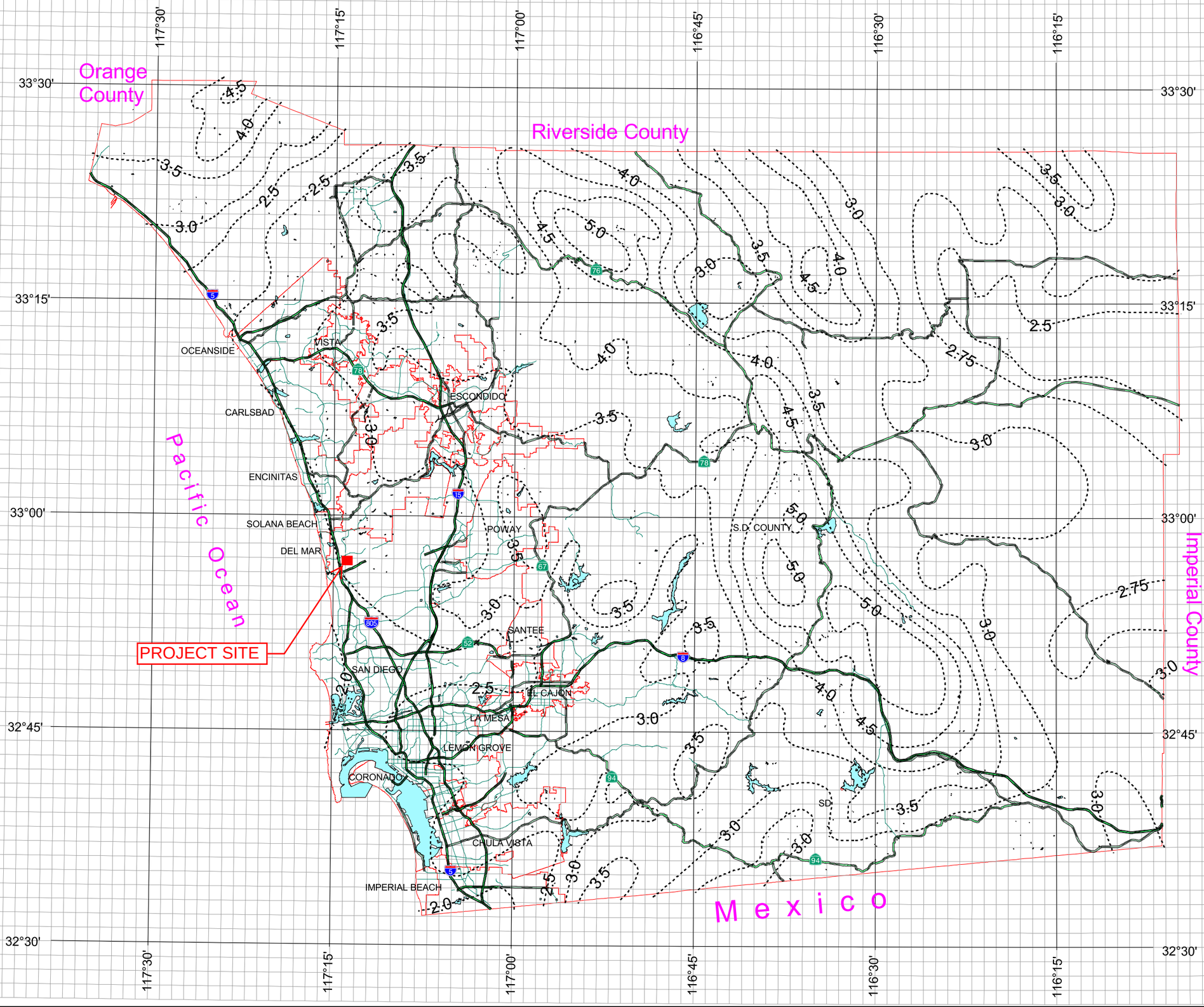
APPENDIX 1.0

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

Isopluvial (inches)



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APPENDIX 2.0

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 24 Hours

Isopluvial (inches)

Orange County

Riverside County

Imperial County

Pacific Ocean

Mexico

PROJECT SITE

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
CHULA VISTA
IMPERIAL BEACH
SD

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'
33°30' 33°15' 33°00' 32°45' 32°30'

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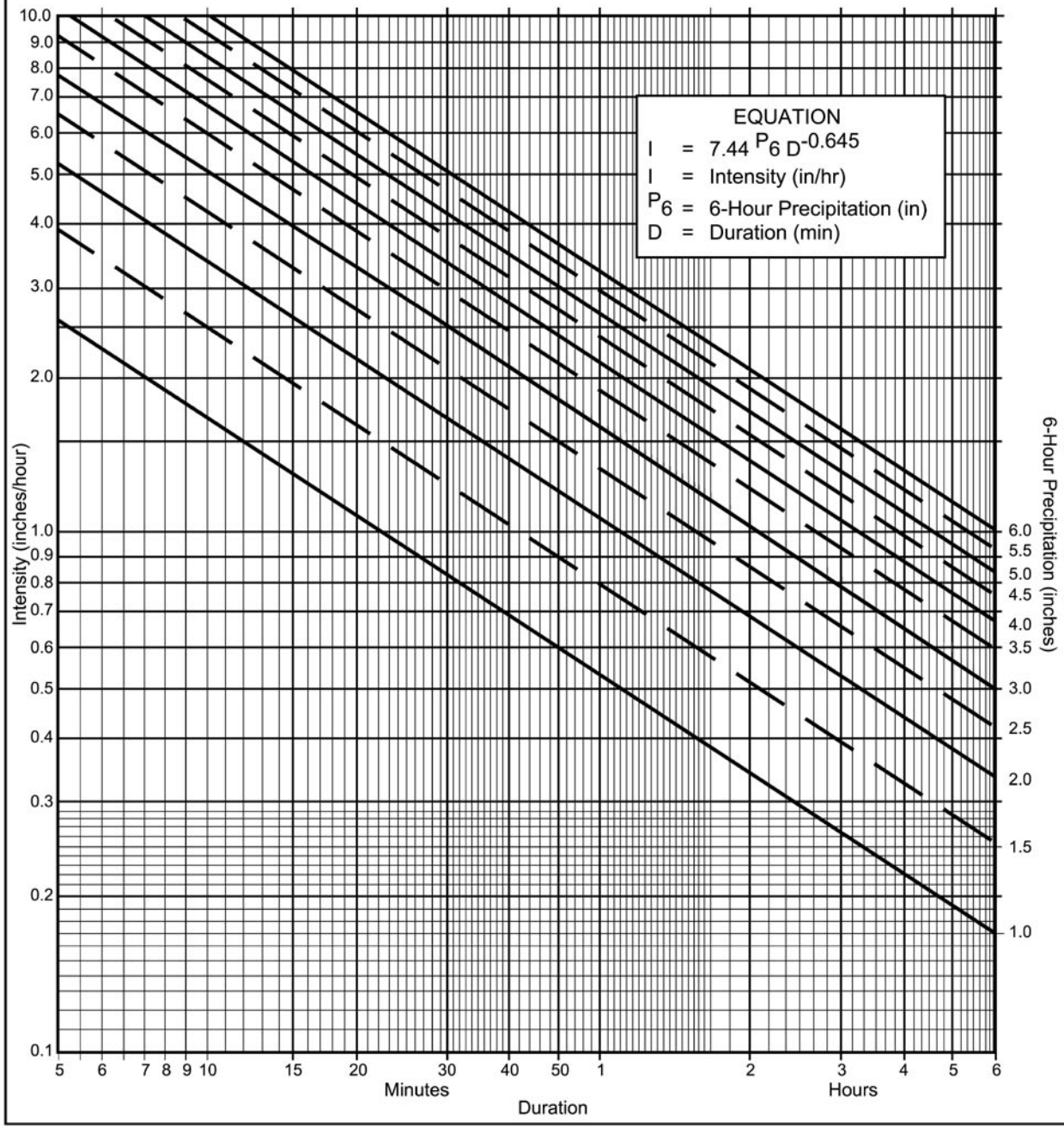
3 0 3 Miles

APPENDIX 3.0



Directions for Application:

(1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).

(2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicaple to Desert).

(3) Plot 6 hr precipitation on the right side of the chart.

(4) Draw a line through the point parallel to the plotted lines.

(5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

(a) Selected frequency 100 year

(b) P_6 = 2.75 in., P_{24} = 4.25, $\frac{P_6}{P_{24}}$ = 64.7 %(2)

(c) Adjusted P_6(2) = 2.75 in.

(d) t_x = _____ min. see calculations for values of each basin

(e) I = _____ in./hr. See methodology to see the equations used for Intensity and time of concentration

Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration	I	I	I	I	I	I	I	I	I	I	I
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.19	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE 3-1

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

ATTACHMENT 6
GEOTECHNICAL AND GROUNDWATER INVESTIGATION REPORT

Attach project's geotechnical and groundwater investigation report. Refer to Appendix C.4 to determine the reporting requirements.

SOIL
EXPLORATION
COMPANY, INC.

INVOICE

DATE	PROJECT NO.	INVOICE NO
OCTOBER 12, 2016	1674-02	167402-01

BILL TO

EXCEL HOTEL GROUP
10660 SCRIPPS RANCH BLVD., STE. 100
SAN DIEGO, CA 92131

ATTENTION ACCOUNTS PAYABLE

NEIL PATEL
(858) 621-4908
(619) 726-3341
FAX (858) 621-4914
NPATEL@EXCELHOTELGROUP.COM

PROJECT NAME

PROPOSED FIVE-STORY HOTEL SITE
3510 VALLEY CENTER DR.
SAN DIEGO, CALIFORNIA

INFILTRATION TESTS

DESCRIPTION OF SERVICES	AMOUNT ($)
• PERFORM THREE (3) INFILTRATION TESTS (10/7/16)	
• PREPARE REPORT OF THE TEST RESULTS DATED 10/11/16	
TOTAL THIS INVOICE	**$ 1,800.00**

Thank You

Note: Invoices are due upon receipt. A 1½ percent per month charge will be added to unpaid balance.

7535 JURUPA AVENUE, UNIT C, RIVERSIDE, CALIFORNIA 92504
Phone (951) 688-7200 • Fax (951) 688-7100

SOIL
EXPLORATION
COMPANY, INC.

Soil Engineering, Environmental Engineering, Materials Testing, Geology

October 11, 2016

Project No. 1674-02

TO: Excel Hotel Group
10660 Scripps Ranch Blvd., Ste. 100
San Diego, CA 92131

ATTENTION: Neil Patel

SUBJECT: Infiltration Tests Report for WQMP Design, Proposed Five-Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego (Carmel Valley) California 92130

REFERENCE: Soil Exploration Co., Inc., "Preliminary Soil Investigation Report, Proposed Five Story Hyatt Place Hotel Site, 3510 Valley Center Drive, City of San Diego (Carmel Valley), California 92130", Dated May 25, 2016 (Project No. 1674-01)

County of San Diego BMP Design Manual, Approved Infiltration Rate Assessment Methods for Selection of Storm Water BMPs, Appendix D, October 7, 2016.

Introduction

Per your request, this report presents the results of infiltration tests and limitation of our work at the subject site (see Figure 1, Site Location Map). The tests were performed on October 7, 2016, at the proposed infiltration area. (see Plate 1, Infiltration Test Location Map).

Infiltration Test (PercolationTest Procedure)

The procedure outlined in the above referenced Handbook was utilized for testing.

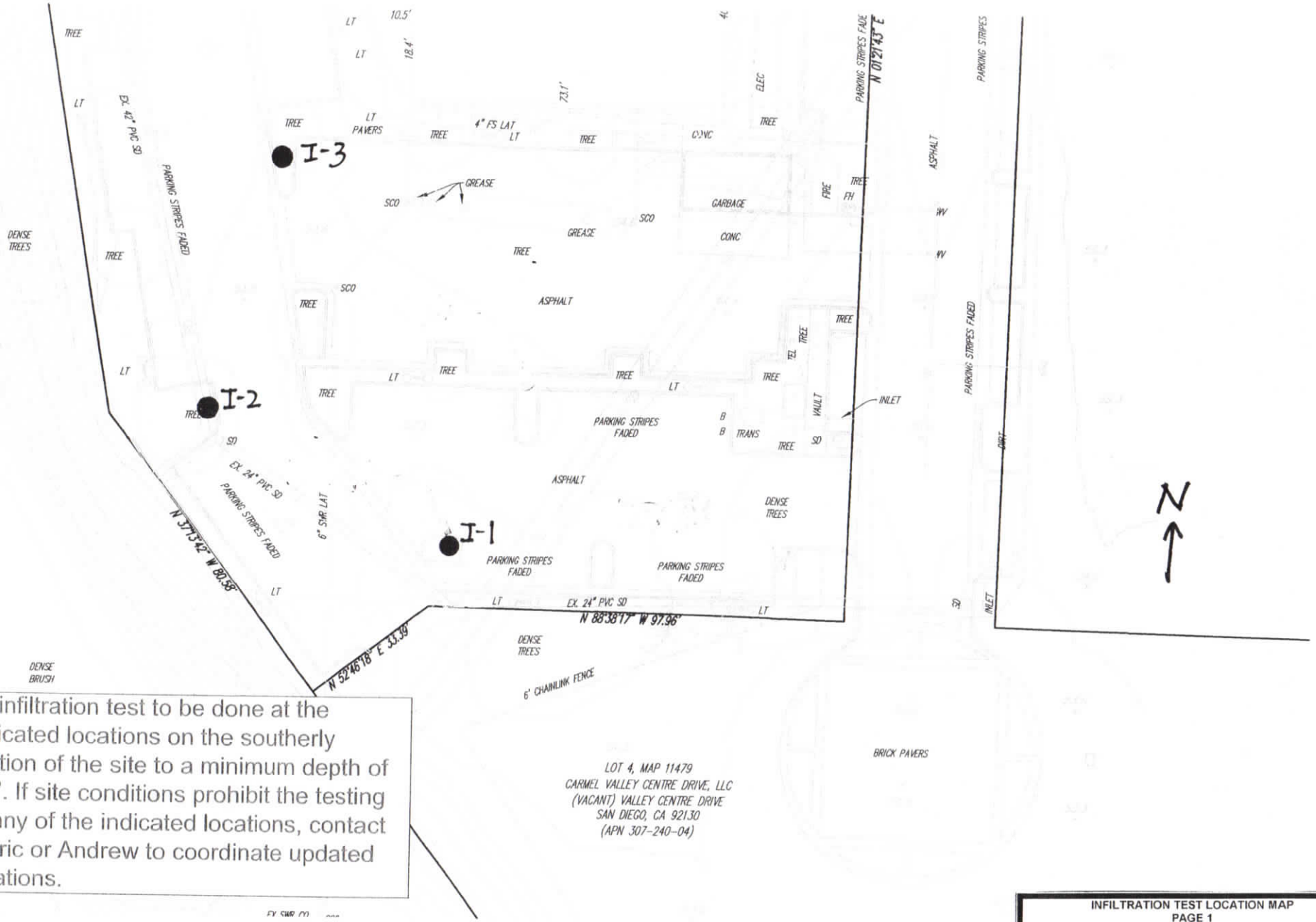
Three 8-inch diameter, 3-feet deep test holes (I-1, I-2 and 1-3) were augured at the suggested infiltration area. The soil at the test locations was visually classified as silty sand. To mitigate any possible caving or sloughing of the test holes, a 6-inch diameter perforated pipe was placed in the holes. The bottom of the holes was covered with 2 inches of gravel.

The testing was conducted after presoaking with water. Two consecutive measurements showed that 6 inches of water seeped in more than 25 minutes for I-1 and I-2 and less than 25 minutes for I-3. The tests were therefore run for additional six hours with measurements taken at 60 minute intervals for I-1 and I-2 and 10 minute intervals for I-3. Water level was adjusted to 20 inches above the bottom of the test hole after each measurement. The drop that occurred during the final reading was used for design rate purposes. Field test data and calculations to convert percolation test rate to infiltration test rate are based on Porchet method and attached

Infiltration Tests/Tabulated Test Results

Test No.	Depth of Test (feet)	Earth Material	Infiltration Rate (in/hr)
I-1	3	Silty Sand ("SM")	0.9
I-2	3	Silty Sand ("SM")	0.16
I-3	3	Silty Sand ("SM")	0.85

7535 Jurupa Ave., Unit C • Riverside, CA 92504 • Tel: (951) 688-7200 • Fax: (951) 688-7100
soilexploration@yahoo.com • www.soilexp.com



All infiltration test to be done at the indicated locations on the southerly portion of the site to a minimum depth of 3.0'. If site conditions prohibit the testing at any of the indicated locations, contact Patric or Andrew to coordinate updated locations.

LOT 4, MAP 11479
CARMEL VALLEY CENTRE DRIVE, LLC
(VACANT) VALLEY CENTRE DRIVE
SAN DIEGO, CA 92130
(APN 307-240-04)

INFILTRATION TEST LOCATION MAP PAGE 1	
LEGEND I-1 ● Approximate Location of Infiltration Test	
Soil Exploration Co., Inc.	
Project No. 1674-02	October 11, 2016

Figure VII.18. Sample Test Data Form for Percolation Test

Percolation Test Data Sheet

Project:	NEIL PATEL	Project No:	1674 - 02	Date:	10-08-16
Test Hole No:	I - 1	Tested By:	EDWARD		
Depth of Test Hole, D_T:	3'	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)			Length	Width	
Diameter (if round)=	8"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	12:32 21	12:57 21	25	23 8	23 3/4	4.25	N
2	12:59 52	1:24 52	25	"	23 1/8	3.875	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Infiltration Rate (min./in.)
1	1:27 03	1:57 03	30	23 8	23 3/8		
2	2:00 -	2:30 -	30	"	23 1/2		
3	2:32 03	3:02 03	30	"	23 1/2		
4	3:03 50	3:33 50	30	"	23 1/2		
5	3:35:12	4:05:12	"	"	"		
6	4:07:23	4:37:23	"	"	"		
7	4:39:34	5:09:34	"	"	"		
8	5:11:45	5:41:45	"	"	"		
9	5:42:00	6:02:00	"	"	"		
10	6:04:12	6:34:12	"	"	"		
11	6:36:24	7:06:24	"	"	"		
12	7:08:36	7:38:36	"	"	"	4.5	0.9
13							
14							
15							

COMMENTS:

Infiltration Rate: $\frac{4 \times 60 \times 4.5}{30\{4+[20+(20-4.5)]\}} = 0.9$ in/hr

Figure VII.18. Sample Test Data Form for Infiltration Test

Infiltration Test Data Sheet

Project:	NIEL PATEL	Project No:	1674-01	Date:	10-07-16
Test Hole No:	I-2	Tested By:	Edmund		
Depth of Test Hole, D_f:	3'	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)			Length	Width	
Diameter (if round)=	8"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	10:30 25	10:55 25	25	2 3/8	2 3 7/8	0.875	N
2	11:36 28	11:21 28	25	"	2 3 7/4	0.75	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Infiltration Rate (min./in.)
1	11:22 25	11:52 25	30	2 3/8	2 3 7/8		
2	11:55-05	12:25 05	30	"	2 3 7/8		
3	12:31 10	1:01 10	30	"	2 3 7/8		
4	1:04:21	1:34:21	"	"	"		
5	1:37:32	2:07:32	"	"	"		
6	2:10:43	2:40:43	"	"	"		
7	2:43:54	3:13:54	"	"	"		
8	3:16:06	3:46:06	"	"	"		
9	3:49:18	4:19:18	"	"	"		
10	4:21:30	4:51:30	"	"	"		
11	4:54:42	5:24:42	"	"	"		
12	5:27:53	5:57:53	"	"	"	0.875	0.16
13							
14							
15							

COMMENTS:

Infiltration Rate: $\frac{4 \times 60 \times 0.875}{30\{4 + [20 + (20 - 0.875)]\}} = 0.16$ in/hr

Figure VII.18. Sample Test Data Form for Infiltration Test

Infiltration Test Data Sheet

Project:	NEIL PATEL	Project No:	1674-01	Date:	10-07-16
Test Hole No:	I-3	Tested By:	EDMUND		
Depth of Test Hole, D_t:	3'	USCS Soil Classification:			
Test Hole Dimensions (inches)			Length	Width	
Diameter (if round)=	8"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	1:36 15	2:01 13	25	262	255 3/4	6 3/4	Y
2	2:03 26	2:28 26	25	11	256 —	6	Y

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Infiltration Rate (min./in.)
1	2:31 26	2:41 26	10	262	260 3/4		
2	2:42 42	2:52 42	10	11	260 1/2		
3	3:58 20	3:08 20	10	11	260 1/2		
4	3:09 43	3:19 43	10	11	260 1/2		
5	3:20 47	3:30 47	10	11	260 1/2		
6	3:31:18	3:41:18	11	11	11	1.5	0.85
7							
8							
9							
10							
11							
12							
13							
14							
15							

COMMENTS:

$$\text{Infiltration Rate} = \frac{4 \times 60 \times 1.5}{10\{4+[20+(20-1.5)]\}} = 0.85 \text{ in/hr.}$$

Carmel Valley Hotel Project

Acoustical Analysis Report

June 2017 | EHG-01

Prepared for:

Excel Hotel Group
10660 Scripps Ranch Blvd., Suite 100
San Diego, CA 92131

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

CARMEL VALLEY HOTEL PROJECT

ACOUSTICAL ANALYSIS REPORT

Prepared for:
Excel Hotel Group
10660 Scripps Ranch Boulevard, Suite 100
San Diego, CA 92131

Prepared by:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

June 2017

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LIST OF ACRONYMS

ADT	average daily trip
ANSI	American National Standards Institute
APN	Assessor's Parcel Number
CAD	Computer Aided (engineering and architectural) Design
CadnaA	Computer Aided Noise Abatement
Caltrans	California Department of Transportation
City	City of San Diego
CNEL	Community Noise Equivalent Level
CVPD-VC	Carmel Valley Planned District: Visitor Commercial
dB	decibel
dBA	A-weighted decibels
EIR/EIS	Environmental Impact Report/ Environmental Impact Statement
HVAC	heating, ventilation, and air conditioning
Hz	Hertz
I-5	Interstate 5
kHz	kilohertz
L_{DN}	Day-Night Sound Level
L_{EQ}	one-hour average sound level
LLG	Linscott, Law & Greenspan Engineers
mPa	micro-Pascals
mph	miles per hour
NSLU	noise-sensitive land use
PTAC	Packaged Terminal Air Conditioner
RCNM	Roadway Construction Noise Model
SANDAG	San Diego Association of Governments
SDP	Site Development Permit
SF	square foot/feet
SPL	sound pressure level

LIST OF ACRONYMS (cont.)

