Appendix A

Public Comments Received by the City

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: Oscar Banda
2. ADDRESS: 25132 Ocean Knoll Dr.
3. E-MAIL: Oscar@go AzTech.com
4. TODAY'S DATE: 6/28/11
5. COMMENT: *(Please write legibly)* It would seem the scope of the project & building size is far larger than the local natural resources, infrastructure, and city services can sustain. In addition air, noise and traffic will be negatively impacted Ocean views, property values & enjoy ment of the area will be also negatively impacted There are far to many ~~taxi~~ unjustified Variances to the city code & ordinances

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** Clayton (Bob) and Charolette Behling
2. **ADDRESS:** 25162 and 25172 Via Elevado, Dana Point, Ca. 92629
3. **E-MAIL:** bcbehling@hotmail.com
4. **TODAY'S DATE:** July 8, 2011
5. **COMMENT:** *(Please write legibly)* See attached letter

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

Clayton & Charolette Behling
25162 Via Elevado
Dana Point, CA 92629

City of Dana Point
Attention: Erica H. Demkowicz, AICP, Senior Planner 33282 Golden Lantern
Dana Point, Ca. 92629-1805

SUBJECT: DOHENY HOTEL

As property owners in Dana Point we have reviewed the proposed plan and attended the scoping meeting on June 28, 2011 for the Doheny Hotel. There seems to be monumental problems that came to light at the meeting some of which are:

- Height of 62' plus ten foot structure on top
- Overall size
- Parking
- Noise and traffic pollution
- Light pollution from swimming pool lights and code requirement for lighting around swimming pool and all around building lights. The moonlit ocean views will be gone.
- Views will be blocked at Ocean Knolls and Via Elevado which will devalue our property

It was mentioned at the scoping meeting that views are not protected for Dana Point residence, yet through legal means my neighbors protected their views making us build below street level. The city of Dana Point promised me that our view could never be blocked. Dana Point has a height restriction of 36 feet on commercial buildings. Not only did I have to build my homes below street level, they also could not exceed height of 26 1/2 feet to comply with City of Dana Point's maximum height allowance. It would be absurd to allow a structure of approximately double the height of your own planning code maximum. By allowing a building of this magnitude you are setting precedence that will allow for even larger future structures.

Toward the end of construction on 25162 I was forced to lower my sprinkler heads from 12" to 6" above the curb so as not to obstruct my neighbor's views. Code enforcement has continually reminded me to keep my plants below the 6 inches above the curb so as not to obstruct my neighbor's views. I always comply because I believe it would be morally wrong to break the agreement that I made before I started construction. I believe there is a precedent in this regard that to exceed a height restriction directly in front of my homes and Ocean Knoll homes and block our views is unconscionable.

I was very shocked and upset when I saw the model of the hotel and surrounding areas at the scoping meeting. What worries me is that it even got this far and that city officials presented it as feasible that on 1.5 acres a five story hotel with a extra 10 foot structure on top and with underground parking could

be built in this location. That reasoning is incredibly irresponsible. The public has put trust in you people and we hope you will take them and their property values into consideration and not the revenue that you would receive from a hotel. My family and I are vehemently opposed to the construction of the Doheny Hotel.

Sincerely,

Clayton and Charolette Behling

CC: Coastal Commission, Code Enforcement, Planning, Community Development

(3)

Kelly Hickler

From: ERICA DEMKOWICZ [EDEMKOWICZ@DanaPoint.org]
Sent: Monday, July 18, 2011 8:49 AM
To: Robert Rusby; Kelly Hickler
Subject: FW: Public Comments - Doheny Hotel Project

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Doheny Hotel

FYI.

Erica H. Demkowicz, AICP
Senior Planner
City of Dana Point
(949) 248-3588
edemkowicz@danapoint.org

-----Original Message-----
From: burt525@cox.net [mailto:burt525@cox.net]
Sent: Saturday, July 16, 2011 9:17 AM
To: ERICA DEMKOWICZ
Subject: (NOP) Proposed Doheny Hotel Project

July 16, 2011

Re: (NOP) Proposed Doheny Hotel Project

We are opposed to the project as currently described. There is already more traffic than the streets can currently handle. The street noise is already excessive. This project will add to both to the detriment of the community and visitors.

In addition the proposed height of the building (3-5stories) is higher than any thing else in the area and would detract from the appearance of Dana Point.

Harold and Gina Burt
(20 year Dana Point residents)
25161 Via Elevado
Dana Point, CA 92629

(4)

Via email to: edemkowicz@danapoint.org

July 17, 2011

City of Dana Point
Attn: Erica H. Demkowicz
33282 Golden Lantern
Dana Point, CA 92729

RE: Proposed Doheny Hotel

Dear Erica:

We are writing to express our concerns regarding the proposed Doheny Hotel .

1. Why would the city allow this hotel to go five stories when the limit is three? What type of precedence does this set for the other two corners which have yet to be built upon.
2. How will this new three star hotel affect traffic that is already very heavy especially in the summer when everyone comes to the beach.
3. Long term where will the employees park. We feel that they will end up parking on nearby streets since it will be quicker than waiting for a shuttle to the hotel from South Coast Water parking lot.
4. Noise is already loud and we expect with the outdoor pool and the elevated height of the hotel that this will affect the noise level for surrounding homes.
5. Normally when a large hotel goes in they make concessions to the city like creating parks for the public yet this hotel gives no land and wants to have less of a set back.
6. Why would the city allow such a large hotel on such a small amount of land. It is not like we need hotels in the area as there already are several within a couple of blocks of this one. This hotel does not create a resort like feeling with beautiful acreage around it and is not the type of hotel in keeping with the destination resort image Dana Point wants to achieve.
7. We are concerned that with the variance for five stories that this would affect our view.

Sincerely,

Tracy & Theresa Bovee
25262 Manzanita
Dana Point, CA 92629

(5)

Kelly Hickler

From: ERICA DEMKOWICZ [EDEMKOWICZ@DanaPoint.org]
Sent: Monday, July 18, 2011 8:49 AM
To: Robert Rusby; Kelly Hickler
Subject: FW: Opposition to Proposed Doheny Hotel in Dana Point, CA
Attachments: Doheny Hotel Letter - Luis C Contreras 23 June 2011.doc

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Doheny Hotel

FYI.

Erica H. Demkowicz, AICP
Senior Planner
City of Dana Point
(949) 248-3588
edemkowicz@danapoint.org

From: Luis@goAzTech.com [mailto:Luis@goAzTech.com]
Sent: Monday, July 18, 2011 5:45 AM
To: ERICA DEMKOWICZ
Cc: ssarb@coastal.ca.gov; OscarBanda@goAzTech.com
Subject: Opposition to Proposed Doheny Hotel in Dana Point, CA

I am writing this letter to Erica H Demkowicz, the City of Dana Point AICP Senior Planner in response to a letter we received on 23 June 2011 regarding subject hotel.

I am also copying Sherilyn Sarb, Deputy Director of the South Coast District Office for Orange Co.

Please assure that the attached letter gets to the proper authorities. If you need to contact me, by all means please do at the below contact info.

Very respectfully,

Luis

Luis C Contreras
25132 Ocean Knoll, Dana Point, CA 92629

Cell: 949.842.1193 • Office: 949.249.9349 • Fax: 949.363.9568
Web: goAzTech.com
E-mail: Luis@goAzTech.com
Ideas: WishList@goAzTech.com
Help: Hotline@goAzTech.com
Text: 9498421193@txt.att.net

(5a)

Luis C Contreras
25132 Ocean Knoll
Dana Point, CA 92629
Phone: 949.842.1193
E-Mail: Luis.Contreras@goAzTech.com

June 23, 2011

To: City of Dana Point Attention: Erica H Demkowicz, AICP Senior Planner 33282 Golden Lantern Dana Point, CA 92629-1805 Phone: (949) 248-3588 E-Mail: edemkowicz@danapoint.org	Cc: South Coast District Office for Orange Co.: Attention: Sherilyn Sarb, Deputy Director Teresa Henry, District Manager 200 Oceangate, 10th Floor Long Beach, CA 90802-4416 (562) 590-5071 Fax (562) 590-5084 E-Mail: Email: ssarb@coastal.ca.gov

References:

1. Letter dated 15 June 2011, Notice to Prepare a Draft Environmental Impact Report (EIR).

2. June 2011 Initial Study Doheny Hotel (Prepared by: UltraSystems Environmental, 100 Pacifica, Suite 250, Irvine, California 92618; Contact: Bob Rusby, AICP; Sr. Project Manager; T: 949/788-4900)

Dear Ms. Demkowicz:

Significant Concerns:

I am writing to express significant concerns regarding the subject project. Though improvements to the Dana Point marina and surrounding areas are welcome and needed, we need to consider and mitigate economic and environmental impacts to residents and visitors to our city.

What are the Variances & Where is the Hardship?

My understanding is that Variances to city development are rarely issued—and usually only for hardships. From my community's vantage point across from the hotel, a building higher than two stories would certainly cause a financial hardship on our real estate values and our personal and community financial portfolios. It is particularly difficult to take a financial hit at a time when the national, state, and local economies are so depressed—particularly the real estate market. More importantly, a reduced view **permanently** impacts the value of our real estate, which means that granting a variance to Hotel Doheny is the same as granting them permission to significantly lower our home values.

Violating Height Limits. On What Grounds? Where will it Stop?

Dana Point and our beautiful neighboring city, Laguna Beach, have largely avoided building tall structures that block the prestigious and highly valued ocean views. I hope Dana Point will continue this philosophy by denying variances to height restrictions. This will keep our views clear and beautiful and retain the historical value of our area. Moreover, if the Donehy Hotel gets a variance, then what is to stop other hotel developers or residents with the financial and legal wherewithal from requesting and obtaining height variances that further reduce others' views?

Reduced ocean views caused by out-of-scale buildings do more than just hurt property owners, they also hurt those who enjoy and use the public vantage points such as those provided by Crystal Cove Park. This

view would be reduced by a 3 to 5 story hotel and would diminish enjoyment for the many walkers, dog owners, and visitors who frequent the park and its beautiful vista.

Where Will Employees Park After 5 Years?

It is unclear precisely where employees will park and also how they will commute to and from the hotel. This matter is not trivial, as it will impact traffic congestion in the already congested intersection where the hotel will reside. Furthermore, there is a mention of a 5 year agreement for employee parking, but that does not answer the long-term issue. I would hope that we are not going to plan with only 5 years in mind and overlook the long-term environmental and financial impacts.

Who is Considering the Financial Hardship for Current Property Owners?

As explained above, there is a very real financial impact to all residents located within the sightline of the hotel. This includes the 26 homes in the Crystal Cove at Dana Point Homeowners Association and many more homes above us and within our local region. Please consider that if a mere dozen homes were directly affected in our neighborhood, those would be higher priced homes and their reduced values would have a ripple effect on all area homes—not just in the immediate neighborhood, but in all of Dana Point. I would hope that Dana Point city officials will consider that each home's view, and the 30 to 60% increase that an ocean view brings, is worth protecting.

Could PCH & Del Obispo Traffic Get Worse?

Any Dana Point resident or visitor knows that this intersection and nearby intersections or traffic lights are near their limits. During peak times, the situation is even worse. It is hard to imagine that increasing parking and visitors in that corner can be mitigated much. Even the idea of valet parking does not reduce the incoming and outgoing traffic that would grow at the hotel.

Are there Other Environmental Impacts to Consider?

I trust that Dana Point planners will consider more than just the obvious impacts and look into the not-so-obvious ones like the hotel signage, lighting, and rooftop clutter with antennas and satellite dishes and the like. For us local residences with a view down and across the hotel, we hope any obstructions or unsightly aesthetics will be greatly scrutinized at the blueprint stage and well before any building takes place.

Bottom Line: Stop Hotel Doheny from Maximizing their Land Use at Our Expense

I hope that you and others who are charged with reviewing and approving major developments in our city will consider the above concerns and work with local residents to assure that our concerns are heard and responded to accordingly. Also, we will appreciate as much advance notice as possible and clear guidance on where to find essential documents that will help us understand the potential impacts. We seek your support in addressing our concerns and making the hotel renovation a successful project that beautifies our city while balancing local residential and business wishes. A new **two-story** hotel would be a great addition to the area, but anything higher is certainly out of the question.

Thank you for your support.

Sincerely,

Luis C Contreras

(6)

Kelly Hickler

From: ERICA DEMKOWICZ [EDEMKOWICZ@DanaPoint.org]
Sent: Monday, July 18, 2011 8:49 AM
To: Robert Rusby; Kelly Hickler
Subject: FW: Doheny Hotel - Public Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Doheny Hotel

FYI.

Erica H. Demkowicz, AICP
Senior Planner
City of Dana Point
(949) 248-3588
edemkowicz@danapoint.org

-----Original Message-----
From: greeleyc@cox.net [mailto:greeleyc@cox.net]
Sent: Monday, July 18, 2011 7:29 AM
To: ERICA DEMKOWICZ
Subject: Doheny Hotel

I recently received a letter from the city of Dana Point regarding the proposed building of a five story hotel to be constructed on the corner of Pacific Coast Highway and Dana Point Harbor Drive. I have several reservations and concerns about the project. I currently reside at 25152 Ocean Knoll in Dana Point, a property which would be adversely affected by this project. My concerns are as follows:

1. This project's height and size for the lot requires several variances and set backs. This proposed size of this hotel is incompatible with the surroundings and would adversely affect the views of surrounding property.

2. The aesthetics of the project will significantly detract from a major gateway for the city and from the primary entrance into Dana Point Harbor.

3. The proposed 172 units per acre is much more dense than surrounding property and not in keeping with current properties in Dana Point.

4. The traffic generated by this project will severely affect an already busy intersection. This will cause more traffic problems, delays, noise and air pollution for the city and and its visitors and residents.

5. The underground parking seems to be a potential problem, creating difficulty accessing the hotel. This would in turn create more traffic problems on PCH and Dana Pint Harbor Drive.

6. The views and sight lines will be adversely affected by this large structure. The view from Crystal Cove Park, now a beautiful coastline vista, would instead be of this large structure. Residents would also lose much of their ocean and coastline views, significantly affecting property value. This would, in effect, cause an extreme hardship on residents whose views are in sight of this hotel.

(6a)

7. This project seems to be generally a massive over-reach given the land size. Variances and set-backs are required for almost every aspect of the project. If approved, this would set a dangerous precedent in the city of Dana Point. The city needs to protect the views and open space as much as it seeks new development, otherwise it could become yet another overdeveloped and crowded beach city.

In summary, I am adamantly opposed to the approval of the Doheny Hotel. The proposal seems to completely ignore the rights of current property owners in order to overdevelop the space.

Sincerely,

Christina Greeley
25152 Ocean Knoll
Dana Point, Ca 92629

---

(7)

1629 SEAL WAY
SEAL BEACH, CA 90740
JULY 9, 2011

ERICA H. DEMKOWICZ, SR. PLANNER
CITY OF DANA POINT
33282 GOLDEN LANTERN
DANA POINT, CA 92629

DEAR MS. DEMKOWICZ:

AS A PROPERTY OWNER IN DANA POINT, I WAS RECENTLY NOTIFIED BY MAIL CONCERNING A 5 STORY RESORT HOTEL PROPOSED TO BE CONSTRUCTED ON THE CORNER OF PACIFIC COAST HIGHWAY AND DANA POINT HARBOR DRIVE. I HAVE CLOSELY REVIEWED THE INITIAL STUDY CONCERNING THIS PROPOSED PROJECT.

MY COMMENTS FOLLOW:

1. THIS PROJECT IS COMPLETELY INCOMPATIBLE IN SIZE AND BULK TO ITS SURROUNDINGS. THE HEIGHT IS IN EXCESS OF THE CITY CODE. IN THE DRAWINGS PRESENTED IN THE INITIAL STUDY THERE ARE SHOWN 5 STORIES AND THEN ROOF PROJECTIONS ON TOP OF THAT. IT IS SIGNIFICANT THAT NO HEIGHT, AS MEASURED IN FEET, IS GIVEN NOR IS ANY MAXIMUM HEIGHT LISTED. ALSO ONLY ONE RENDERING OF THE PROJECT IS SHOWN IN THE INITIAL STUDY.
2. IN THE CITY OF DANA POINT LAND USE ELEMENT THE FLOOR AREA RATIO FOR RESORT HOTELS IS 1.5:1 WITH A MAXIMUM OF 1.75:1. WHAT IS THE FLOOR AREA RATIO FOR THIS PROJECT? I EXPECT IT IS SIGNIFICANTLY LARGER THEN THE CITY'S OWN PLAN AND CODES.
3. THE AESTHETICS OF THIS PROJECT WILL SIGNICANTLY DETRACT FROM A MAJOR GATEWAY FOR THE CITY AND FROM THE PRIMARY ENTRANCE INTO DANA POINT HARBOR.
4. THE UNITS PER ACRE FOR THIS PROJECT IS AN AMAZING 172. THIS IS COMPLETELY OVER THE TOP.
5. THE INTENSITY OF DEVELOPMENT FOR THE PROPOSED DOHENY HOTEL IS IN CONTRADICTION TO THE CITY'S OWN GENERAL PLAN.
6. REQUIRED SETBACKS, WHICH ARE SPELLED OUT IN THE CODE FOR A REASON, ARE IGNORED (A VARIANCE).
7. THE TRAFFIC GENERATED BY THIS PROJECT WILL SEVERLY ADVERSELY AFFECT AN ALREADY HEAVILY TRAVELED AND INPACTED INTERSECTION. THIS WILL CAUSE MORE TRAFFIC PROBLEMS, DELAYS, NOISE AND AIR POLLUTION FOR THE CITY AND FOR ITS VISITORS AND RESIDENTS. AGAIN, THIS IN CONTRADICTION TO THE CITY'S PLAN ELEMENTS.
8. WITH ALL OF THE PARKING UNDERGROUND, ACCESS INTO AND OUT OF THE HOTEL COULD BE VERY DIFFICULT, THEREBY CREATING EVEN MORE TRAFFIC PROBLEMS ON PCH AND DANA POINT HARBOR DRIVE.

9. THE VIEWS AND SIGHTLINES WILL BE SEVERELY ADVERSELY AFFECTED BY THIS MAMMOTH STRUCTURE. THIS HOTEL WILL BLOCK SIGHTLINES TO THE NEW AND QUITE BEAUTIFUL PEDESTRIAN OVERPASS ON PCH. PEOPLE NOW LOOKING OUT OVER THE OCEAN FROM CRYSTAL COVE PARK WILL BE GREETED BY VIEWING A BEHEMOTH. SEA VIEW PARK CAN BE NICKNAMED 'HOTEL VIEW PARK.' THIS PROJECT WILL SEVERELY DEGRADE EXISTING VIEWS FROM RESIDENCES AND OTHER HOTELS IN THE AREA.
10. IF THE DOHENY HOTEL PROJECT IS APPROVED IT WILL SET A VERY BAD PRECEDENT FOR DANA POINT. IT WILL SIGNAL TO OTHER DEVELOPERS THAT IT IS ACCEPTABLE TO SEEK TO CONSTRUCT OVERSIZED, OVER HEIGHT AND OVERLY INTENSE DEVELOPMENTS IN THIS AREA OF THE CITY. THIS WOULD HAVE THE DISTINCT POSSIBILITY OF CREATING A DOMINO EFFECT THAT IS CLEARLY NOT IN THE BEST INTERESTS OF THE CITY, ITS RESIDENTS OR ITS VISITORS.

IN MY OPINION, THE CITY MUST BE VERY CAUTIOUS IN APPROVING A PROJECT SUCH AS THIS THAT IS OBVIOUSLY DESIGNED TO MAXIMIZE EVERY SQUARE FOOT OF LAND. IT APPEARS THAT THE DEVELOPMENT COMPANY IS ASKING FOR THE MOST THAT IT CAN EVEN DREAM ABOUT GETTING APPROVED. THEN THE DEVELOPER WILL "GRACIOUSLY AND MAGNANIMOUSLY" SETTLE FOR SOMETHING A BIT LESS. THE 'SOMETHING A BIT LESS' WILL PROBABLY BE MORE THAN IT THOUGHT IT COULD EVEN OBTAIN IN THE FIRST PLACE.

AS A FINAL NOTE, I HAVE A DEEP CONCERN THAT THERE WILL BE A BUILT-IN BIAS, EVEN THOUGH POSSIBLY SUBCONSCIOUS, ON THE PART OF THE CITY OF DANA POINT TO APPROVE THIS PROJECT. THE CITY'S TRANSIENT OCCUPANCY TAX IS A MAJOR SOURCE OF REVENUE FOR DANA POINT. THE MONIES THAT THE DOHENY HOTEL WILL GENERATE FROM THIS BED TAX WILL CERTAINLY PROVE TEMPTING AND HARD TO RESIST IN THESE DIFFICULT ECONOMIC TIMES.

IN SUMMARY, I AM ADAMANTLY AND UNEQUIVOCABLY OPPOSED TO THE APPROVAL OF THE DOHENY HOTEL. IT IS AN EGREGIOUS EXAMPLE OF OVERDEVELOPMENT WITH A TOTAL LACK OF CONCERN FOR THE RESIDENTS AND VISITORS OF DANA POINT.

YOURS VERY TRULY,

Thomas Greeley

THOMAS GREELEY

CC. SOUTH COAST DISTRICT OFFICE,
CALIFORNIA COASTAL COMMISSION

(8)

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** GLENN GRIFFIN
2. **ADDRESS:** 33691 BIG SUR ST. DANA POINT CA.
3. **E-MAIL:** geqbeckett@gmail.com
4. **TODAY'S DATE:** 6-28-2011-10
5. **COMMENT:** *(Please write legibly)*

THERE HAS BEEN A MASTER PLAN & LAWS & ORDINANCES ESTABLISHED THAT ARE IN PLACE FOR GOVERNING THE BUILDING OF THIS CITY WHICH INCLUDE A HIGHTH LIMIT ON HOTELS PLEASE ABIDE BY THEM. DO NOT BUILD ANY THING OVER 3 FLOORS. THANK YOU

Glenn Griffin

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: Grace Griffin
2. ADDRESS: 33681 Big Sur Street
3. E-MAIL: geg bekett@gmail.com
4. TODAY'S DATE: June 28, 2011
5. COMMENT: *(Please write legibly)*

I think the design lacks in fitting into the community. Does not have the ambience. The hotel gives our community the look of Las Vegas or Mazatlan not the beautiful Dana Point we know and this will be the first impression people will see as they exit the freeway to enter our lovely town, how sad.

I also very strongly do not agree that a variance should be given in regard to the height. We have a 3 story maximum in our city and I would be happy if the hotel were only 2 stories.

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

(10)

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** Dennis Grimes
2. **ADDRESS:** 27682 Del Prado DP.
3. **E-MAIL:** Results Realtor@sbcglobal.net
4. **TODAY'S DATE:** 6-28-11
5. **COMMENT:** *(Please write legibly)* Hang it out there!

(1) First thoughts are the plan is too ambitious; too many rooms + sq ft. for the parcel. It needs Del Taco + Dwight's "Archives" needs to make hotel 140 units or step up + purchase adjoining parcels!

(2) Blue line aquifer needs to be addressed especially with water table so high + light tide right @ 1st below parking

(3) We would like to know kind of the available traffic "Trips" will impact? Concerned there will be more left for "In-N-Out" across street!!

+ Surfing Heritage Foundation

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

Dennis Grimes 6-28-11 7:30

(11)

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: JOHN H. HAZELRIGG
2. ADDRESS: 34152 CAMBRIDGE RD. DP
3. E-MAIL: JHAZELRIGG@PRODIGY.NET
4. TODAY'S DATE: 6/28/11
5. COMMENT: *(Please write legibly)* We have 3 major issues with this project. (all will affect property values in the area)

1) Height - The almost 70' maximum height is almost double the 35' limitation in Dana Point. Not only is this an obstruction of our views it is a precedent for future building in the area.

2) Traffic - The intersection of Del Obispo / Dana Point Harbor Drive and PCH is a very congested intersection. Almost all guests will be entering from PCH. The backup will be horrific.

3) Noise - We hear loud music etc from the Marriott which is farther away. It's inevitable that loud parties will be held poolside and be a major problem.

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: DONALD HORN
2. ADDRESS: 34124 Calle La Primavera
3. E-MAIL: SUSANANDY@COX.NET
4. TODAY'S DATE: 6.28-11
5. COMMENT: *(Please write legibly)*

BUILDING SHOULD BE ONLY BE 3 STORYS 38' OR UNDER -

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** Susannah B. Horn
2. **ADDRESS:** 34142 Calle la Primavera
3. **E-MAIL:** Susannahdv@Cox.net
4. **TODAY'S DATE:** June 28, 2011
5. **COMMENT:** *(Please write legibly)*

Please!! no tall structures in Dana Point that could impact Homeowner's ocean views and home values- We pride ourselves on our "small town" atmosphere . . . a haven from the other ultra-commercial beach cities.

I fear that this proposal would exacerbate already fragile and sensitive tributary and environmental areas, and contribute runoff water which would impact our storm drains and increase pollution -

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

(14)

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** Sandra Johnson
2. **ADDRESS:** 34122 Moongate Ct.
3. **E-MAIL:** Sandyjhr@cox.net
4. **TODAY'S DATE:** 6/28/11
5. **COMMENT:** *(Please write legibly)*

Putting a 5 story hotel on that corner will create more traffic than that corner can handle. It is already very, very busy.

A 5 story hotel will ruin the view we have currently in the Crystal Cove homes (mine included).

Why not either ~~put~~ make it 3 stories maximum or put the hotel behind the Denny's — more room there and it won't make the look of that corner so crowded.

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

ERICA DEMKOWICZ

From: jane kleiser [janiek77@hotmail.com]
Sent: Friday, June 24, 2011 7:30 PM
To: ERICA DEMKOWICZ
Subject: [Junk released by User action] NOP Doheny Hotel

Dear Erica H. Demkowicz, AICP, Senior Planner

We have read the NOP re: the proposed Doheny Hotel and would like to comment on this project . In general, the proposed use of the property would be an improvement to the site, both esthetically and economically. However, we find the size and scope of the operation objectionable.

Specifically, paragraph (3) wherein it states that the projected size will comprise two buildings each with (2-5) stories, and contain 258 rooms, 296 on-site subterranean parking spots and an additional off-site 50 parking spaces. It is noted that Variances will be required for both building height and setbacks. **The fact that variances must be obtained for this project, as proposed, underscore the fact that this project is too big for the subject parcel.** The fact that off-site parking will be necessary to make the project acceptable is egregious.

The height of the building should be in harmony with the character of its surroundings and not present any view obstruction to existing residences. Five stories appears too big. Off site parking should not be an option. Keeping in mind the future development of the former mobile home park on Del Obispo and its traffic implications on the intersection of PCH and Del Obispo as well as the impact on the intersection of Del Obispo and Village Road , the allowance of an additional parking service at the Water District for this proposal should not be an option. The project should be downsized to accommodate **ONLY** on-site parking.

Thank you for the opportunity to express our views. We are residents of Dana Point and live in close proximity to this project in The Village. Hopefully, consideration will be given.

Sincerely,

Jane Kleiser

Ken Fraser

34092 Cambridge Road

Dana Point, Ca. 92629

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** Edward Lee
2. **ADDRESS:** 34042 Cambridge Rd, DP CA 92624
3. **E-MAIL:** eyel@yahoo.com
4. **TODAY'S DATE:** 6/28/11
5. **COMMENT:** *(Please write legibly)*

Will e-mail comments

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: Esther Lee
2. ADDRESS: 34042 Cambridge Rd. Dana Point
3. E-MAIL: esther.lee@usa.net
4. TODAY'S DATE: 6/28/2011
5. COMMENT: *(Please write legibly)*

1. The 5 storage is too high 66.5 ft plus Top roof to 76.5 ft. Need alternatives to the proposed plan to reduce the high and keep to current city plan of 35 ft.
2. Traffic is a major concern at the intersection.
3. Noise could be a problem for homes near by.
4. Parking offsite with water district is only 5 yrs and employees may using the marina parking which will have major impact to our tourasome business.
5. Water quality - waste water issues.
6. Need environmental impact study to consider all issues
7. Air quality with potential significant impact.

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: Ruby Netzley
2. ADDRESS: 34072 CALLE LA PRIMAVERA, DANA POINT
3. E-MAIL: rmnetzley@[redacted]email.net
4. TODAY'S DATE: June 25, 2011
5. COMMENT: *(Please write legibly)*

DO NOT BUILD OVER 3 STORIES, PREFERABLY 2.
TERRIBLE ARCHITECTURE
DO NOT LIKE COMING TOO CLOSE TO PCH
(SHOULD FACE OTHER STREETS NOT CLOSE TO PCH)
DO NOT BUILD BELOW GROUND
ENVIRONMENTAL IMPACT
LIQUIFACTION! - (PROBLEM) - CONCERNED

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

ERICA DEMKOWICZ

From: dpendergrass062@gmail.com on behalf of Dean Pendergrass [deanpendergrass@sbcglobal.net]
Sent: Tuesday, June 28, 2011 10:36 AM
To: ERICA DEMKOWICZ
Cc: Yvonne Pendergrass
Subject: Doheny Hotel Proposal

Dear Mr. Butterwick:

Regarding the proposed Doheny Hotel project I would like to comment on some issues.

I am in agreement that the location in question clearly needs some improvement especially to the existing PCH/Harbor Drive corner property. This area is highly visible to visitors and has been an embarrassment for years. I believe that the major obstacle to earlier development of this property has been traffic as it relates to entry and exit. Accordingly, how could a new hotel have anything but a negative impact on traffic flow? If, by chance, traffic questions can be addressed what are the plans for building height? Unless I'm mistaken we currently have no structures above 2 story including the Marriott and Holiday Inn.

Thank you for your attention to my concerns.

Regards,

Dean Pendergrass
34132 Moongate Ct.
Dana Point

(20)

Kelly Hickler

From: ERICA DEMKOWICZ [EDEMKOWICZ@DanaPoint.org]
Sent: Monday, July 18, 2011 3:42 PM
To: Robert Rusby; Kelly Hickler
Subject: FW: Notice of Preparation - Draft Environmental Impact Report and Public Scoping Meeting - June 15, 2011

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Doheny Hotel

Please see public comment e-mail below.

Thanks,
Erica

Erica H. Demkowicz, AICP
Senior Planner
City of Dana Point
(949) 248-3588
edemkowicz@danapoint.org

From: Ron Trerotola [mailto:ron.trerotola@sbcglobal.net]
Sent: Monday, July 18, 2011 3:35 PM
To: ERICA DEMKOWICZ
Subject: Fwd: Notice of Preparation - Draft Environmental Impact Report and Public Scoping Meeting - June 15, 2011

July 18, 201

To: Erica H. Demkowicz, AICP, Senior Planner, 33282 Golden Lantern, Dana Point, CA 92629-1805

Fr: Ron Trerotola, Homeowner, 25112 Oceanknoll, Dana Point, CA 92629

Re: Notice of Preparation – Draft Environmental Impact Report and Public Scoping Meeting – June 15, 2011

Dear Ms. Demkowicz,

I have reviewed the Notice of Preparation – Draft Environmental Impact Report and Public Scoping Meeting and had some time to discuss the Public Scoping Meeting held on June 28, 2011. While I am always in favor of improvements and higher use of our property in the proximity of Dana Point Harbor for the greater good of all of the city residents, I am concerned about the current plan as it has drafted.

(20a)

There are a number of items that may have not been thoroughly thought out in this planning process:

1. Aesthetics and Transfer of Value. The plan itself, while creating value for the hotel owners and its potential guests, will remove value from the current homeowners who are within viewing distance of the harbor and the Doheny Beach area. As one of those potential homeowners who would be directly impacted, I regard this is as a highly negative impact on the aesthetic value of Dana Point. This impact stems directly from the request made by the developers for a "variance" of almost 30 feet in height from the city's current norm for such construction. I don't believe that the Marriot hotel located directly across from my home approaches these heights. First, all of the prior hotel and motel owners in the area have carried on their businesses without the need for such a drastic variation. I can specifically state that in deciding to purchase my home in 2003, had I known that such a variance request could be made or considered, I would not have not moved to Dana Point. It is obvious that that value would be transferred to the hotel guests in a 5 story building with two outside pools.

2. Variance and Setback Request. The nature of such a variation would seem to be unprecedented in the scheme of the city's norm for such a business. We as residents are always challenged to justify the most minor changes made to our properties. These requested variances for height and set back are so great, they would appear to be re-zoning if permitted. However, if approved, then I would conclude that all residents and land owners impacted by the diminished valuations would also be granted de-facto the same variances for their property, so that they could enhance and realize their lost value from the Doheny Hotel project. We may not all use the 60 foot height and set back, but would wish the option to take advantage of the opportunity.

3. Hotel Rooms/Size Impact on Traffic. The hotel plan is for 258 rooms and 296 subterranean level parking spaces located in the one level beneath the hotel. The location of such a sizable number of rooms and subterranean parking spaces is disconcerting given the planned location of the hotel. The intersection of Del Obispo/Dana Point Harbor Drive and the Pacific Coast Highway is probably the busiest single intersection within the city of Dana Point. During peak hours of hotel operation when visitors and guests will enter the town area from the Interstate 5 freeway exit, I would expect the traffic delays and congestion to increase dramatically. Although I do not know the details of the room layout on the current plan, we are likely talking about fitting 68% (258/378) of the number of rooms currently in the Marriott within a land area that is probably less than 50% of the existing Marriott hotel area (by estimate of the local vicinity map). And this does not include the sprawling support roads along Lantern Bay Park and a multilevel, above ground parking lot that service the Marriott. Therefore, this project is much denser and with dependence on very active roads such as the PCH and Del Obispo. Finally, the Marriott utilizes the Park Lantern support road for access which keeps the Dana Point Harbor Drive untaxed by traffic.

4. Hotel Parking Lot Impact on Traffic. The plan discusses using lifts and valet parking for on-site parking. Having grown up in New York, I can safely say that any parking structure using elevators or lifts to permit vehicles to be parked can also have a negative impact on the flow of traffic. In many instances, I was accustomed to watching lines of cars spill out into the street

(206)

while insufficient personnel numbers would handle parking and retrieving. Given the size and scope of the amount of people and the 2 lanes of traffic running by the hotel entrance there would be further traffic resulting in addition to the normal traffic flow that enters the Harbor Drive.

5. Hydrology, Water Quality. I am concerned as to whether or not the planners have considered the immediate environment surrounding this planned hotel development with regards to hydrology and water quality. As stated in CCA Report #74, June 2, 2006,"Doheny State Park Beach frequently exceeds State recreational water quality standards for bacteria. Currently, no major point source dischargers of pollutants to the creeks of the watershed have been clearly identified. Water quality problems in the watershed are believed to be primarily due to non-point source runoff from urbanized areas. There is also a significant and as yet not completely defined, contribution of bacteria from birds and other wildlife sources outside of the developed areas." As a resident, I am not proud of these statements and do not wish any further environmental impacts in the Doheny Beach area. I am sure that the city of Dana Point is also interested in not further degrading the environment by adding the currently planned Doheny Hotel Project.

In closing, I do not ever wish to impede new commercial development within Dana Point for the continued value added to each resident and to the city at large. I am a proponent of continuously improving land use and property values within the city as well. However, when such a development penalizes the aesthetic, cultural, transportation, circulation and other potential environmental aspects of the town, I worry.

The Doheny Hotel may greatly benefit our city, if it were perhaps located in an area where these and other impacts would not disturb the environment as much. Clearly there needs to be some agile, alternative thinking applied to the current plan before it overcomes the obvious environmental impacts.

Sincerely,

Ron Trerotola

---

(21)

Kelly Hickler

From: ERICA DEMKOWICZ [EDEMKOWICZ@DanaPoint.org]
Sent: Thursday, June 30, 2011 1:53 PM
To: Robert Rusby; Kelly Hickler
Subject: FW: Scoping Doheny Hotel Project - Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Doheny Hotel

FYI.

Erica H. Demkowicz, AICP
Senior Planner
City of Dana Point
(949) 248-3588
edemkowicz@danapoint.org

From: Barry Vaniel [mailto:barryvaniel@gmail.com]
Sent: Wednesday, June 29, 2011 2:38 PM
To: ERICA DEMKOWICZ
Subject: Scoping Doheny Hotel Project - Comments

Erica: Thank you for your effort to inform the community about this new hotel and collect our comments.

My thoughts are:
1. Five stories is too high and will set a precedent for buildings on the the other 3 corners at this location.
2. The planned hotel is too dense. Number of rooms should be under 100 rooms for the size lot and traffic flow.
3. Is the ground stable enough for this size hotel? Liquefaction has been mentioned for the ground under the mouth of the San Juan Creek dumping into the ocean. I am not sure whether the unstable ground extends to this corner. If so, lower building size would be better.

Respectfully submitted,
Barry Vaniel
25382 Village Road
Dana Point, CA 92629

email: barryvaniel@gmail.com
June 29, 2011

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** Diane & Mike Wheatley
2. **ADDRESS:** 25292 Dartmouth Lane
3. **E-MAIL:** dianeofgreengables@yahoo.com
4. **TODAY'S DATE:** 6/28/11
5. **COMMENT:** *(Please write legibly)* We would appreciate seeing a hotel that is limited to 2 stories and has above ground parking. The proposed Doheny Hotel is overkill for an extremely busy intersection. We have enough grand locations in this "quaint harbor town" to give tourists a great vacation.

To grant a variance that allows this Beverly Hills Hospitality Group would be a mistake for the City of Dana Point with huge ramifications for future growth.

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

Thank you so much for this opportunity to see the model & renderings & hear Kyle Butterwick

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** LIN YONG
2. **ADDRESS:** 34052 CAMBRIDGE ROAD, DP 92629.
3. **E-MAIL:** slinyong@cox.net
4. **TODAY'S DATE:** 6/28/11
5. **COMMENT:** *(Please write legibly)*

Proposal should only be seriously considered if it is scaled down to a 2-3 story on this LIMITED 1.5 acre site @ a heavily traffic & congested X road with a major hwy -PCH & ENTRY/EXIT POINTS coming off I-5 to beach cities. Translate this major reduction rendered the 258 rm project financially non viable (Marriott has 342 rooms on a larger acreage & away from major traffic.
- this is like putting a square peg (258 rm/1.5 acre) on to a limited ROUND 1.5 acre peg.
- Final proposal needs to be more realistic & rational
- Traffic will be a major consideration given that MAKAR diagonally across will be adding condominiums later on if it passed Coastal Commission approval.

Thank You.

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. NAME: KEN YOSHINO
2. ADDRESS: 34162 CAMBRIDGE ROAD
3. E-MAIL: judoboy@earthlink.net
4. TODAY'S DATE: 6/28/2011
5. COMMENT: *(Please write legibly)*

SEE ATTACHED

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

TALKING POINTS

1. ISTHERE PROOF THAT A 3 STORY HOTEL WILL NOT WORK ECONOMICALLY?

2. WHAT IS THE PROJECTED OR EXPECTED RETURN ON INVESTED CAPITAL?

3. YOUR NOT BEING CANDID IF YOU CANNOT TELL US THE RETURN ON A 3 STORY VS A 5 STORY HOTEL FOR INVESTORS.

4. CAN YOU ASSURE ME AND MY COMMUNITY NEIGHBORS THAT THE OLD HOTEL SITE WILL NOT RECEIVE A VARIANCE TO BUILD OVER 3 STORIES. HOW WILL YOU ASSURE THAT PLEDGE/PROMISE?