SR	State Route
STC	Sound Transmission Class
S_{WL}	sound power level
TAP	Trane Acoustics Program
TNM	Traffic Noise Model
USDOT	U.S. Department of Transportation

EXECUTIVE SUMMARY

This report presents an assessment of potential construction and operational noise impacts associated with the proposed Carmel Valley Hotel Project (Project).

The proposed Project entails the demolition of an existing restaurant and the construction of a 5-story, 127-guestroom hotel in the Carmel Valley neighborhood of the City of San Diego (City) in San Diego County. In addition to the guestrooms, the building would include a pool and spa, meeting rooms, a fitness room, outdoor amenity area (including fire pit), surface parking, and subterranean parking.

The Project would result in less than significant construction noise impacts to off-site noise-sensitive land uses (NSLUs). Operational noise from the Project's heating, ventilation, and air conditioning (HVAC) units and Project-generated traffic would also result in less than significant noise impacts to off-site receptors.

Exterior noise levels from traffic noise would exceed City standards included in the General Plan Noise Element for hotel uses at the proposed Project exterior use areas (e.g., pool, spa, and open area/fire pit). Conditions of approval are required to reduce exterior noise levels to below 65 Community Noise Equivalent Level (CNEL). This would be accomplished through the installation of an 8-foot-high sound wall along the pool, spa, and open area/fire pit.

As traditional architectural materials are expected to attenuate noise levels by 15 CNEL, if noise levels exceed 60 CNEL, interior noise levels from traffic might exceed the Title 24 interior noise standard of 45 CNEL. Since noise levels at the building façade were modeled at over 60 CNEL for all common use rooms and guest rooms, an exterior-to-interior noise reduction analysis was conducted to determine if the interior noise levels would comply with Title 24. The three rooms with the highest building façade noise levels per room type were modeled in the exterior-to-interior analysis: the lounge/lobby area, the fitness room, and the fifth floor guestroom in the northwest corner. With a minimum window requirement of Sound Transmission Class (STC) 31 and proper ventilation in accordance with the International Building Code to ensure that windows would be able to be permanently closed, interior noise levels were modeled to be below 45 CNEL and interior noise levels would be consistent with City standards.

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1.0 INTRODUCTION

1.1 PROJECT LOCATION

The Carmel Valley Hotel Project (Project) is located at 3510 Valley Centre Drive in the Carmel Valley area of the City of San Diego (City) in western San Diego County (see Figure 1, *Regional Location Map,* and Figure 2*, Project Vicinity Map [Aerial Photograph]*). The Project site consists of one 1.46-acre parcel and is assigned assessor parcel number (APN) 307-240-02-00. The property is zoned as Carmel Valley Planned District: Visitor Commercial (CVPD-VC) within Neighborhood 2 of the Carmel Valley Community Plan Area Precise Plan. The Visitor Commercial designation is intended to provide motel, restaurant, and related services for the adjacent industrial/office park in the Carmel Valley Employment Center as well as for nearby industrial uses in Sorrento Valley. The Project is also located within the Coastal Overlay Zone and the Parking Impact Overlay Zone (Coastal Impact Area).

1.2 PROJECT DESCRIPTION

The Project site consists of one parcel that is relatively flat in topography, with elevations ranging from approximately 58.6 feet above mean sea level (AMSL) in the northeast corner of the site near the Valley Centre Drive cul-de-sac, to approximately 53.4 feet AMSL in the southwest corner of the site. The site is currently developed with a one-story, approximately 8,669-square-foot (SF) restaurant that is surrounded by paved parking areas and associated driveways, sidewalks, and landscaping. The surrounding area is developed primarily with a mix of commercial and office uses, hotels, and open space. The site is located immediately south of an existing Marriott hotel (San Diego Marriot Del Mar) and parking structure; north of Carmel Valley Road, Ted Williams Parkway, and an existing gas station; east of Interstate 5 (I-5); and west of a vacant site proposed for mixed-use development.

The Project proposes a Site Development Permit (SDP) and Coastal Development Permit to construct a five-story, 127-guestroom hotel with a pool and spa, meeting rooms, fitness room, outdoor amenity area (including fire pit), surface parking, and one level of subterranean parking (see Figure 3, *Site Plan*). The total gross building area including the subterranean parking would be 103,975 SF. This includes approximately 1,400 SF of meeting space, 2,500 SF of food and beverage services (e.g., dining space, kitchen, etc.), and a 2,500-SF lobby. A total of 108 parking spaces are proposed (49 within surface parking and 59 within the subterranean parking lot), including five accessible spaces and 11 carpool/zero emission spaces. Additionally, three parking spaces would be provided for motorcycles and eight would be provided for short-term bicycle parking. Public utilities, including sewer, water, and fire mains, would connect with existing lines within Valley Centre Drive to serve the proposed Project.

2.0 ENVIRONMENTAL SETTING

2.1 NOISE AND SOUND LEVEL DESCRIPTORS AND TERMINOLOGY

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise

levels are expressed by the symbol L_{EQ}, with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day-Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver contribute to the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

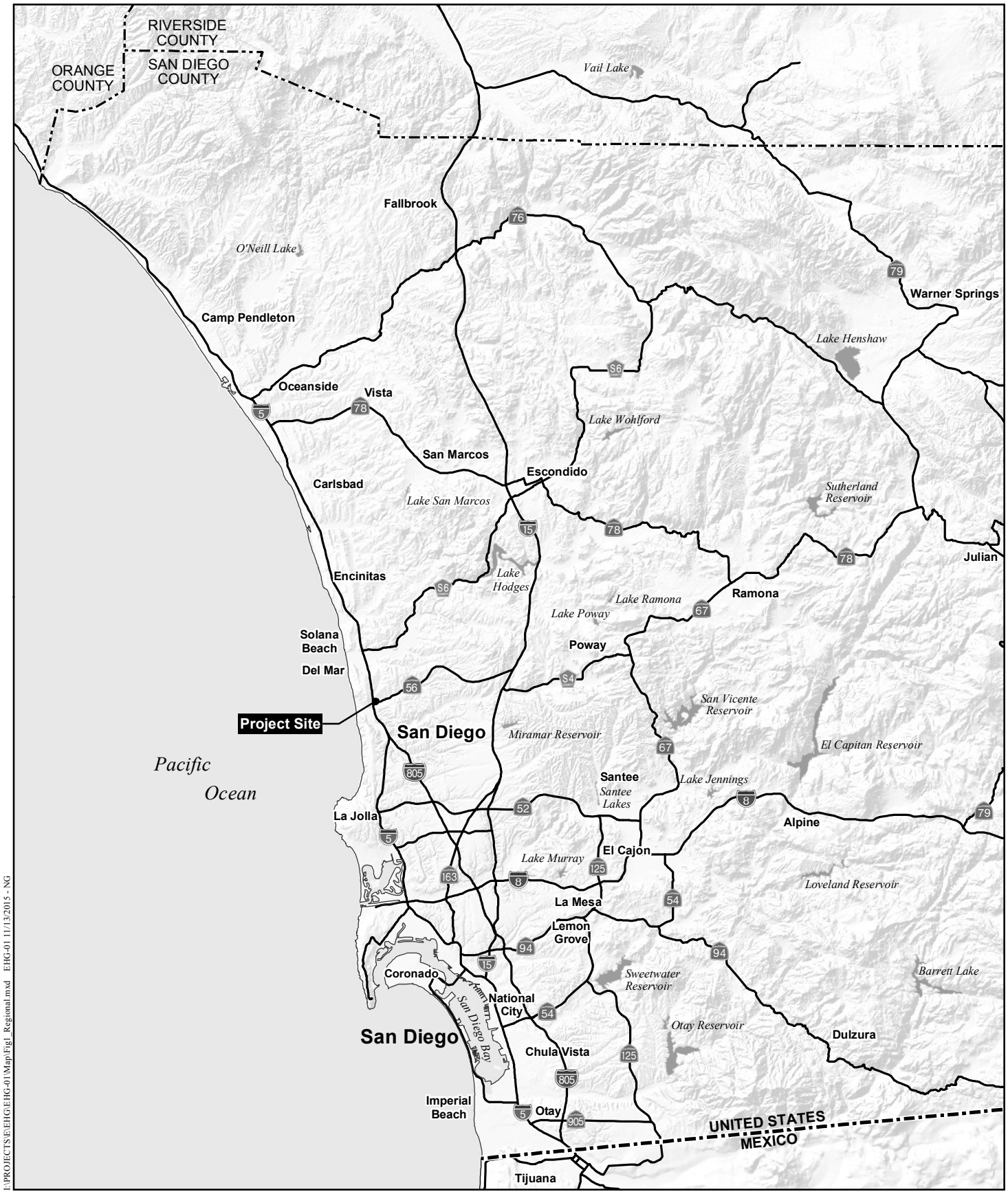
Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA units. The threshold of hearing for the human ear is about 0 dBA, which corresponds to 20 micro-Pascals (mPa).

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.

2.2 NOISE AND VIBRATION SENSITIVE LAND USES

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, such as residential dwellings, schools, transient lodging (hotels), hospitals, educational facilities, and libraries. Industrial and commercial land uses are generally not considered sensitive to noise. NSLUs in the Project area include three nearby hotels: San Diego Marriot Del Mar, Hampton Inn San Diego/Del Mar, and Residence Inn San Diego/Del Mar.



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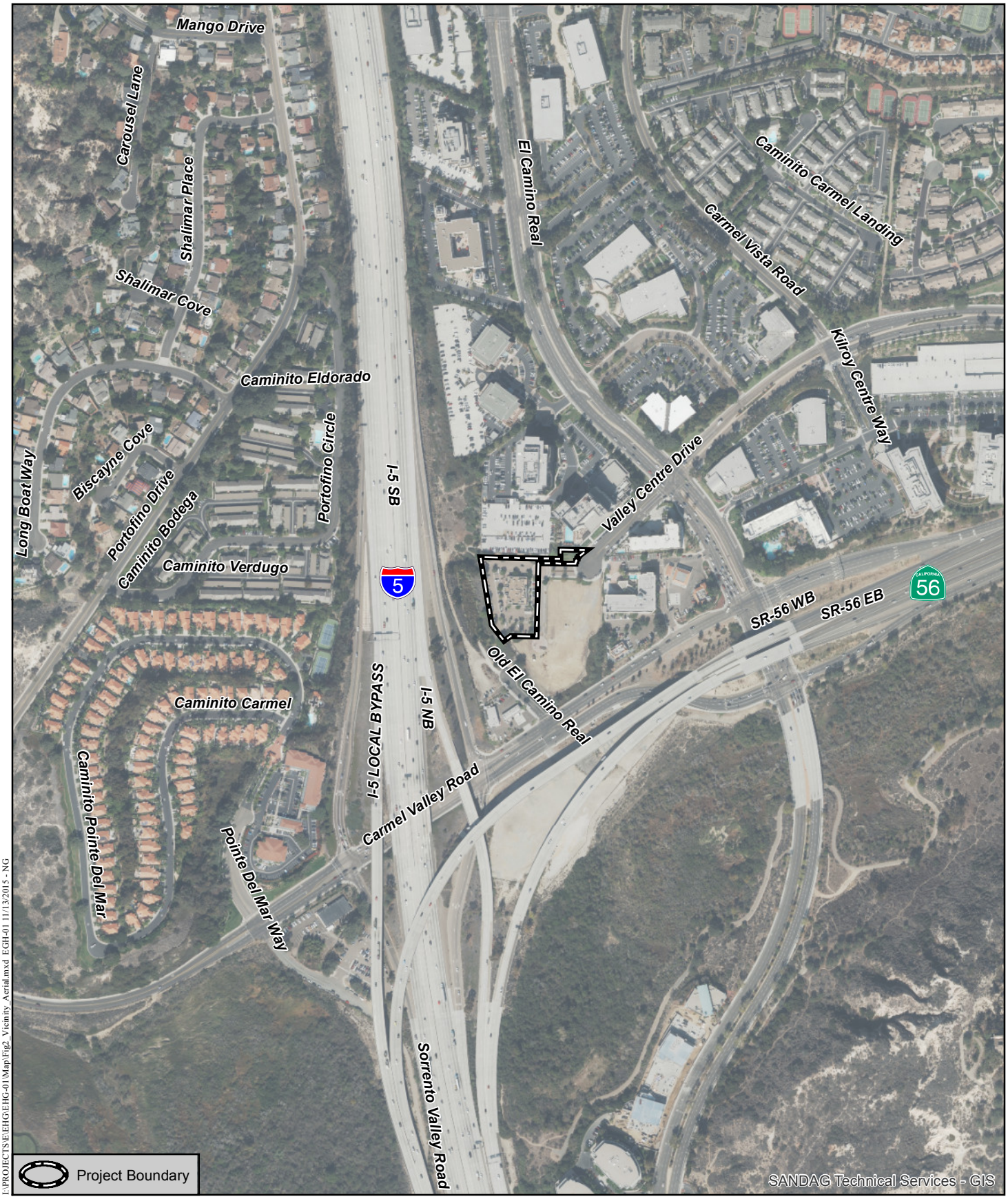
Regional Location Map

CARMEL VALLEY HOTEL PROJECT

HELIX Environmental Planning

Figure 1



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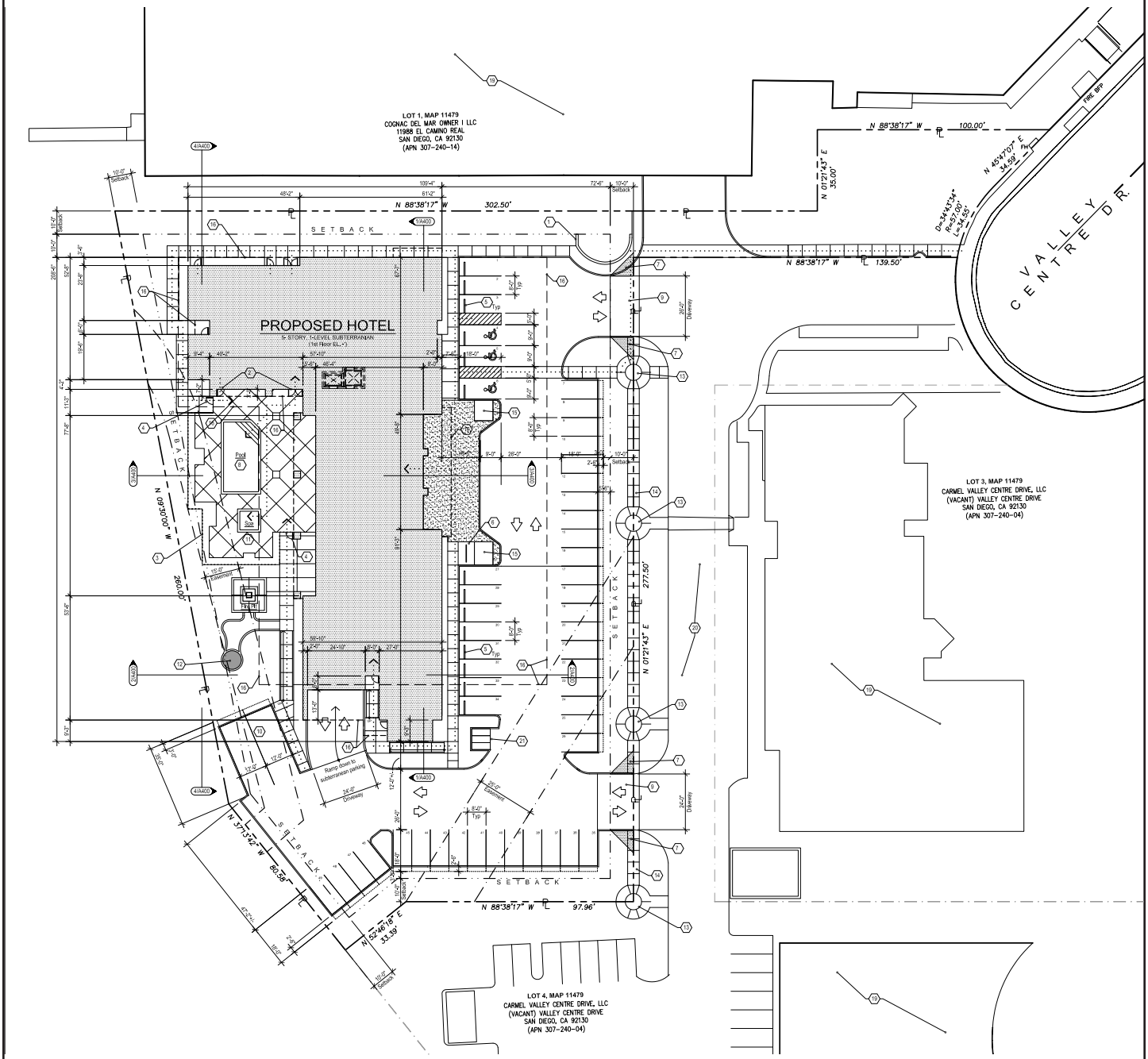
Project Vicinity Map (Aerial Photograph)

CARMEL VALLEY HOTEL PROJECT

HELIX Environmental Planning

N 0 500 Feet

Figure 2



Source: JONES BALLARD ARCHITECTS

Site Plan

CARMEL VALLEY HOTEL PROJECT

HELIX Environmental Planning

N

0 50 Feet

Figure 3

2.3 REGULATORY FRAMEWORK

Applicable noise standards for the proposed Project are codified in the following City regulations:

2.3.1 City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0404 Construction Noise

(a) It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

(b) Except as provided in subsection (c) hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m.

(c) The provisions of subsection (b) of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

2.3.2 City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits

(a) It shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table (Table 1, *Applicable Noise Limits*), at any location in the City on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.

Table 1 APPLICABLE NOISE LIMITS		
Land Use Zone	**Time of Day**	**One-hour Average Sound Level (dBA)**
Single Family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-Family Residential (up to a maximum density of 1/2000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or Agricultural	anytime	75

Source: City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits

(b) 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. Permissible construction noise level limits shall be governed by Section 59.5.0404 of this article.

2.3.3 City of San Diego General Plan Noise Element and Development Services Department Significance Determination Thresholds

The City General Plan Noise Element (City 2008) and City Development Services Department's Significance Determination Thresholds (City 2011), which originate with the Noise Element, establish noise compatibility guidelines for uses affected by traffic noise. For hotels, the exterior usable space noise compatibility guideline is 65 CNEL and the interior noise compatibility guideline is 45 CNEL.

2.4 EXISTING CONDITIONS

2.4.1 Surrounding Land Uses

The Project site is surrounded by existing commercial and office uses, hotels and open space. The site and immediate surrounding parcels to the north, east, and southeast are commercially zoned as CVPD-VC; the parcels to the southwest are commercially zoned as CC-1-3; and to the west is I-5.

2.4.2 Existing Noise Conditions

2.4.2.1 *General Site Survey*

One 15-minute traffic noise measurement and one 10-minute ambient noise measurement was conducted during a site visit on November 11, 2015 (see Appendix A, *On-site Noise Measurement Sheets*, for survey notes). The traffic measurement was performed 150 feet east of I-5, just to the west of the southwestern corner of the parking garage for the San Diego Marriot Del Mar (approximately 65 feet from the northwest corner of the Project site). During the traffic noise measurement, start and end times were recorded and vehicle counts were made for cars, medium trucks (double-tires/two axles), and heavy trucks (three or more axles) for the corresponding road segments. The measurement time was sufficiently long for a representative traffic volume to occur and the noise level (L_{EQ}) to stabilize. The vehicle counts were then converted to one-hour equivalent volumes by applying an appropriate factor. The ambient measurement was conducted in the southwestern portion of the Project parcel.

The measured noise levels and related weather conditions are shown in Table 2, *Noise Measurements Results*. Traffic counts for the timed measurement and the one-hour equivalent volumes are shown in Table 3, *Measured Traffic Volumes and Vehicular Distribution.*

Table 2
NOISE MEASUREMENT RESULTS

Measurement	Location	Conditions	Time	dBA L_{EQ}	Notes
M1 (Traffic)	150 feet east of I-5, in front of San Diego Marriot Del Mar parking garage	70°F, 5 miles per hour (mph) wind, 22 percent humidity, sunny	10:51-11:06 a.m.	69.7	Measurement spot 10-20 feet below freeway retaining wall
M2 (Ambient)	Southwestern corner of Project site	70°F, 5 mph wind, 22 percent humidity, sunny	11:17-11:27 p.m.	68.7	N/A

Table 3
MEASURED TRAFFIC VOLUMES AND VEHICULAR DISTRIBUTION

Roadway	Traffic	Autos	MT[1]	HT[2]
Interstate 5	15-minute count	1,827	33	36
	One-hour Equivalent	7,308	132	144
	Percent	**96%**	**2%**	**2%**

[1] Medium Trucks (double tires/two axles)
[2] Heavy Trucks (three or more axles)

3.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.1 METHODOLOGY AND EQUIPMENT

The following equipment was used to measure existing noise levels at the Project site:

- Larson Davis System LxT Integrating Sound Level Meters
- Larson Davis Model CAL150 Calibrator
- Windscreen and tripod for the sound level meter
- Digital camera

The sound level meter was field-calibrated immediately prior to the noise measurements to ensure accuracy. All measurements were made with a meter that conforms to the American National Standards Institute (ANSI) specifications for sound level meters (ANSI SI.4-1983 R2001). All instruments were maintained with National Bureau of Standards traceable calibration per the manufacturers' standards.

Modeling of the exterior noise environment for this report was accomplished using two computer noise models: Computer Aided Noise Abatement (CadnaA) version 4.5 and Traffic Noise Model (TNM) version 2.5. CadnaA is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed CadnaA model, and uses the most up-to-date calculation standards to predict outdoor noise impacts. CadnaA traffic noise prediction is based on the data and methodology used in the TNM. TNM was released in February 2004 by the U.S. Department of Transportation (USDOT), and calculates the daytime average hourly L_{EQ} from three-dimensional model inputs and traffic data (California Department of Transportation [Caltrans] 2004). TNM was developed from Computer Aided Design (CAD) plans provided by the Project applicant. Input variables included road alignment, elevation, lane configuration, area topography, existing and planned noise control features, projected traffic volumes, estimated truck composition percentages, and vehicle speeds.