5. WHAT IS THE LEVEL OF OCCUPANCY OF ALL HOTELS IN DANA POINT?

6. THE SAINT REGENCY HOTEL HAS A DISMALL OCCUPANCY RATE. WHY DO WE NEED AND CAN WE SUPPORT ANOTHER HOTEL IN THAT CLASS?

7. WILL THE OCCUPANCY RATE BE 75% OR 80% IN ORDER TO BREAK EVEN? HOW WAS THIS BREAK EVEN POINT DETERMINED?

8. WILL THE DEVELOPER PUT INTO PLACE POLES THAT WILL EQUATE TO THE 5 STORIES AND 3 STORIES SO THAT WE MAY HAVE AN IDEA OF THE HEIGHT OF THE HOTEL?

6/28/2011

KEN YOSHINO
34162 CAMBRIDGE ROAD
judoboy@earthlink.net

COMMENT CARD

Scoping Meeting for the Doheny Hotel Project
City of Dana Point – Community Development Department
June 28, 2011 at the Dana Point Community Center

1. **NAME:** _____
2. **ADDRESS:** _____
3. **E-MAIL:** _____
4. **TODAY'S DATE:** _____
5. **COMMENT:** *(Please write legibly)* _____

5 stories are a Deal Breaker

Traffic is a big issue

REJECT THIS!!

Comments can also be mailed, faxed, or e-mailed to:

Erica Demkowicz, Senior Planner
City of Dana Point – Community Development
33282 Golden Lantern
Dana Point, CA 92629-1805
Phone: 949-248-2588
Fax: 949-248-7372
E-mail: edemkowicz@danapoint.org

All comments must be received by the City of Dana Point by 5:00 p.m. on July 18, 2011.

(26)

Date: July 5, 2011

To: Members of the Village at Dana Point Homeowner's Association

From: Village HOA Board of Directors

Re: Proposed Doheny Hotel

Members of the board and many concerned homeowners of The Village at Dana Point attended the June 28th Scoping Meeting for the Environmental Impact Report (EIR) on the proposed Doheny Hotel at the corner of PCH and Dana Point Harbor Drive. The purpose of the meeting was to expose the project to neighbors and residents and elicit comments and concerns to be addressed in the EIR. The developer had an impressive model and elevations for us to review. City staff were there to answer our questions. We have come up with a list of potential concerns below which we will submit to the City. You may have additional concerns as well. If so, they must be submitted to the City in writing by 5 p.m. on July 18th.

The Developer will be required to put up poles representing the building outline, so we will be able to see the impact on our views. It will be several months before this occurs. We will keep you informed as we go through the process. At some point, resident participation in public meetings will be very helpful. We will let you know when that is. Additionally, we would like to hear your views on the project. Obviously the property is an eyesore today, and a nice development there could be a benefit for us all. Conversely, we will have to live with these permanent changes, so we should express our concerns rationally and clearly. This does have the potential to affect your views and your neighbor's views. Keep in mind that even if this doesn't block your view, the precedents set here will have an impact when the other corners are developed.

Concerns the EIR should address are:

- Impact on views from various parks. Even though the City does not consider individual resident's views, they do consider views from the parks. We actually have view easements over some of our properties; it would be ironic if those view easements protected views of the proposed hotel. Views include daytime and nighttime views. Bright lights at night would create glare.

- Precedent set by variances now on nearby properties in the future. At some point the other corners of this intersection will be developed. When they are, variances granted to this developer will be the starting point for the next developer's demands.

- Traffic impacts. There is the potential for traffic to back up from the *porte cochere* onto Harbor Drive and even onto PCH during special events. The project will add visitors and traffic too. Proposed offsite parking at the water district (due to intensity of the development) will probably mean diesel van traffic back and forth past our homes along Del Obispo. The project will add cars, buses, trucks and traffic to the intersection.

- Employee parking is proposed offsite at the water district for 5 months of the year, for five years. What happens after five years is not addressed. In all likelihood, employees will take up already scarce parking at the harbor, at the basketball courts, and in our neighborhood. This could mean loitering and fast food trash, as occurs near the Fountains today, as well as more people cutting across our slopes.

- The elevations do not match surrounding architecture. It is a mid-century modern, Palm Springs look, a completely new element. The long, repetitive wall along PCH that we will be looking at is not attractive and needs more interest, articulation and quality. The architecture should complement some existing elements in the area-for example the bridge or the Marriott.

- The height and mass along and close to PCH will create a tunnel effect. The building should be lower and set back further to avoid this.

- The building does nothing to encourage pedestrian access or flow. The long blank wall does not tie this into the Village Plan. Some commercial activity along PCH would encourage pedestrian activity along this corridor.

- Deliveries will create noise, congestion and disruption. Deliveries need to be concealed from view, as do the loading areas themselves. Idling and maneuvering trucks and the noise of equipment need to be minimized.

- Party and event noise needs to be taken into account. Loudspeakers, amplified music and general partying will be closer to residential areas than today.

- Mechanical equipment noise needs to be assessed and eliminated. Mechanical equipment has to be screened so it is not visible or audible from surrounding parks.

- The project turns its back on the intersection and PCH. This is the entry to Dana Point. It should make a statement for our City.

- The developer should make a green space contribution as required by similar projects. The green space should benefit the immediate area impacted by the project.

- The project should tie in with walking and biking trails already started in various parts of the City, with the eventual goal of an integrated system of trails.

- The project should take into account the unlikely, but potentially catastrophic impact of tsunami inundation.

- A lower quality project could attract undesirable persons to the area, increasing crime.

We don't necessarily oppose a hotel at this location, provided it is high-quality, scaled appropriately, considers the views of neighbors, is architecturally pleasing and ties into the overall plan for the City along PCH. This will be a long process. We will keep you informed and welcome your input, support and participation. If you would like to be more involved, please contact the Board as we welcome your help.

Appendix B

Draft Air Quality Report

DRAFT
AIR QUALITY ANALYSIS
FOR
DOHENY HOTEL
DANA POINT, CALIFORNIA

Prepared For:

CITY OF DANA POINT
COMMUNITY DEVELOPMENT DEPARTMENT
33282 Golden Lantern
Dana Point, California 92629-1805
Contact: Erica Demkowicz, AICP, Senior Planner
(949) 248-3588

Prepared By:

UltraSystems Environmental
16431 Scientific Way
Irvine, California 92618-4355

Project No. 5802

February 2012

This analysis was prepared in accordance with Section 15063(d)(3) and Appendix G of the *State CEQA Guidelines* to determine the potential significant air quality effects on the physical environment that could result from the implementation of the proposed project.

Report Preparer:

Name & Title: BENJAMIN WONG, Air & Noise Scientist

Signature: _____ Date: _____

Reviewed by:

Name & Title: MICHAEL ROGOZEN, Senior Principal Engineer

Signature: _____ Date: _____

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

Beverly Hills Hospitality Group is proposing to develop a five-story hotel (Doheny Hotel) on a 1.5-acre site in the City of Dana Point, California. The Project site is located on the southwest corner of Pacific Coast Highway and Dana Point Harbor Drive. **Figure 1** (Regional Vicinity Map) shows the site in relation to the surrounding area. The immediate vicinity of the both the Doheny Hotel Site and the off-site parking location) is shown in **Figure 2** (Project Study Area). **Figure 3** (Doheny Hotel Project Study Area) and **Figure 4** (Off-Site Parking Project Study Area) show a closer view of each respective study area.

The purpose of this report is to provide a detailed technical air quality analysis of the Doheny Hotel Project. The report includes a description of federal, State, and local agencies that govern air quality and climate change, and their pertinent statutes and regulations. It then identifies potential impacts of air pollutants of concern for this project, including criteria pollutants (i.e., pollutants for which National Ambient Air Quality Standards [NAAQS] have been established by the U.S. Environmental Protection Agency), mobile source air toxics, and greenhouse gases.

Regional climate and meteorology, air quality monitoring data, and the area's attainment status with respect to criteria air pollutants are then discussed. The report describes regional air quality regulations, provides a description of the analytical methodologies and assumptions used for this study as well as the results of these analyses and proposed mitigation measure.

The report also provides a description of the analytical methodologies and assumptions used for this study as well as the results of these analyses and proposed mitigation measures. The air quality analysis was prepared in accordance with the *CEQA Air Quality Handbook* prepared by the South Coast Air Quality Management District (SCAQMD).[1]

[1] South Coast Air Quality Management District, *CEQA Air Quality Handbook*. (1993; Updated 2006).

Figure 1
Regional
Vicinity Map

Figure 2
Project Study Area

Figure 3
Doheny Hotel Project
Study Area

Figure 4
Off-Site Parking
Project Study Area

2.0 PROJECT DESCRIPTION

2.1 Proposed Project

The Proposed Project site is located on a 1.5-acre, commercially zoned site at the southwest corner of Pacific Coast Highway and Dana Point Harbor Drive in the City of Dana Point. Existing land uses on the site include a 46-room motel, a vacant commercial building, and a Jack in the Box restaurant. The land adjacent to the project site on the north is in commercial use. A fast food restaurant is located to the west, and Lantern Bay County Park is south of the project site.

Figure 5 (Site Plan) shows the planned elements of the Doheny Hotel. The Project includes both demolition of the existing facilities and construction of a new hotel. New on-site facilities will include a 76.5 foot tall five-story hotel with 258 rooms, a 7,087 square foot dine-in restaurant, a 12,103 square foot conference center/banquet/meeting area, and 275 on-site parking spaces (includes both above-ground and subterranean spaces). The proposed Project will also include 50 off-site parking spaces at a South Coast Water District-owned lot located between Stonehill Drive and Camino Capistrano, that will be dedicated to hotel employees for overflow parking during peak weekends.

The construction for the Project is scheduled to begin in early 2013[2], and to be completed by late 2014 (estimated 480 days)[3]. Excavation and earthwork would amount to approximately 48,560 cubic yards exported over approximately one year, and the hotel is estimated to be operational in 2015.

2.2 Alternative #1

Alternative #1 is the no project alternative. No hotel will be constructed. The project site would remain in its current state, developed with a two-story hotel, a fast-food restaurant, a vacant commercial retail building and associated surface parking lots.

2.3 Alternative #2

Alternative #2 will be a three story hotel project that conforms to the 35 foot maximum allowable height in accordance with the Dana Point Specific Plan. For discussion purposes, this alternative will not include the 4th and 5th floors (114 rooms) and will include a reduction in the overall ceiling height on the first floor by five feet. With these changes, Alternative #2 will result in a hotel project with 144 rooms, 35 foot overall height and a subsequent reduction[4] in

[2] The proposed construction year has changed since the preparation of the air quality analysis from 2013 to 2014. Using 2014 as the start of construction will result in lower emissions estimates than were presented for 2013. This is because EPA and CARB mobile source emission limits become more stringent as time goes on. Because emissions are less than significant with the 2013 assumption, they will also be less than significant with the 2014 assumption.

[3] Letter from Ed Mandich, Project Manager, Hunsaker & Associates Irvine, Inc., Irvine, California to Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California. January 20, 2012.

[4] Email communication from Erica Demkowicz, Senior Planner at City of Dana Point, Dana Point, California, to Ole Barre, Senior Project Manager, UltraSystems Environmental, Inc., Irvine, California. January 23, 2012.

on-site parking and trips generated (a total of 196 on-site subterranean and surface parking spaces).[5] Like the Proposed Project, Alternative #2 will include 50 off-site parking spaces dedicated to hotel employees for overflow parking during peak weekends. The construction for Alternative #2 is scheduled to take place early in 2013, and to be completed by 2014 (estimated 312 days)[6].. Excavation and earthwork for this alternative is assumed to be similar to that for the Proposed Project, and the hotel is estimated to be operational in 2015.

2.4 Alternative #3

Alternative #3 is located on the 1.5-acre, commercially zoned site at the southwest corner of the Pacific Coast Highway and Dana Point Harbor Drive in the City of Dana Point, in addition to 0.76 acres of Lantern Bay Park to be utilized as a retaining wall. The Doheny Hotel Project includes the construction and operation of a new 5-story hotel with 273 rooms and 369 on-site parking spaces (includes both above-ground and subterranean spaces), and 50 off-site hotel employee, or special events parking. The construction for the Project is scheduled to take place early in 2013, and to be completed by late 2014 (estimated 480 days)[7]. Due to the additional earthwork for the retaining wall in Lantern Bay Park, the excavation and earthwork would amount to 58,560 cubic yards exported over approximately one year, and the hotel is estimated to be operational in 2015.

[5] Estimated by UltraSystems using a ratio between rooms of the Proposed Project and Alternative #2: 144 / 258 = 0.558.

[6] UltraSystems assumed demolition, site preparation, and grading phases take the same amount of time to complete as the Proposed Project. Building construction, paving, and architectural coating phases are estimated based on a ratio between rooms of the Proposed Project and Alternative #2: 144 / 258 = 0.558.

[7] Letter from Ed Mandich, Project Manager, Hunsaker & Associates Irvine, Inc., Irvine, California to Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California. February 3, 2012.

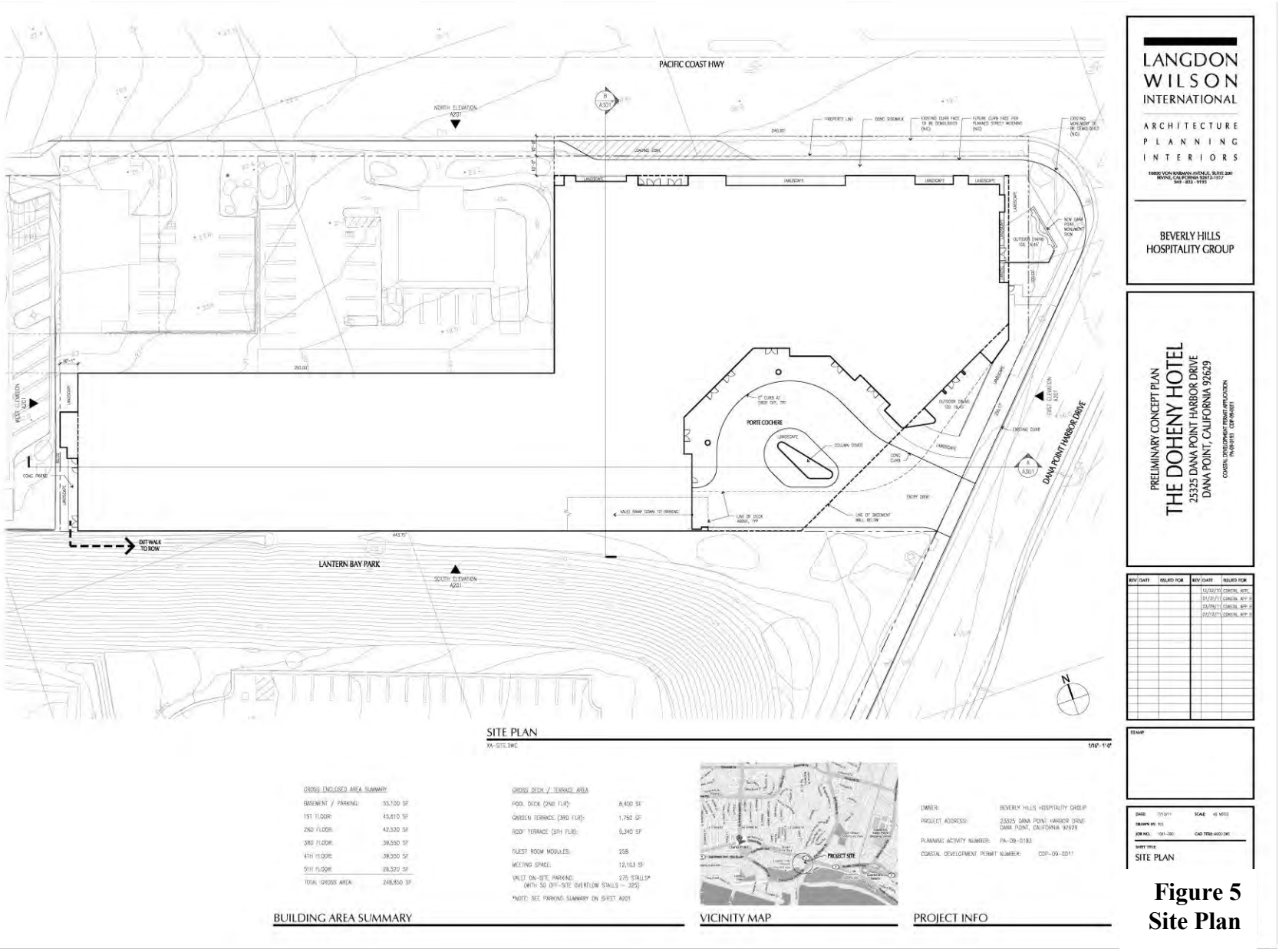


Figure 5
Site Plan

3.0 EXISTING CONDITIONS

3.1 Regional Climate

Air quality is affected by both the rate and location of pollutant emissions, and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The project site is located in the City of Dana Point (City) within the County of Orange. The City lies within the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles County, most of the Riverside County, and the western portion of San Bernardino County─including some portions of what was previously known as the Southeast Desert Air Basin. The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around its remaining perimeter. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. An upper layer of dry air that warms as it descends characterizes high-pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located. This upper layer restricts the mobility of cooler marine-influenced air near the ground surface and results in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 mph, smog potential is greatly reduced.[8]

The climatological station closest to the site is the Laguna Beach (Latitude 33.54528, Longitude -117.78139) station,[9] which is approximately 7.7 miles northwest of the Project site (Latitude 33.465123, Longitude -117.689527). The annual average temperature recorded at this station is 61.1 degrees Fahrenheit (˚F), with the average temperature of 67.2˚F during summer and 54.7˚F

[8] South Coast Air Quality Management District (SCAQMD), *CEQA Air Quality Handbook*, April 1993, p. A8-1.

[9] Meteorological station location information from "Western US COOP Station Map," Western Region Climate Center, http://www.wrcc.dri.edu/coopmap/ (Accessed January 31, 2012).

during winter.[10] Precipitation in the area averages approximately 12.61 inches annually, and occurs mostly during the winter and infrequently during the summer.[11]

3.2 Regulatory Setting

Federal, state, and local agencies have set ambient air quality standards for certain air pollutants through statutory requirements and have established regulations and various plans and policies to maintain and improve air quality, as described below.

3.2.1 Pollutants of Concern

Criteria Pollutants

The criteria air pollutants of concern are nitrogen dioxide (NO_2), carbon monoxide, particulate matter, sulfur dioxide, lead, and ozone, and their precursors. Criteria pollutants are air pollutants for which acceptable levels of exposure can be determined and an ambient air quality standard has been established by the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB). Since the Proposed Project would not generate appreciable sulfur dioxide (SO_2) or lead (Pb) emissions,[12] it is not necessary for the analysis to include those two pollutants. Presented below is a description of the air pollutants of concern and their known health effects.

Nitrogen Oxides (NO_x) serve as integral participants in the process of photochemical smog production, and are precursors for certain particulate compounds that are formed in the atmosphere. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown pungent gas formed by the combination of NO and oxygen. NO_2 acts as an acute respiratory irritant and eye irritant, and increases susceptibility to respiratory pathogens. A third form of NO_x, nitrous oxide (N_2O), is a greenhouse gas (GHG).

Carbon Monoxide (CO) is a colorless, odorless non-reactive pollutant produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is its binding with hemoglobin in red blood cells, which decreases the ability of these cells to transport oxygen throughout the body. Prolonged exposure can cause headaches, drowsiness, or loss of equilibrium; and high concentrations are lethal.

Particulate Matter (PM) consists of finely divided solids or liquids, such as soot, dust, aerosols, fumes and mists. Two forms of fine particulate matter are now recognized. Respirable particles, or PM_{10}, include that portion of the particulate matter with an aerodynamic diameter of 10 micrometers (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. Fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 micrometers (i.e., 2.5 one-millionths of a meter or

[10] "Laguna Beach, California. Period of Record General Climate Summary – Temperature." Western Region Climate Center, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4647 (Accessed May 19, 2011).

[11] "Laguna Beach, California. Period of Record General Climate Summary – Precipitation." Western Region Climate Center, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4647 (Accessed May 19, 2011).

[12] Sulfur dioxide emissions will be approximately of 0.07 pounds per day.

0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on the arid landscape also contributes substantially to the local particulate loading. Fossil fuel combustion accounts for a significant portion of $PM_{2.5}$. In addition, particulate matter forms in the atmosphere through reactions of NO_x and other compounds (such as ammonia) to form inorganic nitrates. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Reactive Organic Gases (ROG) are compounds comprised primarily of atoms of hydrogen and carbon that have high photochemical reactivity. The major source of ROG is the incomplete combustion of fossil fuels in internal combustion engines. Other sources of ROG include the evaporative emissions associated with the use of paints and solvents, the application of asphalt paving and the use of household consumer products. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants. ROG are also transformed into organic aerosols in the atmosphere, contributing to higher levels of fine particulate matter and lower visibility. The term "ROG" is used by the CARB for air quality analysis and is defined the same as the federal term "volatile organic compound" (VOC).

Ozone (O_3) is a secondary pollutant produced through a series of photochemical reactions involving ROG and NO_x. O_3 creation requires ROG and NO_x to be available for approximately three hours in a stable atmosphere with strong sunlight. Because of the long reaction time, peak ozone concentrations frequently occur downwind of the sites where the precursor pollutants are emitted. Thus, O_3 is considered a regional, rather than a local, pollutant. The health effects of O_3 include eye and respiratory irritation, reduction of resistance to lung infection and possible aggravation of pulmonary conditions in persons with lung disease. O_3 is also damaging to vegetation and untreated rubber.

Greenhouse Gases

Greenhouse gases (GHG) are defined under the California Global Warming Solutions Act of 2006 (AB 32) as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC)s, perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Associated with each GHG species is a "global warming potential" (GWP), which is defined as the ratio of degree of warming to the atmosphere that would result from the emission of one mass unit of a given GHG compared with one equivalent mass unit of CO_2 over a given period of time. By this definition, the GWP of CO_2 is always 1. The GWPs of methane and nitrous oxide are 21 and 310, respectively.[13] "Carbon dioxide equivalent" (CO_2e) emissions are calculated by weighting each GHG compound's emissions by its GWP and then summing the products.

3.2.2 Applicable Regulations

Federal Regulations

The Federal Clean Air Act (CAA), passed in 1970, established the national air pollution control program. The basic elements of the CAA are the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutants standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The NAAQS are the maximum allowable concentrations of criteria pollutants, over specified averaging periods, to protect human health. The CAA requires that the U.S. Environmental Protection Agency (USEPA) establish NAAQS and reassess, at least every five years, whether they are adequate to protect public health, based on current scientific evidence. The NAAQS are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety, and the latter to protect environmental values, such as plant and animal life.

Data collected at permanent monitoring stations are used by the USEPA to classify regions as "attainment" or "nonattainment," depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are subject to additional restrictions, as required by the USEPA.

The CAA Amendments in 1990 substantially revised the planning provisions for those areas not currently meeting NAAQS. The Amendments identify specific emission reduction goals that require both a demonstration of reasonable further progress and attainment, and incorporate more stringent sanctions for failure to attain the NAAQS or to meet interim attainment milestones.

[13] California Climate Action Registry. *General Reporting Protocol. Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1*. Los Angeles, California (January 2009), p. 91.

State Regulations

The State of California began to set California ambient air quality standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. There were no attainment deadlines for the CAAQS originally. However, the State Legislature passed the California Clean Air Act (California CAA) in 1988 to establish air quality goals, planning mechanisms, regulatory strategies, and standards of progress to promote their attainment. The CARB, which became part of the California Environmental Protection Agency (Cal EPA) in 1991, is responsible for ensuring implementation of California CAA, responding to the federal CAA, and for regulating emissions from motor vehicles and consumer products.

The California CAA requires attainment of CAAQS by the earliest practicable date. The state standards are generally more stringent than the corresponding federal standards. Attainment plans are required for air basins in violation of the State O_3, PM_{10}, CO, SO_2, or NO_2 standards. Responsibility for achieving state standards is placed on the CARB and local air pollution control districts. District plans for nonattainment areas must be designed to achieve a 5-percent annual reduction in emissions. Preparation of and adherence to attainment plans are the responsibility of the local air pollution districts or air quality management districts.

Table 1 (Ambient Air Quality Standards for Criteria Air Pollutants) lists the NAAQS and CAAQS for criteria pollutants.

3.2.3 Air Quality Plans

The SCAQMD is required to produce plans to show how air quality will be improved in the region. The CCAA requires that these plans be updated triennially to incorporate the most recent available technical information.[14] A multi-level partnership of governmental agencies at the federal, State, regional, and local levels implements the programs contained in these plans. Agencies involved include the USEPA, CARB, local governments, Southern California Association of Governments (SCAG), and SCAQMD. The SCAQMD and the SCAG are responsible for formulating and implementing the AQMP for the SCAB. The SCAQMD updates its AQMP every three years. The 2003 AQMP was adopted in August 2003. The CARB approved a modified version of the 2003 AQMP and forwarded it to the EPA in October 2003 for review and approval. The 2003 AQMP updates the attainment demonstration for the federal standards for O_3 and PM_{10}; replaces the 1997 attainment demonstration for the federal CO standard and provides a basis for a maintenance plan for CO for the future; and updates the maintenance plan for the federal NO_2 standard, which the SCAB has met since 1992.

The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone State Implementation Plan (SIP) for the SCAB for the attainment of the federal O_3 air quality standard. However, this revision points to the urgent need for additional emissions reductions (beyond those incorporated in the 1997/1999 Plan) from all sources, specifically those under the jurisdiction of the CARB and the USEPA, which account for approximately 80 percent of the O_3 precursor emissions in the SCAB.

[14]/ CCAA of 1988.

Table 1 - Ambient Air Quality Standards for Criteria Air Pollutants

Pollutant	Averaging Time	California Standards[a]		Federal Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary[c,f]	Method[g]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		0.1 ppm (188 µg/m^3)	None	
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	—	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1 Hour[h]	0.25 ppm (655 µg/m^3)		0.075 ppm (196 µg/m^3)	—	
Lead[i]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average[j]	—		0.15 µg/m^3		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer–visibility of 10 miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70%. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[i]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

a. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter–-PM_{10}, $PM_{2.5}$, and visibility reduction particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
b. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.
c. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25ºC and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25ºC and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
d. Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
e. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
f. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
g. Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by USEPA.
h. On June 2, 2010, the USEPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The USEPA also revoked both the existing 24-hour SO_2 standard of 0.14 ppm and the annual primary SO_2 standard of 0.030 ppm, effective August 23, 2010.
i. The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
j. National lead standard, rolling 3-month average: final rule signed October 15, 2008.

Source: California Air Resources Board, "Ambient Air Quality Standards." Internet URL: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. (September 8, 2010).

On June 1, 2007, when the analysis based upon the 2003 AQMP was substantially complete, the SCAQMD Governing Board adopted the 2007 AQMP. The 2007 AQMP builds upon improvements accomplished from the previous plans, and aims to incorporate all feasible control measures while balancing costs and socioeconomic impacts. This AQMP focuses on O_3 and $PM_{2.5}$. The 2007 AQMP also incorporates significant new scientific data, emission inventories, ambient measurements, control strategies, and air quality modeling.

3.2.4 Local Regulations

The project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the local agency responsible for monitoring air quality, as well as planning, implementing and enforcing programs designed to attain and maintain NAAQS and CAAQS over the region.

SCAQMD is the agency that regulates rules within the SCAB that apply to construction and operation. Rule 403, as described below, limits fugitive dust emissions during construction. For operations, SCAQMD would typically issue permits, with restrictive conditions for boilers and emergency generators. Even with permits, there are additional rules that govern various types of emission sources at a hotel, including boilers, and gas heaters.

Rule 403

SCAQMD Rule 403 applies to any activities, such as construction capable of generating fugitive dust (demolition, excavation, etc.). Its purpose is to reduce fugitive dust emissions by requiring actions to prevent, reduce or mitigate fugitive dust emissions. The rule requires that:

1. No person shall cause or allow emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area to remain visible in the atmosphere beyond the property line, or exceed 20 percent opacity (determined in the Rule 403 Implementation Handbook);
2. No person shall conduct active operations without utilizing applicable best available control measures (BACT) in Table 1 of Rule 403;
3. No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter; and
4. No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation.

Rule 1146

Dependent on the Btu per hour rated heat input capacity of commercial boilers, or process heaters used for the proposed hotel's operations, Rule 1146, Rule 1146.1, or Rule 1146.2 may apply. In general, the rules require that operators of boilers and heaters comply with standard compliance limits for emissions of NO_x.

3.3 Regional Air Quality

The SCAQMD has jurisdiction over the SCAB. **Table 2** (Federal and State Attainment Status) shows the area designation status of the SCAB for each criteria pollutant for both the NAAQS and CAAQS. Based on regional monitoring data, the SCAB is currently designated as a non-attainment area for O_3, PM_{10} and $PM_{2.5}$; a federal maintenance area for CO and NO_2; and an

Table 2 - Federal and State Attainment Status

Pollutants	Federal Classification	State Classification
Ozone (O_3)	Non-Attainment (Extreme)	Non-Attainment
Particulate Matter (PM_{10})	Non-Attainment (Serious)	Non-Attainment
Fine Particulate Matter ($PM_{2.5}$)	Non-Attainment	Non-Attainment
Carbon Monoxide (CO)	Maintenance	Attainment
Nitrogen Dioxide (NO_2)	Maintenance	Non-Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Sources: U.S. Environmental Protection Agency, "California 8-Hour Ozone Nonattainment Areas in Blue Borders." Green Book. [www.epa.gov/air/oaqps/greenbook/ca8.html]. Updated August 6, 2009; U.S. Environmental Protection Agency, "Counties Designated Nonattainment for PM-10." Green Book. [www.epa.gov/air/oaqps/mapppm10.pdf]. Accessed August 10, 2009; California Air Resources Board, "Area Designations Maps/State and National." [www.arb.ca.gov/design/adm/adm.htm]. December 23, 2011.		

attainment area for SO_2. Designation of the SCAB as a maintenance area means that, although the Basin has achieved compliance with the NAAQS for CO and NO_2, control strategies that were used to achieve compliance must continue. The Federal ozone classification is "extreme."[15] An extreme non-attainment area has an 8-hour ozone design value of 0.187 ppm,[16] and has the attainment deadline of June 15, 2024.

3.4 Local Air Quality

The SCAQMD monitors air quality throughout the SCAB at various monitoring stations. The project site is located within Source Receptor Area (SRA) Number 21. The closest monitoring station is the Mission Viejo Monitoring Station (26081 Via Pera, Mission Viejo, CA 92691), about 11.4 miles northeast of the Project site, which monitors CO, O_3, PM_{10} and $PM_{2.5}$. The second closest monitoring station is the Costa Mesa Monitoring Station (2850 Mesa Verde Drive East, Costa Mesa, CA 92626), about 19.8 miles northwest of the Project site, which monitors NO_2. Air quality monitoring data for CO, O_3, PM_{10} and $PM_{2.5}$ near the Project site are shown in **Table 3** (Ambient Air Quality Monitoring Data for Mission Viejo). NO_2 monitoring data near the Project site are shown in **Table 4** (Ambient Air Quality Monitoring Data for Costa Mesa).

3.5 Sensitive Receptors

The air quality analysis included estimation of the exposure of sensitive receptors to localized concentrations of criteria air pollutants. For the purposes of a CEQA analysis, the SCAQMD

[15] U.S. Environmental Protection Agency. 2011. "8-Hour Ozone Nonattainment State/Area/County Report." Green Book. http://www.epa.gov/air/oaqps/greenbook/gncs.html#CALIFORNIA. Updated August 30, 2011.

[16] U.S. Environmental Protection Agency. 2011. "Designations." Green Book. www.epa.gov/air/oaqps/greenbook/define.html. Updated August 30, 2011.

considers a sensitive receptor to be a receptor such as a residence, hospital, or convalescent facility where it is possible that an individual could remain for 24 hours per day.[17] The nearest sensitive land use is an apartment complex on the north side of Pacific Coast Highway. This multi-family residence is approximately 152 feet away from the hotel project site. **Table 5** (Sensitive Land Uses Near Proposed Project) describes each sensitive receptor further.

[17]/ Section 4.3.3 includes more information on how sensitive receptors are defined for the purpose of localized significance analyses.

Table 3 - Ambient Air Quality Monitoring Data for Mission Viejo

Air Pollutant	Standard/Exceedance	26081 Via Pera Mission Viejo		
		2007	2008	2009
Carbon Monoxide (CO)	Year Coverage	97%	96%	97%
	Max. 1-hour Concentration (ppm)	1.6	1.5	1.3
	Max. 8-hour Concentration (ppm)	2.16	1.10	1.00
	# Days>Federal 1-hour Std. of 35 ppm	0	0	0
	# Days>Federal 8-hour Std. of 9 ppm	0	0	0
	# Days>California 8-hour Std. of 9.0 ppm	0	0	0
Ozone (O_3)	Year Coverage	99%	96%	97%
	Max. 1-hour Concentration (ppm)	0.108	0.118	0.121
	Max. 8-hour Concentration (ppm)	0.090	0.104	0.095
	# Days>Federal 8-hour Std. of 0.075 ppm	5	15	10
	# Days>California 1-hour Std. of 0.09 ppm	5	9	7
	# Days>California 8-hour Std. of 0.07 ppm	10	25	14
Respirable Particulate Matter (PM_{10})	Year Coverage	93%	95%	99%
	Max. 24-hour Concentration ($\mu g/m^3$)	74.0	42.0	56.0
	#Days>Fed. 24-hour Std. of 150 $\mu g/m^3$	0.0	0.0	0.0
	#Days>California 24-hour Std. of 50 $\mu g/m^3$	ND	ND	6.1[a]
	Annual Average ($\mu g/m^3$)	23.0	22.6	23.6
Fine Particulate Matter ($PM_{2.5}$)	Year Coverage	79%	99%	95%
	Max. 24-hour Concentration ($\mu g/m^3$)	46.8	32.6	39.2
	State Annual Average ($\mu g/m^3$)	ND	10.4	9.5
	#Days>Fed. 24-hour Std. of 35 $\mu g/m^3$	ND	0.0	3.5[a]
	Annual Average ($\mu g/m^3$)	ND	10.4	9.5

Source:
California Air Resources Board, "iADAM Air Quality Data Statistics." Internet URL: http://www.arb.ca.gov/adam/ (June 2, 2011)
[a] Estimated Days > Standard

Table 4 - Ambient Air Quality Monitoring Data for Costa Mesa

Air Pollutant	Standard/Exceedance	2850 Mesa Verde Drive East Costa Mesa		
		2007	2008	2009
Nitrogen Dioxide (NO_2)	Year Coverage	96%	95%	98%
	Max. 1-hour Concentration (ppm)	0.074	0.081	0.065
	Annual Average (ppm)	0.013	0.013	0.013
	# Days>California 1-hour Std. of 0.18 ppm	0	0	0

Source:
California Air Resources Board, "iADAM Air Quality Data Statistics." Internet URL: http://www.arb.ca.gov/adam/ (June 2, 2011)

Table 5 – Sensitive Land Uses Near Project Site

Sensitive Land Use	Location	Distance from Doheny Hotel Boundary (Feet)
Holiday Inn Express Hotel Dana Point	34280 Pacific Coast Highway, Dana Point, CA 92629	150
Laguna Cliffs Marriott Resort & Spa	25135 Park Lantern, Dana Point, CA 92629	350
Single-family residential	25300 Terrace Lantern, Dana Point, CA 92629	360
Multiple-family residential	34300 Lantern Bay Drive, Dana Point, CA 92629	1,120
Multiple-family residential	34302 Pacific Coast Highway, Dana Point, CA 92629	150
Multiple-family residential	33831 Camino Capistrano, Capistrano Beach, CA 92624	220
Single-family residential	25198 Via Elevado, Dana Point, CA 92629	300

Source: UltraSystems with Google Earth. 2011.

4.0 AIR QUALITY IMPACTS ANALYSIS

This analysis was prepared in accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, and with the SCAQMD *CEQA Air Quality Handbook*. Air quality impacts are typically divided into short-term and long-term impacts. Short-term impacts are associated with construction activities, such as site grading, excavation, and building construction of a Proposed Project. Long-term impacts are associated with the operation of a Proposed Project upon its completion.

4.1 CEQA Impact Review Criteria

In accordance with *State CEQA Guidelines* Appendix G, implementation of the Proposed Project would result in a potentially significant impact if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Where available, the significance criteria established by the applicable air quality management district (AQMD) or air pollution control district (APCD) may be relied upon to make the significance determinations. As will be discussed in the next section, the SCAQMD has developed a *CEQA Air Quality Handbook* to provide a protocol for air quality analyses that are prepared under the requirements of CEQA.

4.1.1 Emission Thresholds for Regional Impacts

The SCAQMD has established thresholds of significance, which are summarized in **Table 6** (SCAQMD Significance Thresholds) for pollutant emissions during a project's construction and operation. A project is considered to have a regional air quality impact if emissions from its construction and/or operational activities exceed the corresponding SCAQMD significance thresholds.

Table 6 - SCAQMD Significance Thresholds

Project Phase	Pollutant Emission Threshold (lbs/day)					
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_x
Construction	75	100	550	150	55	150
Operation	55	55	550	150	55	150
Source: SCAQMD, *CEQA Air Quality Handbook*, November 1993 (Revised October 2006).						

4.1.2 Emission Thresholds for Localized Impacts

As part of its environmental justice program to address localized air quality impacts of a development project, SCAQMD developed localized significance thresholds (LSTs) in 2003.[18] LSTs represent the maximum NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. NO_x and CO LSTs are developed based on the ambient concentrations of that pollutant for each SRA and distance to the nearest off-site receptor. For PM_{10}, LSTs were derived based on requirements in SCAQMD Rule 403. Note that LST does not apply to ROG emissions, since there is no ambient air quality standard for ROG.

For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as a residence, hospital, or convalescent facility where it is possible that an individual could remain for 24 hours. Commercial and industrial facilities are not included in the definition of sensitive receptor, because employees typically are present for shorter periods of time, such as eight hours. Therefore, applying a 24-hour standard for PM_{10} is appropriate not only because the averaging period for the state standard is 24 hours, but because the sensitive receptor would be present at the location for the full 24 hours.

The SCAQMD has developed mass rate look-up tables that can be used to determine whether a project may generate significant localized air quality impacts to off-site receptors (including sensitive receptors). Note that the use of LSTs is voluntary, to be implemented at the discretion of the lead agency pursuant to CEQA.

4.1.3 Impacts of Carbon Monoxide Hotspots

The significance of localized project operational impacts is evaluated through a CO hotspot analysis. Hotspots are elevated concentrations of CO in small areas (mainly street intersections) that result from motor vehicle emissions in heavy traffic. They are analyzed because of their potentially significant effect on sensitive receptors. Adherence to the CAAQS or NAAQS is typically demonstrated through an analysis of localized (micro scale) CO concentrations. When ambient levels are below the State or federal CO standards excluding all project emissions, a project is considered to have significant impacts if project-related emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or

[18]/ SCAQMD. 2003. *Localized Significance Threshold Methodology*.

federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more.[19]

4.2 Methodology

Estimated air emissions from the Project's on-site and off-site Project activities were calculated using the California Emissions Estimator Model (CalEEMod). CalEEMod is a planning tool for estimating emissions related to land use projects. The model incorporates EMFAC2007 emission factors to estimate on-road vehicle emissions; and emission factors and assumptions from the CARB's OFFROAD2007 model to estimate off-road construction equipment emissions.[20] Model-predicted project emissions are compared with applicable thresholds to assess regional air quality impacts. Operational emissions are estimated using CalEEMod and compare the difference between the Proposed Project's emissions versus the baseline emissions as of the NOP date (existing 46-room motel and drive-through fast food restaurant). The operational emissions take into account area emissions, such as space heating, from land uses and from the vehicle trips associated with the land uses. When applicable, the potential for the project to contribute to CO hotspots is assessed using the CALINE4 model.[21]

4.3 Air Quality Impacts

4.3.1 Short-Term Impacts

Project construction activities will generate short-term air quality impacts. Construction emissions can be distinguished as either on-site or off-site. On-site air pollutant emissions consist principally of exhaust emissions from off-road heavy-duty construction equipment, as well as fugitive particulate matter from earthworking and material handling operations. Off-site emissions result from workers commuting to and from the job site, as well as from trucks hauling materials to the site and construction debris for disposal.

Proposed Project

The analysis focused upon the construction for the development of the Doheny Hotel. Project construction emissions were estimated using the construction module CalEEMod. For the purpose of this analysis, it was estimated that the construction of the Proposed Project would begin early in 2013 and take 24 months to complete.[22] The types and numbers of pieces of equipment anticipated in each phase of construction and development were estimated based on equipment requirements of similar hotel construction projects, and CalEEMod defaults. Equipment exhaust emissions were determined using CalEEMod default values for horsepower and load factors, which are from the CARB's OFFROAD2007 model. The pile driver was estimated to have 350 horsepower,[23] a load factor of 0.33, and operate 7 hours a day.[24] **Table 7**

---

19 SCAQMD. 1993. *CEQA Air Quality Handbook.* April.

20 *California Emissions Estimator Model User's Guide Version 2011.1*. Prepared by Environ International Corporation, Emeryville, California for South Coast Air Quality Management District, Diamond Bar, California (February, 2011).

21 California Department of Transportation. 1989. *CALINE4 Manual*. June.

22 Letter from Ed Mandich, Project Manager, Hunsaker & Associates Irvine, Inc., Irvine, California to Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California. January 20, 2012.

23 APE Model 85 Piledriving Rig.

(Proposed Project: Maximum Daily Construction Emissions, Unmitigated) summarizes the results of the modeling.

Table 7 – Proposed Project: Maximum Daily Construction Emissions, Unmitigated

Construction Activity	Maximum Emissions (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Cumulative Emissions	21.61	66.13	38.13	116.42	8.21
Construction Activities	Architectural Coating	Grading	Grading	Building Construction	Grading
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Source: Calculated by UltraSystems with CalEEMod (Version 2011.1).					

Unmitigated daily emissions for all the criteria pollutants do not exceed their respective SCAQMD significance thresholds.

All modeling output files and additional assumptions are provided in **Appendix A**.

Alternative #1

Because there would be no construction activities, this alternative would result in no criteria pollutant emissions from construction.

Alternative #2

From a construction aspect, the only differences between the Alternative #2 and the Proposed Project are fewer rooms and parking spaces; thus, the CalEEMod modeling included fewer days of construction for architectural coating, and building construction. The time spent during the grading and site preparation is the same for Alternative #2 and the Proposed Project because the amount of excavation does not change. **Table 8** (Alternative #2: Maximum Daily Construction Emissions, Unmitigated) shows that Alternative #2 produces more 6.16 pounds per day more ROG emissions than the Proposed Project, produces the same amount of NO_x, CO, and $PM_{2.5}$, and produces the 17.28 pounds per day less PM_{10} emissions.

Table 8 – Alternative #2: Maximum Daily Construction Emissions, Unmitigated

Construction Activity	Maximum Emissions (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Cumulative Emissions	27.77	66.13	38.13	99.14	8.21

[24] Load factor was calculated based on pile driving noise intervals. Data for this analysis were obtained from Zechmann, E. and C. Hayden. 2009. "Analysis of Pile Driver Exhaust and Impact Noise," *Journal of the Acoustical Society of America* 125(4): 2744-2744.

Construction Activities	Architectural Coating	Grading	Grading	Building Construction	Grading
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Alternative #2 Minus Proposed Project	**6.16**	**0**	**0**	**-17.28**	**0**
Source: Calculated by UltraSystems with CalEEMod (Version 2011.1).					

Alternative #3

The main difference between the Proposed Project and Alternative #3 is the additional 10,000 cubic yards of excavation for the retaining wall portion of Lantern Bay Park. With the added excavation, approximately 1,250[25] extra haul trips are needed over the same period of time. **Table 9** (Alternative #3: Maximum Daily Construction Emissions, Unmitigated) shows that the 1,250 added haul trips increase the NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions over the Proposed Project case by 17.65, 9.68, 19.75, and 2.46 pounds per day, respectively.

Table 9 – Alternative #3: Maximum Daily Construction Emissions, Unmitigated

Construction Activity	**Maximum Emissions (lbs/day)**				
	ROG	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Cumulative Emissions	26.33	83.78	47.81	136.17	10.67
Construction Activities	Architectural Coating	Grading	Grading	Building Construction	Grading
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Alternative #3 Minus Proposed Project	**4.72**	**17.65**	**9.68**	**19.75**	**2.46**
Source: Calculated by UltraSystems with CalEEMod (Version 2011.1).					

4.3.2 Long-Term Impacts

The primary source of operational emissions would be vehicle exhaust emissions generated from project-induced vehicle trips, known as "mobile source emissions." Other emissions, identified as "area source emissions," would be generated from energy consumption for water and space heating for the proposed hotel; structural maintenance and landscaping activities; and use of consumer products.

Operational emissions from the Proposed Project were estimated using the operational module of CalEEMod. The vehicle trip generation rates of the Proposed Project were obtained from default values in CalEEMod that are based on land use definitions published by the Institute of Transportation Engineers (ITE).[26] In addition, default values generated by CalEEMod,

[25] Determined using CalEEMod.
[26] Institution of Transportation Engineers. *Trip Generation*, 8th Edition. 2008.

including the expected vehicle fleet mix, and vehicle traveling speed and distance assumptions, were used in the model run.

Proposed Project

Because the Proposed Project will include the demolition of 46-room motel and a fast food restaurant with a drive-through, and the construction of the Doheny Hotel, operational emissions for the opening year (2015) must be compared to baseline conditions as of the Notice of Preparation date (2010). The baseline conditions accounts for both area and mobile source emissions from the 46-room motel and the fast food restaurant with a drive-through as of 2010. The model-predicted area source and mobile source emissions for both the Proposed Project and the baseline condition, as well as the differences between the two emissions are shown in **Table 10** (Proposed Project: Daily Project Operational Emissions). Detailed output sheets are provided in **Appendix A**.

Table 10 – Proposed Project: Daily Project Operational Emissions

Year	**Emissions Source**	**Pollutant (lbs/day)**				
		ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Baseline Year (2010)	Area Source Emissions	2.17	1.53	1.29	0.12	0.12
	Mobile Source Emissions	5.10	9.09	45.56	4.74	0.42
	Total Operational Emissions	**7.27**	**10.62**	**46.85**	**4.86**	**0.54**
Opening Year (2015)	Area Source Emissions	6.22	3.17	2.66	0.24	0.24
	Mobile Source Emissions	8.79	17.27	80.54	14	1.17
	Total Operational Emissions	**15.01**	**20.44**	**83.2**	**14.24**	**1.41**
Difference Between Baseline and Proposed Project	Area Source Emissions	4.05	1.64	1.37	0.12	0.12
	Mobile Source Emissions	3.69	8.18	34.98	9.26	0.75
	Total Operational Emissions	**7.74**	**9.82**	**36.35**	**9.38**	**0.87**
	SCAQMD Significance Thresholds	55	55	550	150	55
	Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Source: Calculated by UltraSystems with CalEEMod (Version 2011.1).						

As indicated in **Table 10**, the long-term project operational emissions of ROG, NO_x, CO, PM_{10}, and $PM_{2.5}$ will be less than significant.

Alternative #1

The no project alternative and the baseline conditions are the same; thus, there would be no change in operational emissions between the two.

Alternative #2

CalEEMod was used to estimate the area source and mobile source operational emissions associated with Alternative #2, which has 114 fewer rooms than the Proposed Project. **Table 11**

(Alternative #2: Daily Project Operational Emissions) shows that the difference between operational emissions for the baseline conditions and Alternative #2 is less than significant. Additionally, comparing **Table 10** with **Table 11**, it is evident that the Proposed Project's change from baseline is greater than Alternative #2's change from baseline for all criteria pollutants.

Table 11 – Alternative #2: Daily Project Operational Emissions

Year	Emissions Source	Pollutant (lbs/day)				
		ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Baseline Year (2010)	Area Source Emissions	2.17	1.53	1.29	0.12	0.12
	Mobile Source Emissions	5.10	9.09	45.56	4.74	0.42
	Total Operational Emissions	**7.27**	**10.62**	**46.85**	**4.86**	**0.54**
Opening Year (2015)	Area Source Emissions	4.24	1.96	1.64	0.15	0.15
	Mobile Source Emissions	4.91	9.64	44.95	7.82	0.65
	Total Operational Emissions	**9.15**	**11.6**	**46.59**	**7.97**	**0.80**
Difference Between Baseline and Alternative #2	Area Source Emissions	2.07	0.43	0.35	0.03	0.03
	Mobile Source Emissions	-0.19	0.55	-0.61	3.08	0.23
	Total Operational Emissions	**1.88**	**0.98**	**-0.26**	**3.11**	**0.26**
	SCAQMD Significance Thresholds	55	55	550	150	55
	Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Source: Calculated by UltraSystems with CalEEMod (Version 2011.1).						

Alternative #3

CalEEMod was used to estimate the area source and mobile source operational emissions associated with Alternative #3, which has 15 more rooms than the Proposed Project. **Table 12** (Alternative #3: Daily Project Operational Emissions) shows that the difference between operational emissions for the baseline conditions and Alternative #3 is less than significant. Additionally, comparing **Table 10** with **Table 12**, it is evident that the Proposed Project's change from baseline is less than Alternative #3's change from baseline for all criteria pollutants.

Table 12 – Alternative #3: Daily Project Operational Emissions

Year	Emissions Source	Pollutant (lbs/day)				
		ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Baseline Year (2010)	Area Source Emissions	2.17	1.53	1.29	0.12	0.12
	Mobile Source Emissions	5.10	9.09	45.56	4.74	0.42
	Total Operational Emissions	**7.27**	**10.62**	**46.85**	**4.86**	**0.54**
Opening Year (2015)	Area Source Emissions	7.59	3.68	3.09	0.28	0.28
	Mobile Source Emissions	9.23	18.14	84.59	14.71	1.23
	Total Operational Emissions	**16.82**	**21.82**	**87.68**	**14.99**	**1.51**
Difference Between Baseline and Alternative #3	Area Source Emissions	5.42	2.15	1.80	0.16	0.16
	Mobile Source Emissions	4.13	9.05	39.03	9.97	0.81
	Total Operational Emissions	**9.55**	**11.2**	**40.83**	**10.13**	**0.97**
	SCAQMD Significance Thresholds	55	55	550	150	55
	Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Source: Calculated by UltraSystems with CalEEMod (Version 2011.1).						

4.3.3 Sensitive Receptors

Sensitive receptors are persons who are more susceptible to air pollution than the general population, such as children, athletes, the elderly, and the chronically ill. Examples of land uses where substantial numbers of sensitive receptors are often found are schools, daycare centers, parks, recreational areas, medical facilities, nursing homes, and convalescent care facilities. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants. The nearest sensitive receptor is a multi-family residence about 152 feet away from the proposed hotel construction site.[27]

Short-Term Impacts: Proposed Project, Alternative #1, Alternative #2 and Alternative #3

Construction of the Proposed Project would generate short-term and intermittent emissions. **Table 13** (Results of Localized Significance Analysis – Construction) shows the results of the localized significance analysis for the Proposed Project, Alternative #2 and Alternative #3; Alternative #1 is the no project alternative, and thus will result in no localized significance.

The analysis was based on SCAQMD's LSTs for a one-acre disturbance area 50 meters (164 feet) away from the nearest sensitive receptor. In general, for a given distance away from a sensitive receptor, the greater the construction area is, the greater the significance threshold is. Also, for a given construction site area, the farther away the receptor is, the greater the significance threshold is. Because the actual site is greater than one acre and is approximately 50 meters (164 feet) away, all unmitigated construction emissions, except PM_{10} and $PM_{2.5}$, are below the LSTs under each alternative except the no-build scenario (Alternative #1), which has

[27] Measured by UltraSystems with Google Earth, 2011.

no construction impacts. However, with the fugitive dust control measures required under SCAQMD Rule 403 and mitigation measures AQ-1 through AQ-3 presented in **Section 5.1**, daily PM_{10} and $PM_{2.5}$ emissions are anticipated to be below the threshold.

Table 13 – Results of Localized Significance Analysis - Construction

Construction Activity	Maximum Emissions (lbs/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Proposed Project	**52.49**	**30.77**	**11.83**	**7.63**
Construction Activities	Grading	Grading	Grading	Grading
Alternative #2	**52.49**	**30.77**	**11.83**	**7.63**
Construction Activities	Grading	Grading	Grading	Grading
Alternative #3	**67.86**	**39.38**	**15.58**	**10.00**
Construction Activities	Grading	Grading	Grading	Grading
SCAQMD Significance Thresholds	*93*	*833*	*11*	*4*
Significant (Yes or No)	**No**	**No**	**Yes**	**Yes**

Source:
Calculated by UltraSystems with CalEEMod (Version 2011.1).
SCAQMD. 2003. *Localized Significance Threshold Methodology*.

Although sensitive receptors would be exposed to diesel exhaust from construction equipment, which has been associated with lung cancer,[28] the duration of exposure would not be sufficient to result in a significant cancer risk. Carcinogenic health risk assessments are based upon an assumption of 70 years continuous exposure, while the exposure in the present case would be intermittent over a maximum of about two years. Therefore, no cancer health risk assessment was necessary. Acute noncancer risk assessments are based upon one-hour maximum exposures, but acute reference exposure levels (RELs) for diesel exhaust and diesel particulate matter have not been established by the Office of Environmental Health Hazard Assessment.[29]

Long-Term Impacts: Proposed Project, Alternative #1, Alternative #2 and Alternative #3

As discussed above, the daily project operational emissions will not exceed the SCAQMD regional thresholds (See **Tables 10** through **12**), and would not expose adjacent sensitive receptors to substantial pollutant concentrations.

Increased local vehicle traffic may contribute to off-site air quality impacts. The traffic increases in nearby intersections may contribute to traffic congestion, which may create "pockets" of CO called hotspots. These pockets have the potential to exceed the State 1-hour standard of 20 ppm and/or the 8-hour standard of 9.0 ppm, thus affecting sensitive receptors that are close to these roadways or intersections. CO hotspots typically are found at busy intersections, but can also occur along congested major arterials and freeways. They occur

[28] California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. 1998. *Part B: Health Risk Assessment for Diesel Exhaust*. May.

[29] California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, "All Acute Reference Exposure Levels developed by OEHHA as of December 2008. (www.oehha.ca.gov/air/acute_rels/allAcRELs.html).

mostly in the early morning hours when winds are stagnant and ambient CO concentrations are elevated. In accordance with the California Department of Transportation (Caltrans) CO Protocol,[30] CO hotspots are evaluated when a project degrades the level of service (LOS) at a nearby signalized intersection to "E" or worse. Typically, hotspots analyses are not performed for unsignalized intersections, which have lower traffic volumes than those with signals. This is particularly the case when a hotspots analysis shows no impacts for the most congested, signalized intersections.

The Proposed Project's traffic analysis[31] suggests that with recommended roadway improvements[32], the LOS for the two signalized intersections, Dana Point Harbor Drive and Pacific Coast Highway, and Dana Point Harbor Drive and Park Lantern, will not be degraded by the Proposed Project. Because the Proposed Project will not degrade the LOS at any nearby signalized intersections to "E" or worse, a CO hotspots analysis is not required.

4.3.4 Objectionable Odors

Construction activities for the Proposed Project would generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust), asphalt paving operations, and the application of paints and coatings. These emissions would occur during daytime hours only, and would be isolated to the immediate vicinity of the construction site and activity. Therefore, they would not affect a substantial number of people. When project construction is completed, odors from the proposed uses of the Proposed Project would not significantly differ from odors emanating from typical hotels or restaurants. Finally, no wastewater treatment plants or other industrial facilities known to cause odors are within 1,000 feet of the project site.

4.3.5 Conformity with Air Quality Management Plan

As discussed in **Section 3.2.4,** The SCAQMD has established an AQMP that proposes policies and measures to achieve federal and State standards for healthful air quality in the SCAB. The most recently approved AQMP was adopted by the SCAQMD Board of Directors on June 1, 2007.

The AQMP incorporates land use assumptions from local general plans and regional growth projections developed by SCAG to estimate stationary and mobile air emissions associated with projected population and planned land uses. If the proposed land use is consistent with the local general plan, then the impact of the project is presumed to have been accounted for in the AQMP. This is because the land use and transportation control sections of the AQMP are based on the SCAG regional growth forecasts, which incorporated projections from local general plans.

Another measurement tool in determining consistency with the AQMP is to determine whether a project would generate population and employment growth and, if so, whether that growth

[30] California Department of Transportation. 1997. *Transportation Project-Level Carbon Monoxide Protocol*.
[31] Kunzman Associates, Inc. *City of Dana Point Doheny Hotel Traffic Impact Analysis*. April 21, 2011.
[32] Kunzman Associates, Inc. *City of Dana Point Doheny Hotel Traffic Impact Analysis*. April 21, 2011. Page 44.

would exceed the growth rates forecasted in the AQMP and how the project would accommodate the expected increase in population or employment.

The Proposed Project will not conflict with the land use designation specified in the City's General Plan. In addition, the Proposed Project is neither a source of new housing nor a significant source of new jobs; hence, the Proposed Project is not considered growth or population-inducing on a regional scale. Therefore, the Proposed Project will not conflict with or obstruct the implementation of the AQMP. The impact will be less than significant.

4.3.6 Cumulative Impacts

The Dana Point Harbor Revitalization Project (Revitalization Project), which includes various construction, renovations, and improvements to the marina and the commercial area surrounding it, was approved in 2011; however, construction for it has not been started.[33] The proposed timing of the Revitalization Project[34] would coincide with the early 2013 construction start date for the Proposed Project.

Short-term Impacts: Proposed Project, Alternative #2 and Alternative #3

Due to the proximity of the harbor and the Proposed Project site, the maximum calculated construction emissions for each criteria pollutant from the Dana Point Harbor Revitalization Project[35] are added to the emissions from this project to determine cumulative impacts for the Proposed Project, Project Alternative #2 and Project Alternative #3. **Table 14** (Proposed Project: Maximum Daily Cumulative Construction Emissions), **Table 15** (Alternative #2: Maximum Daily Cumulative Construction Emissions), and **Table 16** (Alternative #3: Maximum Daily Cumulative Construction Emissions) show the cumulative construction emissions for the Proposed Project, Alternative #2, and Alternative #3, respectively.

Table 14 – Proposed Project: Maximum Daily Cumulative Construction Emissions

Construction Activity	Maximum Emissions (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Project Emissions (Unmitigated)	21.61	66.13	38.13	116.42	8.21
Dana Point Harbor Revitalization Project Emissions (Mitigated)	11.87	69.37	101.00	4.14	4.14[a]
Cumulative Emissions	33.48	135.5	139.13	120.56	12.35
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**Yes**	**No**	**No**	**No**

[33] Email communication from Erica Demkowicz, Senior Planner at City of Dana Point, Dana Point, California, to Ole Barre, Senior Project Manager, UltraSystems Inc., Irvine, California. January 18, 2012.

[34] *Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1.* Prepared by RBF Consulting, Irvine, California for County of Orange, Dana Point Harbor Department. January 31, 2006.

[35] *Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1.* Prepared by RBF Consulting, Irvine, California for County of Orange, Dana Point Harbor Department. January 31, 2006. Table 4.6-9.

Project as a percent of Cumulative Emissions	65%	49%	27%	97%	66%

[a] Revitalization Project EIR does not separate PM_{10} from $PM_{2.5}$, so UltraSystems assumed, as a worst case, that all PM_{10} is also $PM_{2.5}$.
Source:
UltraSystems
Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1. January 31, 2006.

Table 15 – Alternative #2: Maximum Daily Cumulative Construction Emissions

Construction Activity	**Maximum Emissions (lbs/day)**				
	ROG	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Project Emissions (Unmitigated)	27.77	66.13	38.13	99.14	8.21
Dana Point Harbor Revitalization Project Emissions (Mitigated)	11.87	69.37	101.00	4.14	4.14[a]
Cumulative Emissions	39.64	135.5	139.13	103.28	12.35
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**Yes**	**No**	**No**	**No**
Project as a percent of Cumulative Emissions	70%	49%	27%	96%	66%

[a] Revitalization Project EIR does not separate PM_{10} from $PM_{2.5}$, so UltraSystems assumed as a worse-case scenario, all PM_{10} is also $PM_{2.5}$.
Source:
UltraSystems
Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1. January 31, 2006.

Table 16 –Alternative #3: Maximum Daily Cumulative Construction Emissions

Construction Activity	**Maximum Emissions (lbs/day)**				
	ROG	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Project Emissions (Unmitigated)	26.33	83.78	47.81	136.17	10.67
Dana Point Harbor Revitalization Project Emissions (Mitigated)	11.87	69.37	101.00	4.14	4.14[a]
Cumulative Emissions	38.2	153.15	148.81	140.31	14.81
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**Yes**	**No**	**No**	**No**
Project as a percent of Cumulative Emissions	69%	55%	32%	97%	72%

[a] Revitalization Project EIR does not separate PM_{10} from $PM_{2.5}$, so UltraSystems assumed as a worse-case scenario, all PM_{10} is also $PM_{2.5}$.
Source:
UltraSystems
Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1. January 31, 2006.

Table 14 , **Table 15** and **Table 16** show that all the cumulative construction criteria pollutant emissions will be less than the regional significance thresholds, except for those of NO_x. However, with the implementation of mitigation measures AQ-4 and AQ-5, the cumulative regional air quality impacts will be less than the SCAQMD significance thresholds.

Long-term Impacts: Proposed Project, Alternative #2 and Alternative #3

Table 17 (Proposed Project: Daily Total Cumulative Operational Emissions), **Table 18** (Alternative #2: Daily Total Cumulative Operational Emissions) and **Table 19** (Alternative #3: Daily Total Cumulative Operational Emissions) show that all the incremental criteria pollutant emissions with respect to the NOP baseline in addition to the Revitalization Project's operational emissions are less than the SCAQMD significance thresholds.

Table 17 – Proposed Project: Daily Total Cumulative Operational Emissions

Emissions Source	**Pollutant (lbs/day)**				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project (Incremental based on NOP)	7.74	9.82	36.35	9.38	0.87
Harbor Revitalization Project (Mitigated)	27.2	2.74	80.44	41.16	41.16[a]
Total	**34.94**	**12.56**	**116.79**	**50.54**	**42.03**
SCAQMD Significance Thresholds	55	55	550	150	55
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Project as a percent of Cumulative Emissions	22%	78%	31%	19%	2%

[a] Revitalization Project EIR does not separate PM_{10} from $PM_{2.5}$, so UltraSystems assumed as a worse-case scenario, all PM_{10} is also $PM_{2.5}$.
Source:
UltraSystems
Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1. January 31, 2006.

Table 18 – Alternative #2: Daily Total Cumulative Operational Emissions

Emissions Source	Pollutant (lbs/day)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Alternative #2 (Incremental based on NOP)	1.88	0.98	-0.26	3.11	0.26
Harbor Revitalization Project (Mitigated)	27.2	2.74	80.44	41.16	41.16[a]
Total	**29.08**	**3.72**	**80.18**	**44.27**	**41.42**
SCAQMD Significance Thresholds	55	55	550	150	55
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Project as a percent of Cumulative Emissions	6%	26%	0%	7%	1%

[a] Revitalization Project EIR does not separate PM_{10} from $PM_{2.5}$, so UltraSystems assumed as a worse-case scenario, all PM_{10} is also $PM_{2.5}$.
Source:
UltraSystems
Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1. January 31, 2006.

Table 19– Alternative #3: Daily Total Cumulative Operational Emissions

Emissions Source	Pollutant (lbs/day)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project (Incremental based on NOP)	9.55	11.2	40.83	10.13	0.97
Harbor Revitalization Project (Mitigated)	27.2	2.74	80.44	41.16	41.16[a]
Total	**36.75**	**13.94**	**121.27**	**51.29**	**42.13**
SCAQMD Significance Thresholds	55	55	550	150	55
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**
Project as a percent of Cumulative Emissions	26%	80%	34%	20%	2%

[a] Revitalization Project EIR does not separate PM_{10} from $PM_{2.5}$, so UltraSystems assumed as a worse-case scenario, all PM_{10} is also $PM_{2.5}$.
Source:
UltraSystems
Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1. January 31, 2006.

5.0 MITIGATION MEASURES

5.1 Construction Phase

The analysis of construction emissions determined that NO_x regional air quality impacts, and PM_{10} and $PM_{2.5}$ localized air quality impacts would be significant without mitigation. These impacts will be reduced to a less-than-significant level by the following measures:

AQ-1 During grading, water exposed surfaces at least twice daily. (PM_{10} reduction: 34-68%)[36]

AQ-2 Enclose, cover, water twice daily to exposed piles of earthwork with 5% or greater silt content. (PM_{10} reduction: 30-74%)[37]

AQ-3 All trucks hauling earthwork or other loose materials are to be covered or should maintain at least two feet of freeboard. (PM_{10} reduction: 7-14%)[38]

AQ-4 When feasible, implement construction equipment with Tier 2 to Tier 3 diesel engines during grading.

AQ-5 Schedule construction activities for the off-site parking, especially during grading, such that the off-site parking and hotel site construction activities do not overlap.

6.0 IMPACTS AFTER MITIGATION

Mitigation measures **AQ-1** through **AQ-5** will ensure that emissions during construction will be less than significant.

[36] SCAQMD. 1993. *CEQA Air Quality Handbook.* April. Page 11-15.
[37] *Ibid.*
[38] *Ibid.*

APPENDICES

APPENDIX A

CALEEMOD MODELING OUTPUT

Appendix C

Biological Assessment

BIOLOGICAL ASSESSMENT REPORT

City of Dana Point Doheny Hotel Project

Prepared for:

City of Dana Point
Community Development Department
33282 Golden Lantern
Dana Point, California 9629-1805
Contact: Erica Demkowicz, AICP, Senior Planner
(949) 248-3588

Prepared by:

UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, California 92618
(949)788-4900

February 2012

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This Biological Assessment describes the occurrence and potential occurrence of special-status biological resources (including special-status plants, wildlife, and habitats) and biological concerns in association with the Dana Point Community Development Department (DPCD) Doheny Hotel Project (Project) for the City of Dana Point.

Baseline biological conditions within the Project impact area and 100 foot buffer zones (where feasible) are documented, including plant and wildlife inventories, disturbance factors, and major vegetation communities. This report addresses potential Project impacts on special-status biological resources, and recommends avoidance and minimization measures for these impacts.

Biological resources determined to have a High and/or Moderate potential for occurrence within the Project impact area are discussed in detail within this report. Biological resources determined as having Low and/or Not Expected potential for occurrence within the Project impact area are only discussed in *Appendix A, Special-Status Species*.

Moderate potential:

- Cooper's Hawk (*Accipiter cooperii*)

As a result of these findings and biological concerns regarding Migratory Bird Treaty Act (MBTA) on nesting bird issue, pre-construction surveys are recommended for this species before Project initiation.

INTRODUCTION

This biological technical report describes the potential for threatened, endangered and other special-status species and habitats to occur on the Doheny Hotel Project (Project) located in City of Dana Point of Orange County, California. It also addresses the potential of the project to adversely affect those biological resources and recommends impact avoidance and minimization measures to reduce the potential impacts.

Project Location

The Project is located at 25325 Dana Point Harbor Drive on a 1.5 acre site. It is comprised of three separate parcels which are addressed as 25325 Dana Point Harbor Drive and 34297 and 34299 Pacific Coast Highway. All the project parcels are within the City's Coastal zone. It is just south of the Pacific Coast Highway (SR-1) Freeway, east of San Diego (I-5) Freeway, and north of Dana Point Harbor Drive (Figure 1). The site is in the northeast quarter of the Newhall 7.5-minute USGS Dana Point Quadrangle. The Project elevation ranges from 20 to 40 feet above mean sea level (amsl).

Project Description

The proposed project is to redevelop the project site with a new hotel and to provide additional visitor/recreation commercial uses. The project is proposed to demolish the existing buildings onsite and construct a new two to five story hotel with 258 rooms and 296 subterranean level parking spaces located in a one-level parking area beneath the proposed hotel with car lift built inside the underground lot. The proposed project would also include a pool deck, garden terrace, roof terrace, and conference/meeting space, and a restaurant. An additional 50 parking spaces will be provided off-site for hotel employees through an agreement with the South Coast Water District for an initial period of five years.

UltraSystems

Map Source: Google Earth, 2011

Figure 1. Regional Vicinity Map
Doheny Hotel, Dana Point, CA

METHODS

Literature Review

Before conducting the field survey, UltraSystems reviewed available literature to identify special-status plants, wildlife, or special-status habitats known to be within the vicinity of the Project. For this report, the project vicinity is defined as a radius of 10 miles from the project site. The project study area (PSA) is defined as the project footprint, plus an area within a 100-foot buffer zone directly adjacent to the Project's construction limits. The project footprint includes both temporary and permanent impact areas associated with the Project.

A list of special-status species recorded in the vicinity of the study area was compiled from the California Department of Fish and Game (CDFG) Natural Diversity Database (CNDDB 2010) within the 10-mile buffer of the project vicinity. A list of special-status species recorded in the vicinity of the study area was compiled from the California Department of Fish and Game Natural Diversity Database (CNDDB 2011) for the USGS Newhall, Laguna Beach, San Juan Capistrano, Canada Gobernadora, San Clemente, San Onofre, and Dana Point 7.5-minute topographic quadrangle maps. Additional special-status plant species found on or near the property were derived from the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California database. Federal Register listings, protocols, and species data published by the U.S. Fish and Wildlife Service (USFWS) and CDFG were reviewed in conjunction with anticipated federally and state-listed species potentially occurring within the vicinity. Any designated critical habitats for listed Endangered and Threatened species were also noted.

Field Survey

A general biological assessment was conducted by UltraSystems biologists Joyce Mak and Mario Mariotta on August 19, 2011 to assess the existing conditions and the potential for special-status resources to be present on site, and adjacent to the site. The assessment included a 100% pedestrian survey of the project footprint, plus a 100-foot buffer zone. A meandering search pattern within linear transects was used to obtain maximum coverage. Binoculars were used to view plants and wildlife where the pedestrian survey was not sufficient to identify biological resources using the unaided eye. Field forms were used to record the general biological conditions of the site, with particular focus on special-status biological resources and habitats suitable to support special-status plant and wildlife species.

RESULTS

General Site Conditions

The survey was conducted in favorable weather conditions. Temperatures ranged from 79.0 to 81.5 degrees Fahrenheit. Wind speeds ranged from 0.7 to 1.2 miles per hour (wind meter). Thirty-six plant species were observed within the project site and buffer zones (*Appendix C, Plant Species Observed*). Eleven wildlife species or their signs (including tracks, scat, burrows, nests, excavations, and vocalizations), were recorded within the vicinity (*Appendix D, Wildlife Observed*). Plant species such as annual grasses observed at the site may not have been detected due to the late season of the survey and deciduous trees on the project study area may be in different conditions in the winter season.

The project site is located adjacent to a mixed residential and commercial area that supports urban habitats typical of Southern California. The uses surrounding the project consist of Pacific Coast Highway (PCH) immediately to the north of the project site, Dana Point Harbor Drive to the east of the project site, a parking lot and Lantern Bay Park to the south, and commercial uses (restaurant) west of the project site.

Hydrology

The project site is located approximately 0.3 miles west of the San Juan Creek and approximately 0.3 miles north of the Pacific Ocean. A small drainage with disturbed riparian vegetations, such as cattail (*Typha* sp.), willows (*Salix* sp.), elderberry (*Sambucus nigra*), Fremont cottonwood (*Populus fremontii*), sedges (*Carex* sp.), and mulefat (*Baccharis salicifolia*), are present at about 300 feet southwest of the site. The disturbed riparian vegetations area is approximately 2,700 square feet. However, the existing small drainage does not have obvious connection to the project site, and therefore will not be affected by construction activities at the project area. No other hydrological concerns are within the immediate location of the project study area.

Critical Habitat

The project site is not within federally designated critical habitat for any special-status species. However, the closest designated critical habitat, for steelhead trout (*Oncorhynchus mykiss*), is less than 0.3 miles west of the project site. Additional critical habitat for coastal California gnatcatcher (*Polioptila californica californica*) is located approximately 1.0 mile north and for Arroyo toad (*Bufo californicus*) located approximately 2.6 mile northwest of the project site.

Vegetation Communities

The vegetation community in the PSA was mapped using the vegetation communities described in the *California Wildlife Habitat Relationships System* (Airola, 1988). The California Wildlife Habitat Relationships System was developed by the Vegetation Classification and Mapping Program of the CDFG, Wildlife and Habitat Data Analysis Branch, in order to provide a predictive model for terrestrial vertebrate wildlife species.

One vegetation community, "Urban," is present within the project area and the 200 foot buffer area of the project site. Urban is defined in the California Wildlife Habitat Relationships System 1988 as follows:

Urban lands are areas which have been cleared of pre-existing vegetation and usually feature exotic species that have replaced the original vegetation. Species composition varies widely amongst urban lands, but they usually feature multiple canopy levels of different ornamental landscaping plants. Canopies may be continuous and discontinuous. The understory of any trees present usually consists of exotic ornamental shrubs and turf grass. Plant species in urban habitats may occur together or they may have been planted in monotypic stands. These vegetation communities are static in nature, due to continual maintenance.

This community occurs throughout the entirety of the project site on the corner of Pacific Coast Highway and Dana Point Harbor Drive. No special status plant communities or special-status plant species were observed within the PSA and therefore they were determined to have a low potential to occur in the project area.

UltraSystems

Map Source: Google Earth 2011

Urban Area
Small Drainage Area

Figure 4. Vegetation Map
Doheny Hotel Project Site

Special-status Species

Special-status plant and wildlife species include Endangered, Threatened, Proposed, and Rare species as listed or published by the United States Fish & Wildlife Service (USFWS), CDFG, California Species of Special Concern, CNPS-listed plants, and locally listed species. A special-status species is considered to potentially occur in the PSA if its known geographic range falls within the project vicinity and/or adjacent parcels, and if the general habitat requirements or environmental conditions required for the species are present within the PSA.

A database review of six USGS quadrangles adjacent to and including the project location determined that 65 special-status species have the potential to occur within the general vicinity of the Project. The *Special-status Species* table in *Appendix A* contains information regarding the 65 species known to occur in the project vicinity. However, the general habitat requirements for most of these species are not present on the project site or in the vicinity. Species descriptions for special-status plants are referenced from the CNPS Inventory of Rare and Endangered Plants, 2010. Species descriptions for special-status wildlife are referenced from the CDFG Species Accounts (CDFG 2008).

We have identified a special-status animal species potentially occurring onsite. Cooper's hawk (*Accipiter cooperii*) is identified as having a moderate potential to occur onsite. No special-status plant species were identified as having a moderate to high potential to occur onsite.

The following special-status species is reported in the CNDDB to occur within the project vicinity and may have potential to occur within the project study area.

1. **Cooper's Hawk *(Accipiter cooperii)***

   Regulatory Status: Cooper's hawk is a California Species of Special Concern. It is not a State or Federally listed species.

   Habitat, Natural History, and Distribution: Cooper's Hawks breed in dense oak woodlands, riparian corridors and coniferous forests. They prefer a dense canopy of mature trees for nest sites. Cooper's Hawks hunt along habitat edges, in open woodlands, and in riparian corridors for medium-sized birds (pigeons) and small mammals (rodents). They can also occur in urban areas where tall mature ornamentals and riparian woodland corridors remain.

   Occurrence Potential: This species has a moderate potential for occurrence within the PSA. The Project is within seven miles of recorded occurrences of this species. Suitable foraging habitat is present where large tall trees are presented immediately south of the PSA. No individual of this species was observed during the August 2011 survey. This species has a moderate potential to occur on the project site. Implementation of Avoidance and Minimization Measure 1 will confirm presence/absence. If presence is identified, further consultation with the agencies will be necessary.

POTENTIAL BIOLOGICAL IMPACTS AND RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES

The following is a discussion of potential Project-related effects on and the avoidance and minimization measures associated with special-status plant and wildlife species.

Potential Impact 1: Nesting Birds and the Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) of 1918 protects the majority of migratory birds breeding in the U.S., regardless of their official listing status. The provisions of this international act govern the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The law applies to the removal of nests occupied by migratory birds during the breeding season. It is specifically a violation of the MBTA to directly kill or destroy an occupied nest of any bird species covered by the MBTA.

The California Fish and Game Code (Section 3503) protects the nest and eggs of all non-game birds. Under this law, it is unlawful to take, possess, or destroy any such birds or to take, possess, or destroy the nest or eggs of any such birds. The Code (Section 86) defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Several of the birds observed on-site, including American Crow *(Corvus brachyrhynchos)* and Black Phoebe (*Sayomis nigricans*) are protected under the MBTA and CDFG Section 3503. The existing stands of vegetation and large trees within the PSA have a high potential for use by nesting birds during the breeding season (February 15 to August 31).

Project implementation and construction-related activities including, but not limited to, materials lay-down and equipment noise, may result in the disturbance of nesting MBTA-protected special-status species that could occur within the project area. Construction activities could affect raptors and other birds roosting or nesting in vegetation, including the large trees in the area, or bridge structures in, or adjacent to, work areas. Trimming or removal of vegetation could destroy or disturb active nests. A small amount of vegetation removal within the non-native ornamental vegetation area may occur, but Avoidance and Minimization Measure 1 will determine if further monitoring is necessary. Equipment noise, vibration, lighting, and other human-related disturbance could disrupt normal activities of birds.

To prevent impacts on nesting birds protected under the MBTA and CDFG, Avoidance and Minimization Measure 1 should be implemented.

Avoidance and Minimization Measure 1 (AMM 1): Pre-Construction Survey for Nesting Birds

To avoid impacts on nesting birds, vegetation clearing and construction activities should take place between September 1st and February 14th, to avoid the nesting season of State and federally protected migratory birds. However, if construction occurs between February 15th and August 31st, the following should be implemented:

- A pre-construction survey (within three days before work in the project areas) will be conducted by a qualified biologist to determine the presence or absence of active nests within, or adjacent to,

the project sites. Project construction activities in staging areas should only occur following surveys by a qualified biologist.