The one-hour L_{EQ} noise level is calculated utilizing peak-hour traffic; peak-hour traffic volumes can be estimated based on the assumption that 10 percent of the average daily traffic would occur during a peak hour. The model-calculated one-hour L_{EQ} noise output is the equivalent to the CNEL (Caltrans 2009).

Project construction noise was analyzed using the Roadway Construction Noise Model (RCNM; USDOT 2008), which utilizes estimates of sound levels from standard construction equipment.

3.2 ASSUMPTIONS

3.2.1 Construction

To prepare the site for construction, the Project would demolish the existing 8,669-SF restaurant building, parking lot, curbs, and sidewalks; remove existing vegetation; and conduct site grading.

The Project is anticipated to be constructed over a 14-month period starting in 2017. Project construction would entail the use of equipment throughout the site for the full term of construction. See Table 4, *Construction Phases and Equipment*, for equipment information by phase and the duration of each phase.

Table 4
CONSTRUCTION PHASES AND EQUIPMENT

Construction Phase	Duration (months)	Equipment	Number
Demolition	1	Concrete/Industrial Saws	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	3
Site Preparation	1	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
Grading	1	Graders	1
		Rubber Tired Dozers	1
		Tractors/Loaders/Backhoes	1
Underground Utilities	2	Excavators	1
		Trenchers	1
Building Construction	12	Cranes	1
		Forklifts	1
		Generator Sets	1
		Tractors/Loaders/Backhoes	1
		Welders	3
Paving	0.5	Cement and Mortar Mixers	1
		Pavers	1
		Paving Equipment	1
		Rollers	1
		Tractors/Loaders/Backhoes	1
Architectural Coating	0.5	Air Compressors	1

Source: OMEGA Engineering Consultants 2015

3.2.2 Operation

The known or anticipated Project site operational noise sources include heating, ventilation, and air conditioning (HVAC) units and vehicular traffic. The Project is located approximately 6 miles northwest of the closest airport, Marine Corps Air Station Miramar, and is located outside of the airport's 60 CNEL noise contour; therefore, noise impacts from airports are not analyzed further.

3.2.2.1 *Heating, Ventilation, and Air Conditioning Units*

The hotel guestrooms' HVAC units would be Vertical Packaged Terminal Air Conditioners (PTACs). These units are mounted inside each room in a closet, with a pair or vents opening to the outer wall. These units would be relatively quiet and are not analyzed further in this report.

For the other hotel facilities (e.g., lobby/lounge, fitness room, and meeting rooms), the Project would likely use commercial-sized HVAC units located on the rooftop. For the purposes of this analysis, the specifications for Carrier 48PG 14-ton HVAC units, which have a sound power level (S_{WL}) of 83.3 dBA, are used to analyze the noise impacts from the proposed Project's units. The manufacturer's noise data for the HVAC units is provided below in Table 5, *Condenser Noise Data*; more detailed data can be found in Appendix B, *Carrier 48PG Condenser Data*. Modeling for these HVAC units was performed in Trane Acoustics Program (TAP).

Table 5
CONDENSER NOISE DATA

Product	Nominal Tons	Noise Levels in Decibels[1] (dB) Measured at Octave Frequencies							Overall Noise Level in dBA[1]
		63 Hz	125 Hz	250 Hz	500 Hz	1 KHz	2 kHz	4 kHz	
Carrier 48PG	14	86.4	85.9	85.3	81.8	78.2	72.2	67.9	83.3

Source: Appendix B
[1] Sound power levels (S_{WL})
kHz = kilohertz

3.2.2.2 *Vehicular Traffic*

The San Diego Association of Governments' (SANDAG) Series 12 Traffic Volume Forecasts provides the existing and future traffic volumes for the street segments surrounding the proposed Project site. Anticipated future traffic noise levels used in modeling are based upon 2035 traffic volumes to represent conservative traffic volumes and are shown in Table 6, *2035 Traffic Volumes.* A peak hour traffic volume of 10 percent of average daily trip (ADT) was used for modeling.

Table 6
2035 TRAFFIC VOLUMES

Roadway Segment	2035 ADT	Peak Hour Traffic[1]
Interstate 5 (I-5)	231,800	23,180
I-5 Auxiliary Lanes - Northbound	14,600	1,460
I-5 northbound on-ramp	20,500[2]	2,050
State Route (SR) 56	64,500	6,450
El Camino Real	30,500	3,050
Carmel Valley Road	69,400[2]	6,940
Valley Centre Drive	9,100	910

Source: SANDAG 2011
[1] A peak hour traffic volume of 10 percent of ADT was assumed for all roadways.
[2] Traffic from the unbuilt SR 56 to I-5 northbound connectors, still under design but included in SANDAG's 2035 estimates, was assigned to these roadways (the current method of connecting between the SR 56 and I-5 northbound).

SANDAG's 2035 traffic volume estimates assume that the SR 56 west to I-5 north freeway connectors would be built. This connection is one of several alternatives for the interchange under the Interstate 5/State Route 56 Interchange Project, and is in the planning stages with a Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) released in 2012

(Caltrans 2012) and a Final EIR/EIS due in 2017 (Caltrans 2016). Currently, vehicles must exit SR 56 on to Carmel Valley Road, where they then take the I-5 northbound on-ramp to travel on I-5 northbound. As final planning design for the interchange is unavailable, the use of the existing connection was assumed in modeling and the estimated ADT for the connector (18,300 ADT) was applied to both Carmel Valley Road and the I-5 northbound on-ramp.

The speed limits for the roadway segments are 65 mph for both freeway and the auxiliary lanes; 45 mph for El Camino Real; 40 mph for Carmel Valley Road; and 25 mph for Valley Centre Drive. During modeling calibration, it was assumed that vehicles averaged 40 mph on the I-5 northbound on-ramp and that vehicles on I-5 traveled at 70 mph instead of the speed limit to accurately portray real-life noise levels. During the Project site visit, the percentage breakdown of vehicles was observed to be 96 percent autos, 2 percent medium trucks, and 2 percent heavy trucks. These percentages were used for vehicle composition in the modeling.

4.0 IMPACTS

4.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE AND CONDITIONS OF APPROVAL

The following thresholds are based on the City Significance Determination Thresholds and Noise Ordinance, as applicable to the Project.

A significant noise impact would occur if the Project would:

1. Result in temporary construction noise that exceeds 75 dBA L_{EQ} (12 hour) at the property line of a residentially-zoned property from 7:00 a.m. to 7:00 p.m. (as identified in Section 59.0404 of the City's Municipal Code) or if non-emergency construction occurs during the 12-hour period from 7:00 p.m. to 7:00 a.m.

2. Result or create a significant permanent increase in the existing noise levels. For the purposes of this analysis, a significant increase would be greater than a perceptible change (3 dBA) over existing conditions or generate noise levels at a common property line that exceed the limits shown in Table 1.

The following condition of approval would be required for all proposed new uses:

3. Expose new development to noise levels at exterior use areas or interior areas in excess of the noise compatibility standards established in the City General Plan Noise Element. For hotels, the noise compatibility standard is 65 CNEL for exterior use areas and 45 CNEL for interior habitable areas.

4.2 ISSUE 1: TEMPORARY INCREASE IN AMBIENT NOISE LEVELS

4.2.1 Construction Noise

The most substantial noise increases from construction activities that may affect off-site uses would occur during demolition and excavation. For demolition, a dozer is used to break down

the building and, in conjunction with a loader, to load the debris into trucks for removal. Following demolition, the site would be excavated to the subgrade level for parking using an excavator and a loader. For modeling purposes, these pieces of equipment were assumed to operate at 100 feet from the nearest NSLU (the swimming pool at the San Diego Marriot Del Mar).

RCNM lists the noise level of a dozer as 77.7 dBA at 50 feet, an excavator as 76.7 dBA at 50 feet and a loader as 75.1 dBA at 50 feet. For a dozer and a loader, at a distance of 100 feet, with a normal 40 percent hourly operating time, this would equate to a 73.6 dBA L_{EQ} noise level, resulting in noise level of 71.8 dBA averaged over a 12-hour work day (see Appendix C, *Construction Noise Model Outputs*, for model outputs). For an excavator and a loader, this would equate to a 73.0 dBA L_{EQ} noise level, resulting in noise level of 71.2 dBA averaged over a 12-hour workday.

These noise levels would be below City Municipal Code noise limits (75 dBA 12-hour average). In addition, the City Municipal Code noise limits for construction apply only to residentially-zoned properties. Therefore, as the Project site and surrounding areas are commercial zones, the City construction noise limits do not apply and no construction noise control is required.

4.2.2 Mitigation Measures

Because impacts related to Issue 1 would be less than significant, no mitigation is required.

4.2.3 Significance of Impacts After Mitigation

Impacts would be less than significant without mitigation.

4.3 ISSUE 2: PERMANENT INCREASE IN AMBIENT NOISE LEVELS

The anticipated primary Project operational noise sources include the HVAC unit located on the rooftop and vehicular traffic. Potential impacts from these sources are discussed below.

4.3.1 Heating, Ventilation, and Air Conditioning Units

The proposed Project would likely have commercially-sized HVAC units on the roof. The nearest NSLU would be the swimming pool of the San Diego Marriot Del Mar, approximately 200 feet to the northeast. It was assumed there would be a 7-foot barrier around the HVAC units. At this distance, a 14-ton Carrier 48PG Condenser was modeled to generate a noise level of 20 dBA L_{EQ}, This would be below the 60 dBA L_{EQ} nighttime noise limit for a commercial zone from Table 1, and impacts would be less than significant.

4.3.2 Off-site Transportation Noise

According to the analysis within the Project's Trip Generation Letter (Linscott, Law & Greenspan Engineers [LLG] 2015), the hotel would generate a net increase of 368 ADT. A typical rule of thumb is that a doubling of traffic volume would equal a significant increase in noise (a doubling of noise, or a 3 dBA increase). The City Significance Thresholds define a 3 dBA increase as a perceptible change in relative loudness. Given the existing traffic volumes of

7,900 ADT on the Project access road, Valley Centre Drive (SANDAG 2011), this increase would be less than 3 dBA, and impacts would be less than significant.

4.3.3 Mitigation Measures

Because impacts related to Issue 2 would be less than significant, no mitigation is required.

4.3.4 Significance of Impacts After Mitigation

Impacts would be less than significant without mitigation.

4.4 ISSUE 3: NOISE LEVEL STANDARD COMPLIANCE FOR NEW USES

4.4.1 Transportation Noise

4.4.1.1 *Exterior Noise Levels*

Transportation Noise

As noted in the Section 3.2.2, future traffic noise levels presented in this analysis are based on forecasted 2035 traffic volumes provided by SANDAG.

The Project would have proposed exterior use areas that include a pool, spa, and open area/fire pit. These areas are modeled as Receivers EU1 through EU3 and are shown in Table 7, *Future On-site Noise Levels*. Traffic noise at the ground level suites, meeting room, and lobby/lounge, and the building's second and fifth floor suites are also provided in Table 7. The modeled receiver locations are identified on Figure 4, *Modeled Receiver and Sound Wall Locations*.

Table 7
FUTURE ON-SITE NOISE LEVELS

Receiver Number	Location	Exterior Noise Levels (CNEL) with Roadways
G1	Meeting room: ground floor, northern end	67.4
G2	Meeting room: ground floor, southern end	66.9
G3	Lobby/ lounge: ground floor, western end	68.0
G4	Lobby/ lounge: ground floor, eastern end of lobby/lounge	60.1
G5	Fitness room: ground floor, western wall	69.3
G6	Fitness room: ground floor, southern wall	67.7
S1	Guest room: second floor, northwest corner	72.5
S2	Guest room: second floor, below northwest corner guestroom	71.7
S3	Guest room: second floor, southwestern corner of building	70.3
S4	Guest room: second floor, southern wall	69.7
S5	Guest room: second floor, eastern side	61.6

Table 7 (cont.) FUTURE ON-SITE NOISE LEVELS		
Receiver Number	**Location**	**Exterior Noise Levels (CNEL) with Roadways**
F1	Guest room: fifth floor, northwest corner, western wall	72.5
F2	Guest room: fifth floor, northwest corner room, northern wall	70.0
F3	Guest room: fifth floor, eastern side	62.6
EU1	Ground-level pool	**68.5**
EU2	Ground-level spa	**68.8**
EU3	Ground-level fire pit/open area	**70.4**

Note: **Bolded figures** exceed exterior use noise thresholds; noise levels are based on traffic volumes provided in the SANDAG Series 12 Traffic Volume Forecasts (SANDAG 2011)

As shown in Table 7, the exterior use areas (the pool, spa, and fire pit/open area) would be above the City's Noise Element exterior 65 CNEL limit.

4.4.1.2 *Interior Noise Levels*

As traditional architectural materials are expected to attenuate noise levels by 15 CNEL, if noise levels exceed 60 CNEL, interior noise levels may exceed the Title 24 interior noise standard of 45 CNEL. As shown in Table 7, building façade noise levels would exceed 60 CNEL for all measured areas: the common use areas such as the lobby/lounge, fitness room, and meetings rooms; second-floor guestrooms; and fifth floor guestrooms. The information in this interior noise analysis includes wall heights/lengths, room volumes, window/door tables typical for a standard building plan, as well as information on any other openings in the building shell. The analysis provides information for the rooms with the highest potential interior noise and extends these requirements to other similar rooms.

The Project rooms used in the exterior-to-interior analysis are the lounge/lobby area located in the center of the ground floor (Receivers G3 and G4), the fitness room located on the ground floor (Receivers G5 and G6), and the fifth-floor guestroom located in the northwest corner (Receivers F1 and F2). Modeling of on-site receivers demonstrated that this area of the Project site would experience the greatest noise levels during Project operation; therefore, these rooms were chosen to ensure that the Title 24 analysis is applicable to all Project units. The exterior-to-interior analysis uses the modeled noise levels shown in Table 7. The room specifications used in this analysis are based on November 2015 floor plans provided by the Project applicant. Refer to Figure 5, *Exterior-to-Interior Title 24 Analyzed Rooms*, for the Project plans for the rooms included in this Title 24 analysis.

The analyzed lounge/lobby is a ground-level room that has one wall exposed to traffic noise, mostly from I-5. The width of the western wall was assumed to be 80 feet, of which approximately 56 feet would be windows and 24 feet would be wall. The depth of the room was assumed to be 55 feet with a height of 14.7 feet, of which 12.8 feet would be window and 1.9 feet would be wall.

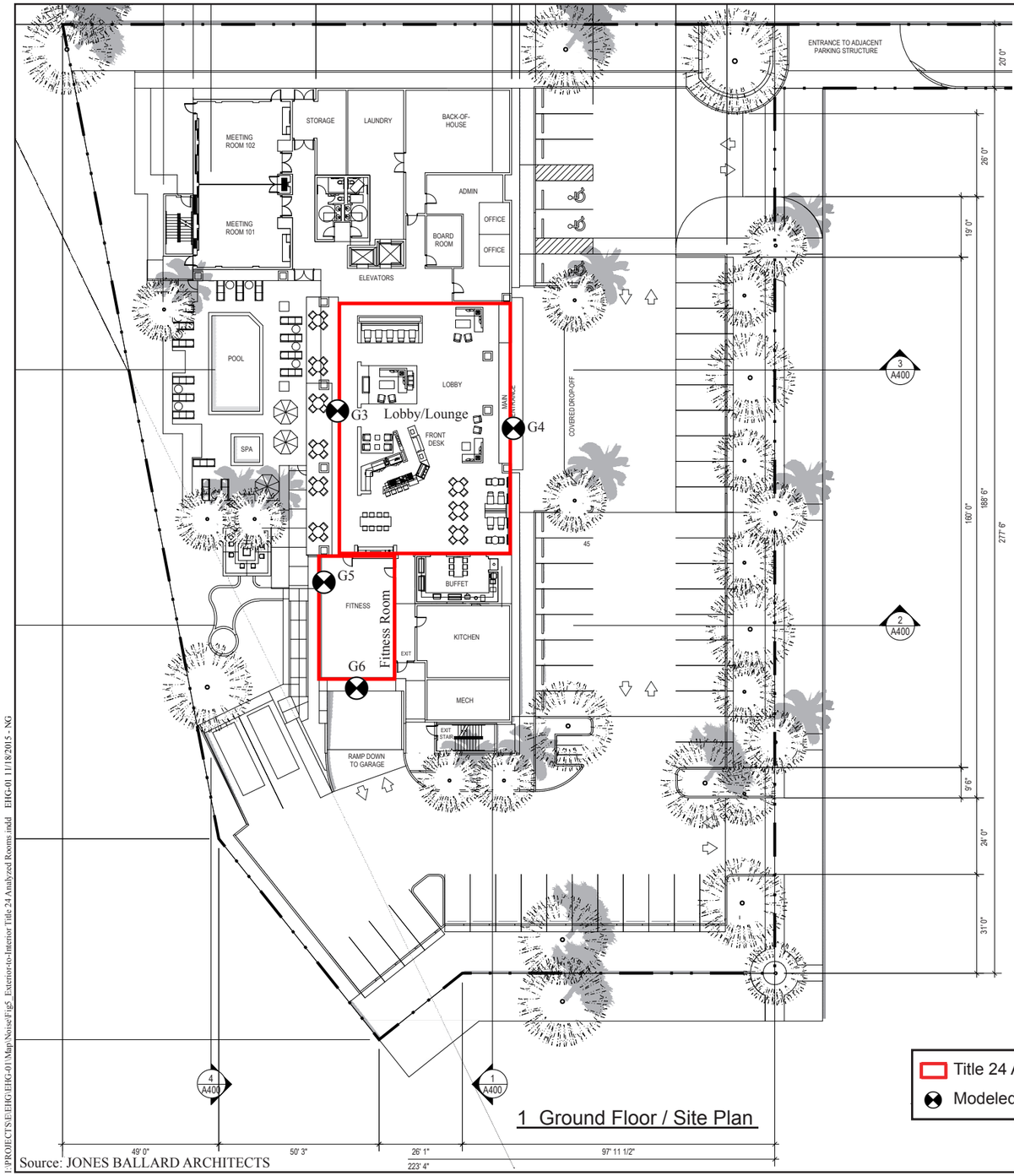
Modeled Receiver and Sound Wall Locations

CARMEL VALLEY HOTEL PROJECT

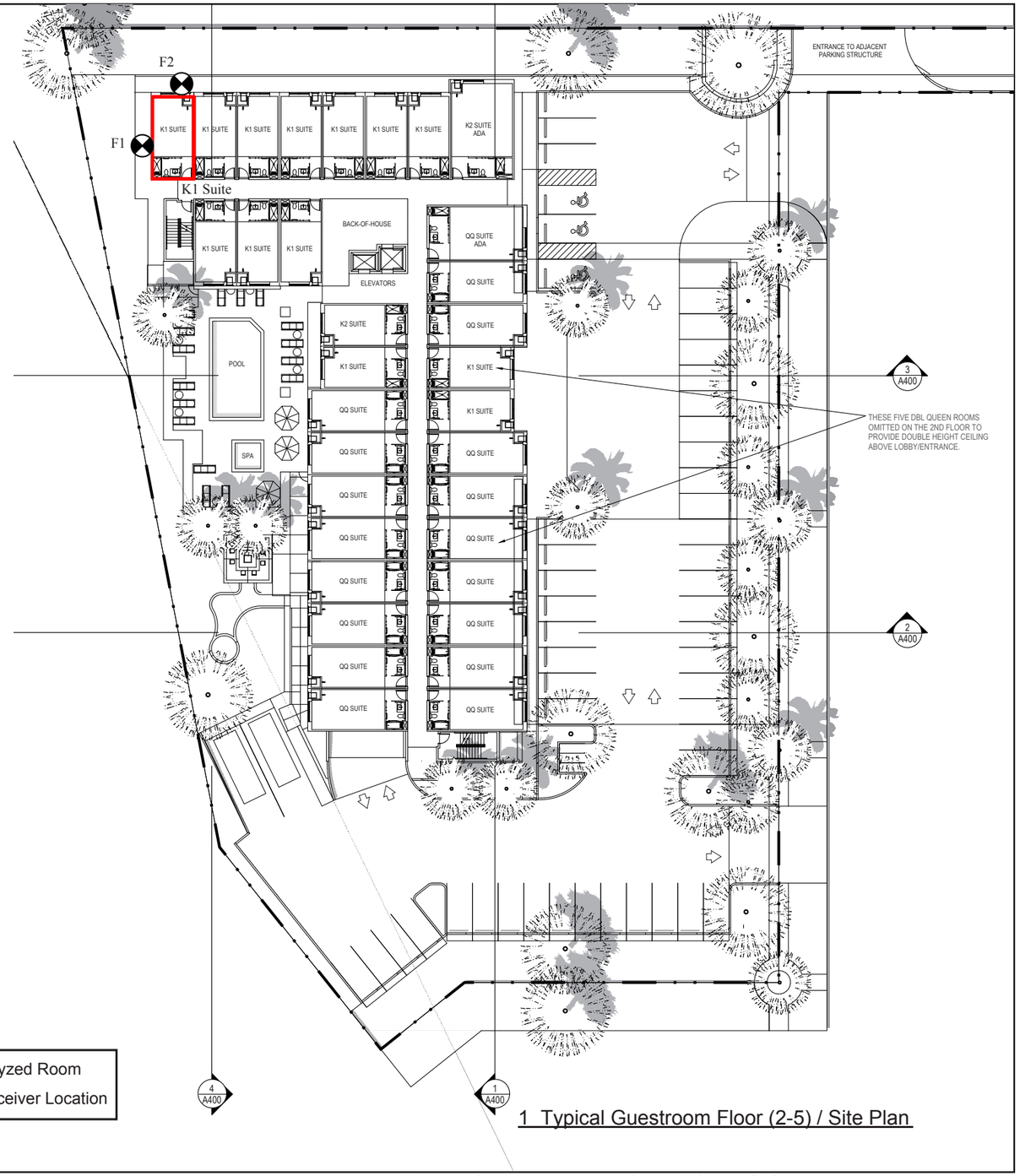
HELIX Environmental Planning

N 0 60 Feet

Figure 4



1 Ground Floor / Site Plan



1 Typical Guestroom Floor (2-5) / Site Plan

Title 24 Analyzed Room

Modeled Receiver Location

Source: JONES BALLARD ARCHITECTS

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Exterior-to-Interior Title 24 Analyzed Rooms

CARMEL VALLEY HOTEL PROJECT

HELIX Environmental Planning

0 50 Feet

Figure 5

The analyzed fitness room is a ground-level room that has a western and southern wall exposed to traffic noise. The width of the western wall was assumed to be 37.7 feet, of which approximately 20.4 feet would be windows and 17.3 feet would be wall. The width of the southern wall was assumed to be 23 feet, of which approximately 10.8 feet would be window and 12.2 feet would be wall. The depth of the room was assumed to be 23 feet with a height of 14.7 feet, of which approximately 7.8 feet would be window and 6.9 feet would be wall.