- If no breeding or nesting activities are detected within 500 feet of the proposed work and staging areas, construction activities may proceed. If bird breeding/nesting activity is confirmed, work activities within 250 feet (or 300 feet for raptors, 500 feet for fully protected species, or a linear distance appropriate for the species approved by the Project Biologist) of any active nest may be delayed until the young birds have fledged and left the nest. The project biologist will confer with the contractor and agencies to determine the proper course of action. A work area buffer zone around any active nests shall be demarcated, indicating where work may not occur. Project activities may resume in this area once the Project Biologist has determined that the nest(s) is no longer active. Biological monitoring shall occur during vegetation removal activities, if any, to minimize impacts on foraging or nesting birds.

REFERENCES

California Department of Fish and Game (CDFG). 2011a. California Natural Diversity Database, CDFG Biogeographic Data Branch. Rare Find4. https://nrmsecure.dfg.ca.gov/cnddb/view/query.aspx Accessed August 2011.

California Department of Fish and Game (CDFG). 2011b. California Natural Diversity Database, BIOS Biogeographic Information Observation System. https://imaps.dfg.ca.gov/ICSLogin/?%22http://imaps.dfg.ca.gov/viewers/bios/app.asp?zoomtoBookmark=303%22 Accessed August 2011.

California Department of Fish and Game (CDFG). 2003. *List of California Terrestrial Natural Communities Recognized by the California Natural DiversityDatabase* (CNDDB). Vegetation Classification and Mapping Program of the CDFG Wildlife and Habitat Data Analysis Branch.

California Department of Fish and Game (CDFG). 2009. *List of California Vegetation Alliances.* Vegetation Classification and Mapping Program of the CDFG Wildlife and Habitat Data Analysis Branch.

California Department of Fish and Game (CDFG) , Airola, A. D. 1988. *A Guide to Wildlife Habitats of California.* California Wildlife Habitat Relationships System. Vegetation Classification and Mapping Program of the Wildlife and Habitat Data Analysis Branch.

California Native Plant Society (CNPS) 2011. Online Inventory of Rare and Endangered Plants. http://www.cnps.org. Accessed June 2011.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, Department of Fish and Game, Nongame Heritage Program, Sacramento, Ca.

Kershner, B. and Craig T. *National Wildlife Federation Field Guide to Trees of North America*. New York: Sterling Pub.

Sibley, David. 2003. *The Sibley Field Guide to Birds of Western North America*. New York, NY: Knopf

USFWS. 2011. Critical Habitat Mapper, United States Fish and Wildlife Service. http://crithab.fws.gov/ Accessed June 2011.

Kaufman, Kenn, et al. 2000. *Kaufman Field Guide to Birds of North America*. New York, NY: Houghton Mifflin.

Waite, Mitch. 2010. *IBird Pro*. Computer software. Vers. 1.2.2. Mitch Waite Group. Android. <www.ibird.com>.

APPENDIX A: SPECIAL-STATUS SPECIES

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Plants			
Aphanisma *Aphanisma blitoides*	Fed: - CA: - CNPS: 1B.2	An annual herb found in coastal bluff scrub, coastal dunes, and coastal sage scrub in sandy soil. Occurs from 3 feet to 915 feet. Blooms from March to June.	**NOT EXPECTED** Suitable habitat is not present on site.
Coulter's saltbush *Atriplex coulteri*	Fed: CA: CNPS: 1B.2	A perennial herb that grows in alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal sage scrub, and grasslands on valleys and foothills. This herb blooms from March to October. It is found at elevations between 10 and 1500 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
South coast saltscale *Atriplex pacifica*	Fed: - CA: - CNPS: 1B.2	A halophytic annual herb, which grows in alkali sink, coastal bluffs and dunes, coastal sage scrub, and playas. It is found in these habitats on the Californian mainland and on the channel islands. This species blooms from March to October. This species ranges from 0 to 460 feet in elevation.	**NOT EXPECTED** Suitable habitat is not present on site.
Parish's brittlescale *Atriplex parishii*	Fed: - CA: - CNPS: 1B.1	A halophytic annual herb, which prefers alkaline soils in chenopod scrub, playas, and vernal pools. This herb blooms from June to October. It herb is found at elevations from 80 to 6230 feet.	**NOT EXPECTED** Project site is outside the altitudinal range of this species.
Davidson's saltscale *Atriplex serenana var. davidsonii*	Fed: - CA: - CNPS: 1B.2	An annual herb that grows in alkaline soils of coastal sage scrub and coastal bluff scrub. This herb blooms from April to October. It occurs at elevations from 30 to 660 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
Thread-leaved Brodiaea *Brodiaea filifolia*	Fed: THR CA: END CNPS: 1B.1	This species is a perennial bulberiferous herb that can be found in cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pool. Usually associated with annual grassland and vernal pools; Often surrounded by shrub land habitats. Occurs in clay soils at elevations of 82 to 2,820 feet. Blooms March to June. Has been found at Southern base of San Gabriel Mountains at Glendora and San Dimas and San Bernardino at Arrowhead Springs.	**NOT EXPECTED** Project site is outside of the species' altitudinal range.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Alkali mariposa-lily *Calochortus weedii var. intermedius*	Fed: - CA: - CNPS: 1B.2	This species is a perennial bulberiferous herb can be found in chaparral and coastal scrub habitats, valley and foothill grassland, growing in rocky calcareous soils. This species blooms from May to June. It occurs at elevations of 345 to 2,805 feet.	**NOT EXPECTED** Project site is outside of the species' altitudinal range.
Southern tarplant *Centromadia parryi ssp. Australis*	Fed: - CA: - CNPS: 1B.1	This species is an annual herb that occurs in the margins of marshes, in valley and foothill grasslands. Also occurs in alkaline soils, sometimes with saltgrass. Sometimes occurs on vernal pool margins. This species can be found at elevations of 0 to 1394 feet. It blooms from May to November.	**NOT EXPECTED** Suitable habitat is not present on site.
Orcutt's pincushion *Chaenactis glabriscula var. orcuttiana*	Fed: - CA: - CNPS: 1B.1	This species is an annual herb which grows in sandy soils of coastal bluff scrub and coastal dunes. It blooms from January to August. It occurs at elevations ranging from 3 to 330 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Fed: - CA: - CNPS: 1B.2	This species is an annual herb that grows in chaparral, valley grasslands, and coastal sage scrub, where clay soils occur and in proximity to vernal pools. This species can be found at elevations ranging from 100 to 5,000 feet. This species blooms from April to July.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Summer Holly *Comarostaphylis diversifolia ssp. diversifolia*	Fed: - CA: - CNPS: 1.B2	This species is a perennial evergreen shrub that grows in chaparral and cismontane woodlands. This species grows at elevations from 100 to 2,600 feet. This species blooms from April to June.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Blochman's dudleya *Dudleya blochmaniae*	Fed: - CA: - CNPS: 1B.1	This species is a perennial herb found in rocky and clay soils of coastal bluff scrub, coastal sage scrub, chaparral and valley/foothill grasslands. This species has strong affinity for serpentine soils. This species blooms from April to June. This species occurs at elevations from 16 to 1480 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
Many-stemmed dudleya *Dudleya multicaulis*	Fed: - CA: - CNPS: 1B.2	This species is a perennial herb found in chaparral, valley and foothill grassland, and coastal sage scrub. It is found in heavy, often clayey soils or grassy slopes, at elevations from 0 to 2,592 feet. It blooms from April to July.	**NOT EXPECTED** Suitable habitat is not present on site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Laguna Beach dudleya *Dudleya stolonifera*	Fed: THR CA: THR CNPS: 1B.1	This species is a perennial herb that prefers to grow in rocky soils found in chaparral, cismontane woodland, coastal sage scrub and valley and foothill grassland. This species can be found at elevations from 30 to 850 feet. This species blooms from May to July.	**NOT EXPECTED** Suitable habitat is not present on site.
Sticky dudleya *Dudleya viscida*	Fed: - CA: - CNPS: 1B.2	This species is a perennial herb that grows in rocky soils found in coastal bluff scrub, coastal sage scrub, chaparral, and cismontane woodland. This species can be found at elevations from 30 to 1,800 feet. This species blooms from May to June.	**NOT EXPECTED** Suitable habitat is not present on site.
Pendleton button-celery *Eryngium pendletonense*	Fed: - CA: - CNPS: 1B.1	This species is a perennial herb that grows in vernal pools found in coastal bluff scrub and valley and foothill grasslands. This species grows at elevations from 50 to 360 feet. This species blooms from April to June.	**NOT EXPECTED** Suitable habitat is not present on site.
Mesa horkelia *Horkelia cuneata ssp. puberula*	Fed: - CA: - CNPS: 1B.1	A perennial herb which grows in sandy or gravely areas in Chaparral, Coastal Sage Scrub and Cismontane Woodland at 165 to 2,790 feet. Blooms from February to July and in some cases until September. Found in Los Angeles, Orange, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura counties.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	Fed: - CA: - CNPS: 1B.1	An annual herb found in coastal salt marshes, freshwater wetlands, playas, valley and foothill grassland and vernal pools, usually in alkaline soils. Blooms from February to June. Occurs in elevations from 3 to 4000 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
Prostrate vernal pool navarretia *Navarretia prostrata*	Fed: - CA: - CNPS: 1B.1	This species is an annual herb that prefers mesic areas in coastal sage scrub, meadows and seeps, alkaline valley and foothill grasslands and vernal pools. This herb flowers from April to July. This herb is found at elevations between 0 and 2296 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
Chaparral nolina *Nional cismontana*	Fed: - CA: - CNPS: 1B.2	This species is an evergreen shrub found Chaparral and Coastal Scrub habitats. It occurs in sandstone or gabbro soils. It is found at elevation of 460 to 4,183 feet and blooms from May to July.	**NOT EXPECTED** Project site is outside of species' altitudinal range.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Allen's Pentachaeta *Pentachaeta aurea ssp. allenii*	Fed: - CA: - CNPS: 1B.1	This species is an annual herb that grows in valley grassland, openings in coastal sage scrub, and southern oak woodland. This species grows at elevations ranging from 250 to 1700 feet. This species blooms from March to June.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Nuttall's scrub oak *Quercus dumosa*	Fed: - CA: - CNPS: 1B.1	This species is a perennial evergreen shrub that grows in sandy, clay loam soils found in coastal sage scrub and chaparral. This species grows at elevations from 50 to 1,300 feet. This blooms from February to August.	**NOT EXPECTED** Suitable habitat is not present on site.
San Miguel savory *Satureja chandleri*	Fed: - CA: - CNPS: 1B.2	This species is a perennial shrub that grows in rocky, gabbroic and metavolcanic soils found in coastal sage scrub, chaparral, riparian woodland, valley and foothill grassland and cismontane woodland. This species grows at elevations from 400 to 3,500 feet. This species blooms from March to July.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Estuary seablite *Suaeda esteroa*	Fed: - CA: CNPS: 1B.2	A perennial herb that occurs in coastal salt marshes with clay, silt, and sand substrates. It is found at elevations from 0 to 15 feet. This species blooms from May to October.	**NOT EXPECTED** Suitable habitat is not present within the project area.
Big-leaved crownbeard *Verbesina dissita*	Fed: THR CA: THR CNPS: 1B.1	This species is a perennial herb that grows in coastal sage scrub and coastal chaparral. This species grows at elevations from 150 to 670 feet. This species flowers from April to July.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Birds			
Cooper's Hawk *Accipiter cooperii*	Fed: - CA: SSC Other: -	Cooper's Hawks breed in dense Live Oak Woodlands and Coniferous Forests. It prefers a dense canopy of mature trees for nest sites. Cooper's Hawks hunt along habitat edges, in open woodlands, and in riparian corridors. Can occur in urban areas with tall mature ornamentals and remnant riparian woodland corridors. Their diet consists of medium-sized birds (pigeons) and small mammals (rodents).	**MODERATE** Habitat suitability is moderate within the project site. Large trees present at the site may serve as a foraging habitat.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Tricolored blackbird *Agelaius tricolor*	Fed: BLMS CA: SSC Other:	Colonial species that is most numerous in the Central Valley and vicinity. Largely endemic to California. Nests in dense marsh vegetation. Requires open water within 500m, and protected nesting substrate and foraging areas with insect prey within a few kilometers of the colony. Primarily feed on grasshoppers, also feed on other insects and grains from agricultural lands and pastures, especially rice.	**NOT EXPECTED** Suitable habitat is not present within the project area.
Southern California rufous-crowned sparrow *Aimophila rucifeps canescens*	Fed: FSC CA: WL, SSC Other:	This bird is a year round resident of Southern California on the slopes of the Transverse and Coastal ranges. This subspecies prefers rocky hillsides and steep slopes in open grass and coastal sage scrub in areas ranging from roughly 200-4,500 feet in elevation. Thrives in areas that have recently been burned, and sometimes remain in these grassy areas for years. Nests on the ground in rock hollows or under clumps of grass or low brush.	**NOT EXPECTED** Project site is outside of species' altitudinal range.
Grasshopper Sparrow *Ammodramus savannarum*	Fed: - CA: SSC Other: -	This species is found in dense grasslands within lowland plains, valleys, and hillsides. It prefers native grasslands with forbs and scattered shrubs. Known to be loosely colonial when nesting.	**NOT EXPECTED** Suitable habitat is not present on site.
Golden Eagle *Aquila chrysaetos*	Fed: - CA: FP, WL Other: -	This bird prefers open and semi-open habitats from sea level to 11808 feet in elevation. They are primarily found in hilly and mountainous regions and prefer areas with cliffs and large trees for roosting. This species nests on cliff edges overlooking grasslands, which is its foraging habitat. Less common in areas with cover and dense canopy layers, which provide concealment for prey.	**NOT EXPECTED** Suitable habitat is not present on site.
Short-eared owl Asio flammeus	Fed: - CA: SSC Other: -	This species is a year round resident that primarily inhabits grasslands and other open habitats including marshes, meadows, savanna and open woodlands. This species nests in open scrapes on the ground lined by grasses.	**NOT EXPECTED** Suitable habitat is not present on site.
Burrowing Owl *Athene cunicularia*	Fed: - CA: SSC Other: -	This species prefers dry areas within grasslands or shrub habitats with low-growing open vegetation. It is a subterranean nester and forages on small mammals. It most frequently utilizes California Ground Squirrel (*Spermophilus beecheyi*) burrows for nesting.	**LOW** Habitat suitability is low within the project site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Coastal Cactus Wren *Campylorhynchus brunneicapillus sandiegensis*	Fed: - CA: SSC Other: -	This bird is an obligate inhabitant of coastal sage scrub, it is primarily found at elevations below 500 feet. It forms nests in dense cactus (*Opuntia littoralis*) and cholla (*Opuntia prolifera*) patches with little to no canopy cover. It forages on the ground or low to the ground.	**NOT EXPECTED** Suitable habitat is not present on site.
White-Tailed Kite *Elanus leucurus*	Fed: - CA: FP Other: -	Favors open land and sparsely wooded areas such as agricultural fields, marshes, and savannas. This species feeds on small mammals, birds, reptiles and amphibians. Large platform shaped nests built of sticks can be found in the fork of a tree.	**LOW** Habitat suitability is low within the project site. Large trees present at the site may serve as a foraging habitat.
Southwestern willow flycatcher *Empidonax trailii extimus*	Fed: END CA: END Other: -	This species breeds in dense riparian and shrub habitats near rivers and lakes. It aerially forages for insects from trees, shrubs, and herbaceous vegetation. They breed in most meadow habitats with Perennial Stream and Riparian Woodland habitats, dominated by willows (Salix sp.) and Cottonwood (*Populus sp.*). In lowland riparian habitats dense willow thickets are preferred, while in mountain meadows, this species prefers willow thickets interspersed with openings.	**NOT EXPECTED** Suitable habitat is not present on site.
Coastal California gnatcatcher *Polioptila californica californica*	Fed: END CA: SSC Other: -	A permanent resident of open scrub habitats, particularly Coastal Sage Scrub, below 2,500 feet in Southern California. More abundant in areas where Coastal Sage Scrub interfaces with Chaparral. Also occurs in arid washes, on mesas, and slopes graded less than 40%. Less frequent where *Salvia leucophylla*, *S. mellifera*, and *Rhus integrifolia* dominate the plant community.	**NOT EXPECTED** Suitable habitat is not present on site.
California least tern *Sternula antillarum browni*	Fed: END CA: END, FP Other: -	This bird nests in colonies formed on open beaches that are mostly free of vegetation due to tidal scouring and its nest consists only of an open scrape on the ground. This bird migrates along the Californian coast during autumn and continues south into Baja California. It prefers sites in the proximity of estuaries. Forages over open water.	**NOT EXPECTED** Suitable habitat is not present on site.
Least Bell's Vireo *Vireo bellii pusillus*	Fed: End CA: End Other: -	This bird is a summer resident of Southern California, nesting in dense, low riparian habitat. Typical habitat includes Cottonwood-Willow Forest, Oak Woodland, Mulefat Scrub and Dry Washes with willow thickets. It is primarily found nesting within the vicinity of water or dry river beds, at elevations below 2,000 meters (6,560 feet), where thick riparian habitat is present.	**NOT EXPECTED** Suitable habitat is not present on site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Mammals			
Pallid Bat *Antrozous pallidus*	Fed: - CA: SSC Other: -	Occupies a wide variety of habitats, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range. This species is commonly found inhabiting bridges.	**NOT EXPECTED** Suitable habitat is not present on site.
Dulzura pocket mouse *Chaetodipus californicus femoralis*	Fed: - CA: SSC Other: -	This species is a found in a range of habitats, including montane woodlands, valley foothill woodlands, annual grassland, chaparral and coastal sage brush. This species is most abundant in areas where grassland and chaparral meet. This species occurs at elevations from sea level to 7,872 feet. This species is mostly fossorial, remaining underground for most activities in their burrows aside from food gathering and reproduction. This species is granivorous, although it sometimes feeds upon insects and vegetative matter.	**NOT EXPECTED** Suitable habitat is not present on site.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Fed: - CA: SSC Other: -	This mouse inhabits coastal sage scrub, sage scrub grassland transitions, and chaparral communities, where it excavates elaborate burrows. This species prefers open, sandy areas and is found also on rocky/gravelly substrates, and less so found in shrubby areas. It occurs at elevations from sea level up to 4,600 feet.	**NOT EXPECTED** Suitable habitat is not present on site.
Mexican long-tongued bat *Choeronycteris mexicana*	Fed: FSC CA: SSC Other: -	Lives in desert, montane, riparian, to pinyon-juniper habitats. May roost in relatively well-lit caves. The bats are most frequently found roosting in desert canyons, deep caves, mines, or rock crevices. In urban environments, the bats use abandoned buildings for day roosts. Feeds on nectar & pollen of night-blooming succulents. This species inhabits altitudes up to 6,200 feet. Breeds from June to July.	**NOT EXPECTED** Suitable habitat is not present on site.
Stephens' kangaroo rat *Dipodomys stephensi*	Fed: END CA: THR Other: -	This species is a nocturnal, fossorial rodent that primarily inhabits arid and semi-arid habitats that have grass and/or shrubs with less than 50% cover. This species prefers to burrow in sandy soils that are soft and drain well. This species primarily feeds on seeds.	**LOW** Habitat suitability is low within the project site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Western Mastiff Bat *Eumops perotis californicus*	Fed: CA: SSC Other: -	Occurs in a variety of arid habitats, including Conifer and Deciduous Woodlands, Coastal Sage Scrub, Grassland, and Chaparral. Roosts in crevices, structures, trees and tunnels. Roosts documented from sea level to 1,400 meters.	**LOW** Habitat suitability is low within the project site. Large trees and building present at the site may serve as a foraging and roosting habitat.
Western Yellow Bat *Lasiurus xanthinus*	Fed: - CA: SSC Other: -	Uncommon in California, known only in Los Angeles and San Bernardino Counties south to the Mexican border. This species has been recorded below 2000 ft in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms and forages over water and among trees. This species occurs year-round in California. Data suggests that this species may be increasing in range and abundance in the U.S.	**LOW** Habitat suitability is low within the project site. Large trees and building present at the site may serve as a foraging and roosting habitat.
San Diego Desert Wood Rat *Neotoma lepida intermedia*	Fed: - CA: SSC Other:-	Occurs in dense canopies of Coastal Sage Scrub, rocky outcrops, and slopes. Builds mounds among trees and rocks, using sticks to create distinctive middens.	**NOT EXPECTED** Suitable habitat is not present on site.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Fed: - CA: SSC Other: -	Primarily found in arid lowlands and semiarid desertlands. Occurs in small colonies that roost together in caves, mines, or crevices in cliffs or buildings. This species eats many kinds of insects but prefers small moths. They feed early in the night and in the very late night before dawn.	**NOT EXPECTED** Suitable habitat is not present on site.
Big free-tailed bat *Nyctinomops macrotis*	Fed: - CA: SSC Other: -	This species occurs in rugged rocky upland habitats in the southwest. Has been found in urban areas roosting in buildings and trees. Primarily roosts in rocky crevices and cracks and forages on large moths. Often found foraging near areas with water.	**LOW** Habitat suitability is low within the project site. Large trees and building present at the site may serve as a foraging and roosting habitat.
Pacific Pocket Mouse *Perognathus longimembris pacificus*	Fed: END CA: SSC Other: -	A nocturnal rodent which inhabits the narrow coastal plains from the Mexican border north to El Segundo, Los Angeles Co. and seems to prefer soils of fine alluvial sands near the ocean. May inhabit coastal dunes and open coastal sage scrub with sandy soils. Primarily feeds on seeds but also some insects and vegetation. Found at altitudes from 0 to 1,132 feet.	**LOW** Habitat suitability is low within the project site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
American badger *Taxidea taxus*	Fed: - CA: SSC Other: -	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. This species is sometimes found in open chaparral and riparian zones. Preys primarily on burrowing rodents. Digs burrows, mainly in the pursuit of prey but also in the winter to go into torpor. This species is found up to 12,000 feet in elevation, but usually occurs at lower altitudes. Nocturnal.	**NOT EXPECTED** Suitable habitat is not present on site.
Reptiles			
Orangethroat whiptail *Aspidoscelis hyperythra*	Fed: CA: SSC Other: -	This species prefers washes, streams, terraces where there is sandy soil in amongst coastal chaparral and some riparian habitats in elevations ranging from sea level to 2,000 feet. Habitat for this species usually is rocky and has patches of brush and rocks. This species primarily feeds upon small invertebrates. This species is active in the day.	**LOW** Habitat suitability is low within the project site.
Coastal western Whiptail *Aspidoscelis tigris stejnegeri*	Fed: CA: SSC Other: -	This species occurs in dry areas with sparse foliage. It can occur in woodlands, chaparral, and riparian areas. Breeding occurs from April to August. This species is diurnal and eats small invertebrates (e.g. spiders, scorpions, and termites) and small lizards.	**LOW** Habitat suitability is low within the project site.
Red-diamond rattlesnake *Crotalus ruber*	Fed: FSC CA: SSC Other: -	Found in arid chaparral, coastal sage scrub, desert, oak and pine woodlands, and grassland areas. Requires rocky areas, dense vegetation, rodent burrows and cracks in rocks or surface cover objects. Bears live young from July to September. Preys upon small mammals, reptiles and birds.	**NOT EXPECTED** Suitable habitat is not present on site.
Western pond turtle *Emys marmorata pallid* (*Emys marmorata)*	Fed: - CA: SSC Other: -	This species occurs in habitats with permanent or nearly permanent water bodies at elevations from 0 - 1,800 meters (0 - 6,000 feet). It requires basking sites, such as logs, mud flats, muddy banks, or downed vegetation. The Western Pond Turtle feeds on aquatic plants, invertebrates, worms, and frog and salamander eggs and larvae. Breeding occurs from April to May. This species has limited distribution within California and northern Baja California.	**NOT EXPECTED** Suitable habitat is not present on site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Coast Horned Lizard (San Diego) *Phrynosoma coronatum (blainvillii* population*)*	Fed: - CA: SSC Other: -	Historically, found along the Pacific coast from the Baja California to the Bay Area. Occurs in open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains from sea level to 2,438 meters (8,000 feet) in elevation. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills.	**NOT EXPECTED** Suitable habitat is not present on site.
Coronado Island Skink *Pleistodon skiltonian interparietalis*	Fed: - CA: SSC Other: -	This species is found in coastal sage scrub, chaparral, oak woodland, pinyon and juniper woodland, and riparian woodlands at elevations from sea level up to 8,300 feet. This species forages for small invertebrates amongst lead litter and can be found there or under rocks and logs where it lives in burrows.	**NOT EXPECTED** Suitable habitat is not present on site.
Two-Striped Garter Snake *Thamnophis hammondii*	Fed: CA: SSC Other: -	This species is diurnal and primarily aquatic. Diet consists of fish and amphibians. Breeding occurs in March-April and young are born in July and August. Ranges continuously from Monterey County south along the coast into northern Baja California. At elevations from sea level to 2,130 meters (6,988 feet).	**NOT EXPECTED** Suitable habitat is not present on site.
Amphibians			
Arroyo Toad *Bufo californicus*	Fed: END CA: SSC Other:-	Occurs in semi-arid regions near washes or streams, valley foothills, desert riparian or desert washes. Often found near rivers with flowing water with a sand and gravel substrate during substantial portions of the rainy season. Habitat normally includes sandy banks, gravelly areas, willows, cottonwoods, sycamores, or a combination of these.	**NOT EXPECTED** Suitable habitat is not present on site.
Western Spadefoot *Spea hammondii*	Fed:- CA: SSC Other:-	Occurs in open areas with sandy or gravelly soils, in a variety of habitats, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools that do not contain bullfrogs, fish, or crayfish are necessary for breeding. Dormant most of the year, active October-May, depending on rainfall. From near sea level up to 1365 meters (4,500 feet).	**NOT EXPECTED** Suitable habitat is not present on site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Coast range newt *Taricha torosa*	Fed: - CA: SSC Other: -	Occurs in wet forests, valley foothills, coastal scrub, oak forests, chaparral, and rolling grasslands. Terrestrial outside of breeding season. Becomes aquatic when breeding in spring, breeding locations include ponds, reservoirs, and slow moving streams. Summers in moist places under logs, rocks, or debris.	**NOT EXPECTED** Suitable habitat is not present on site.
Fish			
Tidewater goby *Eucyclogobius newberryi*	Fed: END CA: SSC Other: -	This fish inhabits lagoons, estuaries backwater marshes, and freshwater marshes. Its distribution is limited to the California coast from the California-Oregon border to Cockleburr canyon. For locations with little precipitation, this fish can only be found up to a few hundred feet from the coast. In other locations where surface water and groundwater are plentiful, emptying into large estuaries, this fish can be found many miles inland. This fish feeds on crustaceans, dipteran larvae, gastropods, and invertebrate eggs.	**NOT EXPECTED** Suitable habitat is not present on site.
Arroyo Chub *Gila orcutti*	Fed: - CA: SSC but THR in native range Other: -	Listing status is for species within the species' native range within the Los Angeles Basin's south coastal streams. It occurs in slow-moving, low-gradient streams, ponds, or backwater sections of warm to cool streams with mud or sand substrates.	**NOT EXPECTED** Suitable habitat is not present on site.
Southern steelhead – Southern California DPS Oncorhynchus mykiss irideus	Fed: END CA: SSC Other: -	This freshwater species prefers shallow cobble and gravel riffles with abundant cover from vegetation, rocks, and other material. This fish primarily feeds on small aquatic invertebrates. This species distribution is limited to the headwaters of the San Gabriel and Santa Ana rivers.	**NOT EXPECTED** Suitable habitat is not present on site.
Invertebrates			
San Diego fairy shrimp *Branchinecta sandiegoensis*	Fed: END CA: - Other: -	San Diego fairy shrimp breed strictly in vernal pools, they do not reproduce in perennial water bodies. Vernal pools develop during the wet season (typically January to March), which activates the eggs lain in the pool the previous year. Usually one life cycle is completed by the time vernal pool dries up again. Adults cannot survive desiccation, but they lay eggs which can dry up and will hatch during the next wet season. San Diego Fairy shrimp feed upon decaying organic matter and diatoms and algae.	**NOT EXPECTED** Suitable habitat is not present on site.

Species name	Status Designation	Habitat Requirements (CNDDB)	Probability of Occurrence in Construction Zone
Riverside fairy shrimp *Streptocephalus woottoni*	Fed: END CA: - Other: -	Riverside fairy shrimp can be found in vernal pools and other ephemeral freshwater habitats with depth from 5 inches to 10 feet. Habitats for this shrimp are found below 2,100 feet in elevation within 50 miles from the Pacific coast. This species is not found in perennial water bodies.	**NOT EXPECTED** Suitable habitat is not present on site.

Key

Probability to Occur Onsite

Present: Observed on the site during surveys described here, or recorded on-site by other qualified biologists.

High: Observed in similar habitat in regions, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

Low: Site is within the known range of the species but habitat on site is unlikely to support the species.

Not Expected: A focused study failed to detect the species, or, no suitable habitat is present.

Status Designation

U.S. Fish and Wildlife Service

END Federal Endangered

THR Federal Threatened

FSC Federal Species of Concern

California Department of Fish and Game

END California Endangered

THR California Threatened

SSC State Species of Special Concern

California Native Plant Society

1A Plants presumed extinct in California.

1B Plants rare, threatened, or Endangered in California, and elsewhere.

***Occurrence potential and habitat suitability will change should standing or flowing water be introduced into the project area.**

APPENDIX B: SITE PHOTOGRAPHS

Photograph 1. South side of the hotel (the project site) with large tall trees present immediately south of the site.

Photograph 2. West side of the hotel front (the project site).

Photograph 3. North side of the hotel (the project site).

Photograph 4. Vacant building, parking lot, and Jack in the Box present at the project site looking from northeast corner.

Photograph 5. Small drain with disturbed riparian vegetation located approximately 300 feet from southwest corner of the site.

APPENDIX C: PLANT SPECIES OBESERVED

Plant Species Observed	
Scientific Name	**Common Name**
ANGIOSPERMS (DICOTYLEDONS)	
AIZOACEAE	**FIG-MARIGOLD FAMILY**
*Mesembryanthemum crystallinum**	Crystalline iceplant
ANACARDIACEAE	**SUMAC FAMILY**
Rhus integrifolia	Lemonade berry
APIACEAE	**CARROT FAMILY**
*Foeniculum vulgare**	Fennel
ARALIACEAE	**GINSENG FAMILY**
*Hedera helix**	English ivy
*Schefflera actinophylla**	Umbrella tree
ASTERACEAE	**SUNFLOWER FAMILY**
Baccharis pilularis	Coyote Brush
*Centaurea melitensis**	Tocalote
Conyza sp.	Horseweed
*Lactuca serriola**	Wild lettuce
*Picris echioides**	Bristly ox tongue
BERBERIDACEAE	**BARBERRY FAMILY**
*Nandina domestica**	Heavenly bamboo
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica rapa**	Field Mustard
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**
Sambucus nigra ssp. cerulea	Blue elderberry
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
*Salsola tragus**	Russian Thistle
EUPHORBIACEAE	**SPURGE FAMILY**
*Euphorbia sp.**	Spurge
*Ricinus communis**	Castor bean
FABACEAE	**PEA FAMILY**
*Acacia sp.**	Acacia tree
GERANIACEAE	**GERANIUM FAMILY**
*Pelargonium sp.**	Garden geranium
LAMIACEAE	**MINT FAMILY**

Plant Species Observed	
*Mentha spicata var. spicata**	Spearmint
LILIACEAE	**LILY FAMILY**
*Tulbaghia violacea**	Society garlic
MYRTACEAE	**MYRTLE FAMILY**
*Eucalyptus sp.**	Gum tree
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**
*Bougainvillea spectabilis**	Bougainvillea
PLUMBAGINACEAE	**PLUMBAGO FAMILY**
*Limonium perezii**	Sea lavender
POLYGONACEAE	**BUCKWHEAT FAMILY**
*Rumex crispus**	Curly dock
ROSACEAE	**ROSE FAMILY**
*Rhaphiolepis indica**	Indian hawthorn
*Rosa sp.**	Ornamental rose
SALICACEAE	**WILLOW FAMILY**
Populus fremontii	Fremont's Cottonwood
Salix gooddingii	Black willow
Salix lasiolepis	Arroyo Willow
SOLANACEAE	**NIGHTSHADE FAMILY**
Solanum sp.	Nightshade
ANGIOSPERMS (MONOCOTYLEDONS)	
ARECACEAE	**PALM FAMILY**
*Washingtonia robusta**	Mexican Fan Palm
CYPERACEAE	**SEDGE FAMILY**
*Cyperus papyrus**	Papyrus
POACEAE	**GRASS FAMILY**
*Arundo donax**	Giant Reed
*Polypogon monspeliensis**	Rabbit-foot grass
TYPHACEAE	**CATTAIL FAMILY**
Typha latifolia	Broad-leaved Cattail
GYMNOSPERMS	
*Pinus sp.**	Pine tree
*Non-Native Species	

APPENDIX D: WILDLIFE SPECIES OBESERVED

Wildlife Species Observed	
Scientific Name	**Common Name**
AVES	**BIRDS**
Calypte anna	Anna's Hummingbird
Corvus brachyrhynchos	American Crow
Chamaea fasciata	Wrentit
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black Phoebe
MAMMALIA	**MAMMALS**
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	Audubon's cottontail
	FISH
*Gambusia affinis**	Mosquito fish
REPTILIA	**REPTILES**
Sceloporus occidentalis	Western Fence Lizard
INVERTEBRATA	**INVERTEBRATES**
Danaus plexippus	Monarch butterfly
Nymphalis antiopa	Mourning cloak

Appendix D

Phase I Cultural Resources Inventory

PHASE I CULTURAL RESOURCES INVENTORY FOR THE DOHENY HOTEL PROJECT, THE CITY OF DANA POINT, ORANGE COUNTY, CALIFORNIA

Prepared for:

Erica Demkowicz, Senior Planner
City of Dana Point
Community Development Department
Environmental Planning and Assessment Section
33282 Golden Lantern
Dana Point, California 92629

Prepared by

Stephen O'Neil, M.A., RPA
ULTRASYSTEMS ENVIRONMENTAL
16431 Scientific Way
Irvine, California 92618
(949) 788-4900
www.ultrasystems.com

USGS 7.5-Minute Dana Point Quadrangle

UltraSystems Project No. 5802

March 2, 2012

[This page intentionally left blank.]

MANAGEMENT SUMMARY

Purpose and Scope: The City of Dana Point retained UltraSystems Environmental Inc. (UltraSystems) to provide cultural resources services related to the Doheny Hotel Project in the City of Dana Point, Orange County, California. The services entailed a Phase I cultural resources inventory of approximately 1.5 acres within the Doheny Hotel Project owned by the City of Dana Point. The inventory was conducted in August 2011. This report documents the results of that work.

The ultimate goal of this study was to identify potential cultural resources properties within the project area, and supplement or update information from previous inventories.

Dates of Investigation: A cultural resources pedestrian surveys was conducted August 19, 2011. The investigation included a record search at the South Central Coast Information Center, California State University, Fullerton, on August 11, 2011. A Sacred Lands file search was initiated on August 11, 2011. The Native American Heritage Commission responded on August 17, 2011, and stated that their search failed to indicate the presence of Native American Sacred Lands or traditional cultural properties within the immediate project area. This report was completed in February 2012.

Investigation Constraints: Approximately 90% of the lands within the survey area are built upon with structures or paving and the remaining 10% are disturbed and graded.

Findings of the Investigation: The literature review indicated that there are no prehistoric or historic cultural resources recorded within a 1/2-mile radius of the project area. Three previous studies included the Doheny Hotel grounds themselves, with a total of 14 cultural resources studies completed within a 1/2-mile radius. No cultural resources were previously recorded within the boundaries of the project area. As a result of this Phase I inventory, no prehistoric archaeological sites or isolates were identified.

Recommendations: Considering the lack of any previously recorded prehistoric sites on the grounds of the Doheny Hotel in proximity to the project's APE, and that no cultural resources were observed during the field survey nor were any reported through consultation with local Native American organizations, the project area is not regarded as archaeologically sensitive. UltraSystems recommends that a qualified archaeologist monitor all construction ground-disturbing activities occurring in native soils.

Disposition of Data: This report will be filed with the South Central Coast Information Center, California State University, Fullerton; the City of Dana Point; and UltraSystems Environmental Inc., Irvine. All field notes and other documentation related to the study will remain on file at the Irvine office of UltraSystems.

Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

UNDERTAKING INFORMATION/INTRODUCTION

Contracting Data: The City of Dana Point retained UltraSystems Environmental Inc. (UltraSystems) to conduct a Phase I cultural resources survey related to the Doheny Hotel Project. The proposed project involves the construction and operation of a new 2-5 story hotel with 258 rooms and 296 subterranean level parking spaces. The proposed project would also include a pool deck, garden terrace, roof terrace, and meeting space. An additional 50 parking spaces would be provided off-site for hotel employees through an agreement with the South Coast Water District for an initial period of five years. UltraSystems completed the literature review, Native American Sacred Lands File search, the pedestrian survey and report.

The project site is located on public lands owned by the City of Dana Point.

Permits: No special permits were required for conducting this work.

Purpose: The current study was completed under the provisions of the National Historic Preservation Act (NHPA) Section 106 (36 CFR 800).

The NHPA authorizes the maintenance of a National Register of Historic Places (NRHP) that facilitates the preservation of properties possessing integrity and meeting at least one of the following four criteria delineated at 36 CFR 60.4 (Advisory Council on Historic Preservation 2000).

The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, deign, setting, materials, workmanship, feeling and association and:

a. That are associated with events that have made a significant contribution to the broad patterns of our history; or

b. That are associated with the lives of persons significant on our past; or

c. That embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a

significant and distinguishable entity whose components may lack individual distinction; or

d. That have yielded, or may be likely to yield, information important in prehistory or history.

The format of this report follows Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (Office of Historic Preservation).

Undertaking: The proposed project involves the construction and operation of a new 2-5 story hotel with 258 rooms and 296 subterranean level parking spaces. The proposed project would also include a pool deck, garden terrace, roof terrace, and meeting space. An additional 50 parking spaces would be provided off-site for hotel employees through an agreement with the South Coast Water District for an initial period of five years.

The project site is comprised of three separate parcels addressed as 25325 Dana Point Harbor Drive and 34297 and 34299 Pacific Coast Highway in Dana Point, CA. The project site is comprised of 1.5 acres and is currently occupied by a Jack-In-The Box restaurant, a vacant commercial building, and the Dana Point Harbor Inn 46-room motel.

This report details the methods and findings of the fieldwork conducted to determine the impact of the proposed new hotel and subterranean level parking spaces.

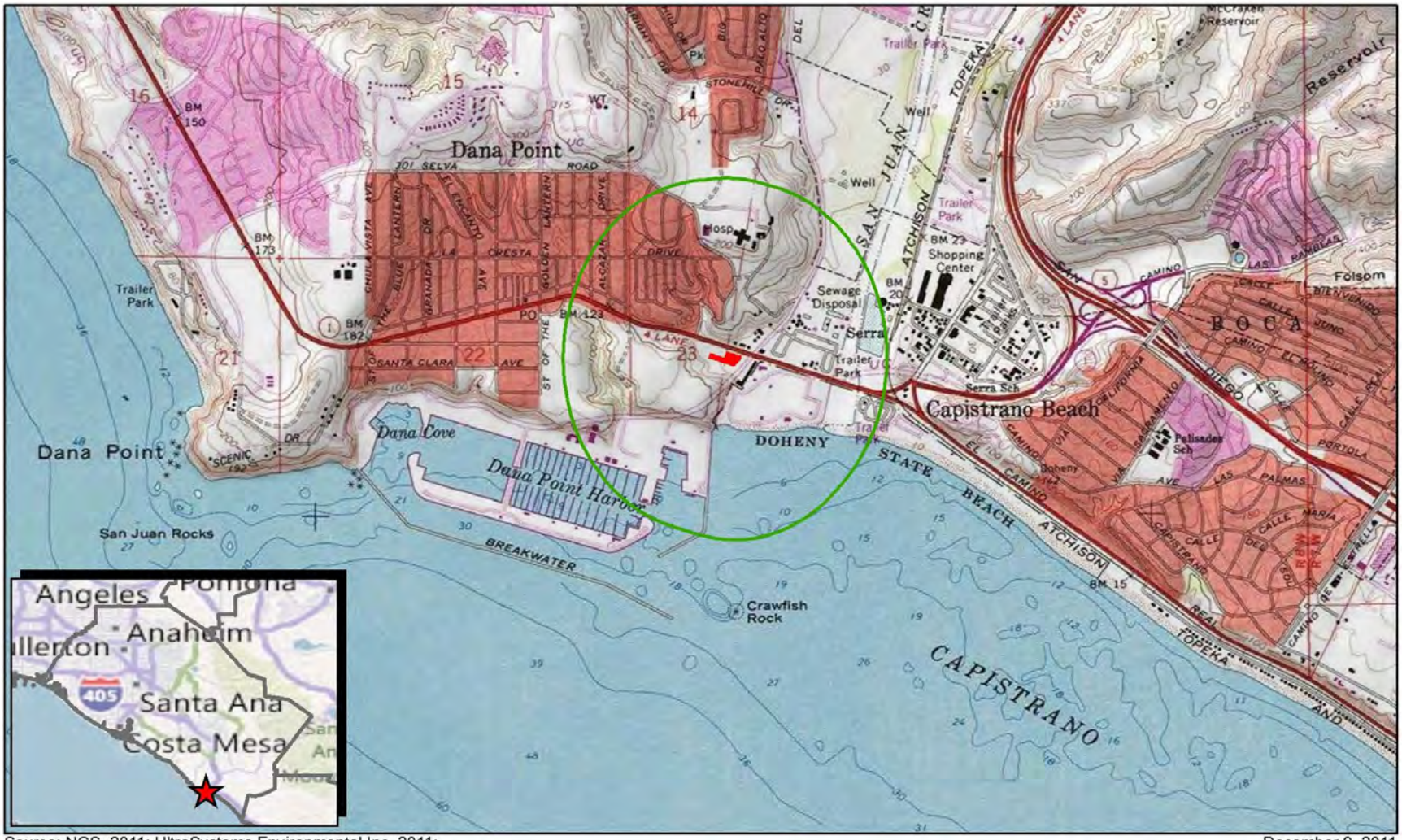
Project Limits: The Doheny Hotel Project area is comprised of three separate parcels addressed as 25325 Dana Point Harbor Drive and 34297 and 34299 Pacific Coast Highway in Dana Point, CA. The project site is comprised of 1.5 acres and is currently occupied by a Jack-In-The Box restaurant, a vacant commercial building, and the Dana Point Harbor Inn 46-room motel.

The study area is located on the Dana Point, California, USGS 7.5-Minute Quadrangle (1968, Photorevised 1975), in Township 8 South, Range 8 West (San Bernardino Base and Meridian), in the northwest quarter of section 23 (extended). This is located in the southwest of corner of the intersection of Pacific Coast Highway and Del Obispo Road. It lies within the western edge of the historic Rancho Boca de la Playa.

This investigation included an intensive pedestrian survey within the area of potential effect (APE) of the proposed project (Figure 1). A total of approximately 1.5 acres were surveyed by UltraSystems for this Phase I inventory.

Figures: Figure 1 shows the location of the project site. Figure 2 shows a portion of the USGS 7.5-Minute *Dana Point, Calif*. Quad, and depicts the specific location of the project area and APE. Figures 3-4 are photographs showing the surface conditions of the project site at the time of the pedestrian survey.

Project Personnel: Robert Rusby was the UltraSystems Project Manager, and Stephen O'Neil was the Project Archaeologist. This report on the results of the Phase I Inventory was written by Stephen O'Neil.



Source: NGS, 2011; UltraSystems Environmental Inc, 2011;

December 9, 2011

Map Scale: 1: 24,000

0 0.25 0.5 Miles

0 0.25 0.5 Kilometers

N

Legend

- Doheny Hotel Project Site
- Half-Mile Radius

Doheny Hotel

USGS Quad Map: Dana Point

UltraSystems
environmental management planning

Source: Bing Maps, 2010; UltraSystems Environmental Inc, 2011

December 9, 2011

Map Scale: 1: 4,800
1 Inch = 400 feet

Feet
0 200 400 600

Meters
0 50 100 150

N

Legend

Doheny Hotel Project Site

Doheny Hotel Project
Project Vicinity Map

UltraSystems
environmental management planning

SETTING

Natural

The Doheny Hotel project site is located in Orange County, California, in the City of Dana Point at the southwest of corner of the intersection of Pacific Coast Highway and Del Obispo Road. The topographic region lies within the Los Angeles Basin, a broad plain covering more than 800 square miles that extends from the foothills of the San Gabriel Mountains south to the Pacific coast, and from Topanga Canyon southeast to the vicinity of Aliso Creek in central Orange County. Prior to historical settlement of the region, the basin was characterized by extensive inland prairies, wide marshy riparian lands along watercourses, and a lengthy coastal strand predominated by sandy beaches interrupted by the rocky Palos Verdes Peninsula. The Los Angeles plain is traversed by several large watercourses, most notably the Los Angeles, Rio Hondo, San Gabriel, and Santa Ana Rivers. Marshlands fed by fresh water also once covered many portions of the area, while the coastline contained numerous estuaries with mixed fresh and salt water. To the west, the coastal region encompasses approximately 375 square miles of varied terrain. West of Topanga Canyon the terrain is rugged; the steep, westward slopes of the Santa Monica Mountains reach 1,000 feet or more in elevation, except where stream-cut ravines and canyons drain into narrow beaches at the water's edge. From Topanga Canyon southward to the Palos Verdes Peninsula, a distance of roughly 22 miles, the coast is flat and level. The terrain becomes rugged once again as the coast follows Palos Verdes Peninsula for a distance of approximately 12 miles before reaching San Pedro Bay, which in prehistoric times was characterized by extensive mud flats and sand bars. Continuing southward the coast is marked by several mesas fronted by sand beaches to the Newport Bay, where the San Joaquin Hills reach the ocean; inland of here a narrow extension of the Basin called the Tustin Plain terminates near Aliso Creek.

Elevation within the project area ranges from approximately 15 to 30 feet above mean sea level. The project area is depicted on the *Dana Point, Calif.* 7.5-minute USGS topographic map in Township 8 South, Range 8 West, in Section 23. The coastal southern California region has a Mediterranean type of climate with cool wet winters and warm dry summers. The mean precipitation in the Dana Point area is 14 inches of rain. The average daytime July high temperature is 80° F while the average nighttime January low temperature is 47° F.

Flora/Fauna

In its natural state, the Doheny Hotel project area was dominated by the Coastal Sage Scrub biotic community. In Dana Point, this community is typified by large evergreen shrubs such as toyon, laurel sumac and lemonadeberry. The adjacent hills contain oak, sycamore and yucca. This plant community supports a range of animals in the area including mule deer (*Odocoileus hemionus*), cottontail rabbits (*Sylvilagus* sp.), hare (*Lepus* sp.), quail (*Callipepla gambelii*), mourning dove (*Zenaidura macroura*), mice (*Perognathus* spp.), kangaroo rats (*Dipodomys* spp.), and various types of reptiles. Predators included coyote (*Canis latrans*), gray fox

(*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), and mountain lion (*Felis concolor*). Several species of rodents, coyote, reptiles and birds are the most common animals found today.

CULTURAL

Prehistoric Period

Prehistoric material in this region has been categorized according to periods or patterns that define technological, economic, social and ideological elements. Within these periods, archaeologists have defined patterns or complexes specific to prehistory within the desert region, including the current project area. The period from the end of Horizon I to European contact was a time of complex and ongoing change in material culture, burial practices, and subsistence focus. These changes most likely reflect both *in situ* cultural adaptations in response to shifts in environmental conditions, as well as influences from outside the area. The following summary of California's prehistoric period is adapted from Jones&Stokes (2007:6).

The prehistoric occupation of Southern California is divided chronologically into four temporal phases or horizons (Moratto 1984). Horizon I, or the Early Man Horizon, began at the first appearance of people in the region (approximately 12,000 years ago) and continued until about 5000 B.C. Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone or Encinitas Tradition, began around 5000 B.C. and continued until about 1500 B.C. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates), core tools, and few projectile points or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important and that reliance on collecting shellfish and vegetal resources increased (Moratto 1984).

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 1500 B.C. and continued until about A.D. 600-800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, possibly indicating a greater reliance on acorns as a food source. Projectile points become more abundant. Together with faunal remains, this indicates increased use of both land and sea mammals (Moratto 1984).

Horizon IV, the Late Horizon, which began around A.D. 600-800 and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea mammal hunting; extensive trade networks; use of bow and arrow; and a general cultural elaboration (Moratto 1984). Also known as the Late Prehistoric, it is locally identified with the introduction of pottery, and is marked by stronger regional differentiation. Such influence includes the major migration into southern California of Takic-speaking people (Uto-Aztecan language group) from the Great Basin region

(Warren 1968).

Ethnography

The project area is at the center of lands occupied during the Late Prehistoric and Contact Periods by the Native American society commonly known as the Juaneño (Kroeber 1925:Plate 57). The name "Juaneño" generally denotes people who were administered during Spanish Colonial times by Mission San Juan Capistrano (Bean and Shipek 1978; Kroeber 1925), which took in several people from multiple tribal areas, including the ethnic Juaneño society, and adjacent Luiseño, Gabrielino among others. The term "Juaneño" has come to refer specifically to the tribal society in whose lands the Capistrano mission was placed. Contemporary Juaneño identify themselves as descendents of the indigenous people living in the local area, termed the Acjachemen Nation. The Acjachemen language is the northernmost dialect of Luiseño, derived from the Cupan segment of the Takic language branch, a part of the Uto-Aztecan linguistic family (Mithun 2001:539-540).

Acjachemen territory was situated in southern Orange County and northern San Diego County. Their lands extended to the west in the San Joaquin Hills and along the adjacent Pacific Ocean coast, east into the Santa Ana Mountains and possibly beyond into Temescal Valley, southeast to the northern Santa Margarita mountain range and then back west again to the Pacific Ocean. The Acjachemen had close social, religious and cultural ties with the related Luiseño to the east and south -- the Acjachemen and the coastal Luiseño together regarded themselves as the Payomkawichum ,meaning the "western people" (Harrington 1933:103). The Acjachemen population during the precontact period is thought to been greater than 3,500 (O'Neil 2002:157).

The Takic language can be traced to the Great Basin area to the northeast. Linguistic analysis of Takic dialects has suggested that its speakers settled between the Chumash, who are located north of Los Angeles, and the Diegueño ethnic nation sometime after 500 B.C. The implication is that the entire southern California coastal region was once inhabited by Chumashan and Yuman speakers who were gradually separated and displaced by Takic-speaking immigrants from the Great Basin area (Kroeber 1925:578–579).

General Socio-Cultural Description

In general, the socio-political entity that formed local Native American society in southern California was the localized patrilineal group. These male lineages, sometimes called clans or *gentes*, each had a chief with varying degrees of authority who was usually the oldest son of the preceding chief. Each group was an autonomous political unit, albeit a small one, with a territory and settlement(s). They were exogamous in regard to marriage and, as a rule, patrilocal, with each lineage belonging to one of two moieties (Gifford 1973:377, 380).

The Acjachemen resided in permanent, well-defined villages and associated seasonal camps. Village sizes were mixed depending on its resource base and political status. Smaller villages contained of 35 to 75 persons of a single lineage; larger villages had populations of 100 to 300 of

a dominant clan joined with other families of multiple lineages. As Boscana, one of the Franciscan missionaries at Mission San Juan Capistrano, said of the Acjachemen, "all the rancherias were composed of a single relationship" (Harrington 1934:32). Each clan/village had its own resource territory and was politically independent, yet maintained ties to others through economic, religious, and social networks in the immediate region. In an area rich in varied natural resources, such as the coastal foothills of the project area, the population was dense and villages existed every three to five miles.

There were three hierarchical social classes: an elite class consisting of chiefly families, lineage heads, and other ceremonial specialists; a "middle class" of established and successful families; and, finally, people of disconnected or wandering families and war captives (Bean 1976:109–111). Native leadership focused in the *Nu*, or clan chief, who conducted community rites and regulated ceremonial life in conjunction with a council of elders (*puupulem*) composed of lineage heads and ceremonial specialists.

Socio-Religious Organization

The *Nu* held an administrative position that combined and controlled religious, economic, and warfare powers. While the placement of residential huts in a village was not regulated, a contemporary census study would likely have shown family groupings. The ceremonial enclosure (*wamkish*) and the chief's home could generally be found in the center of the village.

The village chief had a formal assistant (*Eyacque*), who acted as messenger and had important religious duties (Harrington 1934:52). Ritual specialists and shamans, each with his own particular sphere of knowledge about the environment or ritual magic, had hereditary membership on the council and the responsibility for training a successor from his own lineage or family who displayed the proper innate abilities. The council discussed and decided upon matters of the community, which were then carried out by the clan chief and his assistants. The heads of the lineages conducted rituals and controlled the timing and places of hunting, harvesting, warfare, and all major activities of community life.

The center of the Acjachemen religion was *Chinigchinich*, the last of a series of heroic mythological figures. The heroes were originally from the heavens or directly born of Mother Earth and Father Sky and the sagas told of them formed the backdrop of Juaneño religious beliefs. The most obvious expression of the religion at the time of arrival of the Spanish was the *wamkish* that constituted a sacred space, a brush-enclosed area where religious observances were performed.

Men were initiated into the mysteries of the religion, going through a two-week ritual as youths. Moving into adulthood, this age cohort became the warrior group and, as adults, also started families. Both young men and women went through initiation rites around the age of puberty. The rites for males included use of *Datura wrightii* extract, a hallucinogen, in the search for a spirit helper. The ceremony for the young women announced the change to marriageable status.

Ceremonial Reciprocity

The presence of socio-religious ceremonial reciprocity included the *Nota Pet* or Chief's Road that linked clans within a group among the southern Takic. Another was the "burial road" that cut across tribal boundaries. The reciprocity systems were a uniting force, which kept the other competitive and centrifugal forces of extreme clan political autonomy described above in abeyance. The chiefs of a region would meet yearly to arrange a schedule of the more common community ceremonies, such as male and female initiation and the annual mourning. All relations were invited to the reciprocity ceremonies. Given their strictly exogamous marriage patterns, this could encompass a wide region.

The Acjachemen practiced cremation and burial of the dead. Specific individuals who managed the cremation received compensation for their services. The death of those of higher rank was commemorated on the first anniversary in a mourning ceremony.

Marriage Networks

Marriages were arranged by the parents through an intermediary, sometimes while the future couple was still in infancy (Boscana 1933:51–52). An important concern was that spouses not be closely related – members of both parents' clans were excluded and moiety exogamy was practiced by Takic peoples where the system was strong, in which case no members of the father's division were suitable. A bride price was given to the young woman's parents and an elaborate marriage ceremony was conducted. Marriage was employed as a mechanism of politics, ecology, and economics. Important lineages were allied through marriage, and reciprocally useful alliances were arranged between groups living in differing ecological niches. A study of the Luiseño village *Temecula* demonstrated the range of ecological diversity that a large village could tap into via its marriage network (Drover et al. 1989:24–25).

Subsistence, Division of Labor, and Yearly Cycle

Plant foods were by far the largest part of the traditional Acjachemen diet. The following description of this topic is taken from the summary by Bean and Shipek (1978:552). Similar to most other indigenous Californian groups, acorns were a staple food, two species of oaks which were harvested locally. Villages were located near water sources since water was critical for leaching the prepared acorn meal. As a dietary staple, acorn mush (*weewish*) was prepared in various ways and served as gruel, cakes, or fried; it might be sweetened with honey or berries; and it was also made into a stew with added greens and meat. Grass seeds as a group were another staple; other common plant foods included manzanita berries, sunflower, sage (*Salvia* spp.), chia (*Salvia columbariae*), lemonade berry, wild rose hips, holly-leaf cherry or islay (*Prunus ilicifolia*), prickly pear (*Opuntia littoralis*), lamb's-quarter (*Chenopodium album*), and possibly pine nuts.

Seeds were parched, ground, and cooked as mush in various combinations (according to taste and availability) much like *weewish*. Greens were consumed raw or cooked, and were sometimes dried for storage. Other edible vegetal parts included cactus pods and fruits; a variety of berries,

Yucca buds, blossoms, pods, and stalks; underground bulbs, roots, and tubers; and mushrooms and tree fungus. Various teas, for use both as beverages and for medicinal cures, were made from flowers, fruits, stems, and roots. Sea grasses and kelp were gathered for food, medicine, and bedding. Salt was obtained from the harvesting of salt grass in lagoon ponds.

Principal game animals included deer, rabbit, jackrabbit, wood rat, mice, ground squirrel, antelope, quail, dove, duck, and other fowl, especially migrating birds. The diet also included fresh water fish such as trout and salmon. Most predators, as well as tree squirrels and most reptiles, were avoided as food. Being predominantly a coastal people, the Acjachemen diet included numerous marine resources, including sea mammals, fish, and crustaceans, obtained on the shore or open sea. Shellfish were the most heavily used marine resource and included abalone, turban, mussel, and other species from the rocky shores; clams, scallops, and univalves from the sandy beaches; and *Chione* and bubble shells from the estuaries. Reed and dugout canoes were used for sea travel.

Raymond White (1963:122) proposed that for the coastal Luiseño (the Payomkawichum, which includes the Acjachemen), fish and marine animals accounted for variably 50–60 percent of the diet, and terrestrial game another 5–10 percent. Plant foods accounted for the remaining 30–60 percent, broken down by acorns 10–25 percent; seeds 5–10 percent; greens 5–10 percent; and bulbs, roots, and fruits 10–15 percent.

A wide variety of tools and implements were employed by the Acjachemen to gather and collect food resources. Light tule and dugout canoes were used for near-shore fishing. There was the bow and arrow, traps, blinds, spears, throwing sticks and slings, as well as seines, nets, harpoons, and hooks for fishing. Many plant foods were collected with several forms of burden baskets, woven seed beaters, carrying nets, and sharpened digging sticks (Bean and Shipek 1978:552).

There was a division of labor in the manufacture of various implements: “Women wove baskets as well as clothing; men made goods from wood, bone, horn, and stone. Finally women were responsible for household duties, such as fetching water and wood, and the bulk of child rearing” (Jackson and Castillo 1996:38). A woman made “all the utensils needed for her work: such as large and small baskets, which serve as plates and cups for eating, and for other uses; tray baskets for cleaning and toasting seeds; and other similar things" (Harrington 1934:30).

Adult men tended to have exclusive responsibility for ritual and sacred affairs. The women prepared the extensive reserves of food required for the lengthy ritual affairs. Females performed supplemental dancing and singing, and there were several ritual dances performed exclusively by women of the elite families (Boscana 1933:59, 60).

Sedentary and autonomous village groups, each with specific hunting, collecting, and fishing areas, were typically situated at the interface of several diverse ecological zones. Each locale containing economic resources (quarries, oak groves, hunting and camping sites, etc.) was owned collectively by the village group or by a clan, lineage, nuclear family, or individual, depending on inheritance. Express permission was required to gather resources within another’s territory

(White 1963). Many of the inland groups also had fishing and gathering sites on the coast, which they visited annually and/or when inland foods were scarce. During the annual acorn harvest, the majority of a village population would resettle for several weeks in the mountain groves. In general, the great majority of dietary resources could be collected within a day's roundtrip of the village.

A high percentage of available subsistence resources were used by the *Payomkawichum*. Their habitat included a variety of ecological zones – the ocean, sandy beaches, shallow inlets, and marshes; coastal chaparral and lush interior grass valleys; extensive oak groves in the interior uplands; and pines and cedars at the upper elevations of the nearby mountain ranges. Typically, the clan would spend most of the year together in a village adjacent to water near the coast, on a coastal bluff, or along a river in the foothills. In the spring, gathering parties or entire nuclear family groups would move to temporary camps as seasonal marine or vegetal resources became available, generally at lower elevations. As the year progressed, resources at higher elevations would ripen. The acorn harvest in the mountain oak groves in the early fall was a major expedition; most members of a clan moved to their inherited groves for a month or more.

Local Settlements

Many of the largest and most important Acjachemen villages were situated along the coast from the mouth of San Juan Creek (Dana Point) south. These include:

- *Eñe*, a coastal village along the beach of today's San Clemente, may have been located at the mouth of Segundo Deshecha. *Eñe* is the fifth Acjachemen settlement in Fr. Boscana's list.
- *Pange* was located in what is now south San Clemente on a bluff overlooking the ocean and San Mateo Creek. Village population was greater than 300, and it had marriage ties among all the Acjachemen towns, as well as to villages in Luiseño territory to the south.
- *Tébone* was located on the shore of the Pacific Ocean at the mouth of San Juan Creek. It was a medium-sized village of about 75 people.
- *Julve* was a fairly small village with a population of 24, and was likely located along San Juan Creek between the other two villages, or in the low coastal hills adjacent to that creek.
- *Uxme* was situated a along the coast 10 miles south of San Clemente at the mouth of Las Pulgas Creek (O'Neil 1988). This was the southernmost Acjachemen town.

Located within the City of Dana Point, near the point where San Juan Creek reaches the Pacific Ocean, was the Acjachemen village of Tébone. It was described by missionary priest Geronimo Boscana in the 1820s as being here, and that the name was derived from a medicinally useful plant that grew in the nearby estuary (1934:61). The name appears in the sacramental registers of Mission San Juan Capistrano, five miles inland, as the ranchería of origin for approximately 40 Acjachemen men, women and children. In the registers it is often spelled Tobna. The people here were part of a marriage network that extended throughout Acjachemen territory, to villages up the San Juan Creek drainage and south to villages along the coast (O'Neil 2002).

Anthropologist John Harrington, conducting studies among the Acjachemen community in the early 1930s, determined the site for Tébone, which he reconstructed as Tóovanŋa, had been located near the old railroad siding of Serra on the west side of San Juan Creek. Independent work by Works Projects Administration archaeologists in the mid-1930s located a prehistoric camp and burial ground in the same immediate vicinity which they designated Camp 21; never formally investigated, the site is now designated by the trinomial CA-Ora-21.

Contact Period Associations

The Mission San Juan Capistrano was established in 1776 along San Juan Creek in the center of Acjachemen territory. The mission site was selected for its dense indigenous population which had been noted by the Portolá Expedition six years prior. Missions had already been founded to the south and north, in today's San Diego and Los Angeles; Mission San Gabriel (Los Angeles) was closest. Therefore, when the missionaries at San Juan started proselytizing to the local people, they concentrated on the San Juan Creek villages, including *Tobani* in Dana Point.

The *reduccion* process of converting native people and relocating them from their villages to the mission grounds was a slow process, but proceeded steadily. Most of the villages to the south were small and, with a conversation rate of one to four people from each per year, these settlements were depopulated by 1795.

Although it took 10 to 20 years to reduce village populations, impact on the traditional Acjachemen way of life began shortly after the Capistrano mission was established. The military guard maintained a small herd of horses and cattle herding began immediately. The San Mateo floodplain was ideal farmland, and soon regarded by the missionaries as more valuable than the San Juan valley. While the immediate impact on game animals and grasslands was minimal, there would have been frequent traffic within lands belonging to the various clans. The supply trains, mail routes, and military troop convoys which linked the chain of Spanish missions and presidios, passed through the area.

Post-Contact History

Many neophytes left the mission grounds in 1825 when they were freed by the Mexican government (Engelhardt 1922:116). When the missions were fully secularized in 1834–1836, even more neophytes left for work on the large cattle ranchos being carved out of the mission lands. In 1841 there was an effort by ex-neophytes to create a *pueblo libre* (free town) around San Juan Capistrano mission, but Euro-American settlers shortly acquired most of the land from the remaining Acjachemen (Hallan 1975:28-29). Economic conditions compelled the native peoples to continue to leave the area or become laborers. Records from this era show only 100 or so Acjachemen remaining in town, with unknown numbers scattered around southern California.

In 1862 there was a devastating smallpox plague in the region, and it is believed half the San Juan Capistrano population died within two months. During the American period many of the ranchos became small farms and towns. Several Acjachemen families moved to towns in north Orange County looking for work; others remained associated with the cattle and sheep ranches.

In 1975 the Acjachemen community created the Capistrano Indian Council, which served as a cultural center and an advisory council on Native American programs within the school district. The Juaneño Band of Mission Indians was formed in 1979; its main goal is federal recognition for the tribe. At present, the community has a combined membership of approximately 1,400. In late 2005, the Bureau of Indian Affairs accepted their recognition petition for review.

Historic Period

Spanish Exploration and Mission Periods

The first Europeans to observe what would come to be called southern California were members of Juan Rodriguez Cabrillo's ocean expedition of 1542. However, Cabrillo and other early explorers only sailed along the coast and did not trek far inland. The expedition of survey and exploration lead by Lt. Colonel Gaspar de Portolá of A.D. 1769-1770 provides the first record of south Orange County. Leading Spanish troops on an initial attempt to reach Monterey Bay and establish a fort, the expedition crossed San Mateo Creek and traveled up Christianitos Canyon in late July 1769. They noted a village (*Zoucche*) at the confluence of these two creeks, and the accompanying priests recorded their having baptized two young children there (Brown 2001:293-295), but passed inland of Dana Point area.

The founding of Mission San Juan Capistrano in 1776 gave the Spanish a foothold in the immediate area. Priests and their Indian servants from Lower California immediately began proselytizing to the local Acjachemen tribal villages, and within one year converts started to come from the town of *Tobani* located at the mouth of San Juan Creek (O'Neil and Evans 1980:229). Inhabitants from the other villages in the Dana Point region likewise were baptized and relocated to the mission to live as *neofitos*. The route between missions and presidios, El Camino Real, used the old exploration route through the hills up to the late 1770s, when a more coastal route was used that brought them up to San Juan Creek and then turned up the valley to Capistrano mission. This then frequently took numerous parties through the project site area.

The missionary practice of *reduccion* consisted of relocating Christian converts from their villages to the grounds of the mission establishment. Once baptized, the Native Americans were obligated to follow both the religious and temporal rule of the padres, enforced by the military guards. Spanish law regarded Indian villages as communal lands and, as the inhabitants became attached to the mission that establishment proceeded to hold those lands in trust. As the need came to utilize those lands, they were divided into administrative districts for raising crops and herds of cattle, horses, sheep, and other domesticates (Engelhardt 1922:132 and 151). In the early 1800s the missions conducted trade with American and other cargo/merchant ships, mostly trading cattle hides for outside goods. Mission San Juan Capistrano used the little bay at the mouth of San Juan Creek, partially protected by the high rocky headland on the north side, as a harbor for these trading vessels, and constructed an adobe "hide house" on the headlands to store

hides for immediate transport and maintain a watch when trading ships were expected. . The picaresque description of these headlands and the process of transporting hides to the ships were described by Henry Dana in his 1836 book *Two Years Before the Mast*.

California started to change politically and economically in the 1820s when the fruits of Mexico's revolt against Spain resulted in California becoming a province of the independent state of Mexico. There was a rapid influx of colonizers and a growing demand for grants of land on which to start ranches (Beck and Williams 1972: 77-80). At the same time the decades of disease, crowding, and forced assimilation to a new social order had taken their toll on the Native population both at the missions and the surrounding territories. The California Indian populations in coastal southern California had been whittled to less than twenty percent of their pre-contact heights. The growing population of newly arrived *Gente de Razon* wanted more lands and more Indians to work the lands for them.

Mexican Period

By the 1830s, the new popularly elected governmental assembly wanted to appease its populations and began taking lands out of the missionaries' trust and granting it free to petitioners. In the local coastal area the Boca de la Playa of 6,607 acres was granted to Emigdio Véjar in 1846 (Meadows 1966:114). The Doheny Hotel project footprint lies within the far southwest edge of this rancho. Véjar, in what perhaps was not a coincidence, had been married in 1843 to Rafaela Ávila, cousin of Juan Ávila (Bandy and Bandy 1989:40-43). Juan Ávila was the grantee the *Rancho Nigüel*, one of the largest holdings of previous Mission San Juan Capistrano lands that included the northern Dana Point coastal strip. Véjar applied to the governor for the small Boca de la Playa Ranch in 1846 and received formal title in 1847, but in 1846 he was already living in the old mission "Hide House" located between the mission and sea. The Boca de la Playa's southwest corner extended west of the San Juan Creek to include the project site. In such a manner and a brief moment did the Acjachemen finally lose all title and use of much of their traditional territory except for the ability to work on the land for others.

American Period

The invasion of California by the United States Army during the Mexican-American War in 1846 created an initial flurry of excitement and small skirmishes. One of the few local Mexican victories was the Battle of San Pasqual, located south of the project area, when the rancheros formed a battalion under the command of Andrés Pico, co-owner of the *Rancho Santa Margarita*. California was formally annexed to the United State in 1848, and rapidly admitted to the Union as a state in 1850 as a result of the massive influx of Anglo population in the north portion of the state initiated by the Gold Rush. Meanwhile, there was little practical change for southern California under the new government. Cattle raising dominated the economy and Indians performed the majority of the work. The ranchero *don*s (both Spanish and Anglo) were at the top of the social hierarchy.

The nearby community of Capistrano Beach was platted as a new town during the "Boom of the Eighties" but it did not meet the dreams of its hopeful investors and never became a notable town or resort. The railroad came through the east side of San Juan Creek from the mission town and turned south along the coastline to connect Los Angeles and San Diego in 1889. At the turn a spur named Serra was built that took it a mile north that could deliver lumber and other building supplies and pick up goods brought from the ocean and surrounding farms.

Traffic through the area was greatly increased with the construction of a new paved coastal route in 1918/20 that would eventually be dedicated as a portion of California State Route 1, or Pacific Coast Highway. This was an offshoot of Highway 101 as it turned inland to follow El Camino Real, and required extensive grading through the headland immediately adjacent to the project site to allow cars a sufficiently gradual grade to get up the headland. This introduced an entirely coastal route that greatly expanded the tourist trade and initiating the growth of residential homes along the south Orange County beaches. With this came the communities of San Clemente, Capistrano Beach, Dana Point, South Laguna and Laguna Beach. Edward Doheny, and oil tycoon, purchased much land along the Southern California coast including a tract at the mouth of San Juan Creek. In 1931 he donated this to the state of California and it became the first state beach. A hotel to accommodate the tourists was built on the southwest corner of Coast Highway and Del Obispo Street in the late 1930s, and a gasoline station and eatery across the street.

Housing developments and a boom of city expansion hit northern Orange County directly after World War II. Similar development came later in the hilly south county, as the other areas were built-out. This was especially true for communities such as Dana Point and San Juan Capistrano, where development away from the beach and east of the freeway started primarily in the 1990s. Until this time, the land was still predominately inhabited by cattle, deer, and the occasional vaquero.

PREVIOUS ARCHAEOLOGICAL RESEARCH

The South Central Coast Information Center (SCCIC), located at the California State University, Fullerton, was visited by Stephen O'Neil on August 11, 2011 to conduct a review of its records to determine if cultural resources were previously recorded within the project area. Information regarding archaeological sites and studies within a half-mile radius of the study area were compiled. A check was also made of historic maps, the National Register of Historic Places; Historic Resources Inventory—City of Los Angeles; the California State Historical Resources Inventory; the California Historic Bridges Inventory (2000); and the Caltrans Statewide Historic Bridges Inventory Update of 2005.

The record search, included as Appendix B, revealed that 24 cultural resource surveys have been completed within a 1-mile radius of the project area. Two of these studies involved the Doheny Hotel project footprint: a 1976 survey report of Parcel 35, Tract #932 that found no cultural resources (OR-00061; R.J. Desautels), and a 2002 survey along State Route 1 (Pacific Coast

Highway) researching the route itself as an historic property that found no historic properties within the current project site (OR-02872; C. Sinopli).

One prehistoric cultural site lies within a half-mile radius of the project area, CA-Ora-21. There are five prehistoric and historic sites within a one-mile radius. These resources are summarized in Table 1 below.

Table 1: Cultural Resources within One-Mile of the Project APE.

Site Designation	Description	Size (meters)	Author
CA-Ora-12	A prehistoric shell midden site with projectile points and a mortar and pestle on the surface, houses built here by 1939.		P.G. Chace, 1966
CA-Ora-21	A prehistoric described as a burial ground, heavily disturbed.		J. Romero 1949
CA-Ora-75	Prehistoric midden with small amount of shell, quartz flakes and projectile point, scattered bone on surface; on north bluff over San Juan Creek mouth, eroded.	50 x ?? m	H. & J. Eberhart, 1949; K. Del Charrio & C. Demcak, 1991
CA-Ora-188	Prehistoric deep shell midden with variety of ground and flaked tools – knife, plummet, discoidal, manos, hammerstones; little shell or debitage; aka Romero #21; on south bluff over San Juan Creek mouth, pot-hunted and taken for land fill.	3-4 acres	Bakker, Hafner & McKinney, 1966
CA-Ora-434	Prehistoric surface scatter with crescent frag., mano, scraper, flakes.	75 x 200 m	R. Ellis, E. Hardesty & R. Crabtree, 1973
CA-Ora-1107	Prehistoric surface scatter of manos, metate frags. debitage, core tools, with shells and bone; tested by ARMC1986 and RMW 1988.	150 x 250 m and 150cm deep	S. Dibble 1986, K. Becker, 1991
CA-Ora-1641	Prehistoric site with two loci, excavation found 500 pcs. quartz debitage, 3 flake tools, one piece abalone shell	80 x 30 m	M. Carrel & K. Mock, 2005a
CA-Ora-1642	Prehistoric sparse quartz lithic scatter, not tested.	50 x 50 m	M. Carrel & K. Mock, 2005b
30-176486	Vejar-Pryor House, single story adobe house; est. built 1821. Assoc. with Mission San Juan Capistrano	21x29 feet	S. Van Wormer, 1985

CA-Ora-21 is located 350 meters northeast of the project area, across Pacific Coast Highway. It was originally recorded in 1949 by John Romero. He described it as "Burial grounds in the real

estate sub-division of Doheny Park, known previously as Rancho Boca de la Playa." No additional description of the site has been recorded. In 1986 a reconnaissance was conducted directly to the north of CA-Ora-21 (McKenna 1986). It revealed that significant disturbance in the form of grading, the building of retaining walls and the dumping of modern construction debris were prevalent in the area. It was reported that modern refuse and spoil piles in the area may have covered evidence of the northern portion of the site. The area of CA-Ora-21 as indicated by the SCCIC map was investigated for the current project. The southwestern two-thirds are located in an abandoned trailer park which was surveyed. Debris, asphalt driveways and scattered landscaping of brick and plants remain that obscure the surface. The northern area of the site lies within a municipal sewage disposal plant which is fenced off. No remaining prehistoric cultural material was observed on the surface. This prehistoric site may be identified with the Contact Period village of *Tébone* (Tobna) given its location at the mouth of San Juan Creek and the presence of burials.

NATIVE AMERICAN CONTACTS

UltraSystems mailed a letter to the Native American Heritage Commission (NAHC) requesting a Sacred Lands File search and local contact list on August 11, 2011. The NAHC responded by a faxed letter on August 17, 2011, stating a search of the Sacred Lands file had been conducted and "found Native American cultural resources were not identified in the USGS coordinates" provided of the project area (the APE).

The NAHC provided a list nine Native American organizations and individuals that have an interest in the area and who may have knowledge of cultural resources there. UltraSystems sent letters to these contacts apprising them of the project and requesting any information on potential cultural resources that they wished to share and asking for any comments and concerns they may have. These letters were sent on August 18, 2011. A copy of this correspondence is contained in Appendix C.

Two of the Native American contacts responded by telephone. Ms Joyce Perry, Business Manager of the Juaneño Band of Mission Indians, Acjachemen Nation (David Belardes, spokesman) called on August 25, 2011, and expressed that she was "Concerned there was no evaluation in the past" for cultural resources when the property was initially developed and the cliff was graded down to its current level. She requested that any past geotechnical report(s) be located and the nature of the present soils be investigated to determine if present surface soils have the potential to contain cultural deposits. Also, in the absence of cultural resource monitors present during past grading work at the project site, she requested that an archaeological monitor and a Native American monitor be present during ground-disturbing work for the present undertaking. Mr. Alfred Cruz, Cultural Resources Coordinator of the Juaneño Band of Mission Indians (Sonia Johnston, Chairperson), telephone August 27, 2011, to ask about the project and

what cultural properties may have been located during the Phase I investigation; he requested that a cultural resources and Native American monitor be present during ground-disturbing activities. There were no responses from the other groups or individuals.

SURVEY

SURVEY METHODS

A Phase I inventory designed to locate cultural resources within the Doheny Hotel project APE included a pedestrian survey of the construction footprint. Pedestrian survey of the study area was performed by UltraSystems on August 19, 2011, by Project Archaeologist Stephen O'Neil. The sky was clear with unbounded visibility; temperature was approximately 80º F.

The footprint of the proposed Doheny Hotel is located at the Pacific Coast Highway/Dana Point Harbor Drive southwest corner (Fig. 3). It is bounded by Pacific Coast Highway on the north, by Dana Point Harbor Drive on the east, by the Lantern Bay Park on a graded cliff along the south, and a small commercial building on the west. Within the project footprint the land is occupied by several business with associated paved parking and landscaping – a Del Taco and a Jack-In-The-Box restaurants along Pacific Coast Highway; behind them to the south with an entrance off Dana Point Harbor Drive is the Dana Point Harbor Inn; and on the corner is a small abandoned commercial building with landscaping around a Dana Point harbor entrance marker erected and maintained by the City of Dana Point.

The only exposed ground surface in the project footprint is along the back (north side) length of the Dana Point Harbor Inn, between the back wall and the parking lots of the Pacific Coast Highway commercial buildings (Fig. 4). This area is approximately 10' wide by 490' long. This area had about 60% surface visibility, with open ground at the eastern third and western fifth of the stretch, otherwise covered by a mix of non-native plant weeds. This area of open ground was surveyed at five-feet transect intervals.

The graded cliff along the south edge of the property was observed to have been graded away at some time in the past to make space for development at the Pacific Coast Highway/Dana Point Harbor Drive southwest corner (Fig. 5). The park to the south is on the original surface of land here, approximately 12' above the motel parking lot.

Exposed soil in landscaped area was also observed. Following the cultural resources survey, the archaeologist accompanied the two UltraSystems staff biologists who were also surveying the project site and APE for biological resources. At the Dana Point Harbor Inn he helped identify horticultural plants used in the landscaping.

.

Figure 3. Photograph of the eastern project area, from Pacific Coast Highway and Dana Harbor Drive; looking west.

Figure 4. Photograph of the eastern project area between the current motel and commercial properties showing open ground surface; looking west.

Figure 4. Photograph of the southern project area looking from Lantern Bay Park elevation to the current motel; looking northeast.