The analyzed fifth floor guestroom is the loudest modeled guestroom and is located in the northwest corner. Both the western and northern walls would be exposed to traffic noise. The width of the western wall was assumed to be 26.7 feet, of which approximately 4.3 feet would be windows and 22.4 feet would be wall. The width of the northern wall was assumed to be 12.4 feet, of which approximately 5.6 feet would be window and 6.8 feet would be wall. The depth of the room was assumed to be 12.4 feet with a height of 10.3 feet, of which approximately 6.2 feet would be window and 4.1 feet would be wall.

Table 8, *Exterior-to-Interior Noise Levels*, displays the calculated interior noise levels and discusses the STC ratings necessary to ensure interior noise levels for the proposed Project are consistent with the City's interior 45 CNEL limit. Detailed modeling results can be seen in Appendix D, *Exterior-to-Interior Noise Reduction Analysis*.

Table 8
EXTERIOR-TO-INTERIOR NOISE LEVELS

Specification	Lounge/Lobby	Fitness Room	Fifth-Floor Guest Room, Northwest Corner
Exterior wall requirement	8-inch-thick Concrete Masonry Unit (CMU) Exterior Wall	8-inch-thick CMU Exterior Wall	8-inch-thick CMU Exterior Wall
Minimum window requirement	STC 31	STC 31	STC 31
Window construction	Dual Glazing Window Thickness ⅛- and ½-inch Air Gap	Dual Glazing Window Thickness ⅛- and ½-inch Air Gap	Dual Glazing Window Thickness ⅛- and ½-inch Air Gap
Exterior Noise	68.0 CNEL	69.3 CNEL at western wall; 67.7 CNEL at southern wall	72.5 CNEL at western wall; 70.0 CNEL at northern wall
Interior Noise	31.9 CNEL	39.1 CNEL	39.4 CNEL
Above 45 CNEL interior noise standard?	No	No	No

See Appendix D for modeling results.

With normal dual glazing and the incorporation of the building materials described above, all rooms would be in compliance with the relevant interior noise standards of 45 CNEL for habitable areas. Appropriate means of air circulation and provision of fresh air must be present to allow windows to remain closed for extended intervals of time so that acceptable levels of noise can be maintained on the interior. The building design would include a mechanical ventilation system that would meet the criteria of the International Building Code (Chapter 12, §1203.3 of

the 2013 California Building Code) to ensure that windows would be able to remain permanently closed. With incorporation of appropriate architectural materials and techniques, the Project would be consistent with City Noise Element policies.

4.4.2 Condition of Approval

The following condition of approval would be required to ensure Project consistency with the City Noise Element:

Noi-1 **Exterior Use Area Noise Barriers.** Noise levels at exterior use areas (pool, spa, and fire pit/open area) for the proposed hotel would exceed City thresholds and shall be reduced to 65 CNEL or below. Noise reduction could be accomplished through an on-site noise barrier (wall). The sound wall for the pool, spa, and fire pit/open area would be an 8-foot-high wall from approximately the northern end of the pool area to the southern end of the fire pit/open area (an approximate length of 140 feet). See Figure 4 for sound wall location.

A sound attenuation fence or wall utilized to reduce noise levels must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are no cracks or gaps, through or below the wall. The wall can be a composite construction with a lower solid section such as stucco or concrete and an upper clear glass section to maintain views. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least 1-inch total thickness or have a density of at least 3.5 pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic 3/8 of an inch thick or thicker may be used, if it is desirable to preserve a view. Sheet metal of 18-gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of 1-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.

4.4.3 Policy Consistency After Implementation of Measure

The implementation of the noise barrier described in Noi-1 would reduce exterior noise levels to below 65 CNEL, as shown in Table 9, *Exterior On-site Noise Levels with Implementation of Noise Wall.*

Table 9
EXTERIOR ON-SITE NOISE LEVELS
WITH IMPLEMENTATION OF NOISE WALL

Receiver Number	Exterior Noise Levels without Wall (dBA L_{EQ})	Noise Levels with Sound Wall (dBA L_{EQ})
EU1	68.5	60.7[1]
EU2	68.8	62.1[1]
EU3	70.4	64.8[1]

[1] 8-foot-high sound wall

5.0 LIST OF PREPARERS

Bill Vosti	Acoustic Analyst
Charles Terry	Senior Acoustic Specialist
Joanne M. Dramko, AICP	Quality Assurance Reviewer
Vanessa Toscano	Project Manager

6.0 REFERENCES

California Building Standards Commission

2013 California Building Code, California Code of Regulations, Title 24, Part 2, Chapter 12, Section 1203.3.

California Department of Transportation (Caltrans)

2016 Interstate 5/State Route 56 Interchange Project Fact Sheet. August.

2012 Interstate 5/State Route 56 Interchange Project Draft Environmental Impact Report/Environmental Impact Statement. May.

2009 Technical Noise Supplement (TeNS). November.

2004 Traffic Noise Model (TNM).

Linscott, Law & Greenspan (LLG)

2015 Carmel Valley Hyatt Place Trip Generation Letter. October 30.

OMEGA Engineering Consultants

2015 Personal communication between Sean Savage of OMEGA and Vanessa Toscano of HELIX. November 16.

San Diego, City of

2011 California Environmental Quality Act Significance Determination Thresholds. January.

2008 City of San Diego General Plan Noise Element. March 10.

San Diego Association of Governments (SANDAG)

2011 Transportation Forecast Information Center.

U.S. Department of Transportation (USDOT)

2008 Roadway Construction Noise Model.

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Appendix A

On-site Noise Measurement Sheets

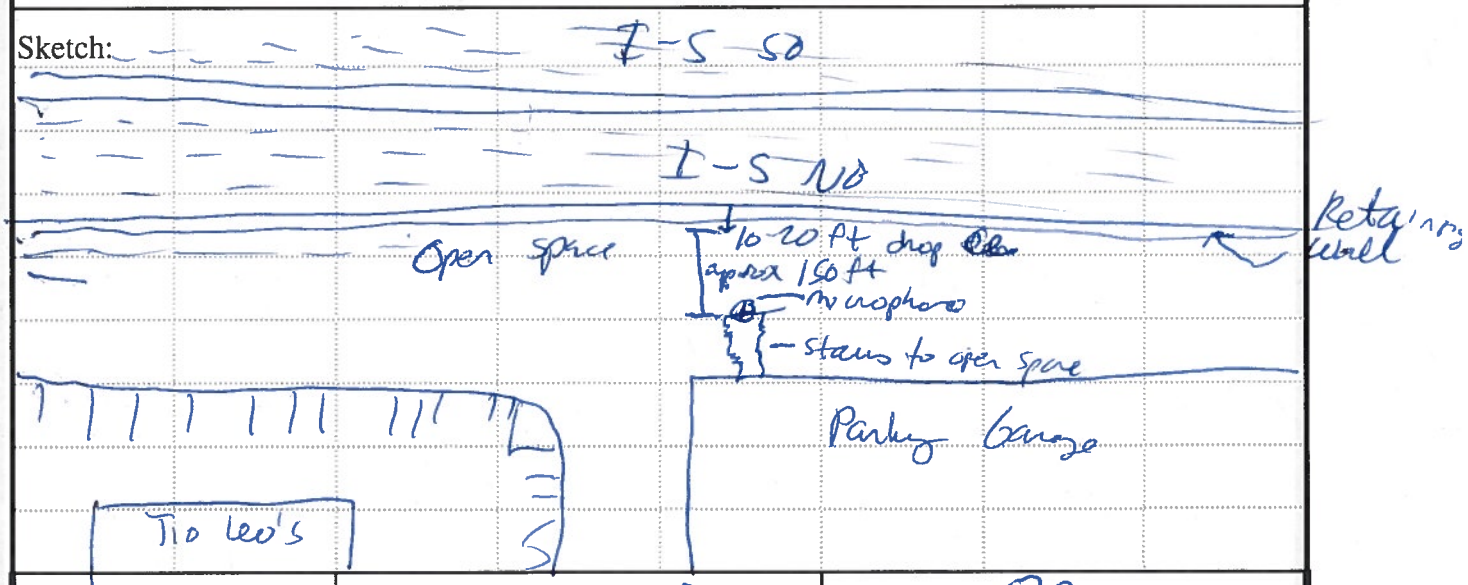
Lxt_Data.110

Site Survey

Job # 246-01	Project Name: Carmel Valley Hotel		
Date: 11-11-15	Site #: N/A	Engineer: Bill Vosk	
Address: Tio leo's off Valley Centre Drive			
Meter: LxT	Serial #: 0001741	Calibrator: CAL150	Serial #: 3688

Notes: Project site 10-20 ft below freeway ; Sunny

Sketch:



Temp: 70°F	Wind Spd: 5 mph	Humidity: 22 %			
Start of Measurement: 10:51	End of Measurement: 11:06	69.7 dBA L_{EQ}			

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)
1,827	33	36

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

Lxt - Duct 111

(M2) Ambient **Site Survey**

Job # EHG-01		Project Name: Carmel Valley Hotel	
Date: 11-11-15	Site #: N/A	Engineer: Bill Vosti	
Address: Tio Leo's			
Meter: LxT	Serial #: 0001741	Calibrator: CAL150	Serial #: 3688

Notes: Sunny

Sketch:

Temp:	Wind Spd: mph	Humidity: %
Start of Measurement: 11:17	End of Measurement: 11:27	68.7 dBA L_{EQ}

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)
Ambient		

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

Appendix B

Carrier 48PG Condenser Data

OPERATION AIR QUANTITY LIMITS

48PG03-14 Vertical and Horizontal Units

UNIT 48PG	COOLING (cfm)		HEATING (cfm)*	
	Min	Max	Min	Max
03	600	1000	600	1680
04 (Low Heat)	900	1500	600	1680
04 (Med Heat)	900	1500	940	2810
04 (High Heat)	900	1500	1130	2820
05 (Low Heat)	1200	2000	600	1680
05 (Med Heat)	1200	2000	940	2810
05 (High Heat)	1200	2000	1130	2820
06 (Low Heat)	1500	2500	940	2810
06 (Med Heat)	1500	2500	1130	2820
06 (High Heat)	1500	2500	1510	2520
07 (Low Heat)	1800	3000	940	2810
07 (Med Heat)	1800	3000	1130	2820
07 (High Heat)	1800	3000	1510	2520
08 (Low Heat)	2250	3750	2060	5160
08 (Med Heat)	2250	3750	2110	6870
08 (High Heat)	2250	3750	2450	4900
09 (Low Heat)	2550	4250	2060	5160
09 (Med Heat)	2550	4250	2110	6870
09 (High Heat)	2550	4250	2450	4900
12 (Low Heat)	3000	5000	2110	6870
12 (Med Heat)	3000	5000	2450	4900
12 (High Heat)	3000	5000	3150	6300
14 (Low Heat)	3750	6250	2110	6870
14 (Med Heat)	3750	6250	2450	4900
14 (High Heat)	3750	6250	3150	6300

*Consult tables on pages 8 and 9 if using a stainless steel heat exchanger.

Outdoor Sound Power (Total Unit)

UNIT 48PG	A−WEIGHTED* (dB)	OCTAVE BAND LEVELS dB							
		63	125	250	500	1000	2000	4000	8000
03	75.0	82.6	79.9	75.7	73.3	70.0	64.3	58.4	50.5
04	73.2	79.8	77.2	74.1	70.1	68.0	63.6	58.4	51.9
05	71.9	79.7	79.6	72.6	69.6	66.0	61.4	56.4	48.5
06	78.5	82.2	82.6	79.5	75.7	73.9	68.6	64.0	56.3
07	78.5	87.5	83.0	78.5	76.3	73.8	68.4	63.8	56.5
08	80.0	91.7	83.6	81.0	77.9	75.0	69.9	66.0	59.3
09	79.9	89.1	82.7	80.0	77.7	75.0	70.2	66.3	57.8
12	80.0	90.4	83.1	80.9	77.8	75.2	70.0	66.1	57.6
14	83.3	86.4	85.9	85.3	81.8	78.2	72.2	67.9	59.9

LEGEND

dB − Decibel

***** Sound Rating AHRI or tone Adjusted, A−Weighted Sound Power Level in dB. For sizes 03−12, the sound rating is in accordance with AHRI Standard 270−1995. For sizes 14, the sound rating is in accordance with AHRI 370−2010.

Appendix C

Construction Noise Modeling Outputs

Base

Equipment	dBA L_{MAX}	Percentage	Use Per Day	Ordinance Hour Day	L_{EQ} dBA (Daily)		Distance (ft)	L_{EQ} dBA (Daily)		Distance To (ft):	Distance
Noise Sum	81.7	N/A	N/A	N/A	77.9	#	100.0	71.8	#	75	69.5
Bulldozer	81.7	40%	8	12	76.0	#	100.0	69.9	#	75	55.8
Loader	79.1	40%	8	12	73.4	#	100.0	67.3	#	75	41.4

Base

Equipment	dBA L_{MAX}	Percentage	Use Per Day	Ordinance Hour Day	L_{EQ} dBA (Daily)		Distance (ft)	L_{EQ} dBA (Daily)		Distance To (ft):	Distance
Noise Sum	80.7	N/A	N/A	N/A	77.2	#	100.0	71.2	#	75	64.7
Excavator	80.7	40%	8	12	75.0	#	100.0	68.9	#	75	49.8
Loader	79.1	40%	8	12	73.4	#	100.0	67.3	#	75	41.4

Appendix D

Exterior-to-Interior Noise Reduction Analysis

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: Carmel Valley Hotel
Project # : EHG-01
Room Name: Lounge/Lobby

Wall 1 of 1

Room Type : **Hard**

	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Reverberation Time (sec) :	2.5	2.5	2.5	2.5	2.0	2.0	: Highly Reflective Room
Room Absorption (Sabins) :	1294	1294	1294	1294	1617	1617	

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	**Traffic**	**68.0**	**CNEL**	51.3	56.8	59.3	63.3	63.3	57.3	: Traffic Spectrum
Source 2:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**68.0**	**CNEL**	51.3	56.8	59.3	63.3	63.3	57.3	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
8" CMU Exterior Wall	N	80	14.7	1	459.2	34	40	45	45	44	52
STC 31 1/8"-1/2"-1/8" Dual Insulating Window	N	56	12.8	1	716.8	17	18	29	36	40	39
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Room Depth: **55** ft **Overall Area:** **1176** ft²
Volume: **64680** ft³

Number of Impacted Walls: **1**

Windows Open
Interior Noise Level: **31.9** **CNEL**

Windows Closed
Interior Noise Level: **31.9** **CNEL**

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
51.3	56.8	59.3	63.3	63.3	57.3	: Exterior Wall Noise Exposure
19.1	20.1	31.1	37.8	41.2	41.0	: Transmission Loss
0.0	0.0	0.4	7.1	10.5	10.3	: Noise Reduction
31.1	31.1	31.1	31.1	32.1	32.1	: Absorption
20.2	25.7	27.8	25.1	20.8	14.9	: Noise Level

31.9 **CNEL** WINDOWS OPEN

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
51.3	56.8	59.3	63.3	63.3	57.3	: Exterior Wall Noise Exposure
19.1	20.1	31.1	37.8	41.2	41.0	: Transmission Loss
0.0	0.0	0.4	7.1	10.5	10.3	: Noise Reduction
31.1	31.1	31.1	31.1	32.1	32.1	: Absorption
20.2	25.7	27.8	25.1	20.8	14.9	: Noise Level

31.9 **CNEL** WINDOWS CLOSED

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: Carmel Valley Hotel
Project # : EHG-01
Room Name: Fitness Room

Wall 1 of 2

Room Type : Hard

	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Reverberation Time (sec) :	2.5	2.5	2.5	2.5	2.0	2.0	: Highly Reflective Room
Room Absorption (Sabins) :	255	255	255	255	319	319	

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	Traffic	69.3	CNEL	52.6	58.1	60.6	64.6	64.6	58.6	: Traffic Spectrum
Source 2:	<N/A>	0.0	CNEL	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	<N/A>	0.0	CNEL	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	<N/A>	0.0	CNEL	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**69.3**	**CNEL**	52.6	58.1	60.6	64.6	64.6	58.6	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
8" CMU Exterior Wall	N	37.7	14.7	1	395.1	34	40	45	45	44	52
STC 31 1/8"-1/2"-1/8" Dual Insulating Window	N	20.4	7.8	1	159.1	17	18	29	36	40	39
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Room Depth: 23 ft   **Overall Area:** **554.19** ft²
Volume: **12746** ft³

Number of Impacted Walls: 2

Windows Open
Interior Noise Level: 39.1 CNEL

Windows Closed
Interior Noise Level: 39.1 CNEL

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
52.6	58.1	60.6	64.6	64.6	58.6	: Exterior Wall Noise Exposure
22.2	23.4	34.2	40.2	42.4	43.9	: Transmission Loss
0.0	0.0	6.7	12.8	15.0	16.5	: Noise Reduction
24.1	24.1	24.1	24.1	25.0	25.0	: Absorption
28.5	34.0	29.8	27.7	24.6	17.1	: Noise Level

37.1 **CNEL** WINDOWS OPEN

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
52.6	58.1	60.6	64.6	64.6	58.6	: Exterior Wall Noise Exposure
22.2	23.4	34.2	40.2	42.4	43.9	: Transmission Loss
0.0	0.0	6.7	12.8	15.0	16.5	: Noise Reduction
24.1	24.1	24.1	24.1	25.0	25.0	: Absorption
28.5	34.0	29.8	27.7	24.6	17.1	: Noise Level

37.1 **CNEL** WINDOWS CLOSED

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: Carmel Valley Hotel **Wall 2 of 2**
Project # : EHG-01
Room Name: Fitness Room

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	**Traffic**	**67.7**	**CNEL**	51.0	56.5	59.0	63.0	63.0	57.0	: Traffic Spectrum
Source 2:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**67.7**	**CNEL**	51.0	56.5	59.0	63.0	63.0	57.0	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
8" CMU Exterior Wall	N	23	14.7	1	253.9	34	40	45	45	44	52
STC 31 1/8"-1/2"-1/8" Dual Insulating Window	N	10.8	7.8	1	84.2	17	18	29	36	40	39
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Overall Area: **338.1** ft²

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
51.0	56.5	59.0	63.0	63.0	57.0	: Exterior Wall Noise Exposure
22.8	24.0	34.7	40.6	42.6	44.4	: Transmission Loss
0.0	0.0	9.4	15.3	17.3	19.1	: Noise Reduction
24.1	24.1	24.1	24.1	25.0	25.0	: Absorption
26.9	32.4	25.5	23.6	20.7	12.8	: Noise Level
34.7	**CNEL**	WINDOWS OPEN				

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
51.0	56.5	59.0	63.0	63.0	57.0	: Exterior Wall Noise Exposure
22.8	24.0	34.7	40.6	42.6	44.4	: Transmission Loss
0.0	0.0	9.4	15.3	17.3	19.1	: Noise Reduction
24.1	24.1	24.1	24.1	25.0	25.0	: Absorption
26.9	32.4	25.5	23.6	20.7	12.8	: Noise Level
34.7	**CNEL**	WINDOWS CLOSED				

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: Carmel Valley Hotel
Project # : EHG-01
Room Name: Fifth Floor Guest Room, Northwest Corner

Wall 1 of 2

Room Type : **Soft**

	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Reverberation Time (sec) :	0.8	0.8	0.8	0.8	0.7	0.7	: Highly Absorptive Room
Room Absorption (Sabins) :	205	205	205	205	256	256	

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	**Traffic**	**72.5**	**CNEL**	55.8	61.3	63.8	67.8	67.8	61.8	: Traffic Spectrum
Source 2:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**72.5**	**CNEL**	55.8	61.3	63.8	67.8	67.8	61.8	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
8" CMU Exterior Wall	N	26.66	10.33	1	248.7	34	40	45	45	44	52
STC 31 1/8"-1/2"-1/8" Dual Insulating Window	N	4.3	6.2	1	26.7	17	18	29	36	40	39
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Room Depth: 12.4 ft

Overall Area: **275.3978** ft²
Volume: **3415** ft³

Number of Impacted Walls: 2

Windows Open Interior Noise Level:	**39.4**	**CNEL**
Windows Closed Interior Noise Level:	**39.4**	**CNEL**

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
55.8	61.3	63.8	67.8	67.8	61.8	: Exterior Wall Noise Exposure
26.4	27.9	38.2	42.8	43.4	47.5	: Transmission Loss
2.0	3.5	13.8	18.4	19.0	23.1	: Noise Reduction
23.1	23.1	23.1	23.1	24.1	24.1	: Absorption
30.7	34.7	26.9	26.3	24.7	14.6	: Noise Level

37.3 **CNEL** WINDOWS OPEN

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
55.8	61.3	63.8	67.8	67.8	61.8	: Exterior Wall Noise Exposure
26.4	27.9	38.2	42.8	43.4	47.5	: Transmission Loss
2.0	3.5	13.8	18.4	19.0	23.1	: Noise Reduction
23.1	23.1	23.1	23.1	24.1	24.1	: Absorption
30.7	34.7	26.9	26.3	24.7	14.6	: Noise Level

37.3 **CNEL** WINDOWS CLOSED

EXTERIOR TO INTERIOR NOISE REDUCTION ANALYSIS

Project Name: Carmel Valley Hotel
Project # : EHG-01
Room Name: Fifth Floor Guest Room, Northwest Corner

Wall 2 of 2

		Noise Level		125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
Source 1:	**Traffic**	**70.0**	**CNEL**	53.3	58.8	61.3	65.3	65.3	59.3	: Traffic Spectrum
Source 2:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 3:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Source 4:	**<N/A>**	**0.0**	**CNEL**	0.0	0.0	0.0	0.0	0.0	0.0	
Overall:		**70.0**	**CNEL**	53.3	58.8	61.3	65.3	65.3	59.3	: Effective Noise Spectrum

Assembly Type	Open	Width	Height	Qty	Total Area	125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz
8" CMU Exterior Wall	N	12.4	10.33	1	93.5	34	40	45	45	44	52
STC 31 1/8"-1/2"-1/8" Dual Insulating Window	N	5.58	6.2	1	34.6	17	18	29	36	40	39
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0
<N/A>	N	0	0	0	0.0	0	0	0	0	0	0

Overall Area: **128.092** ft²

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
53.3	58.8	61.3	65.3	65.3	59.3	: Exterior Wall Noise Exposure
22.5	23.6	34.4	40.4	42.5	44.1	: Transmission Loss
1.4	2.5	13.3	19.3	21.4	23.1	: Noise Reduction
23.1	23.1	23.1	23.1	24.1	24.1	: Absorption
28.8	33.2	24.9	22.9	19.8	12.2	: Noise Level

35.4 **CNEL** WINDOWS OPEN

125 Hz	250 Hz	500 Hz	1KHz	2KHz	4KHz	
53.3	58.8	61.3	65.3	65.3	59.3	: Exterior Wall Noise Exposure
22.5	23.6	34.4	40.4	42.5	44.1	: Transmission Loss
1.4	2.5	13.3	19.3	21.4	23.1	: Noise Reduction
23.1	23.1	23.1	23.1	24.1	24.1	: Absorption
28.8	33.2	24.9	22.9	19.8	12.2	: Noise Level

35.4 **CNEL** WINDOWS CLOSED

HELIX
Environmental Planning

Carmel Valley Hotel Project

Waste Management Plan

September 7, 2016

Prepared for:
Excel Hotel Group
10660 Scripps Ranch Boulevard, Suite 100
San Diego, CA 92131

Prepared by:
HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

CARMEL VALLEY HOTEL PROJECT

WASTE MANAGEMENT PLAN

Prepared For:
Excel Hotel Group
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September 7, 2016

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AMSL	above mean sea level
APNs	assessor parcel number
C&D	Construction and Demolition
CalRecycle	California Department of Resources Recycling and Recovery
CEQA	California Environmental Quality Act
CF	cubic foot/feet
City	City of San Diego
CIWMA	California Integrated Waste Management Act of 1989
CVPD-VC	Carmel Valley Planned District: Visitor Commercial
CY	cubic yard(s)
DSD	City of San Diego Development Services Department
ESD	City of San Diego Environmental Services Department
FEMA	Federal Emergency Management Agency
ft.	foot/feet
I-5	Interstate 5
IWMP	Integrated Waste Management Plan
lbs	pounds
LEED	Leadership in Energy and Environmental Design
Project	Carmel Valley Hotel Project
SDP	Site Development Permit
SF	square foot/feet
SRRE	Source Reduction and Recycling Element
State	State of California
SWMC	Solid Waste Management Coordinator
WDM	Waste Diversion Measures
WMP	Waste Management Plan

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1.0 PURPOSE

The purpose of this Waste Management Plan (WMP) is to identify the quantity of solid waste that would be generated by the Carmel Valley Hotel Project (Project) throughout demolition, construction, and operation, and to identify measures to reduce the potential impacts associated with management of such waste.

Proper separation and diversion of recyclable waste materials is required in order to divert each material type to a recycling/reuse facility with the highest possible diversion rate. As discussed further below, in order to comply with City of San Diego's (City's) waste reduction ordinances and the waste diversion goals established in State Assembly Bill (AB) 341, the Project must achieve a 75 percent diversion rate during demolition and construction. The City's California Environmental Quality Act (CEQA) Significance Thresholds for solid waste identify a threshold of 1,500 tons of waste or more during construction and demolition (C&D) for direct solid waste impacts, and 60 tons of waste or more during C&D for potentially significant cumulative solid waste impacts. The City Environmental Services Department's (ESD) *2016 Certified Construction & Demolition Recycling Facility Directory* (Appendix A; City 2016a) provides guidance on identifying recycling/reuse facility locations, accepted materials, recycling/reuse rates, and associated disposal fees and/or the value of the materials accepted for recycling/reuse.

This WMP has been prepared consistent with applicable federal, State and local laws, regulations, and standards pertinent to the Project. Its goal is to implement an approach for managing waste that conserves landfill space, preserves environmental quality, conserves natural resources, and reduces disposal costs. Responsibility for ensuring ongoing WMP compliance would be under the direction of the Project Solid Waste Management Coordinator, as assigned by the Excel Hotel Group (Applicant).

1.1 REGULATORY FRAMEWORK

1.1.1 State of California

The State of California (State) Integrated Waste Management Act (CIWMA) of 1989 (AB 939), which is administered by the California Department of Resources Recycling and Recovery (CalRecycle), requires counties to develop an Integrated Waste Management Plan (IWMP) that describes local waste diversion and disposal conditions, and lays out realistic programs to achieve the waste diversion goals. IWMPs compile Source Reduction and Recycling Elements (SRREs) that are required to be prepared by each local government, including cities. SRREs analyze the local waste stream to determine where to focus diversion efforts, and provide a framework to meet waste reduction mandates. The goal of the solid waste management efforts is not to increase recycling, but to decrease the amount of waste entering landfills. AB 939 required all cities and counties to divert a minimum 50 percent of all solid waste from landfill disposal.

In 2011, the State legislature enacted AB 341 (California Public Resource Code Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 also requires the provision of recycling service to commercial and residential facilities that generate four cubic yards or more of solid waste per week.

In October 2014, Governor Brown signed AB 1826 Chesbro (Chapter 727, Statutes of 2014), requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. For businesses that generate 8 or more CY of organic waste per week, this requirement begins April 1, 2016, while those that generate 4 CY of organic waste per week must have an organic waste recycling program in place beginning January 1, 2017. This law also requires that on and after January 1, 2016, local jurisdictions across the State implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings that consist of five or more units. This law phases in the mandatory recycling of commercial organics over time, while also offering an exemption process for rural counties.

1.1.2 City of San Diego

The City has enacted codes and policies directed at the achievement of State-required diversion levels, including the Refuse and Recyclable Materials Storage Regulations (Municipal Code Chapter 14, Article 2 Division 8), Recycling Ordinance (City 2007; Municipal Code Chapter 6, Article 6, Division 7), and the Construction and Demolition (C&D) Debris Deposit Ordinance (City 2008; Municipal Code Chapter 6, Article 6, Division 6). The City's Zero Waste Plan, a component of the City's Climate Action Plan, was approved and adopted by City Council on July 13, 2015. The Zero Waste Plan identifies goals and strategies to achieve 75 percent diversion by 2020, 90 percent diversion by 2035, and "zero" waste by 2040 (City 2015).

As stated in the City Development Services Department (DSD) CEQA Significance Determination Thresholds (City 2011), implementation of these regulations and ordinances alone is not projected to achieve a 50 percent diversion rate, far below the current 75 percent diversion level targeted by the State and identified in the Zero Waste Plan for 2020. The City's ESD estimates that compliance with existing City ordinances and regulations alone achieves only an approximate 40 percent diversion rate (City 2013). Therefore, discretionary projects must undertake additional measures to comply with existing regulations.

City of San Diego CEQA Significance Determination Thresholds

The City's CEQA Significance Determination Thresholds establish solid waste generation thresholds for discretionary projects. Proposed projects that involve construction, demolition, and/or renovation that meet or exceed the thresholds described below are considered to have potentially significant solid waste impacts and require the preparation of a WMP.

Direct Impacts

Projects that include the construction, demolition, or renovation of 1,000,000 square feet (SF) or more of building space may generate approximately 1,500 tons of waste or more during construction and demolition, and are considered to have direct impacts on solid waste services.

- Direct impacts result from the generation of large amounts of waste, which brings facilities closer to daily throughput limits, shortens facility lifespans, requires increased

numbers of trucks and other equipment, and makes it difficult for the City to achieve required waste reduction levels. Waste management planning is based on a steady rate of waste generation and does not assume increased waste generation due to growth.

- While all projects are required to comply with the City's waste management ordinances, direct and cumulative impacts are mitigated by the implementation of project-specific WMPs, which may reduce solid waste impacts to below a level of significance.

- For projects over 1,000,000 square feet, a significant direct and cumulative solid waste impact would result if the compliance with the City's ordinances and the WMP fail to reduce the impacts of such projects to below a level of significance and/or if a WMP for the project is not prepared and conceptually approved by the ESD prior to distribution of the draft environmental document for public review.

Cumulative Impacts

Projects that include the construction, demolition, and/or renovation of 40,000 SF or more of building space may generate approximately 60 tons of waste or more, and are considered to have cumulative impacts on solid waste services.

While all projects are required to comply with the City's waste management ordinances, cumulative impacts are mitigated by the implementation of a project-specific WMP that reduces solid waste impacts to below a level of significance.

LEED Projects Exceeding the Significance Thresholds

Projects that intend certification as U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Silver or better would include LEED measures as part of their WMP. This would demonstrate implementation of sustainability measures intended to assure a minimal project "environmental footprint," including mitigating the types of impacts caused by waste generation.

The Project does not propose LEED certification, although it would incorporate sustainable and waste reduction elements consistent with LEED principles (as discussed further in Section 7.2 of this report). Although the Project would not include construction, demolition, or renovation of 1,000,000 SF or more, it would generate more than 1,500 tons of solid waste materials during demolition and construction. Therefore, without solid waste diversion measures, the Project would exceed the City's threshold for direct solid waste impacts. Further, the Project proposes construction of more than 40,000 SF, thereby also exceeding the City's threshold for cumulative solid waste impacts without implementation of solid waste diversion measures. Because implementation of the Project without waste diversion measures would exceed direct and cumulative solid waste thresholds, preparation of this WMP is required to ensure that the Project contribution to the overall waste produced within the City will be reduced sufficiently to allow the City to comply with the waste reduction targets established in the Public Resources Code.

City of San Diego Refuse and Recyclable Materials Storage Ordinance

San Diego Municipal Code (SDMC) Section 142.0801 et seq. contains the language of the City Refuse and Recyclable Materials Storage Ordinance (Storage Ordinance), an ordinance that is required by State law. Table 1 (*Required Minimum Storage Areas for Non-residential Development*, Municipal Code Table 142-08C) provides information on minimum exterior refuse and recyclable material storage areas for non-residential development.

Table 1
REQUIRED MINIMUM STORAGE AREAS FOR NON-RESIDENTIAL DEVELOPMENT

Gross Floor Area (SF)*	Minimum Refuse Storage Area (SF)	Minimum Recyclable Material Storage Area (SF)	Total Minimum Storage Area (SF)
0-5,000	12	12	24
5,001-10,000	24	24	48
10,001-25,000	48	48	96
25,001-50,000	96	96	192
50,001-75,000	144	144	288
75,001-100,000	192	192	384
100,001+	192+48 SF for every 25,000 SF of building area above 100,001	192+48 SF for every 25,000 SF of building area above 100,001	384+96 SF for every 25,000 SF of building area above 100,001

*SF = square feet

City of San Diego Recycling Ordinance

The City's Recycling Ordinance, found in SDMC section 66.0701 et seq., was adopted in November 2007 (City 2007). The Recycling Ordinance requires the provision of recycling service for all commercial facilities, all single-family residences, and multi-family residences with more than 49 units. The Ordinance also provides an exemption for land uses that generate less than six cubic yards of waste per week. However, as noted above, AB 341, which was chaptered after the City enacted this ordinance, has imposed a requirement that "captures" any uses being served with four cubic yards or more of refuse capacity. This State requirement makes the provision of recycling service a virtually universal requirement. In addition, the Recycling Ordinance also requires development of educational materials to ensure occupants are informed about the City's ordinance and recycling services, including information on types of recyclable materials accepted.

City of San Diego Construction and Demolition (C&D) Debris Deposit Ordinance

On July 1, 2008, the City's C&D Debris Deposit Ordinance became effective (City 2008). An amendment to the ordinance and revisions to the associated C&D deposit schedule were approved by the City Council on December 10, 2013 (effective January 1, 2014) and on April 19, 2016 (effective June 22, 2016). The C&D Debris Deposit Ordinance is designed to keep C&D materials out of local landfills and ensure that materials are diverted from disposal. The ordinance creates an economic incentive to recycle C&D debris through the collection of fully refundable deposits that are returned, in whole or in part, upon proof of the amount of C&D

debris the project applicant diverted from landfill disposal. The ordinance requires that the majority of construction, demolition and remodeling projects requiring building, combination, and demolition permits pay a refundable C&D Debris Recycling Deposit and divert at least 65 percent of their debris by recycling, reusing, or donating usable materials. The deposit is held until the applicant provides receipts demonstrating that a minimum 65 percent of the material generated has been diverted from disposal in landfills.

The C&D Ordinance stipulates that projects will be required to divert 75 percent of their wastes when mixed debris facilities with a permitted daily tonnage capacity of at least 1,000 tons maintain a 75 percent diversion rate for three consecutive calendar year quarters. Greater than 75 percent diversion also may be required for a project if a higher goal is specified during discretionary permitting. Mixed debris recyclers in San Diego County currently achieve between 65 and 85 percent diversion rates at their facilities (refer to Appendix A). This is because not everything that comes through the door is usable or marketable. While there are two facilities that achieve a diversion rate greater than 75 percent, others have diversion rates of 65 percent. For a project that would dispose of mixed debris at one of the facilities that achieve a 65 percent diversion rate, virtually all clean C&D waste from a project must be source separated and sent to a material-specific recycling facility, such as aggregate and metal recyclers, in order to achieve an overall diversion rate of 75 percent. Higher diversion rates can also be accomplished by salvage and/or on-site reuse of C&D materials. The City's C&D thresholds and deposit amounts are shown below in Table 2, *City C&D Deposit Schedule*.

Table 2
CITY C&D DEPOSIT SCHEDULE

Building Category	Deposit per SF[1]	Minimum SF Subject to Ordinance	Maximum SF Subject to Ordinance	Range of Deposits
Residential New Construction, Non-residential Alterations, Demolition	$0.40	1,000	100,000	$400-$40,000
Non-residential New Construction	$0.20	1,000	50,000	$200-$10,000
Flat Rate				
Residential Alterations	$1,000	1,000	6,999	$1,000

Source: City 2016b

[1] Deposit amounts are applied to the entire area(s) where work will be performed, and are calculated based on square footage.

2.0 PROJECT DESCRIPTION

The Project site is located at 3510 Valley Centre Drive in the Carmel Valley area of the City of San Diego in western San Diego County (see Figure 1, *Regional Location Map,* and Figure 2, *Project Vicinity Map [Aerial Photograph]*). The Project site consists of one 1.46-acre parcel and is assigned assessor parcel number (APN) 307-240-02-00. The property is zoned as Carmel Valley Planned District: Visitor Commercial (CVPD-VC) within Neighborhood 2 of the Carmel Valley Community Plan Area Precise Plan. The Visitor Commercial designation is intended to provide motel, restaurant, and related services for the adjacent industrial/office park in the Carmel Valley Employment Center as well as for nearby industrial uses in Sorrento Valley. The

Project is also located within the Coastal Overlay Zone and the Parking Impact Overlay Zone (Coastal Impact Area).

The Project site consists of one parcel that is relatively flat in topography, with elevations ranging from approximately 58.6 feet AMSL in the northeast corner of the site near the Valley Centre Drive cul-de-sac, to approximately 53.4 feet AMSL in the southwest corner of the site. The site is currently developed with a one-story, approximately 8,669-SF restaurant that is surrounded by paved parking areas and associated driveways, sidewalks, and landscaping. The surrounding area is developed primarily with a mix of commercial and office uses, hotels, and open space. The site is located immediately south of an existing Marriott hotel and parking structure; north of Carmel Valley Road, Ted Williams Parkway, and an existing gas station; east of Interstate 5 (I-5); and west of a vacant site proposed for mixed-use development.

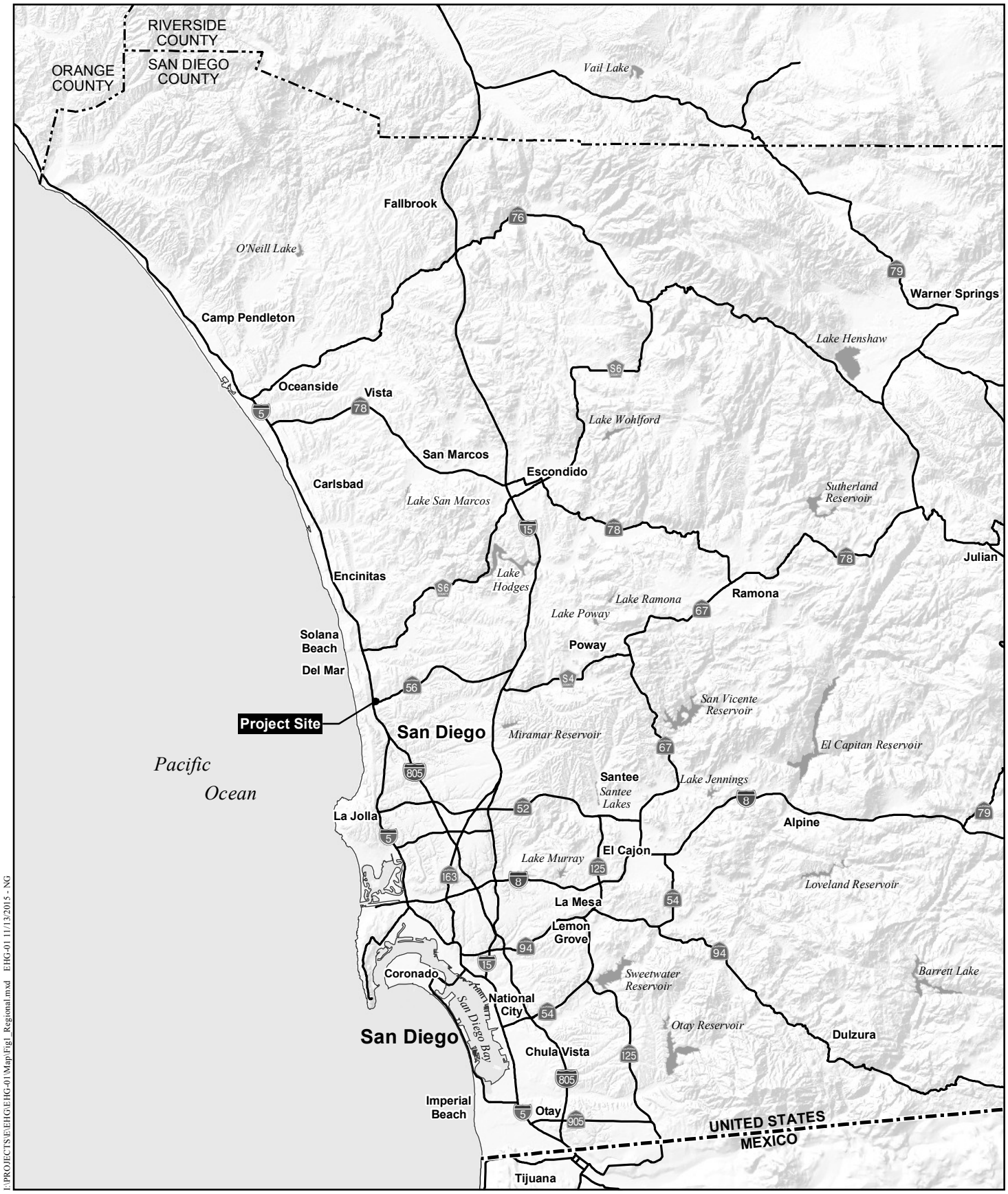
The Project proposes a Site Development Permit (SDP) and Coastal Development Permit to construct a five-story, 127-guestroom hotel with a pool and spa, meeting space, outdoor amenity area, surface parking, and one level of subterranean parking (see Appendix B, *Architectural Site Plans*). The total gross building area including the subterranean parking would be 103,975 SF. This includes approximately 1,400 SF of meeting space, 2,500 SF of food and beverage services (e.g., dining space, kitchen, etc.), and a 2,500-SF lobby. A total of 108 parking spaces are proposed (49 within surface parking and 59 within the subterranean parking lot), including 5 accessible spaces and 11 carpool/zero emission spaces. Additionally, 3 parking spaces would be provided for motorcycles and 8 would be provided for short-term bicycle parking. Public utilities, including sewer, water, and fire mains, would connect with existing lines within Valley Centre Drive to serve the proposed Project.

To prepare the site for construction, the Project would demolish the existing 8,669-SF restaurant building, parking lot, curbs, and sidewalks; remove existing vegetation; and conduct site grading. Grading for the subterranean parking garage would require export of approximately 6,500 cubic yards (CY; 8,450 tons) of soil material. Approximately four truckloads of vegetation from existing landscaping are anticipated to be removed.

The Project is anticipated to be constructed over a 14-month period starting in 2016. Demolition, clearing and grading are anticipated to take approximately one month; installation of underground infrastructure and utilities would take approximately two months; and building construction would take approximately 12 months.