SURVEY RESULTS

Soils throughout the project site have been heavily disturbed by the grading away of up to 12' of cliff face and subsequent construction of five commercial buildings on the property. No prehistoric cultural resources were identified during the cultural resources pedestrian survey. There are no historic structures identified on the property.

SITE EVALUATION

UltraSystems' evaluation of the significance of possible archaeological and historic cultural sites found within the current study area is presented in the following section. Included are UltraSystems' recommendations regarding whether the site meet the official definitions of a "historic property" as defined by Section 106.

EVALUATION CRITERIA

In order for a cultural resource to be considered a "historic property" by NRHP criteria (i.e., eligible for inclusion on the NRHP), it must be demonstrated that the resource possess *integrity* of location, design, setting, materials, workmanship, feeling and association, and must meet at least one of the following four criteria delineated by Section 106 (Advisory Council on Historic Preservation 2000), as listed in 36 CFR 60.4:

(a) that are associated with events that have made a significant contribution to the broad
patterns of our history; or

(b) that are associated with the lives of persons significant in our past; or

(c) that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a mater, or that possess high artistic values, or that represent a
significant and distinguishable entity whose components may lack individual distinction; or

(d) that have yielded, or may be likely to yield, information important in prehistory or history.

No prehistoric sites or isolates and no historic sites were located within the project APE. The majority of open land (within the freeway center divider and along the walkways at the south end of the bridge) is several feet below the original surface level, there is a low potential for subsurface cultural deposits.

PROJECT EFFECTS ASSESSMENT

With the absence of observed prehistoric sites or isolates and of historic sites within the project APE, there is likely to be no adverse effects on cultural resources by this project.

REGULATORY REQUIREMENTS

If an archaeological site qualified for listing on the NRHP the provisions of Section 106 mandate that the lead agencies further determine whether the proposed undertaking will have an "effect" and "adverse effect" upon the site [36 CFR 800.4(d)(1)]. According to federal regulations, "*Effect* means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register" [36 CFR 800.16(i)]. The criteria for adverse effect are:

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. [36 CFR 8000.5(a)(1)]

Since there were no identified cultural resources that qualify as historic properties or historical resources within the project APE, the project is likely to have no adverse effect.

RECOMMENDATIONS

The absence of any recorded prehistoric or historic cultural resources with the project footprint or within a half-mile radius APE places project outside an area of archaeological sensitivity. As such, it is not recommended that a qualified archaeologist monitor ground disturbing activities.

Because of the several prehistoric archaeological sites with the one-mile radius of the project, if any additional areas not covered by this Phase I inventory will be impacted by construction, these areas will need to be surveyed prior to any construction, and an updated report should be submitted.

The presence of potentially fossiliferous rock strata within the project footprint places project with an area of potential paleontological sensitivity. As such, it is recommended that a qualified paleontologist monitor all ground disturbing activities.

UNANTICIPATED DISCOVERIES

CONSTRUCTION MONITORING

Due to the archeological sensitivity of the area, it is recommended that a qualified archaeologist monitor ground-disturbing activity in native soils or sediments during the proposed development of the Doheny Hotel facilities. This archaeologist must be empowered to temporarily divert grading equipment in the event of discovery and allow for sufficient time to evaluate and potentially remove the find.

HUMAN REMAINS

The requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) and its implementing regulation 43 CFR 10 must be followed. The NAGPRA establishes a process for the respectful treatment of disposition of Native American human remains and associated funerary objects, sacred items, and objects of cultural patrimony, intentionally excavated or inadvertently discovered on Federal or tribal lands. According to the provisions, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The archaeologist would immediately notify the Los Angeles County Coroner. After determining that the remains are Native American in origin, they would then notify the California State Native American Heritage Commission. Construction work at that location would resume only after proper authorization is received.

Ole Barré	Stephen O'Neil, M.A., RPA
Project Manager	Project Archaeologist

REFERENCES

Advisory Council on Historic Preservation
2000 Protection of Historic Properties, Section 106, Step-by-Step. http://www.achp.gov.

Band, Marcy, and Maurice Bandy
1989 *Saddleback Ancestors: Rancho Families of Orange County*. Revised Edition. Orange County Genealogical Society: Orange, California.

Bean, Lowell J., and Florence C. Shipek
1978 Luiseno. In *California*, edited by Robert F. Heizer, pp. 550-563. Handbook of North American Indians, Vol. 8, William G. Sturtevant, general editor. Smithsonian Institution: Washington, D.C.

Beck, Warren A., and David A. Williams
1972 *California: A History of the Golden State*. Garden City, New York: Doubleday & Company, Inc.

Boscana, Geronimo
1933 Chinigchinich. Edited by P.T. Hanna. Fine Arts Press: Santa Ana, California.

Brown, Alan K.
2001 *A Description of Distant Roads: Original Journals of the First Expedition into California 1769-1770, by Juan Crespí*. Alan Brown Editor and Translator. San Diego State University Press: San Diego, California.

Desautels, Roger J.
1976 *Archaeological Survey Report on Parcel 35 – Tract #932, Located in Dana Point, California*. Prepared by Scientific Resource Surveys, Inc. On file, South Central Coast Information Center, California Historical Resources Information System. California State University, Fullerton.

Driver, Harold E.
1969 *The Indians of North America*. Second Edition, Revised. The University of Chicago Press.

Drover, Christopher E., Richard Cerreto, and Stephen O'Neil
1990. *Archaeological Excavation of Old Temecula Village, RIV-364, A Post Contact Luiseño Village*. Manuscript on file at the Eastern Information Center, University of California, Riverside.

Engelhardt, Zephryn
1922 Mission San Juan Capistrano. Standard Printing Co.: Los Angeles.

Gifford, Edward W.
1927 Miwok Lineages and the Political Unit of Aboriginal California. *American Anthropologist* 28:389-403

Governor's Office of Planning and Research
1998 *CEQA, California Environmental Quality Act Statutes and Guidelines*. Governor's Office of Planning and Research, Sacramento, California.

Hallan, Pamela
1975 *Dos Cientos Años en San Juan Capistrano*. Walker Color Graphics: Irvine, California.

Harrington, John P.
1933 Annotations. In, *Chinigchinich*, P.T. Hanna, editor. Fine Arts Press: Santa Ana, California.

Harrington, John P.
1934 A New Original Version of Geronimo Boscana's Account of the Indians of San Juan Capistrano. *U.S. Bureau of American Ethnology Bulletin* 78. Washington, D.C.

Jackson, Robert H., and Edward Castillo
1996 *Indians, Franciscans, and Spanish Colonization: The Impact of the Mission Systems on California Indians*. University of New Mexico Press: Albuquerque, New Mexico.

Jones & Stokes
2007 *Archaeological Survey Report for the Rosewood Gardens Project Located at 502-508 North Berendo Street, Los Angeles, California*. Prepared for: Los Angeles Housing Department, Los Angeles, California. Jones & Stokes: Los Angeles, California.

Kroeber, Alfred L.
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin No. 78*. U.S. Government Printing Office: Washington, D.C.

Meadows, Don C.
1966 *Historic Place Names in Orange County*. Paisano Press, Inc.: Balboa Island, California.

Mithun, Marianne
1999 *The Language of Native North America*. Cambridge University Press: Cambridge, United Kingdom.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press: New York.

Office of Historic Preservation
1990 Archaeological Resource Management Reports (ARMR): Recommended Contents and Format. Department of Parks and Recreation, Office of Historic Preservation: Sacramento.
1997 Instructions for Nominating Historical Resources to the California Register of Historical Resources. Office of Historic Preservation, Sacramento: California.

O'Neil, Stephen
2001 *Ethnobotanical Research in the Bolsa Chica Region*. Prepared for Dr. Nancy Whitney-Desautels, Scientific Research Systems, Inc.: Temecula, California.

2002 *The Acjachemen in the Franciscan Mission System: Demographic Collapse and Culture Change*. Masters Thesis. California State University, Fullerton.

O'Neil, Stephen, and Nancy H. Evans
1980 Village and Geographic Place Names of the Juaneño Tribe. *Journal of California and Great Basin Anthropology* 2(2):221-231.

Sinopoli, Cheryl
2002 *Historic Resources Compliance Report for the Relinquishment of a Segment of State Route 1 (PCH) to the City of Dana Point From the Northern Limits to San Juan Creek, in the City of Dana Point, Orange County, California*. Prepared by the California Department of

Transportation, District 12. On file, South Central Coast Information Center, California Historical Resources Information System. California State University, Fullerton.

United States Geological Survey
1968 *Dana Point, Calif.* Quadrangle. 1968, Photorevised 1988. 7.5 minute.

Warren, Claude N.
1968 Cultural tradition and ecological adaptation to the southern California coast. In C. Irwin-William, editor, Archaic prehistory in the Western United States. *Eastern New Mexico Contribution in Anthropology* 1(3):1-14.

White, Raymond C.
1963 Luiseño Social Organization. *University of California Publications in American Archaeology and Ethnography* 90(1).

APPENDIX A:

Personnel Qualifications

Stephen O'Neil, M.A., R.P.A.

Cultural Anthropologist/Archaeologist
Cultural Resources Manager

Education

M.A., Cultural Anthropology, California State University, Fullerton, CA, 2002
B.A., Anthropology, California State University, Long Beach, CA, 1979

Professional Registrations, Licenses, and Affiliations

Register of Professional Archaeologists
California Mission Studies Association
Capistrano Indian Council; Board Member
Orange County Natural History Museum; Board Member
Pacific Coast Archaeological Society; Past President
Society of California Archaeology

Professional Experience

Mr. O'Neil has 28 years of experience as a cultural anthropologist in California. He has researched and written on ethnography, archaeology and history. The greater part of his work has concerned the ethnohistory of Southern California tribal people. His work has entailed the use of directed and open-ended interviews with Native community members, as well as archival research. Mr. O'Neil has particular expertise in the use of mission records for the study of population and social networks. He is also familiar with ethnobotany, family reconstruction, and rock art. Among his work was a compilation of the ethnographic background of all Native American tribes along the QWest fiberoptic route through California, from the Oregon border to Arizona; this included modern history during the American period and current reservations. Mr. O'Neil recently completed cultural background updates to the ICRMP Management Plans of three U.S. Army bases in central California, providing prehistoric, ethnographic, and historic material (including present day status) of all the tribes in the greater San Francisco East Bay region.

O'Neil also has archaeological experience in excavation, survey, monitoring, and lab work. Most of this has been on Native American prehistoric sites, but also includes Spanish, Mexican, and American period adobe sites. His supervisory experience includes excavation and survey crew chief and project director of an adobe house excavation. He has a wide range of expertise in Phase I & II Environmental Site Assessments, archaeological resource assessment surveys, salvage operations, and cultural background studies for various EIR projects. Mr. O'Neil has

worked for several cultural resource management firms, as well as government agencies and Native American entities. He has written technical reports as well as published journal articles.

SELECT PROJECT EXPERIENCE

Cultural Resource Monitoring, St. Joachim Elementary School, Costa Mesa, CA

He provided monitoring services for mitigation during trenching for utility lines and grading for building expansion, at St. Joachim Elementary School, Costa Mesa, Orange County. He prepared the subsequent report, as well as a site record for the 50+ year old school structure. *2004*

Cultural Resource Monitoring and Site Evaluation, Los Pinos Youth Conservation Camp, Cleveland National Forest, Orange County, CA

Mr. O'Neil was the crew chief of Phase II prehistoric site excavation to evaluate the size and possible disturbance of CA-ORA-35, an acorn gathering camp in the Santa Ana Mountains. This site is at the County of Orange juvenile probation facilities' Los Pinos Conservation Camp. He prepared the site evaluation report. Following the Phase II work he then monitored all subsequent foundation retrofitting of several bungalows and administrative buildings of the Camp and modification of the water system ponds. As required for working at the youth facility, Mr. O'Neil went through a background check with the County of Orange Probation Department. *2003-2005*

Cultural Resource Monitoring, Owens Lake Dust Mitigation Phase VII, Inyo County, CA

UltraSystems provided cultural resource monitors of behalf of KDG for Phase 7 of the Owens Lake Dust Abatement Project in Owens Valley, Inyo County. The Owens Lake Dust Abatement Project is being conducted by the Los Angeles Department of Water and Power (LADWP) to mitigate the effects of extreme dust pollution blowing across the Owens Lake bed and into the surrounding region through implementation of Dust Control Measures (DCMs). Mr. O'Neil served as Principal Cultural Monitor at the Owens Valley construction site during 2009. *2009*

Site Assessments and Field Monitoring, Various Projects, CA

Mr. O'Neil has provided site assessments and field monitoring, excavation of prehistoric sites, archaeological records research and review, technical report writing, and ethnographic studies on historical and prehistoric projects. He also produced research reports on selected topics and ethnographic/archaeological/historic background for ICRMP Management Programs of three central California military bases. *2007-2008*

As Ethnographic consultant, researched and prepared a report on the history and cultural significance of the original cemetery at Mission San Juan Capistrano for the Executive Director of the Mission San Juan Capistrano. Responsibilities included on site observation and

recordation, archival research, and conducting interviews with stakeholders in the historical, Native American and church communities. *2006*

Ethnography and Archaeology, Various Projects, Southern CA

Mr. O'Neil has provided excavation, site survey, monitoring, artifact laboratory work and production of technical reports. He has performed or supervised field surveys and cultural background studies for various EIR projects, including Talega Community development (San Clemente, County of Orange), Travertine community development (La Quinta, County of Riverside), Los Pinos Conservation Camp (Santa Ana Mountains, County of Orange), Sunrise Powerlink (Imperial and San Diego Counties), Mojave River Water Replenishment project (San Bernardino County), Dayton Canton Canyon community development (Chatsworth, County of Los Angeles), and various monitoring, survey and site report studies in Riverside, San Bernardino, San Diego and Orange counties. *2002-2006*

Ethnographic Consulting, San Jacinto Valley, CA

Mr. O'Neil served as an ethnographic consultant, producing a report on the locations and demographics of Contact Period Indian villages in the San Jacinto Valley, Riverside County, for the Eastside Reservoir Project. *2002*

Ethnographic Consulting, San Juan Capistrano, CA

Mr. O'Neil served as an ethnographic consultant, producing a report on the names, locations, and demographics of Contact Period Indian villages of the Mission Viejo Ranch for the Mission Viejo Ranch Master Plan Project, Orange County. *2002*

Cultural Monitoring, Newport Beach, CA

Mr. O'Neil provided monitoring related to fiberoptic trenching and drilling along Pacific Coast Highway in Santa Barbara County, as well as excavation and laboratory analysis of prehistoric sites in Orange County for the Newport Coast Project, Orange County. *1999*

Ethnographic and Historic Research, Native American Societies, Temecula, CA

Mr. O'Neil was responsible for an investigation of Luiseño tribal sacred sites and landscape for National Register of Historic Places evaluation as Traditional Cultural Properties. This involved field observation, archival research and interviews. For possible development of a quarry in Rainbow Canyon, Riverside County. *2008*

Jet Propulsion Laboratories (NASA), Pasadena, CA

Mr. O'Neil was retained as an ethnographic consultant to JPL's cosmology ("star lore") education project and represented the agency by attending the Sun Dance ceremony on the Navajo Reservation (Pinon, Arizona). *2000*

Research, Native American Societies, North San Diego County, CA

On behalf of the Santa Barbara Museum of Natural History, Mr. O'Neil conducted research toward reconstructing the pattern of villages in Marine Corps Camp Pendleton in north San Diego County, determining the cultural affiliation of their populations, and tracing modern families with ancestry to those villages. This included archival research and interviews with members of the Luiseño and Acjachemen tribal groups; also constructed a computerized database of over 4,500 mission register entries. He co-authored two reports on the findings of this research in 1998 and 2001 with Dr. John R. Johnson. *1996-2001*

SELECT PUBLICATIONS

2008 *Luiseño Traditional Cultural Properties, a NRHP Evaluation. Cultural Resources Component of the Liberty Quarry Environmental Impact Report*. Prepared for: Liberty Quarry, Temecula, CA.

2007 *Mission San Juan Capistrano Rectory Garden: Cultural-Historical Research on the Old Mission Cemetery, Mission San Juan Capistrano*. Prepared for: Mission San Juan Capistrano.

2002 The Acjachemen and Mission San Juan Capistrano 1776-1807: The First Thirty Years of Cultur5al Impact. *California Mission Studies Association Newsletter* 19(1):5-9.

2001 *Descendants of Native Communities in the Vicinity of Camp Pendleton: An Ethnohistoric Study of Luiseño and Juaneño Cultural Affiliation*. Prepared for: Assistant Chief of Staff, Environmental Security, Marine Corps Base Camp Pendleton. (Co-authored with John R. Johnston.)

APPENDIX B:

Records Search Results

APPENDIX C:

Native American Heritage Commission and Native American Correspondence

Appendix E

GHG Analysis

DRAFT
GREENHOUSE GAS ANALYSIS
FOR
DOHENY HOTEL
DANA POINT, CALIFORNIA

Prepared For:

CITY OF DANA POINT
COMMUNITY DEVELOPMENT DEPARTMENT
33282 Golden Lantern
Dana Point, California 92629-1805
Contact: Erica Demkowicz, AICP, Senior Planner
(949) 248-3588

Prepared By:

UltraSystems Environmental
16431 Scientific Way
Irvine, California 92618-4355

Project No. 5802

March 2012

Table of Contents

List of Figures

List of Tables

List of Appendices

1.0 INTRODUCTION

Beverly Hills Hospitality Group Is Proposing To Develop A Five-Story Hotel (Doheny Hotel) On A 1.5-Acre Site In The City Of Dana Point, California. The Project Site Is Located On The Southwest Corner Of Pacific Coast Highway And Dana Point Harbor Drive. **Figure 1** (Regional Vicinity Map) Shows The Site In Relation To The Surrounding Area. The Immediate Vicinity Of The Both The Doheny Hotel Site And The Off-Site Parking Location Is Shown In **Figure 2** (Project Study Area). **Figure 3** (Doheny Hotel Project Study Area) And **Figure 4** (Off-Site Parking Project Study Area) Show A Closer View Of Each Respective Study Area.

The Purpose Of This Report Is To Provide A Detailed Technical Greenhouse Gas Analysis Of The Doheny Hotel Project. The Report Includes A Description Of Federal, State, And Local Regulations That Govern Greenhouse Gas Emissions And Climate Change. It Then Identifies Potential Impacts Of Greenhouse Gas Emissions This Project, Including Direct And Indirect Emissions Related To Both Construction And Operations.

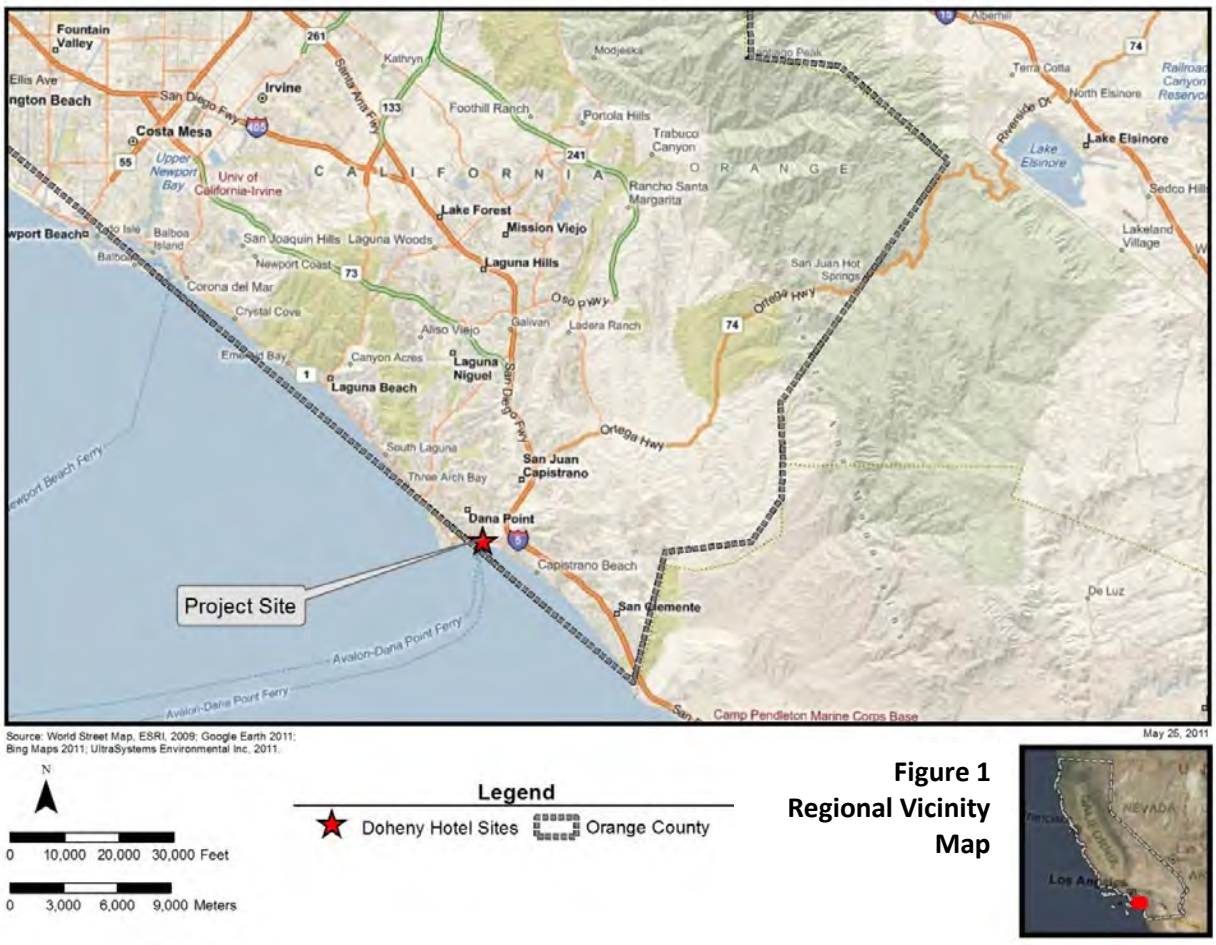


Figure 1
Regional Vicinity Map


Stonehill Dr
Pacific Coast Hwy
Del Prado
Selva Rd
Del Obispo St
Doheny Park Rd
Via Canon
Dana Bluffs
Del Obispo Park
Ocean Knoll Park
Lantern Bay Park
Heritage Park
Doheny State Beach
Pacific Ocean
Angeles National Forest
Glendale
Ontario
East Los Angeles
Pomona
Riverside
Anaheim
Fullerton
Perris
Santa Ana
Costa Mesa
Avalon
Source: Bing Maps, 2010; UltraSystems Environmental Inc, 2012
January 26, 2012
Map Scale: 1: 12,000
1 Inch = 1000 feet
Feet
0 400 800 1,200
Meters
0 100 200 300
N
Legend
Doheny Hotel Project Site
Off-Site Parking
County Boundary
Figure 2
Project Study Area
UltraSystems
environmental management planning

Figure 3
Doheny Hotel Project
Study Area

Figure 4
Off-Site Parking Project Study Area

2.0 PROJECT DESCRIPTION

The Proposed Project site is located on a 1.5-acre, commercially zoned site at the southwest corner of Pacific Coast Highway and Dana Point Harbor Drive in the City of Dana Point. Existing land uses on the site include a 46-room motel, a vacant commercial building, and a Jack in the Box restaurant. The land adjacent to the project site on the north is in commercial use. A fast food restaurant is located to the west, and Lantern Bay County Park is south of the project site.

Figure 5 (Site Plan) shows the planned elements of the Doheny Hotel. The Project includes both demolition of the existing facilities and construction of a new hotel. New on-site facilities will include a 76.5-foot-tall five-story hotel with 258 rooms, a 7,087-square-foot dine-in restaurant, a 12,103-square-foot conference center/banquet/meeting area, and 275 on-site parking spaces (includes both above-ground and subterranean spaces). The proposed Project will also include 50 off-site parking spaces at a South Coast Water District-owned lot located between Stonehill Drive and Camino Capistrano, that will be dedicated to hotel employees for overflow parking during peak weekends.

The construction for the Project is scheduled to begin in early 2013[1], and to be completed by 2015. Excavation and earthwork would amount to approximately 48,560 cubic yards exported over approximately one year.

2.1 Alternative #1

Alternative #1 is the no project alternative. No hotel will be constructed. The project site would remain in its current state, developed with a two-story hotel, a fast-food restaurant, a vacant commercial retail building and associated surface parking lots.

2.1 Alternative #2

Alternative #2 will be a three-story hotel project that conforms to the Dana Point Specific Plan's 35 foot maximum height limit. For discussion purposes, this will include the deletion of both of the 4th and 5th floors (114 rooms) and a reduction in the overall ceiling height on the first floor by five feet. With these changes, Alternative #2 will result in a hotel project with 144 rooms, 35-foot overall height and a subsequent reduction in on-site parking and trips generated (196 on-site subterranean and surface parking spaces).[2] Like the Proposed Project, Alternative #2 will consist of 50 off-site parking spaces dedicated to hotel employees for overflow parking during peak weekends. The construction for the project is scheduled to take place early in 2013, and to be completed by 2014. Excavation and earthwork for this alternative are assumed to be similar to that for the Proposed Project.

---

1 The proposed construction year has changed since the preparation of the GHG emissions analysis from 2013 to 2014. Using 2014 as the start of construction will result in lower emissions estimates than were presented for 2013. This is because EPA and CARB mobile source emission limits become more stringent as time goes on. Because emissions are less than significant with the 2013 assumption, they will also be less than significant with the 2014 assumption.

2 Estimated by UltraSystems using a ratio between rooms and on-site parking spaces.

2.1 Alternative #3

Alternative #3 is located on the 1.5-acre, commercially zoned site at the southwest corner of the Pacific Coast Highway and Dana Point Harbor Drive in the City of Dana Point, in addition to 0.76 acres of Lantern Bay Park to be utilized as a retaining wall. The Doheny Hotel Project includes the construction and operation of a new 5-story hotel with 273 rooms and 369 on-site parking spaces (includes both above-ground and subterranean spaces), and 50 off-site hotel employee or special events parking. The construction for the Project is scheduled to take place early in 2013, and to be completed by 2015. Due to the additional earthwork for the retaining wall in Lantern Bay Park, the excavation and earthwork would amount to 58,560 cubic yards exported over approximately one year.

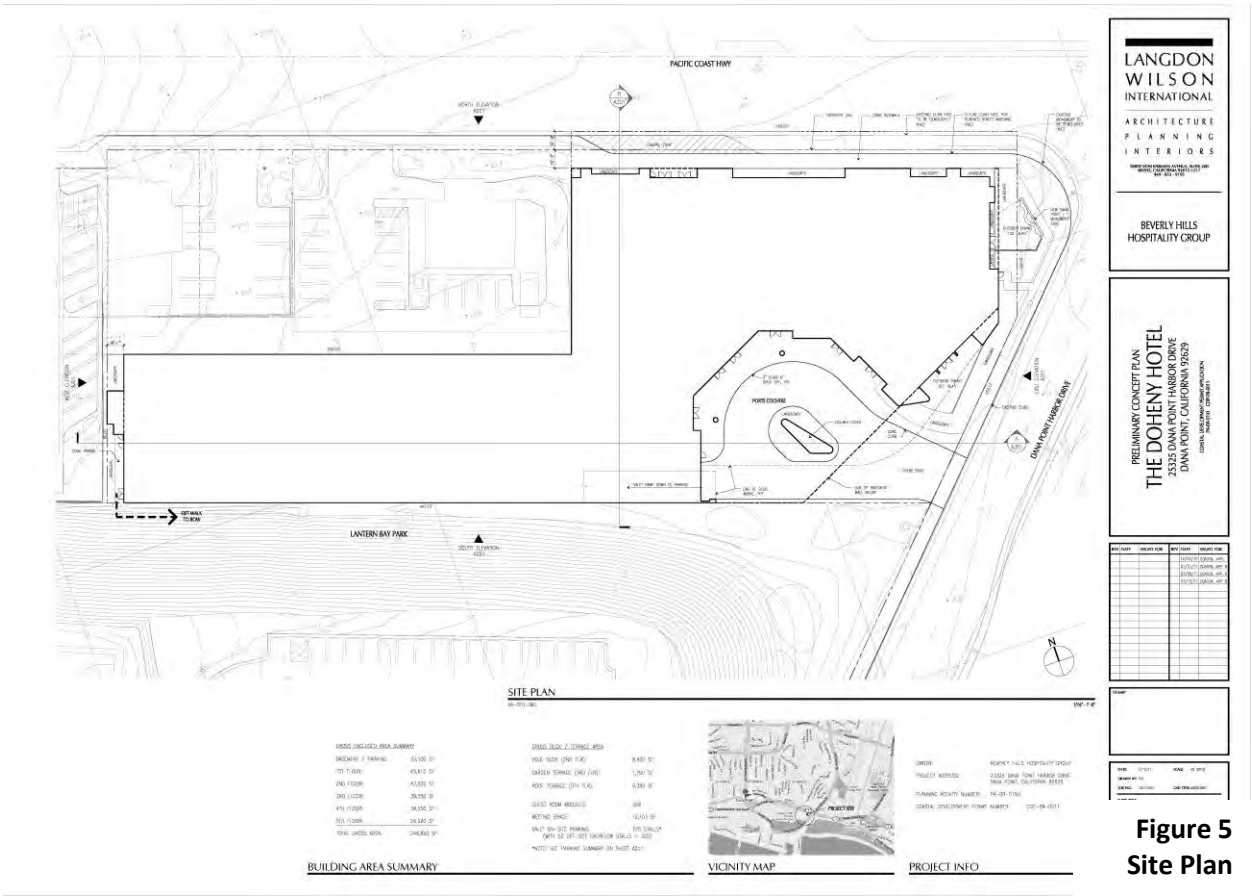


Figure 5
Site Plan

3.0 BACKGROUND INFORMATION

3.1 Climate Change and Greenhouse Gases

If the earth had no atmosphere, almost all of the energy received from the sun would be re-radiated out into space. Our atmosphere helps retain a major portion of the solar radiation through "the greenhouse effect." Short-wavelength solar radiation passes through the atmosphere and is absorbed by the earth's surface. The earth re-radiates the heat up into the atmosphere, at a longer wavelength. GHGs in the atmosphere absorb the longer-wavelength heat and then radiate it back downward. In general, as concentrations of GHGs in the atmosphere increase, global temperatures increase.

For many centuries, atmospheric GHG concentrations were relatively stable. As combustion of fossil fuels for industrial activities and transportation increased, concentrations of CO_2 in the atmosphere increased dramatically. The result has been an observed increase in average global temperature. The current consensus among scientists is that continued increases in atmospheric GHG will not only raise the average global temperature, but will also lead to changes in climate. While air temperatures will mainly rise, temperatures may decrease in some areas. Rainfall distribution and storm patterns will be affected. As polar ice melts, sea levels may rise, inundating coastal areas.

GHGs are defined under the California Global Warming Solutions Act of 2006 (AB 32) as CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6). Associated with each GHG species is a "global warming potential" (GWP), which is defined as the ratio of degree of warming to the atmosphere that would result from the emission of one mass unit of a given GHG compared with one equivalent mass unit of CO_2 over a given period of time. By this definition, the GWP of CO_2 is always 1. The GWPs of methane and N_2O are 21 and 310, respectively.[3,4] "Carbon dioxide equivalent" (CO_2e) emissions are calculated by weighting each GHG compound's emissions by its GWP and then summing the products. HFCs, PFCs, and SF_6 are not emitted by project sources, so they are not discussed further.

Carbon Dioxide (CO_2)

Carbon dioxide is a clear, colorless, and odorless gas. Fossil fuel combustion is the main human-related source of CO_2 emissions; electricity generation and transportation are first and second in the amount of CO_2 emissions, respectively. Carbon dioxide is the basis of GWP, and thus has a GWP of 1.

Methane (CH_4)

Methane is a clear, colorless gas, and is the main component of natural gas. Anthropogenic sources of CH_4 are fossil fuel production, biomass burning, waste management, and mobile and

[3] *California Climate Action Registry General Reporting Protocol. Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1* (January 2009).

[4] These values were reported by the Intergovernmental Panel on Climate Change in 1995. Some GWP values have been updated since 1995 on the basis of improved calculation methods. The 1995 values continue to be used by international convention to maintain consistency in GHG reporting.

stationary combustion of fossil fuel. Wetlands are responsible for the majority of the natural methane emissions.[5] As mentioned above, CH_4, within a 100-year period, is 21 times more effective in trapping heat than is CO_2.

Nitrous Oxide (N_2O)

Nitrous oxide is a colorless, clear gas, with a slightly sweet odor. N_2O has both natural and human-related sources, and is removed from the atmosphere mainly by photolysis, or breakdown by sunlight, in the stratosphere. The main human-related sources of N_2O in the United States are agricultural soil management (synthetic nitrogen fertilization), mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production.[6] Nitrous oxide is also produced from a wide range of biological sources in soil and water. Within a 100-year span, N_2O is 310 times more effective in trapping heat than is CO_2.[7]

3.2 Regulatory Background

3.2.1 Federal Climate Change Regulation

The federal government has been involved in climate change issues at least since 1978, when Congress passed the National Climate Program Act (92 Stat. 601), under authority of which the National Research Council prepared a report predicting that additional increases in atmospheric CO_2 would lead to non-negligible changes in climate. At the "Earth Summit" in 1992 in Rio de Janeiro, President George H.W. Bush signed the United Nations Framework Convention on Climate Change (UNFCCC), a nonbinding agreement among 154 nations to reduce atmospheric concentrations of carbon dioxide and other greenhouse gases. The treaty was ratified by the U.S. Senate. However, when the UNFCCC signatories met in 1997 in Kyoto, Japan, and adopted a protocol that assigned mandatory targets for industrialized nations to reduce greenhouse gas emissions, the U.S. Senate expressed its opposition to the treaty. The Kyoto Protocol was not submitted to the Senate for ratification.

In *Massachusetts et al. v. Environmental Protection Agency et al.* [549 U.S. 497 (2007)], the U.S. Supreme Court ruled that CO_2 was an air pollutant under the Clean Air Act, and that consequently, the U.S. Environmental Protection Agency (USEPA) had the authority to regulate its emissions. The Court also held that the Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On April 24, 2009, the USEPA published its intention to find that (1) the current and projected concentrations of the mix of six key greenhouse gases—CO_2, CH_4, N_2O, HFCs, PFCs and SF_6—in the atmosphere threaten the public health and welfare of current and future generations, and that (2) the combined emissions of GHG from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key

[5] U.S. Environmental Protection Agency, "Methane." Climate Change Web Site. Internet URL: http://www.epa.gov/methane/. Updated April 1, 2011.

[6] U.S. Environmental Protection Agency, "Nitrous Oxide." Climate Change Web Site. Internet URL: http://www.epa.gov/nitrousoxide/. Updated June 22, 2010.

[7] Ibid.

greenhouse gases and hence to the threat of climate change (74 Fed. Reg. 18886). These findings are required for subsequent regulations that would control GHG emissions from motor vehicles.

3.2.2 California Climate Change Regulation

Executive Order S-3-05 (GHG Emissions Reductions). Executive Order #S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80% reduction in GHG emissions to below 1990 levels by 2050.

The California Global Warming Solutions Act of 2006 (AB 32). In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code § 38500 et seq.), into law. AB 32 was intended to effectively end the scientific debate in California over the existence and consequences of global warming. In general, AB 32 directs the California Air Resources Board (CARB) to do the following:

- On or before June 30, 2007, publicly make available a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit;
- By January 1, 2008, determine the statewide levels of GHG emissions in 1990, and adopt a statewide GHG emissions limit that is equivalent to the 1990 level (an approximately 25% reduction in existing statewide GHG emissions);
- On or before January 1, 2010, adopt regulations to implement the early action GHG emission reduction measures;
- On or before January 1, 2011, adopt quantifiable, verifiable, and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012, at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and non-monetary incentives that reduce GHG emissions from any sources or categories of sources as CARB finds necessary to achieve the statewide GHG emissions limit; and
- Monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

On December 11, 2008, the CARB approved the *Climate Change Scoping Plan*[8] pursuant to AB 32. The Scoping Plan recommends a wide range of measures for reducing GHG emissions, including (but not limited to):

- Expanding and strengthening of existing energy efficiency programs;

[8] California Air Resources Board, *Climate Change Scoping Plan, a Framework for Change, Pursuant to AB32, the California Global Warming Solutions Act of 2006* (December 11, 2008).

- Achieving a statewide renewables energy mix of 33 percent;
- Developing a GHG emissions cap-and-trade program;
- Establishing targets for transportation-related GHG emissions for regions throughout the state, and pursuing policies and incentives to meet those targets;
- Implementing existing state laws and policies, including California's clean car standards, goods movement measures and the Low Carbon Fuel Standard; and
- Targeted fees to fund the state's long-term commitment to administering AB 32.

Executive Order S-01-07 (Low Carbon Fuel Standard). Executive Order #S-01-07 (January 18, 2007) establishes a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020 through establishment of a Low Carbon Fuel Standard. Carbon intensity is the amount of CO_2e per unit of fuel energy emitted from each stage of producing, transporting and using the fuel in a motor vehicle. On April 23, 2009 the Air Resources Board adopted a regulation to implement the standard.

Senate Bill 97. Senate Bill 97 was signed by the governor on August 24, 2007. The bill required the Office of Planning and Research (OPR), by July 1, 2009, to prepare, develop and transmit to the resources agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. On April 13, 2009 OPR submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines for greenhouse gas emissions. The Resources Agency adopted those guidelines on December 30, 2009, and they became effective on March 18, 2010. The amendments treat GHG emissions as a separate category of impacts; i.e. they are not to be addressed as part of an analysis of air quality impacts.

Section 15064.4, which was added to the CEQA Guidelines, specifies how the significance of impacts from GHGs is to be determined. First, the lead agency should "make a good faith effort" to describe, calculate or estimate the amount of GHG emissions resulting from a project. After that, the lead agency should consider the following factors when assessing the impacts of the GHG emissions on the environment:

- The extent to which the project may increase or reduce GHG emissions, relative to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions.

The Governor's Office of Planning and Research (OPR) asked the CARB to make recommendations for GHG-related thresholds of significance. On October 24, 2008, the

CARB issued a preliminary draft staff proposal for *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*.[9] After holding two public workshops and receiving comments on the proposal, CARB staff decided not to proceed with threshold development.[10] Quantitative significance thresholds, if any, are to be set by local agencies.

Senate Bill 375. Senate Bill 375 requires coordination of land use and transportation planning to reduce GHG emissions from transportation sources. Regional transportation plans, which are developed by metropolitan transportation organizations such as the Southern California Association of Governments (SCAG), are to include "sustainable community strategies" to reduce GHG emissions.

Title 24. The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6, of the *California Code of Regulations*) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Compliance with Title 24 will result in decreases in GHG emissions. The California Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards on April 23, 2008 with an aim to promote the objectives listed below.[11]

- Provide California with an adequate, reasonably-priced and environmentally-sound supply of energy.
- Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020.
- Pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- Act on the findings of California's Integrated Energy Policy Report (IEPR) that Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.
- Meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.

[9] California Air Resources Board. *Preliminary Draft Staff Proposal. Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*. Planning and Technical Support Division, Sacramento, California (October 24, 2008).

[10] Personal communication from Douglas Ito, California Air Resources Board, Sacramento, California, to Michael Rogozen, UltraSystems Environmental Inc., Irvine, California. March 29, 2010.