3.0 PRE-CONSTRUCTION WASTE GENERATION AND DIVERSION: DEMOLITION, CLEARING/GRUBBING, AND GRADING

All C&D-generated waste would be subject to compliance with the source separation and diversion requirements contained in this WMP to divert, recycle, and/or re-use these materials to the maximum degree possible. As identified in the City's *2016 Certified Construction & Demolition Recycling Facility Directory* (Appendix A), "Mixed C&D Debris" recyclers attain at most an 85 percent diversion rate, whereas "source separated" material recyclers can attain nearly 100 percent diversion rates (City 2016a). As a result, in order to achieve the highest level of waste diversion from landfills, and highest dollar value for the quality of materials, the Project would source separate (segregate) clean recyclable materials on the site by material type, to the



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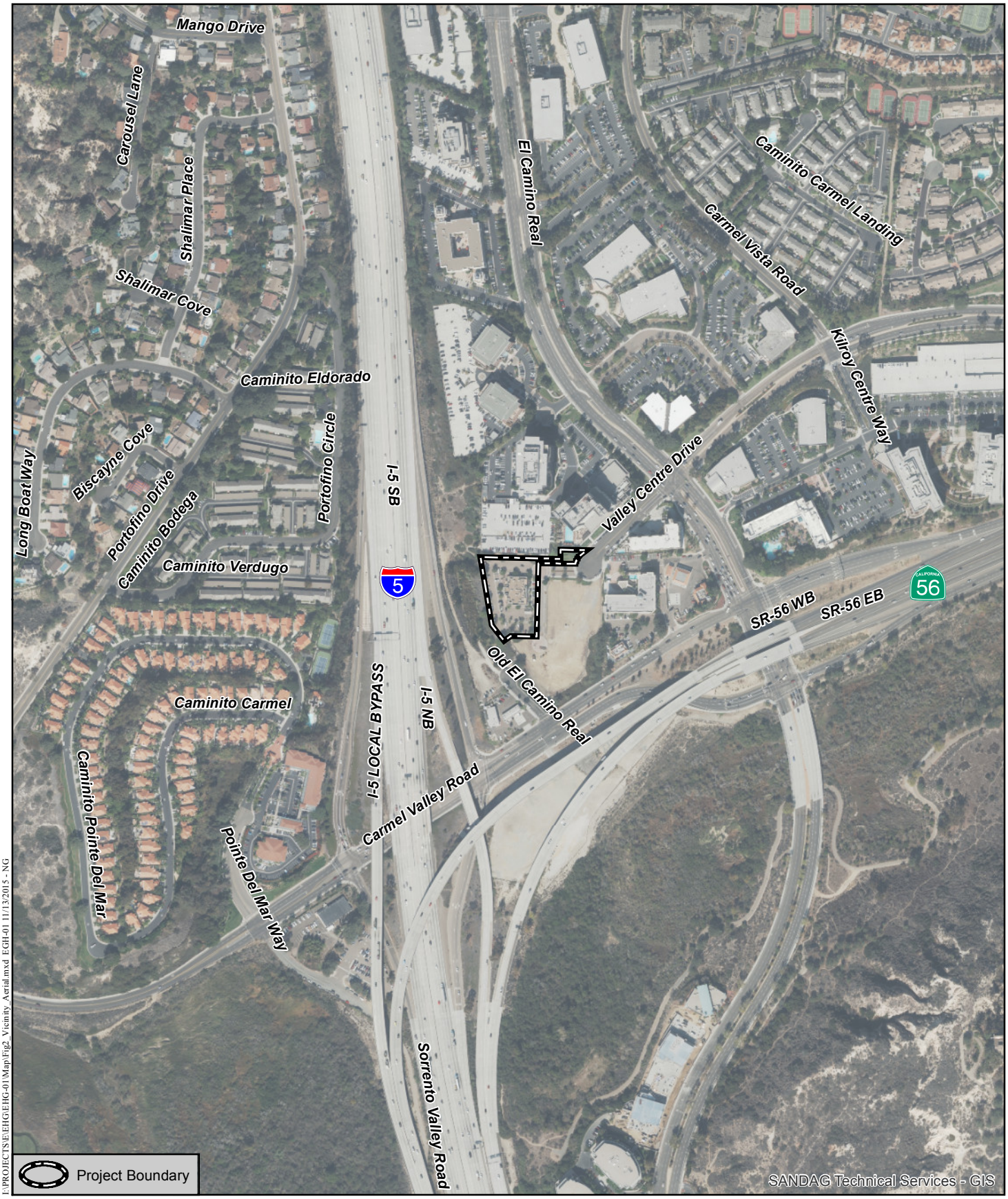
Regional Location Map

CARMEL VALLEY HOTEL PROJECT

HELIX Environmental Planning

Figure 1



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Project Vicinity Map (Aerial Photograph)

CARMEL VALLEY HOTEL PROJECT

HELIX Environmental Planning

N 0 500 Feet

Figure 2

maximum extent practicable, and divert them for recycling or reuse at City-certified facilities specializing in each material type. It should be noted that, although the facility directory indicates that drywall, carpet, and carpet padding would achieve a 100 percent diversion rate, according to the City applicable facilities to handle these types of construction debris may not be available and these materials should be assumed to be sent to a mixed debris facility with a 65 percent diversion rate (City 2016c).

3.1 DEMOLITION

Prior to initiation of the Project's construction activities, site preparation would require the clearing/grubbing of existing vegetation as well as the demolition of the existing restaurant building; paved parking lot area; and sidewalk, curbs, and gutters.

3.1.1 Building Demolition

The existing one-story, rectangular-shaped restaurant building consists of a wood-framed, concrete slab-on-grade foundation, stucco and concrete block exterior with interior finishes including typical drywall ceilings and walls, and floor coverings consisting of carpeting, floor tile, linoleum, and concrete. The roof is primarily comprised of wood frame construction with composition asphalt sheeting and roofing tars; terra cotta roof tiles are used over covered outdoor areas along the western and eastern sides of the building.

Salvage

No salvage of materials in the existing building is proposed.

Recycling

The overall estimated quantity of debris from the commercial building is based on the "General Building Formula" contained in the Federal Emergency Management Agency's (FEMA) *Debris Estimating Field Guide* (2010). The formula multiplies building length, width, and height (in feet) by a constant of 0.33 to account for air space in the building, and divides the resulting number by 27 to convert cubic feet to cubic yards (FEMA 2010):

$$\frac{\text{Length x Width x Height x } 0.33}{27} = \text{CY}$$

The existing 8,669-SF restaurant building includes one floor, the majority of which has an approximate height of 16 ft. Using these dimensions, structural debris from the Project is estimated as follows:

$$\frac{(8{,}669 \text{ SF x } 16 \text{ ft. x } 0.33)}{27} = \mathbf{1{,}695\ CY}$$

As specific materials likely to be contained in the existing building are not known, estimates were pulled from the *Military Base Closure Handbook – A Guide to Construction and Demolition Materials Recovery* (CalRecycle 2002). According to this handbook, demolition of typical commercial concrete structures results in a C&D waste stream (by volume) as follows:

- 51 percent concrete
- 22 percent brick
- 18 percent wood
- 3 percent metal
- 5 percent paperboard/cardboard

In addition to the percentages listed above, it is assumed that there are other recyclable "mixed debris" materials present in unknown quantities, which are estimated to comprise 20 percent of the total demolition debris. These materials would be too damaged or mixed to be source separated into clean materials, and would be disposed of accordingly. An additional eight percent non-recyclable "waste" also was factored into the total waste stream anticipated for demolition of the structure. Factoring in the 28 percent mixed debris and trash that would be generated during demolition, the concrete, brick, wood, metal, and paperboard breakdown provided in the *Military Base Closure Handbook* would account for the remaining 72 percent of total waste. The complete breakdown of waste types and volumes of demolition waste anticipated to be generated are shown in Table 3, *Commercial Structure Demolition Waste Content*.

Table 3
COMMERCIAL STRUCTURE DEMOLITION WASTE CONTENT

Material	Percent Waste by Material (%)[1]	Volume Waste by Material (CY)[2]
Concrete	37	627
Brick	16	271
Wood – Clean[3]	6.5	110
Wood – Treated[3]	6.5	110
Metal	2	34
Paperboard/cardboard	4	68
Mixed debris	20	339
Trash	8	136
TOTAL	**100**	**1,695**

Sources: FEMA 2010; CalRecycle 2002

[1] Estimated percentages for concrete, brick, wood, metal, and paperboard provided by the *Military Base Closure Handbook – A Guide to Construction and Demolition Materials Recovery* (CalRecycle 2002) were broken down from the 72 percent of demolition materials remaining after subtracting 20 percent mixed debris and 8 percent trash. For example, the percent waste by material for concrete was generated by multiplying 72 by 0.51 (or 51 percent composition) to yield 37 percent of the total waste generated during demolition.

[2] Table information subject to field verification during demolition.

[3] For estimation purposes, wood waste materials are split 50 percent clean, and 50 percent treated to conservatively account for inability to recycle treated wood.

CY = cubic yards

It is assumed that treated wood, in addition to approximately eight percent of demolition waste, would not be recyclable. These materials would be disposed of at the Miramar Landfill at a zero percent diversion rate. The additional 20 percent of "mixed debris" demolition materials would be disposed of at a City-approved mixed debris materials recycling facility at a minimum 60 percent diversion rate (refer also to Appendix A).

3.1.2 Parking Lot/Sidewalk/Curb and Gutter Demolition

The demolition area is anticipated to include the entire Project site, including the curbs and sidewalks surrounding the building and planter boxes within the parking areas. The existing curbs, sidewalks, landscaping, and paving along the northeastern edge of the property would remain and would be maintained by the property to the north. Demolition estimates for the existing on-site pavement and concrete was estimated to total approximately 1,500 cubic yards, or 3,000 tons (pers. comm. Omega Engineering Consultants, Inc. 2015).

Salvage

Although demolished asphalt and concrete material have salvage potential, no salvage plans have been prepared. No salvage is proposed.

Recycling

Quantities of parking, sidewalk, and sidewalk/curb demolition materials are estimated to total approximately 3,000 tons.

3.2 CLEARING AND GRUBBING

The Project is anticipated to require net export of approximately 12 tons of removed vegetation (clearing and grubbing) during the clearing and grubbing process. It is estimated that approximately four truckloads of vegetation, totaling 20 CY each, would be removed from the Project site from existing planter boxes and landscaping associated with the existing restaurant and surface parking. The total estimated tonnage is based the City's *C&D Debris Conversion Rate Table*, which identifies a weight of 0.15 tons/CY of vegetation (City 2016d; Appendix C).

Salvage

Most of the existing ornamental landscaping adjacent to the existing restaurant building would be removed; however, existing trees located on the northern and western sides of property would be saved, where possible.

Recycling

Vegetation would be processed and recycled at a target rate of 100 percent diversion at Miramar Greenery, a City-certified green waste recycling facility. The City's *2016 Certified Construction & Demolition Recycling Facility Directory* (Appendix A) states the diversion rate for clean source-separated materials shall be 100 percent. Other waste materials associated with the clearing and grubbing are anticipated to include negligible amounts of waste generated by contractors working on the site during the grading process.

3.3 GRADING

According to Project plans, grading is anticipated to require 12,000 CY of cut and 500 CY of fill; the remaining 11,500 CY, or 14,950 tons, would be exported off site. Estimates were based the City's *C&D Debris Conversion Rate Table*, which identifies an excavated soil weight of 1.30 tons/CY (City 2008b; Appendix C). Personal communication with the Project engineer

indicated that export of dirt may be less than indicated on site plans (Omega Engineering Consultants, Inc. 2015); however, the conservative estimate is provided in this analysis.

Excavated soil is anticipated to be diverted at a rate of 100 percent to one of the facilities from the City's *2016 Certified Construction & Demolition Recycling Facility Directory* (Appendix A). Certified facilities include the following:

- Hanson Aggregates West, Miramar, 9229 Harris Plant Road, San Diego, CA 92126
- Vulcan Carol Canyon Landfill and Recycle Site, 10051 Black Mountain Road, San Diego, CA 92126
- Enniss Incorporated, 12421 Vigilante Road, Lakeside, CA 92040
- Moody's, 3210 Oceanside Boulevard, Oceanside, CA 92056
- Robertson's Ready Mix, 2094 Willow Glen Drive, El Cajon, CA 92019

Other waste materials associated with grading are anticipated to include negligible amounts of waste generated by contractors working on site during the grading process.

3.4 SUMMARY OF PRE-CONSTRUCTION DEMOLITION, CLEARING, AND GRUBBING, AND GRADING WASTE GENERATION AND DIVERSION

As discussed above, the waste materials to be generated during demolition, clearing and grubbing, and excavation for Project implementation would be source separated for recycling or reuse at City-certified facilities specializing in each material type, as applicable. A summary of anticipated waste generation volumes and diversion rates for pre-construction activities is provided in Table 4, *Pre-Construction Demolition, Clearing/Grubbing, and Grading Solid Waste Generation, Diversion Rates, and Facilities.*

3.4.1 Salvage

Demolition of the restaurant building, surface parking lot, and curb/gutter/sidewalk would generate salvageable materials. However, as no specific inventory of reusable items has been conducted at this preliminary stage and no salvage plan has been prepared, no salvage is proposed.

3.4.2 Recycling

Materials generated during pre-construction demolition, clearing and grubbing, and grading that are designated for recycling would be source separated on site during these activities. The City's *2016 Certified Construction & Demolition Recycling Facility Directory*, updated quarterly, states the diversion rate for these materials shall be 100 percent, except mixed C&D debris which achieves a maximum 85 percent diversion rate at the EDCO CDI Recycling and Buy Back Center (City 2016a). As shown in the table, an overall 99 percent diversion rate is targeted for demolition and grading materials.

Table 4
PRE-CONSTRUCTION DEMOLITION, CLEARING/GRUBBING, AND GRADING
SOLID WASTE GENERATION, DIVERSION RATES, AND FACILITIES

Source of Material	Material	Volume (CY)	Tons/Unit Conversion Factor	Tons	Diversion Rate (Percent)	Facility/ Destination of Materials	Tons Diverted	Tons Disposed
Building Demolition	Concrete	627	1.2	752.4	100	A	752.4	0
	Brick	271	0.7	189.7	100	A	189.7	0
	Clean Wood	110	0.15	16.5	100	B	16.5	0
	Treated Wood	110	0.15	16.5	0	C	0	16.5
	Metal	34	0.51	17.3	100	A	17.3	0
	Paperboard/cardboard	68	0.05	3.4	100	A	3.4	0
	Mixed Debris	339	1.19	403.4	65	A	262.2	141.2
	Trash	136	0.18	24.5	0	C	0	24.5
Parking/ Sidewalks/ Gutter Demolition	Asphalt/Concrete	--	--	3,000	100	A	3,000	0
Grading/ Clearing/ Grubbing	Landscape Debris	80	0.15	12.0	100	B	12.0	0
Grading	Wet Earth	11,500	1.3	14,950	100	A	14,950	0
			TOTAL	**19,385.7**	**99**	--	**19,203.6**	**182.2**

Facility/Destination Key:
A. Appropriate facility on City's *2016 Certified Construction & Demolition Recycling Facility Directory*
B. Miramar Greenery, 5180 Convoy Street, San Diego, CA 92111
C. Miramar Landfill, 5180 Convoy Street, San Diego, CA 92111
Sources: City's *2016 Certified Construction & Demolition Recycling Facility Directory* (City 2016a; Appendix A), City's *C&D Debris Conversion Rate Table* (City 2016d; Appendix C)
Notes:

- Table information subject to field verification during pre-construction.
- The Applicant would contract with source separating recycling facilities listed in the City's *2016 Certified Construction & Demolition Recycling Facility Directory* (City 2016a) with an equal or greater diversion rate to ensure diversion rates meet those estimated in this table.
- Demolition estimate for asphalt concrete and Portland cement provided by Omega Engineering Consultants, Inc. 2015.
- Total diversion rate based on the percentage of total tons of waste diverted over the total tons of waste generated.

CF = cubic feet; CY = cubic yards

4.0 CONSTRUCTION WASTE GENERATION AND DIVERSION

As previously described, the Project proposes construction of five-story, 127-guestroom hotel with a pool and spa, meeting space, outdoor amenity area, surface parking, and one level of subterranean parking. The total gross building area including the subterranean parking would be 103,975 SF. This includes approximately 1,400 SF of meeting space, 2,500 SF of food and beverage services (e.g., dining space, kitchen, etc.), and a 2,500-SF lobby. A total of 108 parking spaces are proposed (49 within surface parking and 59 within the subterranean parking lot), including 5 accessible spaces and 11 carpool/zero emission spaces, plus 3 motorcycle parking spaces and 8 short-term bicycle parking spaces.

In order to estimate the quantity of waste generated during construction, City ESD staff recommends assuming each material type (carpet, ceiling tiles, etc.) would approximately equal the square footage of each structure. This square footage can then be multiplied by the weight of the material, and divided by ten (percent) to account for waste generated during the construction process. A ten percent construction waste generation rate is a very conservative figure, used here for analysis of the "worst-case" scenario based on the following reasoning:

- The costs of purchasing construction materials in excess of the quantity required is prohibitive.

- Many materials, such as metal studs, come prefabricated in specific sizes, such that the contractor can accurately predict and purchase the specific quantity that would be required.

- Contractors can return unused and unneeded items (such as metal studs, appliances, fixtures, etc.) and/or utilize materials (such as brick or drywall) on other projects.

- Not all materials would be utilized throughout project square footage, so generation rates based on the total square footage are bound to be overestimated.

No specific construction materials or quantities are available at this preliminary planning level. The Project proposes Type I construction for the first level of the building and subterranean parking, and Type V-B construction for levels two through five of the building. These construction types typically consist of concrete-frame structures that include steel and concrete components. Floor coverings are anticipated to consist of carpeting and ceramic tiling. Based on the proposed structures, the following building materials which may generate waste are likely to be used during construction:

- Metals
- Concrete
- Asphalt
- Wood
- Drywall
- Carpet
- Carpet padding

- Ceramic tile
- Ceiling tile

Other waste generated would consist of packaging materials from construction material, appliances, windows, etc., including the following:

- Corrugated cardboard (packaging)
- Industrial plastics (plastic wrap, fasteners, etc.)
- Styrofoam (appliance packaging, not peanuts)

4.1 CONSTRUCTION WASTE GENERATION AND DIVERSION

The City uses a rule of thumb of three pounds (lbs)/SF of waste materials generated during construction (three lbs = 0.0015 tons). Material quantities are based on City guidance as follows:

- Total Project SF x each material type = Total quantity of construction materials required

- Total construction material required x 10 percent = Anticipated quantity of construction waste generated

Anticipated Project construction waste generation is shown in Table 5, *Construction Solid Waste Generation, Diversion Rates, and Facilities.*

Table 5
CONSTRUCTION SOLID WASTE GENERATION, DIVERSION RATES, AND FACILITIES

Source of Material	Material	Diversion Rate (Percent)[1]	Tons Diverted[2]	Tons Disposed
Hotel Building (78,375 SF)	Metals	100	11.8	0
	Concrete/Asphalt	100	11.8	0
	Wood	100	11.8	0
	Drywall	65	7.7	4.1
	Carpet	65	7.7	4.1
	Carpet padding	65	7.7	4.1
	Mixed Debris	65	7.7	4.1
	Trash	0	0	11.8
	TOTAL	**70**	**66.1**	**28.3**

Source: City 2012

[1] Trash would be taken to the Miramar Landfill (5180 Convoy Street, San Diego, CA 92111) at a zero percent diversion rate. All other construction debris would be taken to an appropriate facility listed on the City's *2016 Certified Construction & Demolition Recycling Facility Directory*. Facilities that process metals, concrete/asphalt, and wood achieve a 100 percent diversion rate for these materials. Although the facility directory indicates that drywall, carpet, and carpet padding would achieve a 100 percent diversion rate, according to the City applicable facilities to handle these types of construction debris may not be available and these materials should be assumed to be sent to a mixed debris facility with a 65 percent diversion rate (City 2016c). Facilities that process mixed debris achieve a minimum 65 percent diversion rate, which was conservatively assumed for this project (City 2016a; Appendix A).

[2] For each material type, construction waste quantities are calculated based on:
- Three lbs of waste per total Project SF (78,375 SF x 3 lbs/SF = 235,125 lbs, or 117.6 tons [1 lb = 0.0005 tons])
- Total construction material required x 10 percent = anticipated quantity of construction waste generated (11.8 tons)

lbs = pounds; SF = square feet

4.2 PROPOSED POST-CONSUMER CONTENT CONSTRUCTION MATERIALS

In order to further minimize waste, the Project would utilize recycled content construction materials, where possible. Given the preliminary nature of the Project plans, an overall target of five percent is anticipated, with verification of purchase of materials equating to this target to be provided prior to or during the pre-construction meeting. See Section 6.1, Measure (f) of this WMP.

5.0 OCCUPANCY WASTE GENERATION AND DIVERSION

The Project would be managed under the Applicant or its designee(s). The City's Storage Ordinance (Municipal Code Section 142.0801 et. seq.) requires the provision of separate bins for recyclable waste products to be separated from non-recyclable solid waste. Recycling containers would be provided at convenient locations throughout the hotel in compliance with the Storage Ordinance, meeting or exceeding the minimums shown in Table 1. A recycling and non-recyclable solid waste storage area would be provided within a minimum 384-SF area of the subterranean parking garage, based on the estimated gross floor area of 78,375 SF (not including the subterranean parking garage).

The Applicant or its designee(s) would educate the vendor(s) for on-site custodial duties regarding the appropriate waste diversion program to ensure the proper handling of waste. Each vendor employee would be educated on the principles of proper waste handling and diversion to meet the Applicant's goal to reduce/reuse/recycle. The City's ESD provides a list of waste generation factors for the occupancy phase of development, included as Appendix D of this report. The estimated waste generation and diversion for the proposed Project's hotel use and the food and beverage use is shown in Table 6, *Estimated Annual Solid Waste Generation and Diversion Rates.* The existing restaurant's waste generation and diversion has been included in Table 6 and subtracted from the proposed Project's generation and diversion to determine the Project's net generation and diversion.

It should be noted that the diversion rate for the food and beverage use of the proposed Project would be expected to be greater through organic waste recycling than the 40 percent assumed through compliance with existing City ordinances and regulations. Due to uncertainty in how much the diversion of organic waste would increase the diversion percentage of the entire waste stream, the food and beverage use of the proposed Project is conservatively assessed in Table 6 as diverting 40 percent of waste.

Table 6
ESTIMATED ANNUAL SOLID WASTE GENERATION AND DIVERSION RATES

Land Use	Square Footage	Waste Generation Factor	Tons Generated (per year)	Expected Percent Diverted from Source-Separated Recycling[1,2]	Tons Diverted (per year)	Tons Disposed (per year)
Hotels/Motels	75,875	0.0045	341.4	40	136.6	204.9
Food and Beverage	2,500	0.0122	30.5	40[3]	12.2	18.3
Project Total	78,375	--	371.9	--	148.8	223.2
Existing Restaurant	8,669	0.0122	105.8	40	42.3	63.5
NET TOTAL	**--**	**--**	**266.2**	**--**	**106.5**	**159.7**

Source: City 2012 (Appendix D)

1 Reflects compliance with existing City Storage Ordinance and City Recycling Ordinance.

2 The Applicant would contract with City-approved recycling haulers and disposal facilities.

3 This number would be greater than 40 percent due to additional organic waste diversion from the food and beverage use of the hotel. However, as the additional percentage added from diverting organic waste to the overall waste stream diversion is unknown, it is conservatively assessed as 40 percent in this report.

6.0 WASTE REDUCTION, RECYCLING, AND DIVERSION MEASURES

The Applicant is committed to waste reduction during all aspects of Project grading, construction, and operation, and would incorporate the Waste Diversion Measures (WDM) described below to ensure compliance with applicable solid waste disposal and waste reduction regulations and ordinances. Mandatory compliance with these measures shall be included in all Project contractor agreements, clearly reflected on Project plans, and verifiable by City ESD staff through written submittals and/or site inspections as described below.

6.1 CONSTRUCTION WASTE MANAGEMENT, COORDINATION, AND OVERSIGHT

a. Contractor Agreements and City Coordination

All WDM described herein shall be included as part of contractor agreements and clearly reflected on Project plans identifying activities required to be undertaken during clearing, grading, and construction. These measures shall also be provided in checklist format to City ESD staff prior to the initiation of any activities identified in the WMP. ESD staff shall be allowed access to the Project site, Project plans, and contractor education program meetings and materials (described below) to verify conformance with these measures.

b. Designation of a Solid Waste Management Coordinator

Prior to initiation of any construction, clearing, grading, or grubbing activities on site, the Applicant shall designate a Solid Waste Management Coordinator (SWMC) for the property with

the authority to provide guidelines and procedures for contractor(s) and staff to implement waste reduction and recycling efforts. These responsibilities shall include, but are not limited to, the following:

- Prepare a Contractor Education Program on the waste separation and diversion/disposal procedures specified in this WMP. The Contractor Education Program shall contain, at a minimum, the following information:
  - Written and visual description of each waste type required to be source separated
  - Written and graphic description of how each waste type must be treated prior to and during source separation
  - Direction on which waste types go to mixed-debris facilities
  - Direction on which waste types go to Miramar Landfill
  - Direction on materials requiring special handling, such as hazardous materials
  - Contact designated contractor in case of questions or emergency
  - Contact at City ESD in case of questions or emergency
  - Phone number, address, and telephone contact information for each contracted hauler and disposal/diversion facility to be utilized
- Ensure the correct number and signage of bins, as specified in this WMP.
- Ensure a maximum five percent contamination by different waste types/non-recyclable materials by weight in the bins.
- Ensure no overtopping of bins occurs.
- Work with contractor(s) to refine estimated quantities of each type of material that would be recycled, reused, or disposed of as waste, then assist contractor(s) with documentation of that waste through receipts at each recycling and landfill facility identified in this WMP, or as otherwise agreed to by ESD staff.
- Issue stop work orders if procedures and standards specified in this WMP are not being followed/met.
- Coordinate with ESD and/or Mitigation Monitoring staff, including regular communication and invitations to the work site, and ensure appropriate staff members are involved at every stage.
- Ensure ESD staff attendance at the contractor education meeting and pre-construction meetings of each phase of the development.

c. Contractor Waste Management Training

The Project's SWMC or an ESD-approved contractor designee shall carry out Contractor Education Program presentations ensuring all Project personnel are trained regarding content and requirements of this WMP. Prior to beginning work on any portion of the Project, each member of the team, including all workers, subcontractors, and suppliers, shall be provided with a copy of the WMP, and undergo training on proper waste management procedures applicable to the Project.

- The Project's SMWC, or ESD-approved Contractor-designee shall carry out contractor waste management training presentations for each new group or individual hired, contracted, or assigned to work on the Project.

- The SMWC and/or Contractor-designee shall ensure that each person working on the Project has completed the waste management training by maintaining a written log to be signed and dated by each trainee upon completion of the training program. Copies of this written log, along with a list of all applicable personnel, shall be provided to City ESD staff for verification during each phase of Project activities.

d. Daily Site Inspections by Contractor(s)

The Project contractor(s) shall conduct daily inspections of the construction site to ensure compliance with the requirements of this WMP and with all other applicable laws and ordinances. Daily inspections shall include verifying the availability and number of dumpsters based on amount of debris being generated, verifying trash and recycled materials dumpsters are correctly labeled, ensuring proper sorting and segregation of materials, and ensuring excess materials are properly salvaged. The Project contractor(s) shall report the results of the daily site inspections to the SWMC.

e. Regular Removal of Waste Materials

The Project contractor(s) shall ensure removal of construction waste materials in sufficient frequency to prevent over-topping of bins. The accumulation and burning of on-site grading/land-clearing and construction waste materials shall be prohibited.

f. City Verification

The Applicant shall ensure a representative of the City's ESD attends pre-construction meetings prior to clearing, grading, and construction to ensure that the following items are verified:

- Material segregation, recycling, and reuse is occurring per the WMP;

- Soil is being transported to an appropriate facility for reuse;

- Grubbed materials are sent to a suitable green waste recycling facility;

- Contract documents have appropriate estimates and constraints to avoid "overbuying" construction materials;

- Contract documents specify methods to achieve five percent post-consumer content goal;
- Contamination levels (i.e., different waste types/non-recyclable materials) do not exceed five percent by weight;
- An appropriate diversion rate (as specified in this WMP) has been included on the deposit form;
- Contract documents specify agreements for each recyclable/reusable material type to be taken to an appropriate recycling/reuse facility, as specified in this WMP; and
- Minimum exterior refuse and recyclable material storage areas have been incorporated into Project plans, as a requirement of the City of San Diego Storage Ordinance (Municipal Code Section 142.0801 et. seq.).

6.2 CONSTRUCTION WASTE REDUCTION, DIVERSION COMPLIANCE, AND VERIFICATION

a. Identification, Separation, and Diversion of Recyclable/Reusable Materials

The Applicant shall ensure that:

- Throughout Project activities, waste materials shall be source separated on site into the appropriate bin based on materials type, according to the categories in this WMP. Materials generated during clearing, grading, and construction that would be source separated and recycled are listed below:
    - Mixed C&D (wood, dirt, concrete, drywall, brick, metals, rock, asphalt, tile, cardboard)
    - Metals
    - Concrete
    - Asphalt
    - Wood
    - Drywall
    - Carpet
    - Carpet padding
    - Clean fill dirt
    - Green waste
- A separate bin for each clean waste material type to be generated during each phase of clearing, grading, and construction activity shall be provided on the site, subject to the following requirements:

- Containers shall be clearly labeled, with a list of acceptable and unacceptable materials. The list of acceptable materials must be the same as the materials recycled at the receiving material recovery facility or recycling processor.

- The collection containers for recyclable grading/land-clearing and construction waste shall contain no more than five percent non-recyclable materials, by weight.

- Regular visual inspections of dumpsters and recycling bins shall be conducted to remove contaminants.

- Recycling areas shall be clearly identified with large signs. Lists of acceptable and unacceptable materials shall be posted on recycling bins and throughout the Project site and all recycled material signage shall be visible on at least two sides of haul containers.

- Recycling bins shall be placed in areas that would be readily accessible and would minimize misuse or contamination. The SWMC shall be responsible for these efforts and they shall be reviewed at pre-construction meetings and/or during contractor education meetings, if conducted separately.

- Recyclable and/or reusable waste materials collected in source-separated bins shall be diverted to recycling/reuse facilities as designated in Tables 4 and 5 of this WMP, or to another facility listed on the City's *2016 Certified Construction & Demolition Recycling Facility Directory*, should the designated facilities not be available.

b. Source Reduction Measures

Project contractors and subcontractors, in cooperation with the Project's SWMC and ESD staff, as applicable, shall coordinate to minimize the over-purchasing of construction materials to lower the amount of materials taken to recycling and disposal facilities. The Project shall minimize over-purchasing through purchase of pre-cut materials, whenever possible. The following steps shall be undertaken:

- Detailed material estimates shall be used to reduce risk of unplanned and potentially wasteful material cuts.

- Contractor and subcontractor material purchasing agreements shall include a waste reduction provision requesting that: materials and equipment be delivered in packaging made of recyclable material; vendors reduce the amount of packaging; packaging be taken back by vendors for reuse or recycling; and vendors take back all unused product. Contracts containing this language shall be made available to ESD staff during ESD site visits for inspection.

- Post-consumer content products shall be employed in the design and construction of the new facilities with the goal of achieving five percent post-consumer content materials. Efforts to use post-consumer content may include using products manufactured with post-consumer content materials (i.e., products that were bought, used, and recycled by consumers), such as natural textiles, aggregate, or concrete. Receipts demonstrating post-

consumer content shall be provided to ESD staff at or prior to the pre-construction meetings.

- Prior to submittal, final Project plans shall indicate the anticipated source and quantity of materials to be reused on site, and the source, quantity, and percentage of post-consumer content waste products anticipated to be utilized for Project construction.

- Contractors shall include the anticipated source and quantity of post-consumer content products proposed for reuse or purchase in their project bid.

- Final Project plans inclusive of the information above shall be provided to ESD for verification.

6.3 OPERATIONAL WASTE MANAGEMENT AND DIVERSION MEASURES

The Applicant shall undertake and/or shall specify in contract language and/or sales/lease agreements with any tenant, operator, and/or future owner, a list of recycling requirements with which the Applicant or future tenants, operators, and/or owners shall be obligated to comply, including, but not limited to, the following:

- Recycling areas shall be clearly identified with large signs.

- Lists of acceptable and unacceptable materials shall be posted on recycling bins.

- All recycled material signage shall be visible on at least two sides of recycling containers.

- Recycling bins shall be placed in areas that would be readily accessible and would minimize misuse or contamination.

- Prepare and distribute recycling educational materials for inspection by ESD prior to certificate of occupancy.

- After materials are approved, distribute to all Project site owners/occupants.

- Green waste generated by ongoing landscaping and landscape maintenance activities shall be source separated by the landscaping contractor, and diverted to Miramar Greenery.

Prior to issuance of any certificate of occupancy/tentative certificate of occupancy, the Applicant shall invite a representative of the City ESD to:

- Inspect and approve storage areas that have been provided consistent with the City's Storage Ordinance;

- Ensure that a hauler has been retained to provide recyclable materials collection, and, if applicable, landscape waste collection; and

- Inspect and approve education materials for building tenants/owners that are required pursuant to the City's Recycling Ordinance.

For specialized product purchasing (e.g., with recycled content) to be used during occupancy, the Applicant shall provide for inspection by ESD the documentation that would be used to carry out this requirement.

7.0 CONCLUSION

As discussed under Regulatory Framework, a project may result in a significant direct impact under City CEQA Significance Thresholds if it generates more than 1,500 tons of solid waste materials during construction and demolition. Projects that include the construction, demolition, and/or renovation of 40,000 SF or more of building space or generate approximately 60 tons of waste or more, are considered to have potentially significant cumulative impacts on solid waste services. Further, AB 341 requires the diversion of 75 percent of solid waste, and mandatory provision of recycling collection service during occupancy.

7.1 SUMMARY OF WASTE GENERATION AND DIVERSION

During pre-construction demolition, clearing/grubbing, and grading, the Project would produce 19,385.7 tons of excavated soils, green waste, asphalt/concrete, and other C&D waste, and divert 19,203.6 tons of these materials from the landfill, as identified in Table 4. Approximately 182.2 tons of solid waste material generated during pre-construction is anticipated to be disposed of as non-recyclable/non-reusable waste at Miramar Landfill, for an overall pre-construction diversion rate of 99 percent.

During construction, the Project would produce 94.4 tons of solid waste (metal, concrete, asphalt, wood, drywall, carpet, carpet padding, mixed debris, and trash), and divert 66.1 tons of solid waste materials from the landfill, as identified in Table 5. The diverted material would consist of clean, source-separated (segregated) recyclable and/or reusable material, as well as mixed debris, to be deposited at the recycling/reuse facilities identified in the City's *2016 Certified Construction & Demolition Recycling Facility Directory* (Appendix A; City 2016a). Approximately 28.3 tons of solid waste material generated during construction is anticipated to be disposed of as non-recyclable/non-reusable waste at Miramar Landfill, for an overall diversion rate during construction of approximately 70 percent.

During the overall construction phase, the Project would produce 19,480.1 tons of solid waste, and would divert 19,269.7 tons. This would be an overall diversion rate during construction of 99 percent.

During occupancy, it has been estimated that the Project would generate 371.9 tons of waste per year, and would divert 148.8 tons per year to recycling/reuse facilities, resulting in an estimated 40 percent diversion of waste from the landfill, as identified in Table 5. These materials would consist of clean, recyclable materials, gathered in on-site recycling bins. Approximately 223.2 tons per year, or 60 percent of occupancy material generated, are estimated to be disposed of as non-recyclable/non-reusable waste at Miramar Landfill. As described under Section 5.0, the Project would likely divert greater than 40 percent of waste through diversion of organic waste

from the Project's food and beverage use in compliance with AB 1826. As the increase to the overall waste stream diversion from the diversion of organic waste is unknown, the Project is conservatively assumed to divert 40 percent.

In addition, the Project would be removing an existing restaurant use that is estimated to generate 105.8 tons of waste per year, with 42.3 tons diverted. Therefore, the net total of Project waste generation during operation would be 266.2 tons, with 106.5 tons diverted and 159.7 tons disposed.

7.2 COMPLIANCE WITH CITY AND STATE REGULATIONS

Project compliance with City and State regulations is addressed below.

7.2.1 State of California

Based on the quantified waste generation and diversion rates discussed above, the Project would exceed the 75 percent solid waste diversion rate for waste produced during the overall construction phase. The Project would fail to meet the 75 percent waste reduction target annually once the buildings are occupied. This shortcoming is overcome by the following factors:

- The segregation proposed during construction would achieve an overall 99 diversion rate, exceeding the 75 percent target.

- The Project would incorporate mandatory waste reduction, recycling, and diversion measures as identified in Sections 6.1 and 6.2 of this WMP during pre-construction and construction, to further reduce solid waste impacts.

- The Project would incorporate drought-tolerant landscaping, which would generate less green waste (landscaping debris) during occupancy than higher water demand landscaping and would therefore be a source reduction of waste (California Urban Water Conservation Council 2015). In addition, the ongoing diversion of the green waste that is generated from landscaping to Miramar Greenery would avoid unnecessary contributions to Miramar Landfill.

- With diversion of organic waste, the food and beverage use of the hotel would be expected to achieve greater than the standard 40 percent diversion rate assumed from compliance with the City Storage Ordinance and City Recycling Ordinance.

- In accordance with LEED principles, the Project would utilize 10 percent post-consumer recycled content in construction materials.

In addition to these measures implemented during pre-construction and construction activities, the Applicant would commit to the recycling requirements identified in Section 6.3 of this WMP, to further reduce solid waste impacts during occupancy.

7.2.2 City of San Diego

Based on the quantified waste generation and diversion rates discussed above, the Project would result in a less than significant impact regarding the following City thresholds related to direct solid waste impacts during construction:

- The Project would fall below the City's CEQA Significance Determination Threshold (generation of more than 1,500 tons of solid waste materials) for direct impacts to solid waste facilities during demolition and construction (182.2 + 28.3 = 210.5 tons C&D materials to Miramar Landfill).

- The Project would exceed the 75 percent solid waste diversion rate for waste produced during construction by achieving an overall 99 percent diversion rate.

Regarding cumulative impacts, although the project proposes greater than 40,000 SF of building space, the project would be below the City's 60-ton threshold for disposal of waste during C&D, since approximately 28.3 tons are anticipated to be disposed of at the Miramar Landfill during C&D. During occupancy, the Project would achieve an average 40 percent diversion of waste via source-separated recycling and would dispose of approximately 223.2 tons of waste per year once the buildings are occupied. With consideration of the existing restaurant's waste disposal, the Project would generate a net total of 159.7 tons. This would exceed the City's CEQA Significance Determination Threshold for cumulative impacts to solid waste services. This exceedance would be overcome by the waste reduction achieved during construction, in addition to the measures specified in Section 6.3 of this WMP, which would provide adequate waste management. In addition, as described above under 7.2.1, the Project would divert organic waste, which would increase the standard 40 percent diversion rate during occupancy, and would incorporate drought-tolerant landscaping that would reduce green waste. The Project would also provide at least 384 SF of trash and recycling storage space, per the City Storage Ordinance (Table 1). The Project would comply with the City Recycling Ordinance by providing adequate space, bins, and educational materials for recycling during occupancy.

Upon compliance with waste diversion measures included in this WMP, plus implementation of sustainability and efficiency features, it is anticipated that the Project's contribution to cumulative solid waste generation would be reduced to a level that is less than cumulatively considerable.

8.0 REFERENCES

California Department of Resources Recycling and Recovery (CalRecycle)

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City of San Diego (City)

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State of California (State)

1989 *California Integrated Waste Management Act of 1989*. State of California Assembly Bill 939.

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Appendix A

2016 CERTIFIED CONSTRUCTION & DEMOLITION RECYCLING FACILITY DIRECTORY

2016 Certified Construction & Demolition Recycling Facility Directory

These facilities are certified by the City of San Diego to accept materials listed in each category. Hazardous materials are not accepted. The diversion rate for these materials shall be considered 100%, except mixed C&D debris which updates quarterly. The City is not responsible for changes in facility information. Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost. For more information visit: www.recyclingworks.com.

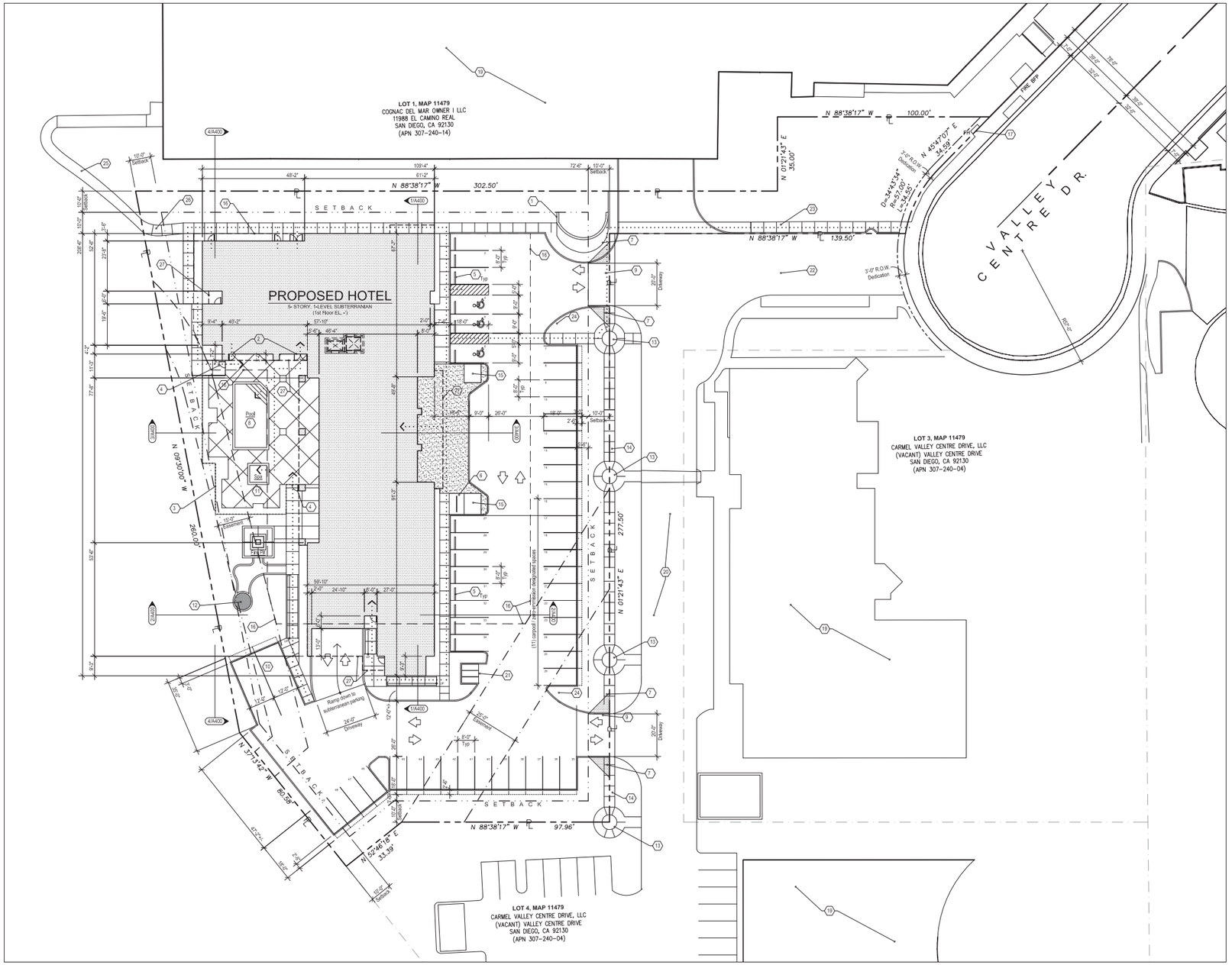
Please note: In order to receive recycling credit, Mixed C&D Facility and transfer station receipts must: *-be coded as construction & demolition (C&D) debris* *-have project address or permit number on receipt* **Make sure to notify weighmaster that your load is subject to the City of San Diego C&D Ordinance.* *Note about landfills: Miramar Landfill and other landfills do not recycle mixed C&D debris.*	Mixed C&D Debris	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks
EDCO Recovery & Transfer 3660 Dalbergia St, San Diego, CA 92113 619-234-7774 | www.edcodisposal.com/public-disposal	65%											•					
EDCO Station Transfer Station & Buy Back Center 8184 Commercial St, La Mesa, CA 91942 619-466-3355 | www.edcodisposal.com/public-disposal	65%				•							•			•		
EDCO CDI Recycling & Buy Back Center 224 S. Las Posas Rd, San Marcos, CA 92078 760-744-2700 | www.edcodisposal.com/public-disposal	85%				•										•		
Escondido Resource Recovery 1044 W. Washington Ave, Escondido 760-745-3203 | www.edcodisposal.com/public-disposal	65%																
Fallbrook Transfer Station & Buy Back Center 550 W. Aviation Rd, Fallbrook, CA 92028 760-728-6114 | www.edcodisposal.com/public-disposal	65%				•										•		
Otay C&D/Inert Debris Processing Facility 1700 Maxwell Rd, Chula Vista, CA 91913 619-421-3773 | www.sd.disposal.com	77%																
Ramona Transfer Station & Buy Back Center 324 Maple St, Ramona, CA 92065 760-789-0516 | www.edcodisposal.com/public-disposal	65%				•										•		
SANCO Resource Recovery & Buy Back Center 6750 Federal Blvd, Lemon Grove, CA 91945 619-287-5696 | www.edcodisposal.com/public-disposal	65%				•										•		
All American Recycling 10805 Kenney St, Santee, CA 92071 619-508-1155 (Must call for appointment)						•											
Allan Company 6733 Consolidated Wy, San Diego, CA 92121 858-578-9300 | www.allancompany.com/facilities.htm					•										•		
Allan Company Miramar Recycling 5165 Convoy St, San Diego, CA 92111 858-268-8971 | www.allancompany.com/facilities.htm					•										•		
AMS 4674 Cardin St, San Diego, CA 92111 858-541-1977 | www.a-m-s.com								•									