[11] "2008 Building Energy Efficiency Standards." California Energy Commission, Sacramento, California. (http://www.energy.ca.gov/title24/2008standards/index.html). These became effective January 1, 2010.

- Meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

The provisions of Title 24, Part 6 apply to all buildings for which an application for a building permit or renewal of an existing permit is required by law. They regulate design and construction of the building envelope, space-conditioning and water-heating systems, indoor and outdoor lighting systems of buildings, and signs located either indoors or outdoors. Title 24, Part 6 specifies mandatory, prescriptive and performance measures, all designed to optimize energy use in buildings and decrease overall consumption of energy to construct and operate residential and nonresidential buildings.[12] Mandatory measures establish requirements for manufacturing, construction and installation of certain systems; equipment and building components that are installed in buildings.

3.2.3 Local and Regional Climate Action Plans

Orange County, the City of Dana Point and the South Coast Air Quality Management District do not have formal plans or guidelines for reducing GHG emissions. In addition, there are no local quantitative thresholds of significance for GHG emissions. Refer to Sections 6.2 and 6.3 for discussion regarding significance thresholds.

[12] *2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, California Energy Commission, (December 2008).

4.0 METHODS

4.1 Analytical Framework

This analysis focused upon emissions of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). are emitted in negligible quantities by project sources, so they are not discussed further.

Emissions were calculated for the following cases:

- **Construction**. GHG emissions resulting from demolition and construction emissions were calculated for calendar years 2013 and 2014. These are assumed to be one-time emissions only, and are not "annualized" or otherwise apportioned to other years.

- **Notice of Preparation**. The date of the notice of preparation (NOP) of the draft environmental impact report was June 15, 2011 and public scoping meeting was June 28, 2011. Emissions as of the NOP were considered to be the baseline for the analysis. The baseline emissions included the existing businesses on the property: a 46-room motel, a fast food restaurant with a drive-through, and a vacant commercial building.

- **Future**. Project operations were assumed to begin in 2015. Annual GHG emissions from the project were calculated for that year and assumed to be the same for all subsequent years.

- **CARB 2020 No Action Taken (Business as Usual)**. This scenario is equivalent to the one that the California Air Resources Board (CARB) used in developing an emission inventory to support the AB 32 Scoping Plan.[13] Business-as-usual (BAU) emissions are defined as "the emissions that would be expected to occur in the absence of any GHG reduction actions."[14] Assumptions used for estimating BAU emissions are discussed later in this report.

UltraSystems used, to a great extent, the same approaches for estimating GHG emissions as were used for an analysis conducted by ENVIRON International Corporation (ENVIRON) for the recent Wilshire Grand Redevelopment Project.[15]

The Project will be both a direct and an indirect source of GHG emissions. **Table 1** (GHG Emission Source Categories for the Doheny Hotel) shows the types of emissions that were included in the analysis.

---

[13] California Air Resources Board, *Climate Change Scoping Plan Appendices. Volume I: Supporting Documents and Measure Detail. Appendix F: California's Greenhouse Gas Emissions Inventory* (December 2008).

[14] Ibid., p. F-3.

[15] Hayes, S.R. and Lu, E.C., *Climate Change Technical Report, Wilshire Grand Redevelopment Project.* Prepared by ENVIRON International Corporation, Emeryville, California for Thomas Properties Group, Los Angeles California (May 2010).

Table 1 – GHG Emission Source Categories for the Doheny Hotel

Direct Operating Sources	On-Site Natural Gas Combustion	
	Project-Related Mobile Sources	
Indirect Operating Sources	Electricity Generation	On-Site Electricity Use
		Water Supply
		Wastewater Treatment
	Wastewater Treatment Off-gassing	
	Landfill Gas Generation	
Construction Direct	On-Site Construction Equipment	
	Construction On-Road Mobile	
Note: Indirect construction emissions were not calculated because of a lack of construction data for on-site electricity use, water supply, and solid waste generated.		

4.2 Direct Operating Sources

4.2.1 On-Site Natural Gas Combustion

Natural gas use in million British thermal units (Btu) per year for land use i was calculated with the following formula:

$$NG_i = 0.001\ A_i\ NGIF_i$$

where:

A_i = Area of the land use (square feet)

$NGIF_i$ = Natural gas intensity factor (1000 Btu/year-square foot)

Table 2 (Natural Gas Intensity Factors) shows the values for NGIF for the past and future land uses, for the three operating cases. The baseline intensity factor was obtained from the California Energy Commission's *Commercial End Use Survey,*[16] with the assumption that the previous businesses met pre-2002 Title 24 standards. For the future case, it was assumed that energy conservation measures required by Title 24 would reduce natural gas consumption by 3.2% between 2002 and 2005, and by 9.4% between 2005 and 2008.[17] Note that the reductions were applied only to natural gas end uses that are regulated by Title 24. For the BAU case, the intensity factors were assumed not to change from their pre-2002 values.

[16] *California Commercial End-Use Survey.* Prepared by Itron, Inc. for the California Energy Commission, CEC-400-2006-005 (March 2006), p. 256.

[17] Hayes and Lu, *Op Cit., Table 4-19, Note 2.*

Table 2 – Natural Gas Intensity Factors

Land Use	Intensity Factor (1000 Btu/year-square foot)		
	NOP	Future	BAU
Hotel/Motel	61.7	55.5	61.7
Restaurant	176.8	172.1	176.8

Emissions of GHG species j from land use category i were calculated with the following formula, where EF_j is the pollutant-specific emission factor in units of kilograms per million Btu (kg/MMBtu):

$$E_{ij} = EF_j NG_i$$

Emission factors, which are shown in **Table 3** (Natural Gas Combustion Emission Factors), were obtained from the *California Climate Action Registry General Reporting Protocol*.[18]

Table 3 – Natural Gas Combustion Emission Factors

Pollutant	Emission Factor (kg/MMBtu)
Carbon Dioxide	53.06
Methane	0.005
Nitrous Oxide	0.0001

4.2.2 Mobile Sources

The mobile source emissions calculated for the Doheny Hotel Project include the daily operation of motor vehicles by commuters who will work at the proposed site ("work trips"); delivery trucks that make shipments to the proposed retail stores ("non-work trips"); and customers lodging at the hotel or dining in its restaurant ("customer trips"). Using EMFAC2011-SG[19] (Scenario Generator), a modeling tool for assessing emissions under different future growth scenarios, UltraSystems estimated GHG emissions based on the number of annual trips and the vehicle miles traveled (VMT) for each of the three trip purposes. Trip rates, which account for pass-by trips, are based on data provided by Kunzman Associates, Inc.,[20] while trip length and trip purpose[21] percentages were based on CalEEMod default values for San Diego County.[22]

---

[18] *California Climate Action Registry General Reporting Protocol, Version 3.1* (January 2009), Tables C.7 (CO_2) and C.8 (CH_4 and N_2O.

[19] California Air Resources Board, *EMFAC2011-SG User's Guide*, (September 2011).

[20] *City of Dana Point Doheny Hotel Traffic Impact Analysis*, Kunzman Associates, Inc. (April 21, 2011), p. 19.

[21] *California Emissions Estimator Model User's Guide Version 2011.1, Appendix D Default Data Tables*, prepared by ENVIRON International Corporation, San Francisco, CA for South Coast Air Quality Management District (February 2011), Table 4.2.

[22] San Diego County was used following the CalEEMod Climate Zone zip code look up, which is based on CEC forecasting climate zone and Residential Appliance Saturation Survey. *California Emissions Estimator Model*

Mobile source CO_2 emissions were modeled using EMFAC2011-SG with the following inputs:

- The average speed of the vehicles is 40 miles per hour[23]
- NOP year 2011, future year 2015, and BAU year 2020
- 2011 Annual VMT = 1,647,907
- 2015, and 2020 Annual VMT = 5,945,154
- Sub-Area: San Diego County / South Coast Air Basin
- All delivery truck trips (non-work trips) were assumed to be Heavy-Heavy Duty Diesel Tractor Trucks to be conservative

VMT is calculated by the following general equation:

VMT = (Number of Trips) * (Average Trip Length)

The VMT calculation included the following assumptions:

- Daily trips are the same throughout the week (including Friday, Saturday, and Sunday).
- Delivery trucks make up all non-work trips, while passenger vehicles represent all remaining trips.

See Appendix A for Annual VMT calculations and EMFAC2011-SG outputs.

Our procedures for estimating GHG emissions from the three operating cases were as follows.

4.2.2.1 NOP Case

The project traffic study[24] considers the proposed site's previous use; therefore, the NOP case accounts for the daily trips from the motel and fast food with a drive-through; the vacant commercial building was not included due to its vacancy. The modeling for the NOP case accounts for Senate Bill 1493 (Pavley I, or Pavley Rule), which requires passenger automobile manufacturers to implement GHG emission reduction technologies for vehicle models beginning in 2009, [25] and the Low Carbon Fuel Standards (LCFS), "a fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020."[26]

4.2.2.2 Future Case

The opening year of 2015 considers the daily trips associated with the proposed Doheny Hotel (hotel). To be conservative, the annual GHG emissions from 2015 were assumed to be the same for all subsequent years up until 2020.This scenario was modeled using EMFAC2011-SG, which

User's Guide Version 2011.1. Prepared by ENVIRON International Corporation, San Francisco, California for South Coast Air Quality Management District, Diamond Bar, California (February 2011).

23 Assumption based on PCH near Dana Point Harbor Drive.

24 *City of Dana Point Doheny Hotel Traffic Impact Analysis*, Kunzman Associates, Inc. (April 21, 2011).

25 Ibid., pp. 40-41.

26 California Air Resources Board, *EMFAC2011 Technical Documentation* (September, 2011), p. 40.

accounts for the Pavley Rule, the Low Carbon Fuel Standards (LCFS), and the Tire Pressure Regulation,[27] which requires automobile service providers to meet specific rules for vehicles with a gross vehicle rating of 10,000 pounds or less (this results in a 2% GHG reduction for passenger vehicles).[28]

4.2.2.3 BAU Case

The BAU case for 2020 follows the same methodology as the future case, except it does not account for any of the GHG emission reduction standards like the Pavley Rule, LCFS, and the Tire Pressure Regulation.

4.3 Indirect Source Emissions

4.3.1 Electricity Generation

Several types of on-site and off-site project-related activities consume electricity, which is generated at many different locations and by several different technologies. That portion of the electrical energy that is generated through combustion of fossil fuels results in GHG emissions. The first step in the GHG emissions analysis was to estimate the electricity demands of project operations. After that, UltraSystems developed emission factors relating GHG emissions to energy use.

4.3.1.1 On-Site Electricity Consumption

Electrical energy consumption in megawatt-hours per year for land use i was calculated with the following formula:

$$EU_i = 0.001\ A_i\ EIF_i$$

where:

A_i = Area of the land use (square feet)

EIF_i = Electricity intensity factor (kilowatt-hours/year-square foot)

Table 4 (Electricity Intensity Factors) shows the values for EIF for the past and future land uses, for the three operating cases. The baseline intensity factor was obtained from the California Energy Commission's *Commercial End Use Survey,*[29] with the assumption that the previous businesses met pre-2002 Title 24 standards. For the future case, it was assumed that energy conservation measures required by Title 24 would reduce electricity consumption by 7.7%

---

[27] Regulation to Reduce Greenhouse Gas Emissions from Vehicles Operation with Under Inflated Tires. § 95550 in subarticle 8 of article 4, subchapter 10, chapter 1, division 3, title 17, California Code of Regulations. 2009. http://www.arb.ca.gov/regact/2009/tirepres09/tirefinalreg.pdf.

[28] *Climate Change Proposed Scoping Plan*. Prepared by the California Air Resources Board for the State of California (October 2008). P. ES-1.

[29] *California Commercial End-Use Survey.* Prepared by Itron, Inc. for the California Energy Commission, CEC-400-2006-005 (March 2006), p. 222.

between 2002 and 2005, and by 4.9% between 2005 and 2008.[30] Note that the reductions were applied only to electricity end uses that are regulated by Title 24. For the BAU case, the intensity factors were assumed not to change from their pre-2002 values.

Table 4 – Electricity Intensity Factors

Land Use	Intensity Factor (kilowatt-hours/year-square foot)		
	NOP	Future	BAU
Hotel/Motel	16.11	15.29	16.11
Restaurant	43.73	42.35	43.73

4.3.1.2 Electricity for Water Use

Electricity is required for obtaining, conveying, treating and distributing municipal water supplies. Water use was estimated by multiplying floor areas by water use intensities (in gallons per year per 1,000 square feet),[32] and through CalEEMod modeling. **Table 5** (Potable Water Consumption Estimates) shows the estimates of water consumption for the three cases. Estimates also include the implementation of low-flow fixtures, which reduces hotel water consumption by 35% compared to the baseline.[33]

Table 5 – Potable Water Consumption Estimates

NOP	Area (ft²)	Water Intensity (gallons/year-1000 ft²)[a]	Gallons/Year	Mgal Per Year
Restaurant	1,059	303,534	321,442	
Motel	18,985	N/A	1,166,871	
Subtotal			*1,488,314*	
Outdoor[b]			154,452	
Total			***1,642,765***	***1.6428***
Future	Area (ft²)	Water Intensity (gallons/year-1000 ft²)[a]	Gallons/Year	Mgal Per Year
Hotel	174,560	N/A	6,544,627	
Restaurant	7,087	303,534	2,151,143	

[30] Hayes, S.R. and Lu, E.C., *Climate Change Technical Report, Wilshire Grand Redevelopment Project.* Prepared by ENVIRON International Corporation, Emeryville, California for Thomas Properties Group, Los Angeles California (May 2010), Table 4-19, Note 2.

[32] *California Emissions Estimator Model User's Guide Version 2011.1, Appendix D Default Data Tables*, prepared by ENVIRON International Corporation, San Francisco, CA for South Coast Air Quality Management District (February 2011), Table 9.1.

[33] Email communication from Erica Demkowicz, Senior Planner at City of Dana Point, Dana Point, California, to Benjamin Wong, Air and Noise Scientist, UltraSystems Environmental, Inc., Irvine, California. February 23, 2012.

Parking Lot	55,100	N/A	0	
Subtotal			*8,695,770*	
Outdoor[b]			727,181	
Low-Flow Savings[c]	N/A	N/A	(2,290,619)	
Total			***7,132,331***	***7.1323***
BAU	Area (ft²)	Water Intensity (gallons/year-1000 ft²)[a]	Gallons/Year	Mgal Per Year
Hotel	174,560	N/A	6,544,627	
Restaurant	7,087	303,534	2,151,143	
Parking Lot	55,100	N/A	0	
Subtotal			*8,695,770*	
Outdoor[b]			727,181	
Total			***9,422,951***	***9.4230***

[a] N/A indicates a default CalEEMod water intensities that does not exist, or does not match with running CalEEMod 2011.1.
[b] Assumed to be 28% of commercial water consumption.
[c] Based on 35% water consumption reduction from low flow fixtures

The electricity requirements per million gallons for potable water supply, conveyance, treatment and distribution were based CalEEMod default values for Southern California, which are based on values in a 2006 CEC report.[34] These are summarized in **Table 6** (Electrical Energy Requirements for Potable Water).

Table 6 – Electrical Energy Requirements for Potable Water

Activity	kWhr/Mgals
Supply and Conveyance	9,727
Treatment	111
Distribution	1,272

4.3.1.3 Electricity for Wastewater Treatment

Electricity is also required for wastewater treatment. Waste use was estimated by multiplying floor areas, or hotel rooms by wastewater generation rates (in gallons per day per 1,000 square feet, or per hotel room).[35] **Table 7** (Wastewater Generation Estimates) shows the estimates of wastewater generated for the three cases.

[34] *California Emissions Estimator Model User's Guide Version 2011.1 Appendix D Default Data Tables*. Prepared by ENVIRON International Corporation, San Francisco, California for South Coast Air Quality Management District, Diamond Bar, California (February 2011), Table 9.2.
[35] *South Coast Water District Infrastructure Master Plan*. Prepared by PBS&J, Carlsbad, California for South Coast Water District, Laguna Beach, California (November 2008), Table 5-3.

The electrical energy requirement for wastewater treatment was assumed to be 1,911 kilowatt-hours per Mgal.[36]

4.3.1.4 Total Electrical Energy Demand

Using the data and the assumptions in the preceding subsections, the total electrical demand for the three cases was estimated. **Table 8 (**Total Electrical Energy Demand) summarizes the results of the calculations.

[36] *California Emissions Estimator Model User's Guide Version 2011.1 Appendix D Default Data Tables*. Prepared by ENVIRON International Corporation, San Francisco, California for South Coast Air Quality Management District, Diamond Bar, California (February 2011), Table 9.2.

Table 7 – Wastewater Generation Estimates

NOP	Area (ft²)	Wastewater Generation (gallons/day)	Gallons/Day	Mgal Per Year
Restaurant	1,059	1800 per acre	44	
Motel	18,985 (46 rooms)	75 per room	3,450	
Total			***3,494***	***1.28***
Future	Area (ft²)	Wastewater Generation (gallons/day)	Gallons/Day	Mgal Per Year
Hotel	174,560 (258 rooms)	75 per room	19,350	
Restaurant	7,087	1800 per acre	293	
Parking Lot	55,100	0	0	
Low-Flow Savings[a]	N/A	N/A	(6,773)	
Total			***12,871***	***4.70***
BAU	Area (ft²)	Wastewater Generation (gallons/day-1000 ft²)	Gallons/Day	Mgal Per Year
Hotel	174,560 (258 rooms)	75 per room	19,350	
Restaurant	7,087	1800 per acre	293	
Parking Lot	55,100	0	0	
Total			***19,643***	***7.17***

[a] Assumption that 35% reduction in water use through low flow fixtures is directly proportional to reductions in hotel wastewater generation.

Table 8 – Total Electrical Demand

Type of Demand	**Electrical Energy (Megawatt-hours per year)**		
	NOP	**Future**	**BAU**
On-Site	46.31	2,702.78	3,122.08
Potable Water	18.25	79.24	104.70
Wastewater Treatment	2.44	8.98	13.70
Total without PDF-20	**67.00**	**2,791.00**	**3,240.48**
Total with PDF-20	***67.00***	***1814.15***	***3,240.48***

4.3.1.5 GHG Emission Factors for Electricity Generation

UltraSystems' development of emission factors for this analysis was based upon the following assumptions:

- All electricity is supplied by San Diego Gas & Electric (SDG&E).
- GHG emissions from electricity generation result only from combustion of fossil fuels.
- The baseline year (2011) fossil fuel carbon intensity factor (pounds of CO_2 per megawatt-hour of electricity generated from fossil fuel combustion) remains constant.
- For the purpose of estimating emission factors, total electrical energy delivered by the SDG&E will remain approximately constant.

The following parameters are defined below:

F_N = Fossil-fuel-specific carbon intensity factor (lb CO_2/MWhr)

F = Electricity derived from fossil fuel combustion (MWhr/year)

F_R = Non-Fossil-fuel-specific carbon intensity factor (lb CO_2/MWhr)

R = Electricity derived from sources other than fossil fuel combustion (MWhr/year)

Then emissions are equal to $F_NF + F_RR$. Because GHG emissions result only from combustion of fossil fuels, $F_R = 0$. Emissions are therefore equal to F_NF. The overall carbon intensity factor, CI, is therefore:

$$CI = F_NF/(F + R)$$

SDG&E has a calculated overall carbon intensity factor of 720.49 pounds of CO_2 per megawatt-hour delivered in 2009.[37] All the parameters with "o" represent 2009. Rearranging the expression for CI, the equation becomes:

$$F_N = CI_o (F_o + R_o)/F_o$$

The value of F_N is assumed to be a constant. Using information from the SDG&E's 2009 report, F_N is calculated to be 1,341.59 pounds CO_2 per megawatt-hour of electricity derived from fossil fuel combustion.

Based on the 2009[38] and 2010[39] "power content label", fossil fuels contributed to 69% and 64% of the electrical energy delivered in 2009 and 2010, respectively. Assuming a linear trend from

[37] "2009 Annual Entity Emissions: Electric Power Generation/Electric Utility Sector." Submitted by San Diego Gas & Electric, San Diego, California to the California Climate Action Registry, www.climateregistry.org/CarrotDocs/35/2009/2009_PUP_SDG&E_Report_(Jan__2011).xls.

[38] Power Content Label SDG&E 2009, SDG&E. https://test.sdge.sensisagency.com/sites/default/files/FINAL092610_PowerLabel.pdf

the 2009 and 2010 power content labels and percent Renewable Portfolio Standard[40], fossil fuels will account for 55 percent of electricity deliveries in 2020. **Table 9** (Calculation of Overall Carbon Intensity Factors) shows how the SDG&E information was used for the NOP, Future, and BAU cases. The NOP and BAU emission factors are based upon projections to 2011, and the Future emission factor is based upon projections to 2020.

Table 9 – Calculation of Overall Carbon Intensity Factors

Parameter	2009[a]	2010	2011	2015	2020
Total MWhr	18,959,459	18,959,459	18,959,459	18,959,459	18,959,459
Fraction of Electricity from Fossil Fuels[b]	0.69[c]	0.64[d]	0.65	0.60	0.55
Fossil Fuel-Derived Electricity (MWhr)	10,181,989	12,134,053	12,252,550	11,456,253	10,460,881
F_n (lb CO_2/MWhr from Fossil Fuels)	1,341.59	1,341.59	1,341.59	1,341.59	1,341.59
Overall Carbon Intensity Factor (lb CO_2/MWhr)	**Not Calculated**	**Not Calculated**	**867.00**	**810.65**	**740.22**

[a] Values in this column were obtained or calculated from data in "2009 Annual Entity Emissions: Electric Power Generation/Electric Utility Sector." Submitted by San Diego Gas & Electric, San Diego, California to the California Climate Action Registry, www.climateregistry.org/CarrotDocs/35/2009/2009_PUP_SDG&E_Report_(Jan__2011).xls.

[b] California RPS Procurement Summary 2003-2010. CPUC. http://www.cpuc.ca.gov/NR/rdonlyres/B5AF672B-ABB6-4B0F-8F52-AF78D4701677/0/CaliforniaRPSProcurementSummary20032010.xls

[c] Power Content Label SDG&E 2009, SDG&E. https://test.sdge.sensisagency.com/sites/default/files/FINAL092610_PowerLabel.pdf

[d] Power Content Label SDG&E 2010, SDG&E. https://test.sdge.sensisagency.com/sites/default/files/documents/2010_Annual_PowerContentLabel.pdf

4.3.2 Wastewater Treatment Off-Gassing

Assumptions reported in the Wilshire Grand analysis were used to estimate project-related generation and emissions of methane at wastewater treatment plants. It was assumed that wastewater from the project has a five-day biochemical oxygen demand (BOD_5) value of 200 milligrams per liter. The Wilshire Grand report's formula and parameters are as follows, where CH_4 emissions are in tonnes per year:[41]

[39] Power Content Label SDG&E 2010, SDG&E. https://test.sdge.sensisagency.com/sites/default/files/documents/2010_Annual_PowerContentLabel.pdf

[40] California RPS Procurement Summary 2003-2010. CPUC. http://www.cpuc.ca.gov/NR/rdonlyres/B5AF672B-ABB6-4B0F-8F52-AF78D4701677/0/CaliforniaRPSProcurementSummary20032010.xls

[41] Hayes, S.R. and Lu, E.C., *Climate Change Technical Report, Wilshire Grand Redevelopment Project.* Prepared by ENVIRON International Corporation, Emeryville, California for Thomas Properties Group, Los Angeles California (May 2010), Table 4-1, Note 11.

CH_4 = $(BOD_5)(B_o)(MCF_{septic})(365.25\ days/yr)(10^{-3} tonnes/kg)$

BOD_5 = Daily biochemical oxygen demand (kg/day)

B_o = 0.6 kg CH_4/kg BOD_5 removed

MCF_{septic} = 0.5 (unitless)

4.3.3 Landfill Gas Generation

Methane and carbon dioxide are generated in landfills and released to the atmosphere. The first step in calculating their emissions was to estimate the amount of project-generated solid waste that will be landfilled.

Waste disposal by the proposed hotel and restaurant were calculated by using waste generation rates per room or square feet that were obtained from CalRecycle.[42] These values were used for the NOP, future, and BAU cases. **Table 10** (Solid Waste Generation) shows the results of the calculations. As a worst case, it was assumed that the hotel and restaurant would not reduce their waste disposal rates for either the project or BAU cases; and that the motel and fast food restaurant with drive through would not reduce their waste disposal rates for the NOP case.

Table 10 – Solid Waste Generation

NOP (2011)	Area (ft²)	Waste Disposal (lb/day)	Waste Generated (tons/year)
Restaurant	1,059	0.005 per square foot	0.97
Motel	18,985 (46 rooms)	2 per room	16.79
Total			***17.76***
Future (2020)	Area (ft²)	Waste Disposal (lb/day)	Waste Generated (tons/year)
Hotel	174,560 (258 rooms)	2 per room	94.17
Restaurant	7,087	0.005 per square foot	6.47
Parking Lot	55,100	0	
Total			***100.64***
BAU (2020)	Area (ft²)	Waste Disposal (lb/day)	Waste Generated (tons/year)
Hotel	174,560 (258 rooms)	2 per room	94.17
Restaurant	7,087	0.005 per square foot	6.47
Parking Lot	55,100	0	
Total			***100.64***

UltraSystems used a methane generation factor of 3,530 cubic feet per ton of waste, which was obtained from the U.S. Environmental Protection Agency's *AP-42, Compilation of Air Pollutant*

[42] Estimated Solid Waste Generation Rates for Service Establishments. CalRecycle. June, 2011. http://www.calrecycle.ca.gov/wastechar/wastegenrates/Service.htm

Emission Factors.[43] It was also assumed that the volumetric ratio of CO_2 to CH_4 in the landfill gas was 40/55,[44] and that the molar volume of a gas at 68 degrees Fahrenheit and standard atmospheric pressure is 385 cubic feet per pound-mole.[45]

4.4 Construction Emissions

GHG emissions during construction were calculated for four types of emission sources:

- Fossil fuel combustion by on-site construction equipment
- On-road mobile sources, including construction worker commuting vehicles, demolition debris hauling, and materials delivery.
- Indirect sources, including electricity used in construction and to obtain potable water supply.
- Off-gassing from demolition debris and construction wastes disposed of at landfills.

On-site combustion emissions and on-road mobile source emissions were calculated with the CalEEMod™ emissions model.[46] The assumptions used in the modeling and the results are in the model outputs provided in Appendix B.

Indirect construction emissions were not calculated because of a lack of construction data for on-site electricity use, water supply, and solid waste generated.

[43] U.S. Environmental Protection Agency, *AP-42, Compilation of Air Pollutant Emission Factors*, *Volume I, Chapter 2, Section 2.4, "Municipal Solid Waste landfills"* (November 1998) , p. 2.4-4.

[44] Ibid.

[45] Hayes, S.R. and Lu, E.C., Op. Cit., Table 4-34, Notes 2-4.

[46] *California Emissions Estimator Model (CalEEMod), Users Guide, Version 2011.1*. Prepared by ENVIRON International Corporation, Emeryville, California, for the South Coast Air Quality Management District, Diamond Bar, California (February 2011).

5.0 RESULTS

Table 11 (Construction Emissions Summary for 2013) and **Table 12** (Construction Emissions Summary for 2014) show our estimates of GHG emissions from construction of the project. Project construction will result in CO_2 equivalent emissions of 773.91 tonnes in 2013 and 615.38 tonnes in 2014.

Table 11 – Construction Emissions Summary - 2013

Type of Emission	Tonnes per Year			
	CO_2	CH_4	N_2O	CO_2e
Direct				
On-Site Combustion	480.68	0.06	0	481.88
Mobile Sources	291.81	0	0	292.03
Indirect				
Electricity Generation	ND	ND	ND	ND
Landfill Gas	ND	ND	ND	ND
Totals	***772.49***	***0.06***	***0***	***773.91***
ND = No Data				

Table 12 – Construction Emissions Summary - 2014

Type of Emission	Tonnes per Year			
	CO_2	CH_4	N_2O	CO_2e
Direct				
On-Site Combustion	323.69	0.03	0	324.51
Mobile Sources	290.65	0.01	0	290.87
Indirect				
Electricity Generation	ND	ND	ND	ND
Landfill Gas	ND	ND	ND	ND
Totals	***614.34***	***0.04***	***0***	***615.38***
ND = No Data				

Table 13 (Summary of Operating Emissions Estimates) summarizes the results of the calculations described in the previous section. In 2020, CO_2e emissions are estimated to be 4,726 tonnes. This represents an increment of 4,010 tonnes over the NOP case. The "business as usual" case would have 5,764 tonnes of GHG emissions. Thus the project results in a savings of 1,038 tonnes, or 18% of what would occur without implementation of provisions of AB 32.

Table 13 - Summary of Operating Emissions Estimates

Emission Source	Annual Emissions (Tonnes)					% Savings
	NOP	Future	Increment	BAU	Savings	
Direct Combustion						
Mobile	585	3,359	2,774	3,656	297	8%
On-Site	72	579	507	640	61	10%
Total Direct	**657**	**3,938**	**3,281**	**4,296**	**358**	**8%**
Indirect Emissions						
Electrical Generation	26	612	586	1,280	668	52%
Wastewater Treatment Offgas	6	22	16	34	12	35%
Landfill Gas	27	154	127	154	0	0%
Total Indirect	**59**	**788**	**729**	**1,468**	**680**	**46%**
Grand Total	***716***	***4,726***	***4,010***	***5,764***	***1,038***	***18%***

6.0 GREENHOUSE GAS IMPACT ANALYSIS

UltraSystems used the factors from Section 15064.4(b) of the recently amended CEQA Guidelines to assess the significance of impacts from greenhouse gas emissions on the environment.

6.1 Increase in Greenhouse Gas Emissions

As seen in **Table 13**, the project will generate about 4,726 tonnes per year of GHG emissions. How much of an increase in GHG emissions this represents is uncertain. Some of the emissions from commercial energy use (e.g. restaurant patronage) would occur elsewhere if the project is not built. Because climate change is a global issue, it does not matter where the emissions occur. Whether there would be a net increase in mobile source GHG emissions is also uncertain. UltraSystems makes the conservative assumption that the entire 4,726 tonnes per year are a net increase.

6.2 Comparison to a Significance Threshold

As of this writing, the lead agency (City of Dana Point) has not adopted quantitative thresholds of significance for GHG emissions from residential and commercial projects; however, the lead agency has agreed to establish a significance threshold based on AB 32. Refer to Section 6.3 below.

6.3 Compliance with Greenhouse Gas Reduction Plans

There are currently no regional or local climate action plans or general or specific plan provisions to reduce GHG emissions in the study area. The only applicable plan is the set of regulations to be developed under AB 32, which has a target of reducing GHG emissions to 1990 levels by 2020. The potential significance of emissions from the Doheny Hotel project therefore depends upon the extent to which the project furthers or hinders implementation of AB 32. According to the *Climate Change Proposed Scoping Plan*,[47] approximately 30 percent of the business-as-usual (BAU) emission levels must be cut in order to achieve the 1990 levels of GHG emissions by 2020. Therefore, the greenhouse gas emissions for this project are deemed significant if the 2020 level of emissions do not reflect at least a savings of 30 percent from the BAU scenario as discussed in the methodology.

As seen in **Table 11** and **Table 12**, construction of the project will generate up to 774 tonnes of GHG emissions per year. However, construction will be complete by 2014. None of the project's construction emissions will be a part of statewide emissions in 2020. Therefore, construction emissions will not hinder implementation of AB 32.

According to **Table 13**, the project under the future case will generate 4,726 tonnes in 2020. Compared to the BAU case, this only accounts for 18 percent in savings, which does not reflect the threshold established from the *Climate Change Proposed Scoping Plan* of 30 percent savings. Therefore, the Doheny Hotel project's GHG emissions are potentially significant

[47] *Climate Change Proposed Scoping Plan Appendices Volume I: Supporting Documents and Measure Detail*. Prepared by the California Air Resources Board for the State of California (October 2008). Appendix C p. C-63.

without project design features. However, with the additional 12 percent savings from the project design features described in Section 7, the proposed project would reflect a savings of 30 percent from the BAU scenario. Thus, the impacts of proposed project would be less significant.

6.4 Alternative Impacts

6.4.1 Alternative #1

The no project alternative would not introduce new direct and indirect sources of GHG emissions compared to the existing conditions; therefore, this alternative's impacts are not significant.

6.4.2 Alternative #2

The three story alternative would feature 144 rooms and 119,313 square feet of hotel space, which is about 42% fewer rooms and about 32% less square footage than that of the Proposed Project. Thus, the overall CO_2e emissions for this alternative would be less than that of the Proposed Project. However, both the direct and indirect operational GHG emissions are directly proportional to the number of rooms and square feet of the hotel for both the Future and BAU cases. Based on the proportionality of the analysis, it is anticipated that the percent savings of the Future versus BAU would not reach the 30% threshold; thus this alternative's impacts would be potentially significant without the project design features.

6.4.2 Alternative #3

Alternative #3 would feature 273 rooms and 229,926 square feet of hotel space, which is about 6% more rooms and about 32% more square footage than that of the Proposed Project. Thus, the overall CO_2e emissions for this alternative would be greater than that of the Proposed Project. However, both the direct and indirect operational GHG emissions are directly proportional to the number of rooms and square feet of the hotel for both the Future and BAU cases. Based on the proportionality of the analysis, it is anticipated that the percent savings of the Future versus BAU would not reach the 30% threshold; thus this alternative's impacts would be potentially significant without the project design features.

7.0 PROJECT DESIGN FEATURES

Because of the difficulty and a lack of literature available, many of the project design features were not quantified in the analysis. Instead, the emissions estimate presented above focused on savings from meeting Title 24, but not exceeding it, and an increase in SDG&E's renewable portfolio standard through 2020. The analysis also included mobile savings from the Pavley Rule, LCFS, and the Tire Pressure Regulation. The following is a list of all the project design

features (PDF) that, in addition to the analysis above, would reduce GHG emissions by 30 percent beyond the BAU levels.[48]

Reduction in Electricity Use. As explained in the methodology, a portion of electrical energy is generated through combustions of fossil fuels, which results in GHG emissions. Therefore, a reduction in electricity use will result in a GHG emission savings. **Table 14** (Project Design Features and Percent GHG Reduction) describes the energy-efficient and water-efficient project design features that follow the recommended emission reduction actions in the *Climate Change Proposed Scoping Plan.*

Reduction in Water Consumption. As explained in the methodology, potable water requires electricity to obtain, convey, treat and distribute. By reducing the amount of water consumed, electricity is saved in addition to the indirect GHG emissions as a result of electricity generation. A reduction in water use is also directly proportional to a reduction in the amount of wastewater that needs to be treated, and both the indirect and direct GHG emissions associated with the treatment process. Refer to **Table 14** for a list of water-efficient project design features.

Reduction in Natural Gas Consumption. As explained in the methodology, burning natural gas produces direct GHG emissions. Therefore, a reduction in natural gas consumption will result in a GHG emission savings. Refer to **Table 14** for a list of natural gas-efficient project design features.

Reduction in Solid Waste Disposal. As explained in the methodology, methane and carbon dioxide are generated in landfills and released into the atmosphere. Therefore, a reduction in waste that is directed to landfills will result in a GHG emission savings. Refer to **Table 14** for a list of solid waste reduction project design features.

[48] Email communication from Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California to Benjamin Wong, Air and Noise Scientist, UltraSystems Environmental Inc., Irvine, California. February 17, 23, and 27, 2012 and March 19, 2012.

Table 14 –Project Design Features and Percent GHG Reduction

Scoping Plan Emission Reduction Measure	PDF Number	Percent GHG Reduction[a]	Project Design Feature	Description
Energy Efficiency and Conservation	PDF-1	Unknown	**Motion Activated Lighting in Public Areas**	Saves electricity in public areas by automatically shutting off lights when there are no occupants.
	PDF-2	Unknown	**LED Lighting**	LED lighting is typically more efficient than fluorescent and incandescent lighting thereby saving electricity during hotel operations
	PDF-3	1	**Motion Activated Programmable HVAC Thermostats in Guest Rooms**	Reduces electricity spent cooling vacant guest rooms as opposed to occupied ones.
	PDF-4	Unknown	**Automated Monitoring of CO_2 Levels**	Reduces electricity consumption by allowing central air conditioning systems to deliver appropriate ventilation air to specific areas of the building that need proper ventilation.
	PDF-5	1	**Interior Light Power Reduction**	All interior non-emergency lights with direct line of sight to any openings in the building envelope would have their input power reduced by 50% between 11:00 PM and 5:00 AM.
	PDF-6	1	**Energy Efficient Appliances**	Reduces energy use through energy efficient appliances.
	PDF-7	1	**Passive Heating/Cooling Systems**	Appropriate insulation and ventilation will be implemented to save energy consumption related to heating and cooling.
	PDF-8	Unknown	**Energy-Monitoring Program**	An energy-monitoring program as part of a Building Management System would display building water, electric, and gas consumption for guests to view. The object of this program is to establish awareness of water, electric, and gas consumption amongst hotel guests.
	PDF-9	1	**Solar Orientation**	Incorporate roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun from penetrating windows.
	PDF-10	1	**Low Energy Cooling**	Reduces energy consumption through the separation and optimization of the ventilation and thermal conditioning systems.
Real Time Energy Information Technologies	PDF-11	Unknown	**Measurement and Verification of Electrical Energy Usage in the Building**	Electrical energy usage would be monitored to provide feedback to building operators on potential energy reduction strategies.
Water Use Efficiency	PDF-12	1[b]	**Low Flow Shower Heads**	Reduces the flow rate of shower heads, which reduces water consumption
	PDF-13		**Dual Flush and Low**	Dual flush toilets utilize efficient separate toilet

			Flow Toilets	tanks for solid waste, and for liquid waste.
	PDF-14	1	**Low Water Use Appliances**	Reduces water consumption through water efficient appliances.
Water Use Conservation	PDF-15	Unknown	**Establish Incentive Program Regarding Re-use of Linens During Guests' Stay**	Instead of washing linens every day, guests may choose to have sheets laundered every other day to conserve water.
	PDF-16	1	**Moisture and Rain Sensors**	Control landscape irrigation to reduce unnecessary watering.
	PDF-17		**Drip Watering Systems**	Reduces water consumption through efficient landscape watering.
Reuse Urban Runoff	PDF-18	1	**Green Roof**	Filter, store, and re-use rain water.
Solar Water Heating	PDF-19	<1[b]	**Solar Heated Pools**	Pools will be solar heated to conserve natural gas use.
Other	PDF-20	6[b]	**35% of Electricity From Renewable Sources**	A two year contract with the serving electrical utility company would provide a minimum of 35% of the building's electricity from renewable resources.
	PDF-21	1	**Provide Two Electric Car Charging Stations**	Providing two (2) electric car charging stations encourages hotel guests to drive electric cars, which emit fewer direct GHG emissions than conventional gasoline passenger vehicles.
	PDF-22	1	**No Wood Burning Fireplaces or Stoves**	Reduces direct GHG emissions from wood burning fireplaces or stoves.
High Recycling/Zero Waste – Commercial Recycling	PDF-23	1	**Establish a Recycling Program**	A recycling program for guests and employees may decrease the solid waste that ends up in landfills.
Total Project Design Feature GHG Savings		**12[c]**		

Notes:
[a] GHG emissions reductions obtained from Appendix B of the *CEQA and Climate Change white paper* prepared by the California Air Pollution Control Officers Association (CAPCOA). Where CAPCOA assigns a "Low" emissions reduction, a one percent reduction was assumed in order to quantify GHG emissions reductions.
[b] Already accounted for in the above analysis.
[c] Does not account for those savings identified in the above analysis.