	Mixed C&D Debris	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks
Armstrong World Industries, Inc. 300 S. Myrida St, Pensacola, FL 32505 877-276-7876 (Press 1, Then 8) www.armstrong.com/commceilingsna								•									
Cactus Recycling 8710 Avenida De La Fuente, San Diego, CA 92154 619-661-1283 | www.cactusrecycling.com					•								•		•		•
DFS Flooring 10178 Willow Creek Road, San Diego, CA 92131 858-630-5200 | www.dfsflooring.com						•	•										
Enniss Incorporated 12421 Vigilante Rd, Lakeside, CA 92040 619-443-9024 | www.ennissinc.com		•	•						•	•							
Escondido Sand and Gravel 500 N. Tulip St, Escondido, CA 92025 760-432-4690 | www.weirasphalt.com/esg		•															
Habitat for Humanity ReStore 10222 San Diego Mission Rd, San Diego, CA 92108 619-516-5267 | www.sdhfh.org/restore.php				•													
Hanson Aggregates West – Lakeside Plant 12560 Highway 67, Lakeside, CA 92040 858-547-2141		•															
Hanson Aggregates West – Miramar 9229 Harris Plant Rd, San Diego, CA 92126 858-974-3849		•								•							
Hidden Valley Steel & Scrap, Inc. 1342 Simpson Wy, Escondido, CA 92029 760-747-6330															•		
HVAC Exchange 2675 Faivre St, Chula Vista, CA 91911 619-423-1855 | www.thehvacexchange.com															•		
IMS Recycling Services 2740 Boston Ave, San Diego, CA 92113 619-423-1564 | www.imsrecyclingservices.com					•								•				
IMS Recycling Services 2697 Main St, San Diego, CA 92113 619-231-2521 | www.imsrecyclingservices.com													•		•		
Inland Pacific Resource Recovery 12650 Slaughterhouse Canyon Rd, Lakeside, CA 92040 619-390-1418											•						
Lamp Disposal Solutions 1405 30th Street, San Diego, CA 92154 858-569-1807 | www.lampdisposalsolutions.com														•			
Universal Waste Disposal 8051 Wing Avenue, El Cajon, CA 92020 619-438-1093 | www.universalwastedisposal.com														•			
Los Angeles Fiber Company 4920 S. Boyle Ave, Vernon, CA 90058 323-589-5637 | www.lafiber.com						•	•										

	Mixed C&D Debris	Asphalt/Concrete	Brick/Block/Rock	Building Materials for Reuse	Cardboard	Carpet	Carpet Padding	Ceiling Tile	Ceramic Tile/Porcelain	Clean Fill Dirt	Clean Wood/Green Waste	Drywall	Industrial Plastics	Lamps/Light Fixtures	Metal	Mixed Inerts	Styrofoam Blocks
Miramar Greenery, City of San Diego 5180 Convoy St, San Diego, CA 92111 858-694-7000 | www.sandiego.gov/environmental-services/miramar/greenery.shtml											•						
Moody's 3210 Oceanside Blvd., Oceanside, CA 92056 760-433-3316		•								•						•	
Otay Valley Rock, LLC 2041 Heritage Rd, Chula Vista, CA 91913 619-591-4717 | www.otayrock.com		•															
Reclaimed Aggregates Chula Vista 855 Energy Wy, Chula Vista, CA 91913 619-656-1836		•														•	
Reconstruction Warehouse 3650 Hancock St., San Diego, CA 92110 619-795-7326 | www.recowarehouse.com				•													
Robertson's Ready Mix 2094 Willow Glen Dr, El Cajon, CA 92019 619-593-1856		•								•						•	
Romero General Construction Corp. 8354 Nelson Wy, Escondido, CA 92026 760-749-9312 | www.romerogc.com/crushing/nelsonway.htm		•															
SA Recycling 3055 Commercial St., San Diego, CA 92113 619-238-6740 | www.sarecycling.com															•		
SA Recycling 1211 S. 32nd St., San Diego, CA 92113 619-234-6691 | www.sarecycling.com															•		
Vulcan Carol Canyon Landfill and Recycle Site 10051 Black Mountain Rd, San Diego, CA 92126 858-530-9465 | www.vulcanmaterials.com/carrollcanyon		•	•							•						•	

Appendix B

ARCHITECTURAL SITE PLAN



KEY NOTES:

1. SITE WALL. SEE CIVIL & LANDSCAPE DRAWINGS.
2. KEYED SECURE DOOR TO POOL ENCLOSURE AREA.
3. 5'-0" HIGH SWIMMING POOL ENCLOSURE. SEE LANDSCAPE DRAWINGS.
4. KEYED SECURE GATE. PROVIDE FIRE DEPT. KNOX BOX W/ CARD READER.
5. PREFAB. CONCRETE PARKING WHEEL STOP (TYPICAL).
6. PERMANENTLY ANCHORED BIKE RACK (6-BIKE CAPACITY) PER S.D.M.C., SEC. 142.0530(e). SEE LANDSCAPE DRAWINGS.
7. VISIBILITY TRIANGLE PER S.D.M.C. AT THE INTERSECTION OF THE STREET & DRIVEWAY, ONE SIDE OF THE TRIANGLE EXTENDS FROM THE INTERSECTION OF THE STREET & THE DRIVEWAY FOR 10'-0" ALONG THE PROPERTY LINE. THE SECOND SIDE EXTENDS FROM THE INTERSECTION OF THE STREET & DRIVEWAY FOR 10'-0" INWARD FROM THE PROPERTY LINE ALONG THE DRIVEWAY EDGE. THE THIRD SIDE OF THE TRIANGLE CONNECTS THE TWO. NO STRUCTURES, TREES OR SHRUBS TALLER THAN 3'-0" IN HT. SHALL BE LOCATED WITH THESE TRIANGLES.
8. ACCESSIBLE POOL. SEE LANDSCAPE DRAWINGS.
9. NEW DRIVEWAY CURB CUT. SEE CIVIL DRAWINGS.
10. (2) 12' x 35' OFF-STREET LOADING SPACE PER S.D.M.C., SEC. 142.1010. MAINTAIN MIN. 14'-0" OVERHEAD CLEARANCE.
11. ACCESSIBLE SPA. SEE LANDSCAPE DRAWINGS.
12. FIRE PIT. SEE LANDSCAPE DRAWINGS.
13. PROPOSED INTERCONNECTIVITY NODES, SHARED WITH ADJACENT PROPERTY. SEE LANDSCAPE DRAWINGS. COORDINATE WITH ADJACENT PROPERTY.
14. PROPOSED TREE-LINED PEDESTRIAN WALKWAY SHARED WITH ADJACENT PROPERTY. SEE LANDSCAPE DRAWINGS. COORDINATE TIE-IN LOCATIONS WITH ADJACENT PROPERTY.
15. PLANTER. SEE LANDSCAPE DRAWINGS.
16. LINE OF BUILDING BELOW. SEE PLANS / ELEVATIONS.
17. EXISTING FIRE HYDRANT LOCATION.
18. LINE OF SUBTERRANEAN PARKING GARAGE BELOW.
19. EXISTING BUILDING AT ADJACENT PROPERTY. NOT PART OF THIS PROJECT.
20. EXISTING ACCESS ROAD AT ADJACENT PROPERTY. NOT PART OF THIS PROJECT.
21. (3) 3'-0" x 8'-0" MOTORCYCLE PARKING SPACES PER S.D.M.C., SEC. 142.0530(g).
22. EXISTING DRIVEWAY IS TO BE RECONSTRUCTED TO CURRENT CITY STANDARDS. SEE CIVIL DRAWINGS.
23. EXISTING SIDEWALK IS TO BE RECONSTRUCTED TO COMPLY/MEET CURRENT ACCESSIBILITY REQUIREMENTS. (CBC, CHAPTER 11B). SEE CIVIL DRAWINGS.
24. PROPOSED NEW FIRE HYDRANT LOCATION. COORDINATE EXACT LOCATION WITH AGENCY FIRE DEPARTMENT PRIOR TO INSTALLATION.
25. EXISTING PATHWAY FROM ADJACENT PROPERTY. FIELD VERIFY EXACT LOCATION.
26. PROPOSED CONCRETE SIDEWALK TO CONNECT WITH EXISTING PATHWAY FROM ADJACENT PROPERTY.
27. LINE OF BUILDING ABOVE. SEE PLANS / ELEVATIONS.

GENERAL NOTES:

A. ALL NEW VISIBLE HOTEL SIGNAGE TO COMPLY WITH S.D.M.C SIGN REGULATIONS. DEFERRED SUBMITTAL.

B. EACH REQUIRED OFF-STREET LOADING SPACE SHALL HAVE A MINIMUM CLEARANCE OF 14'-0" INCLUDING ENTRANCES & EXITS. ALL OFF-STREET LOADING AREAS SHALL BE SCREENED FROM THE PUBLIC RIGHT-OF-WAY OR TREATED WITH LANDSCAPE, HARDSCAPE, OR STRUCTURAL ELEMENTS DESIGNED TO CREATE A VISUAL AMENITY. (1) LOADING SPACE REQUIRED FOR THIS SIZE DEVELOPMENT.

C. THERE ARE NO EXISTING BUS STOPS AT THIS PROPERTY.

D. PROVIDE BUILDING ADDRESS NUMBERS, VISIBLE & LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY PER F.H.P.S. POLICY P-00-6 (U.F.C. 901.4.4)

E. REFER TO CIVIL DRAWINGS FOR DRAINAGE PATTERNS.

F. POST INDICATOR VALVES, FIRE DEPT. CONNECTIONS, AND ALARM BELLS ARE TO BE LOCATED ON THE ADDRESS / ACCESS SIDE.

G. PROVIDE FIRE ACCESS ROADWAY SIGNS OR RED CURBS IN ACCORDANCE WITH F.H.P.S. POLICY A-00-1.

H. ALL FENCES & RETAINING WALLS SHALL COMPLY WITH THE S.D.M.C., SEC. 142.0301.

I. PRIOR TO ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER / PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION "BEST MANAGEMENT PRACTICES" NECESSARY TO COMPLY W/ CHAPTER 14, ART. 2, DIV. 1 (GRADING REGULATIONS) OF THE SDMC, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.

J. REFER TO LANDSCAPE DRAWINGS FOR ALL LANDSCAPE REQUIREMENTS.

K. ALL LIGHTING SHALL BE DIRECTED AWAY FROM ADJACENT PROPERTIES & SHIELDED AS NECESSARY.

L. MOTORCYCLE PARKING SPACES TO BE PER C.B.C., SEC. 142.0530(g).

M. REFUSE AREA / RECYCLABLE AREA TO BE PER C.B.C., SEC. 142.0810.

N. BICYCLE STORAGE TO BE PER C.B.C., SEC. 142.05309(e)(1).

O. REFER TO SHT. A101 FOR OTHER FIRE DEPT. INFORMATION.

P. FIRE LANE TO MEET MINIMUM REQUIRED TURNING RADIUS.

Q. SEE SUBTERRANEAN PARKING PLAN FOR REFUSE / RECYCLABLE ENCLOSURE LOCATION. ENCLOSURE TO HAVE A MINIMUM 6'-0" HIGH, CMU WALL PER S.D.M.C., SEC. 142.0805, 142.0810 & 142.0830. PROVIDE MINIMUM 288 sf. PER TABLE 142.08C. (144 sf. FOR REFUSE, 144 sf. FOR RECYCLABLES).

R. NO PERMANENT STRUCTURES ARE TO BE LOCATED WITHIN ANY EASEMENT.

S. THE PROJECT IS TO COMPLY WITH THE ACCESSIBILITY REQUIREMENTS OF CBC, CHAPTER 11B.

LEGEND :

. . . . . ACCESSIBLE PATH OF TRAVEL

1. ARCHITECTURAL SITE PLAN (SEE FIRE ACCESS PLAN, SHT. A101, FOR FURTHER INFO.)

1" = 20'-0"

0 10' 20' 50' 100'

jones | ballard ARCHITECTS

LICENSED ARCHITECT STEPHEN L. JONES No. C25591 REN. 2/28/17 STATE OF CALIFORNIA

PROJECT

CARMEL VALLEY HOTEL

3510 VALLEY CENTRE DRIVE
SAN DIEGO, CALIFORNIA 92103

SITE DEVELOPMENT / COASTAL DEVELOPMENT PERMIT SUBMITTAL

EXCEL HOTEL GROUP

ISSUE DATES

No.	Date	Description
	2015-10.30	SDP / CDP Completeness Check
	2015-12.01	SDP / CDP Initial Submittal
	2016-07.15	SDP / CDP / PDP Resubmittal

SHEET TITLE

ARCH. SITE PLAN

DRAWING I.D.:

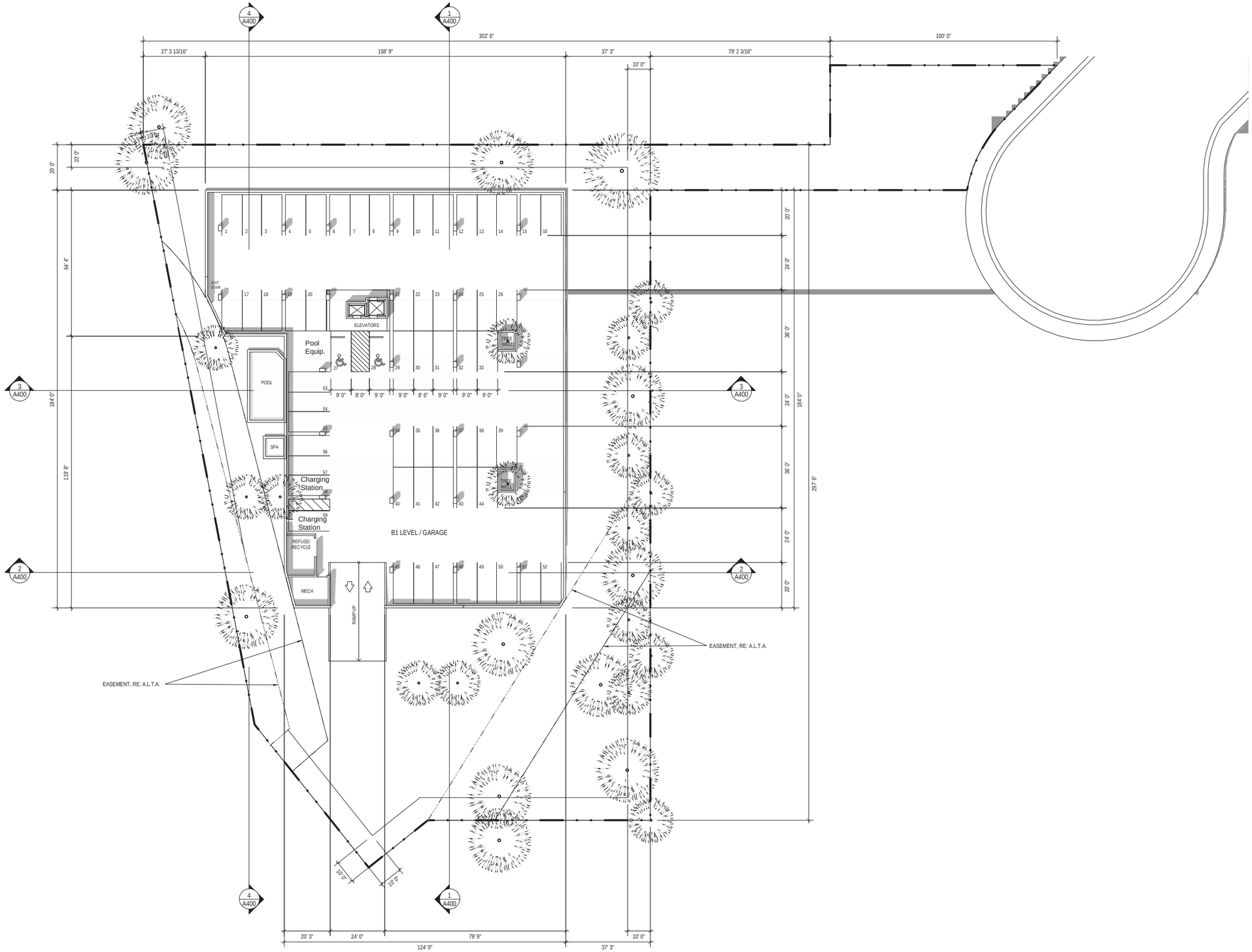
Project No.: JBA 15007

Date: 2016 - 07.15

SHEET NO.:

A100

SHEET 3 OF 14



1 Garage B1 Plan

1/16"= 1'-0"

NORTH

0 16 32 64

jones | ballard ARCHITECTS

PROJECT:

CARMEL VALLEY HOTEL

3510 VALLEY CENTRE DRIVE
SAN DIEGO, CALIFORNIA 92103

SITE DEVELOPMENT / COASTAL DEVELOPMENT PERMIT SUBMITTAL

EXCEL HOTEL GROUP

ISSUE DATES:

No.	Date	Description
	2015-10.30	SDP / CDP Completeness Check

SHEET TITLE:

GARAGE B1 FLOOR / SITE PLAN

DRAWING I.D.:

Project No.: JBA 15007

Date: 2015 - 10.30

SHEET NO.:

A200

Appendix C

2016 CITY OF SAN DIEGO C&D DEBRIS CONVERSION RATE TABLE

CITY OF SAN DIEGO

Construction & Demolition (C&D) Debris Conversion Rate Table

This worksheet lists materials typically generated from a constructionor demolition project and provides formulas for converting common units (i.e. cubic yards, square feet, and board feet) to tons. It is a tool that should be used for preparing your Waste Mangement Form - Part I, which requires that quantities be provided in tons.

Note: Weigh receipts are required for your refund request.

Step 1: Enter the estimated quantity for each applicable material in Column I, based on units

Step 2: Multiply by Tons/Unit figure listed in Column II. Enter the result for each material in Column III.
If using Excel version, column III will automatically calculate tons.

Step 3: Enter quantities for each separated material from Column III on this worksheet into the corresponding section of your Waste Management Form - Part I.

		Column I			Column II		Column III
Category	**Material**	**Volume**	**Unit**		**Tons/Unit**		**Tons**
Asphalt/Concrete	Asphalt (broken)		cy	x	0.70	=	
	Concrete (broken)		cy	x	1.20	=	
	Concrete (solid slab)		cy	x	1.30	=	
Brick/Masonry/Tile	Brick (broken)		cy	x	0.70	=	
	Brick (whole, palletized)		cy	x	1.51	=	
	Masonry Brick (broken)		cy	x	0.60	=	
	Tile		sq ft	x	0.00175	=	
Building Materials (doors, windows, cabinets, etc.)			cy	x	0.15	=	
Cardboard (flat)			cy	x	0.05	=	
Carpet	By square foot		sq ft	x	0.0005	=	
	By cubic yard		cy	x	0.30	=	
Carpet Padding/Foam			sq ft	x	0.000125	=	
Ceiling Tiles	Whole (palletized)		sq ft	x	0.0003	=	
	Loose		cy	x	0.09	=	
Drywall (new or used)	1/2" (by square foot)		sq ft	x	0.0008	=	
	5/8" (by square foot)		sq ft	x	0.00105	=	
	Demo/used (by cubic yd)		cy	x	0.25	=	
Earth	Loose/Dry		cy	x	1.20	=	
	Excavated/Wet		cy	x	1.30	=	
	Sand (loose)		cy	x	1.20	=	
Landscape Debris (brush, trees, etc)			cy	x	0.15	=	
Mixed Debris	Construction		cy	x	0.18	=	
	Demolition		cy	x	1.19	=	
Scrap metal			cy	x	0.51	=	
Shingles, asphalt			cy	x	0.22	=	
Stone (crushed)			cy	x	2.35	=	
Unpainted Wood & Pallets	By board foot		bd ft	x	0.001375	=	
	By cubic yard		cy	x	0.15	=	
Garbage/Trash			cy	x	0.18	=	
Other (estimated weight)			cy	x	estimate	=	
			cy	x	estimate	=	
			cy	x	estimate	=	
					Total All		

Appendix D

CITY OF SAN DIEGO WASTE GENERATION FACTORS – OCCUPANCY PHASE

Waste Generation Factors – Occupancy Phase

The following factors are used by the City of San Diego Environmental Services Department to estimate the expected waste generation in a new residential or commercial development.

Residential Uses
Residential Unit = 1.6 tons/year/unit
Multi-family Unit = 1.2 tons/year/unit

Example: To calculate the amount of waste that will be generated from a project with 100 new homes, multiply the number of homes by the generation factor.

100 single family homes x 1.6 = 160 tons/year
100 multi-family units x 1.2 = 120 tons/year

Commercial/Industrial Uses

General Retail	0.0028
Restaurants & Bars	0.0122
Hotels/Motels	0.0045
Food Stores	0.0073
Auto/Service/Repair	0.0051
Medical Offices	0.0033
Hospitals	0.0055
Office	0.0017
Transp/Utilities	0.0085
Manufacturing	0.0059
Education	0.0013
Unclassified Services	0.0042

Example: To calculate the amount of waste that could be generated from a new building with 10,000 square feet for offices and 10,000 square feet for manufacturing, multiply the square footage for each use by the generation factor.

10,000 square feet x 0.0017 = 17 tons/year
10,000 square feet x 0.0059 = 59 tons per year

Total estimated waste generation for building = 76 tons/year