APPENDIX A

ANNUAL VMT CALCULATIONS AND EMFAC2011-SG OUTPUT FILES

APPENDIX B

CALEEMOD MODELING OUTPUT FILES

Appendix F

Phase I Environmental Assessment for 76 Station

Appendix C

Phase I Environmental Site Assessment Report

– Covenant Capital Property

PHASE I ENVIRONMENTAL SITE ASSESSMENT
"COVENANT CAPITAL PROPERTY"
34311 PACIFIC COAST HIGHWAY
DANA POINT, CALIFORNIA 92627

PREPARED FOR:
CONOCOPHILLIPS
3611 HARBOR BOULEVARD
SANTA ANA, CALIFORNIA 92704

April 16, 2009

2020 East First Street
Suite 400
Santa Ana, California 92705
(714) 835-6886

April 16, 2009

Mr. Karl Bewley
ConocoPhillips Company
3611 Harbor Boulevard
Santa Ana, California 92704

Re: Phase I Environmental Site Assessment
Covenant Capital Property
34311 Pacific Coast Highway
Dana Point, California 92629

Dear Mr. Bewley:

URS Corporation (URS) is pleased to submit this Phase I Environmental Site Assessment (ESA) for the above-referenced site. URS has performed a Phase I ESA in general conformance with the scope and limitations of ASTM Practice E 1527-05 of the vacant lot located at 34311 Pacific Coast Highway in Dana Point, Orange County, California.

The property is owned by Covenant Capital, LLC and is located southeast of the 76 Station No. 7329 located at 34306 Pacific Coast Highway, Dana Point, CA. Historical site plans for the 76 Station No. 7329 have shown that an ARCO Service Station at one time occupied the property. Based on the findings of this Phase I ESA, the subject property did not contain an ARCO Service Station and the assessment revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the current or former activities at the subject property.

URS appreciates the opportunity to provide environmental services to ConocoPhillips Company (COP). Please contact us at (714) 433-7637 if you have any questions.

Very truly yours,

URS CORPORATION

Janet L. Tentler
Environmental Scientist

Dennis Callahan, PE
Project Manager

URS Corporation
2020 East First Street, Suite 400
Santa Ana, CA 92705
Tel: 714.433.7687
Fax: 714.667.7147
www.urscorp.com

FIGURES

APPENDICES

EXECUTIVE SUMMARY

URS Corporation (URS) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the vacant property located at 34311 Pacific Coast Highway in the city of Dana Point, California (subject property). The property is owned by Covenant Capital, LLC and is located southeast of the 76 Station No. 7329 located at 34306 Pacific Coast Highway, Dana Point, CA.

Historical site plans for the 76 Station No. 7329 have shown that an ARCO service station at one time occupied the property. The purpose of this Phase I ESA was to gather information about the subject property and surrounding areas to verify if an ARCO service station operated at the property and to identify conditions indicative of releases or threatened releases of hazardous substances, pollutants and contaminants, petroleum or petroleum products, and controlled substances. This Phase I ESA was accomplished by, and limited to, a reconnaissance of the subject property, a drive-by survey of the site vicinity, and review of agency databases and other reasonably ascertainable records regarding past and current land use for indications of the manufacture, generation, use, storage and/or disposal of hazardous substances at the subject property.

The format and content of the Phase I ESA Report for the subject property are in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process E 1527-05 and the United States Environmental Protection Agency (USEPA) 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries (AAI) – Final Rule effective November 1, 2006.

Currently, the subject property (approximately 1.2 acres in size) is vacant, undeveloped property. The property was developed with a motel and restaurant from approximately 1928 to 2001.

A review of the environmental database report provided by Environmental Data Resources, Inc. (EDR) indicated that the subject property is not listed on environmental agency databases and there was no evidence that an ARCO service station occupied the property. No other nearby sites and/or facilities with a significant potential to have impacted the subject property were identified in the EDR database report.

Based on the information in the EDR report and file reviews performed for the subject property and site vicinity, it is URS' opinion that these listings do not represent an environmental concern at the subject property.

Based on the scope of work conducted for this Phase I ESA, Recognized Environmental Conditions (RECs) were not identified in connection with the former activities conducted at the property or the current vacant property and further investigation is not warranted.

This Executive Summary is not intended to be a "stand-alone" document, but a summary of our findings as described in the following report. It is intended to be used in conjunction with the Scope of Services and limitations described therein.

1.0 INTRODUCTION

Presented in this report are the results of the Phase I ESA conducted by URS of the vacant property (subject property) located at 34311 Pacific Coast Highway, in Dana Point, Orange County, California. The subject property is currently a vacant, undeveloped irregularly-shaped parcel approximately 1.2 acres in size.

This assessment was accomplished by, and limited to, a reconnaissance of the subject property, a drive-by survey of the site vicinity, and review of agency databases and other reasonably ascertainable information regarding past and current land use for indications of the manufacture, generation, use, storage and/or disposal of hazardous substances at the subject property.

1.1 ASTM STANDARD AND ALL APPROPRIATE INQUIRY

The format and content of the Phase I ESA Report for the subject property are in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process E-1527-05 and the United States Environmental Protection Agency (USEPA) 40 CFR Part 312 Standards and Practices for All Appropriate Inquiries (AAI) – Final Rule effective November 1, 2006.

1.1.1 All Appropriate Inquiry Standards

The USEPA Standard on AAI was developed to establish landowner liability protections to property owners under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as innocent landowners, bona fide prospective purchasers, and/or contiguous property owners. The Standard expands the records review requirements by increasing the search distances beyond the superseded ASTM Standard E 1527-00, incorporating mandatory searches for engineering and institutional controls, and mandatory review of local government and tribal records. The records review also requires a search of reasonably ascertainable land title and lien records to identify environmental liens or activity and use limitations, if any, which are recorded against the property. The historical sources review requires that a search of the property go as far back in history as it can be shown that the property contained structures or was first used for residential, agricultural, commercial, industrial, or governmental purposes. Data gaps identified for the property records are to be identified and their significance reported. The AAI Standard also requires taking into account commonly known or reasonably ascertainable information within a local community. AAI requires that inquiries be conducted by an environmental professional, which is specifically defined within the Standard.

1.1.2 ASTM Standard

ASTM Standard E 1527-05 was approved in November 2005. It was established and updated to reflect industry requirements brought about by AAI.

The goal of the ASTM Standard is to identify Recognized Environmental Conditions (RECs). By definition under ASTM Standard E 1527-05, the term "recognized environmental condition" is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs.

1.2 PURPOSE

The purpose of the Phase I ESA is to gather information about the subject property and surrounding areas to identify conditions indicative of releases or threatened releases of hazardous substances, pollutants and contaminants, petroleum or petroleum products, and controlled substances.

1.3 SCOPE OF SERVICES

The format and content of this Phase I ESA Report are in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Site Assessment Process E 1527-05 and the EPA's standards for AAI.

This Phase I ESA was accomplished by, and limited to, a reconnaissance of the subject property and review of pertinent documentation available through URS' standard resources regarding past and current land use for indications of the manufacture, generation, use, storage, and/or disposal of hazardous substances at the subject property. The reconnaissance included a walking tour of the subject property and a drive-by survey of surrounding and adjacent properties. To meet the objectives of this Phase I ESA, URS completed the following tasks:

- Performed a reconnaissance survey of the subject property to make visual observations of existing site conditions and activities, and a drive-by survey of the area within ¼-mile of the subject property to observe types of general land use. Photographs of the subject property are provided in Appendix A.

- Reviewed the federal, State, and local database list search provided by Environmental Data Resources, Inc., (EDR) of Milford, Connecticut of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations. The agency lists and search radii results (EDR Report) are provided in Appendix B.

- Conducted inquiries in person, by telephone, or in writing to the appropriate regulatory agencies for information regarding environmental permits, violations or incidents, and/or the status of enforcement actions at the subject property.

- Reviewed pertinent, available documents and maps regarding local physiographic and hydrogeologic conditions in the subject property vicinity including the potential presence of wetlands, floodplains, coastal zones, aquifer recharge areas, and nearby environmentally sensitive sites.

- Reviewed and interpreted available historical aerial photographs of the subject property and vicinity for evidence of previous site activities and development that would suggest the potential presence of hazardous substances at the subject property. Historical sources are provided in Appendix C.

- Reviewed and interpreted archival U.S. Geological Survey (USGS) topographic maps of the subject property and the area within ½-mile of the subject property for information regarding historical land use potentially involving the manufacture, generation, use, storage and/or disposal of hazardous substances (Appendix C).

- Prepared this report describing the research performed and presenting URS' findings and professional opinions regarding the potential for adverse environmental impacts to the subject property.

1.4 USER RELIANCE

This report has been prepared for use by ConocoPhillips and shall not be relied upon by any other party without the express written authorization of URS.

1.5 LIMITATIONS AND EXCEPTIONS

Based on the scope of services, the ESA specifically did not include: testing for asbestos; radon gas; lead-based paint; vapor intrusion; lead in drinking water; and sampling or testing of soil or groundwater.

2.0 PROPERTY DESCRIPTION

2.1 LOCATION

The subject property consists of approximately 1.2 acres of land located at 34311 Pacific Coast Highway at the southeast corner of Pacific Coast Highway and Del Obispo Street/Dana Point Harbor Drive in the city of Dana Point, California. Pacific Coast Highway and Dana Point Harbor Drive adjoins the subject property on the north and on the west property boundaries and Doheny State Beach property is located on the east and on the south property boundaries.

According to the USGS Dana Point, California 7.5 minute Quadrangle map (dated 1975) the property is at approximately 20 feet above mean sea level (msl). The topography of the property is relatively flat, with a gradual slope to the southeast. A property vicinity map is included as Figure 1.

2.2 FEATURES/USE

The subject property is located in the city of Dana Point, California and currently is vacant and undeveloped. The subject property was formerly developed as a motel and restaurant from approximately 1928 to 2001.

Pacific Coast Highway borders the property to the north, Dana Point Harbor Drive borders the property to the west, and Doheny State Beach borders the property to the east and south (Figure 2).

Dana Point Building Department records indicate that the Dana Villa Motel and Restaurant were built in 1928 and was demolished in June 2001.

2.3 PROPERTY VICINITY AND ADJACENT PROPERTIES

URS' observation and evaluation of adjoining properties were limited to features and conditions that were visible from public rights-of-way. The surrounding area uses include retail, commercial, residential, and recreational areas. The general surrounding land uses are described and listed below:

North: Pacific Coast Highway and several businesses, including a Denny's Restaurant, South Coast Water District offices, and a 76 Service Station are located to the north.

South: The entrance to Doheny State Beach recreational area and the Pacific Ocean are located to the south.

West: A Jack-in-the-Box restaurant, Dana Point Harbor Inn Motel, and the Lantern Day Park.

East: Doheny State Beach recreational area is located to the east.

Storage of hazardous materials and/or hazardous waste was not observed during the site survey. No indication of spills or staining was observed on adjacent properties.

3.0 PHYSICAL SETTING

3.1 TOPOGRAPHY

The subject property is located within the Coastal Plain of Orange County (California Department of Water Resources, 1967). The property is located in an unmarked section within Township 8 South, Range 8 West of the San Bernardino Base and Meridian (SBBM). The property is relatively flat, with a gradual slope to the southeast, towards the Pacific Ocean.

3.2 SURFACE WATER

The property is located less than one-quarter mile west of the San Juan Creek and less than one-quarter mile north of the Pacific Ocean. No surface water was observed on the subject property.

3.3 GEOLOGY AND SOILS

The subject property is located within the Flood Plain of the San Juan Creek against the westerly canyon side slope in close proximity to the river mouth and shoreline. The subject property is underlain by bedrock strata of the Capistrano format which is overlain by alluvial and inferred marine intertidal deposits. The depth of alluvial soils beneath the subject property exceeds 70 feet (Irvine Soil Engineers, Inc., 1985). Fill overlies the native soils at the subject property to depths ranging from 4.5 to 9 feet. According to the EDR Database Report (Appendix B), the subject property is located within a 500-year Federal Emergency Management Agency (FEMA) designated flood zone.

3.4 HYDROGEOLOGY

The subject property is located within the Coastal Plain of Orange County. Groundwater flow direction at the subject property is to the south.

4.0 SITE HISTORY

URS reviewed readily available historical data pertaining to the subject property. These references were reviewed for evidence of activities that would suggest the potential presence of hazardous substances at the subject property and to evaluate the potential for the subject property to be impacted by offsite sources of contamination. The following subsections are a summary of the review. Historical sources provided by EDR are presented in Appendix C.

4.1 HISTORICAL SANBORN FIRE INSURANCE MAPS

Historical Sanborn Fire Insurance maps were requested from EDR for the area of the subject property. EDR reported no coverage in the vicinity of the subject property.

4.2 HISTORICAL CITY DIRECTORIES

Business directories including city, cross-reference and telephone directories were requested from EDR for the subject property address and addresses in the site vicinity. EDR reported no coverage in the vicinity of the subject property.

4.3 HISTORICAL USGS TOPOGRAPHIC MAPS

URS reviewed a historical 15-minute topographic quadrangle map of "San Juan Capistrano, California" dated 1947 and historical 7.5-minute topographic quadrangle maps of "Dana Point, California" dated 1949, 1968, and 1975 that were obtained from EDR. Copies of the topographic maps obtained from EDR are provided in Appendix C. The following is a summary of the review.

1947

No significant structures or features were depicted on the subject property. The 1947 topographic map depicted the regions of the area, railroad lines, several roadways, and surface water bodies.

1949

The subject property was depicted with the motel structure. The site vicinity was depicted with new residential and commercial development. A sewage disposal plant and San Juan Creek were depicted to the northeast and east, respectively.

1968

No change was depicted at the subject property; the motel structure remains. The subject property vicinity continued with increased residential and commercial development. The sewage plant to the northeast remains depicted.

1975

No change was depicted at the subject property; the motel structure remains. The subject property vicinity continued with increased residential and commercial development. The sewage plant to the northeast remains depicted.

4.4 HISTORICAL AERIAL PHOTOGRAPHS

URS reviewed aerial photographs of the property vicinity for the years 1938, 1946, 1952, 1968, 1977, 1990, 1994, 2002, and 2005 that were obtained from EDR. Copies of the aerial photographs are provided in Appendix C. A summary of the aerial photograph review follows.

1938

In the 1938 aerial photograph, the subject property appears with one long narrow building. There is very little development in the site vicinity. The properties to the north, east, and west appears to be undeveloped land. The Pacific Ocean is depicted to the south.

1946

In the 1946 aerial photograph, the subject property appears relatively unchanged from the 1938 aerial photograph. The site vicinity shows very little development; one commercial site is depicted to the north and residential lots are being developed to the northwest. The property to the south and southeast appears to be developed as a park associated with Doheny State Beach.

1952

In the 1952 aerial photograph, the subject property appears relatively unchanged from the 1946 aerial photograph. The site vicinity shows a slight increase of commercial properties to the north of the subject property along Pacific Coast Highway.

1968

In the 1968 aerial photograph, the subject property appears unchanged from the 1952 aerial photograph. There is expanded residential development to the northwest and northeast of the subject property. The site vicinity shows a slight increase of commercial properties to the north of the subject property along Pacific Coast Highway. Doheny State Beach remains depicted to the south and southeast.

1977

In the 1977 aerial photograph, the subject property appears unchanged from the 1968 aerial photograph. The site vicinity has had a substantial increase with residential and commercial properties. The roadway to the west of the subject property, Dana Point Harbor Drive, has been redeveloped. The road now leads to the newly developed Dana Point Harbor. A motel has been developed to the west of Dana Point Harbor Drive.

1990

In the 1990 aerial photograph, the subject property appears unchanged from the 1977 aerial photograph. Substantial development is noted; the entire site vicinity has been developed with residential or hotel properties.

1994

In the 1994 aerial photograph, the subject property appears unchanged from the 1990 aerial photograph. The site vicinity remains fully developed as residential and commercial properties.

2002

In the 2002 aerial photograph, the subject property appears to be vacant undeveloped land. The site vicinity remains fully developed.

2005

In the 2005 aerial photograph, the subject property remains as vacant undeveloped land. The site vicinity remains fully developed with a motel and a hotel to the west, commercial properties to the north along Pacific Coast Highway, and Doheny State Beach to the south and southeast.

4.5 EDR HISTORICAL DATABASE REVIEW

URS reviewed the results of the EDR Proprietary Historical Database search presented in the EDR Radius Map report in order to identify past and current occupants of the subject property and surrounding area that may have had the potential to generate, use, or store hazardous materials (i.e. manufactured gas plants, historical service stations and dry cleaning facilities). The subject property was not identified in the EDR Proprietary Historical Databases. The EDR Database Report is included as Appendix B.

4.6 USER PROVIDED INFORMATION

No additional information was provided to URS at the time of this assessment.

4.6.1 Title Records

URS was not provided title records for the subject property.

4.6.2 Environmental Liens

URS was not provided Environmental Lien search information for the subject property. The EDR database report identified no Federal Superfund Liens or Deed Restrictions in association with the subject property. Based on available information, no environmental liens appear to be associated with the subject property.

4.6.3 Other Activity and Use Limitations

Based on available information, there are no activity or land use limitations, such as institutional controls, other than local zoning requirements that are in place on the subject property or that have been filed or recorded in a registry.

4.6.4 Valuation Reduction for Environmental Issues

Based on available information, there is no indication that the property value of the subject property has decreased due to environmental issues.

4.6.5 Prior Documents

URS was not provided any prior documentation for the subject property.

4.7 SUMMARY OF HISTORICAL DATA

According to review of available historical data, it appears that the subject property was vacant land prior to 1928. From 1928 to 2001, the subject property was developed as a motel and a restaurant. After the motel was demolished in 2001, the property has remained vacant undeveloped land.

4.8 HISTORICAL DATA GAPS

Results of an environmental cleanup lien search were not provided to URS. This, therefore, represents a data gap. However, it is URS' opinion that the data gap does not represent a significant data gap, in that it does not impact URS' ability to identify recognized environmental conditions at the subject property; therefore, it does not alter the conclusions of this report.

5.0 SITE RECONNAISSANCE

On September 8, 2008, a URS representative conducted a reconnaissance of the subject property. The reconnaissance consisted of the observation and documentation of existing site conditions accessible by foot or vehicle. Surrounding properties were visually observed from a vehicle as a windshield survey. Photographs taken during the site reconnaissance are provided in Appendix A.

Currently, the subject property (approximately 1.2 acres in size) is a vacant undeveloped lot. Two transformers and one electrical box were observed within the western portion of the subject property.

5.1 HAZARDOUS SUBSTANCES

URS did not observe hazardous substances or hazardous wastes on the subject property. No evidence of staining, leaks, or spills was observed during the site reconnaissance.

5.2 STORAGE TANKS

Evidence of ASTs or USTs was not reported or observed at the subject property.

5.3 POLYCHLORINATED BIPHENYLS (PCBs)

Two small concrete pad-mounted transformers were observed on the western portion of the subject property. No evidence of leaks or spills was observed around the transformer. Electrical service is provided to the site by Southern California Edison (SCE), which retains responsibility for maintenance and clean-up of leaks or spills associated with the transformer. Based on the visual appearance and demolition date of the site (2001), it is unlikely the cooling oil within the transformer contains PCBs. Furthermore, based on URS' experience with SCE, they have previously reported that 96 percent of their transformers utilize mineral oil containing less than 50 parts per million (ppm) of PCBs, and the remaining 4 percent of their transformers utilize mineral oil containing less than 100 ppm of PCBs. Based on this, URS does not consider the presence of the transformer to represent an environmental concern for the site.

5.4 WASTE DISPOSAL

Evidence of waste disposal was not observed or reported onsite during the site reconnaissance. No staining or other evidence of illegal dumping was observed at the time of the site reconnaissance.

5.5 WETLANDS, FLOODPLAIN, COASTAL ZONE

According to the EDR report, the subject property is not located within a FEMA 100-year flood zone; however, the subject property is located within a 500-year flood zone. The subject property is located approximately one-quarter mile north of the Pacific Ocean.

5.6 DRUMS/OTHER CHEMICAL CONTAINERS

No drums or chemical containers were observed or reported onsite during the site reconnaissance.

5.7 DUMPING

Evidence of unauthorized dumping of chemicals or substances was not observed during the site reconnaissance.

5.8 PITS, PONDS, LAGOONS, SEPTIC SYSTEMS, CISTERNS, SUMPS, DRAINS, AND CLARIFIERS

Pits, ponds, lagoons, cisterns, septic systems, sumps, drains, or clarifiers were not observed or reported at the subject property during the site reconnaissance.

5.9 PESTICIDE USE

Use and storage of pesticides was not observed at the subject property during the site reconnaissance.

5.10 STAINING AND DISCOLORED SOILS

No evidence of staining or discolored soils was observed onsite during the site reconnaissance.

5.11 STRESSED VEGETATION

Stressed vegetation was not observed onsite during the reconnaissance.

5.12 UNUSUAL ODORS

No unusual odors were noted during the reconnaissance.

5.13 ONSITE WELLS

Water supply, and/or oil or gas production wells were not observed onsite. A review of the Munger Map Book of California/Alaska Oil and Gas Fields (2003) did not identify oil or gas wells on or adjacent to the subject property.

5.14 NEARBY ENVIRONMENTALLY SENSITIVE SITES

No recorded environmentally sensitive sites were observed immediately adjacent to the subject property; however, a butterfly garden is located adjacent and to the south of the subject property.

5.15 ASBESTOS

An asbestos survey was not conducted nor included in the authorized scope of services. There were no structures located on the subject property during the site reconnaissance; therefore, asbestos-containing materials are unlikely to be present onsite.

5.16 LEAD-BASED PAINT

A lead in paint survey was not conducted nor included in the authorized scope of services. There were no structures located on the subject property during the site reconnaissance; therefore, lead-based paint is unlikely to be present onsite.

5.17 RADON

A USEPA survey by county and state of indoor radon concentrations indicated the radon zone level for Orange County, California is 2. Zone 3 areas are predicted to have an indoor radon screening potential less than 2.0 pico Curies per liter (pCi/l) of air for the general area of the subject property. The USEPA action level for radon is 4.0 pCi/l. Therefore, further assessment for radon appears unwarranted.

5.18 OTHER CONCERNS

No areas of water intrusion, water ponding, soil slumping, or erosion were visible during the site visit. No other concerns were noted during the site reconnaissance.

6.0 GOVERNMENT AGENCY INFORMATION

URS reviewed readily available records regarding past and current site use, contacted applicable agencies regarding potential environmental concerns at the property, and reviewed the agency database list search for potential environmental concerns at surrounding properties. The information obtained during the records review is provided in the following sections.

6.1 DATABASE LIST SEARCH

URS contracted an environmental database firm, Environmental Data Resources, Inc. (EDR) of Milford, Connecticut, to conduct a search for facilities listed by regulatory agencies as potentially having environmental concerns. The search was limited to within a one-mile radius (i.e., ASTM and AAI Standards) of the subject property to assess whether activities on or near the property have the potential to create RECs at the subject property. The complete list of databases reviewed is provided in the EDR Database Report (Appendix B) and is summarized in the table presented below. It should be noted that this information is reported as URS received it from EDR, which in turn reports information as it is provided in various government databases. It is not possible for either URS or EDR to verify the accuracy or completeness of information contained in these databases. However, the use of and reliance on this information is a generally accepted practice in the conduct of environmental due diligence.

The following table summarizes the number of facilities in the property vicinity that were identified in the indicated agency databases within the indicated survey distances.

AGENCY DATABASE	SURVEY DISTANCE	NUMBER OF SITES IDENTIFIED
United States Environmental Protection Agency (EPA) National Priority List (NPL) for Superfund Sites	1.0 mile	0
U.S. Proposed NPL List	1.0 mile	0
U.S. National Priority List Deletions (Delisted NPL) List	1.0 mile	0
NPL Recovery List (Federal Superfund Liens)	Property	0
U.S. EPA Comprehensive Environmental Response, Compensation and Liability Index System (CERCLIS) List	0.5 mile	0
U.S. EPA CERCLIS – No Further Remedial Action Planned (CERCLIS-NFRAP)	0.5 mile	0
U.S. EPA Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) List	1.0 mile	0
U.S. EPA RCRA Permitted Treatment, Storage, and Disposal (TSD) Facilities	0.5 mile	0
U.S. EPA RCRA Registered Large Generators of Hazardous Waste (RCRIS LQG)	0.25 mile	1

AGENCY DATABASE	SURVEY DISTANCE	NUMBER OF SITES IDENTIFIED
U.S. EPA RCRA Registered Small Generators of Hazardous Waste (RCRIS SQG)	0.25 mile	1
U.S. EPA Emergency Response Notification System (ERNS) List	Property	0
U.S. Hazardous Materials Incident Reporting System (HMIRS)	Property	0
U.S. Engineering Controls Sites (ENG Controls) List	0.5 mile	0
U.S. Sites with Institutional Controls (INST Controls) List	0.5 mile	0
U.S. Formerly Used Defense Sites (FUDS) List	1.0 mile	0
Toxic Chemical Release Inventory System (TRIS) Sites	Property	0
State Hazardous Waste Sites (Hist Cal-Sites)	1.0 mile	0
California Bond Expenditure Plan Sites	1.0 mile	0
State Hazardous Waste and Substances Sites (Cortese)	0.5 mile	9
State Proposition 65 Database (Notify 65)	1.0 mile	0
State Toxic Pits Cleanup Act Sites (Toxic Pits)	1.0 mile	0
State Permitted Solid Waste Landfill, Incinerators or Transfer Stations (SWF/LF) List	0.5 mile	1
State Waste Management Unit Database System (WMDUS/SWAT)	0.5 mile	0
State Recycler Database (SWRCY)	0.5 mile	0
State Leaking Underground Storage Tank (LUST) List	0.5 mile	19
State Historic LUST sites (HIST LUST) List	0.5 mile	4
State Underground Storage Tanks (UST) List	0.25 mile	5
State Site Cleanup (SLIC) List	0.5 mile	0
State Voluntary Cleanup Program (VCP)	0.5 mile	0
State Underground Storage Tanks on Indian Land (Indian UST)	0.25 mile	0
State Leaking Underground Storage Tanks on Indian Land (Indian LUST)	0.5 mile	0
State Facility Inventory Database of historic active and inactive UST locations (CA FID UST)	0.25 mile	0
State Hazardous Substance Storage Container Database of historic UST sites (HIST UST)	0.25 mile	0
State SWEEPS UST database	0.25 mile	3
State Hazardous Material Incidents, Including Accidental Releases and Spills (CHMIRS)	Property	0
State Site Mitigation and Brownfields Reuse Program (EnviroStor) database	1.0 mile	0
State Drycleaners List	0.25 mile	1
State Aboveground Storage Tank (AST) List	0.25 mile	0
State Response Sites (RESPONSE)	1.0 mile	0
Other Local, State, and/or Federal Databases including, but not limited to, Brownfield listings, Current and Former Department of Defense Sites, Consent Decrees, Records of Decision, Deed Restrictions, Hazardous Materials or Waste Tracking Systems and Facility Registries, and Enforcement Activities (see EDR report for complete listing of databases and search radii)	Varied according to database	0

The locations of EDR-listed sites are shown on the radius maps accompanying the EDR Report (Appendix B). The databases searched and the information obtained is summarized in the following sections.

6.1.1 Subject Property

A review of the environmental database report provided by EDR indicates that the subject property is not listed on any databases.

6.1.2 Adjacent Properties

A review of the environmental database report provided by EDR indicates that there are no adjacent properties listed on any databases.

6.1.3 Site Vicinity

URS reviewed the EDR database report to identify offsite facilities that have suspected or documented environmental concerns or RECs that may negatively impact the subject property. URS' criteria for further evaluating the potential impact of a listed offsite facility are summarized below:

- The listed offsite facility is documented or assumed to be hydrogeologically upgradient and a likely pathway exists for known releases of environmentally mobile contaminants to reach the subject property; or, contaminants from the listed offsite facility can reach the subject property through other pathways (e.g., surface runoff); and,

- The offsite facility is listed as an open case on one of the following databases: Federal NPL, Federal CORRACTS, Federal CERCLIS, Federal ERNS, and State-Specific lists including, but not limited to State Hazardous Waste Sites, State SCL, State LUST, State Deed Restrictions, State Toxic Pits, and Landfills (excluding transfer stations); or

- The facility is a known or suspected concern based on URS' experience or observations made during the site reconnaissance (e.g., dry-cleaning operations that may or may not be listed as RCRA-SQG, or a non-adjacent UST site that appears to have a remediation system in place).

Southern California Gas Company, 34271 Del Obispo Street, Dana Point located north and hydraulically upgradient of the subject property. Southern California Gas Company is listed on the LUST and the Cortese databases. There were two LUST cases and both were soil

contamination only and are closed by the lead agency. Based on the information in the EDR report and file reviews performed for the subject property and site vicinity, it is URS' opinion that these listings do not represent an environmental concern at the subject property.

6.1.4 Unmapped Sites

URS reviewed EDR's Orphan Summary, which is a listing of sites that have not been geocoded based on lack of sufficient data regarding their exact location within the general area. The subject property was not identified as an Unmapped Site.

6.2 REGULATORY CONTACTS

URS requested information from local and state agencies regarding the subject property, such as the status of environmental permits, violations, or corrective actions. Agencies contacted and a summary of the information obtained are provided below.

California EPA (Cal/EPA) DTSC, Cypress Office - The DTSC Cypress Office responded on September 11, 2008 and reported that they do not have records for the subject property.

RWQCB – The RWQCB Santa Ana Region responded on September 15, 2008 and reported that they do not have records for the subject property.

Orange County Health Care Agency (OCHCA) – The OCHCA responded on September 15, 2008 and reported that they do not have records for the subject property.

Dana Point Building Department – URS visited the Dana Point Building Department on September 8, 2008. Miscellaneous motel permits and reports were reviewed.

South Coast Air Quality Management District (SCAQMD) – The SCAQMD responded on September 24, 2008 and reported that they have no record for the subject property.

7.0 CONCLUSIONS

URS has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527-05 of the subject property located in the city of Dana Point, California. Any exceptions to or deletions from this practice are described in Sections 1.3 and 1.5. Based on the scope of work conducted for this Phase I ESA,

Currently, the subject property (approximately 1.2 acres in size) is vacant, undeveloped property. The property was developed with a motel and restaurant from approximately 1928 to 2001.

A review of the environmental database report provided by Environmental Data Resources, Inc. (EDR) indicated that the subject property is not listed on environmental agency databases and there was no evidence that an ARCO service station occupied the property. No other nearby sites and/or facilities with a significant potential to have impacted the subject property were identified in the EDR database report.

Based on the information in the EDR report and file reviews performed for the subject property and site vicinity, it is URS' opinion that these listings do not represent an environmental concern at the subject property.

Based on the scope of work conducted for this Phase I ESA, Recognized Environmental Conditions (RECs) were not identified in connection with the former activities conducted at the property or the current vacant property and further investigation is not warranted.

8.0 PREPARER SIGNATURES AND QUALIFICATIONS

This section includes qualification statements of the environmental professionals responsible for conducting the ESA and preparing this report.

The site visit was performed and the report was written by Ms. Janet Tentler of the URS office in Santa Ana, California. Ms. Tentler has over ten years of experience in environmental site investigations, characterizations, and assessments.

The work conducted by Ms. Tentler was supervised, and the report was reviewed by Mr. Timothy Marshall, Vice President, with over 20 years experience in the environmental field, including Phase I ESAs.

Mr. Marshall declares that, to the best of his professional knowledge and belief, he meets the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

Mr. Marshall has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. With the assistance of Ms. Tentler, he has developed and performed the all appropriate inquiries in general conformance with the standards and practices set forth in 40 CFR Part 312.

Janet L. Tentler
Environmental Scientist

Timothy R. Marshall, Ph.D.
Vice President/ Principal Engineer

9.0 REFERENCES

ASTM, 2005. American Society of Testing and Materials (ASTM). Standard E 1527-05, "Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process", 2005.

California Regional Water Quality Control Board, September 15, 2008.

California Department of Toxic Substances Control, September 11, 2008.

Dana Point Building Department, September 8, 2008.

Environmental Data Resources, Inc. (EDR), The EDR Aerial Photo Decade Package, Inquiry Number: 2312160. 5, September 8, 2008.

Environmental Data Resources, Inc. (EDR), The EDR Radius Map Report with GeoCheck, Inquiry Number: 2312160.1s, September 8, 2008.

Environmental Data Resources, Inc. (EDR), The EDR-Historical Topographic Map Report, Inquiry Number: 2312160, September 8, 2008.

GeoFirm, Summary of Geotechnical Condition and Geotechnical Feasibility Review for the Proposed Remodel of Existing Motel and Restaurant, May 12, 1999.

Irvine Soil Engineers, Inc., 1985

Munger Map Book of California/Alaska Oil and Gas Fields, 2003.

USEPA, 2005. United States Environmental Protection Agency (USEPA). 40 CFR Part 312 "Standards and Practices for All Appropriate Inquiries," November 1, 2005.

USEPA Map of Radon Zones http://www.epa.gov/iaq/radon/zonemap.html.

USGS 7.5-Minute Topographic Map, Dana Point, California, 1975.

FIGURES

N

VICINITY MAP

Project No.: 29879462	Date: APRIL 2009	Project: ConocoPhillips 34311 Pacific Coast Highway, Dana Point CA 92627	Figure 1

K:\2008\Conoco Philips\ fig.1 Vacinity Map.ai

URS

N

PROPERTY LOCATION MAP

Project No.: 29879462	Date: APRIL 2009	Project: ConocoPhillips 34311 Pacific Coast Highway, Dana Point CA 92627	Figure 2

K:\2008\Conoco Philips\ fig.2 Property Location Map.ai

URS

APPENDIX A
SITE PHOTOGRAPHS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ConocoPhillips	34311 Pacific Coast Highway Dana Point, California	29879462

Photo No. 1	Date: 09/08/08

Direction Photo Taken:

North

Description:

The Northern Portion of the Subject Property.

Photo No. 2	Date: 09/08/08

Direction Photo Taken:

South

Description:

The Southern Portion of the Subject Property.

Photo No. 3	Date: 09/08/08
Direction Photo Taken: Northeast	
Description: Subject Property in the Background, Vacant Lot to West in the Foreground.	

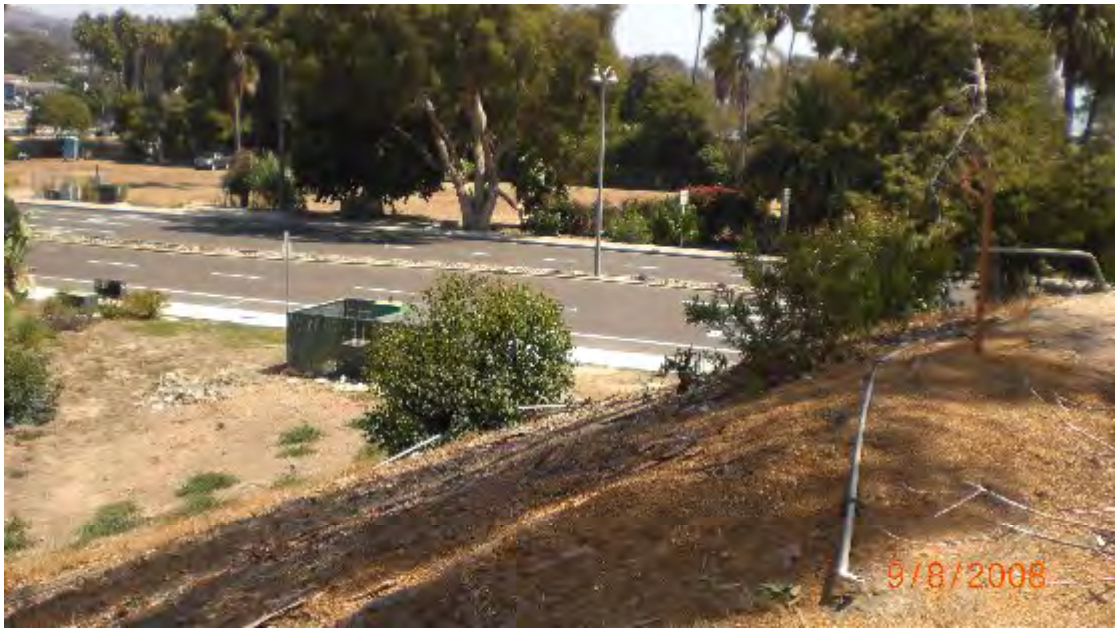


Photo No. 4	Date: 09/08/08
Direction Photo Taken: South	
Description: The Western Portion of the Subject Property with Transformers.	

Photo No. 5	Date: 09/08/08
Direction Photo Taken: North	
Description: The Northern Portion of the Subject Property with Meter Box on the Right.	

Photo No. 6	Date: 09/08/08
Direction Photo Taken: East	
Description: Signage within the Northern Portion of the Subject Property along Pacific Coast Highway.	

APPENDIX B
EDR DATABASE REPORT

Former Service Station Property
34311 Pacific Coast Highway
Dana Point, CA 92629

Inquiry Number: 2312160.2s
September 08, 2008

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

34311 PACIFIC COAST HIGHWAY
DANA POINT, CA 92629

COORDINATES

Latitude (North):	33.464780 - 33° 27' 53.2''
Longitude (West):	117.687370 - 117° 41' 14.5''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	436125.5
UTM Y (Meters):	3702833.0
Elevation:	20 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	33117-D6 DANA POINT, CA
Most Recent Revision:	1975

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Transporters, Storage and Disposal
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator

EXECUTIVE SUMMARY

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls
ERNS ..... Emergency Response Notification System
HMIRS ..... Hazardous Materials Information Reporting System
DOT OPS ..... Incident and Accident Data
US CDL ..... Clandestine Drug Labs
US BROWNFIELDS ..... A Listing of Brownfields Sites
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
LUCIS ..... Land Use Control Information System
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
MINES ..... Mines Master Index File
TRIS ..... Toxic Chemical Release Inventory System
TSCA ..... Toxic Substances Control Act
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS ..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS ..... Section 7 Tracking Systems
ICIS ..... Integrated Compliance Information System
PADS ..... PCB Activity Database System
MLTS ..... Material Licensing Tracking System
RADINFO ..... Radiation Information Database
FINDS ..... Facility Index System/Facility Registry System
RAATS ..... RCRA Administrative Action Tracking System
SCRD DRYCLEANERS ..... State Coalition for Rededication of Drycleaners Listing

STATE AND LOCAL RECORDS

HIST Cal-Sites ..... Historical Calsites Database
CA BOND EXP. PLAN ..... Bond Expenditure Plan
SCH ..... School Property Evaluation Program
Toxic Pits ..... Toxic Pits Cleanup Act Sites
WMUDS/SWAT ..... Waste Management Unit Database
CA WDS ..... Waste Discharge System
SWRCY ..... Recycler Database
SLIC ..... Statewide SLIC Cases
LIENS ..... Environmental Liens Listing
AST ..... Aboveground Petroleum Storage Tank Facilities
CHMIRS ..... California Hazardous Material Incident Report System
Notify 65 ..... Proposition 65 Records
Orange Co. Industrial Site ..... List of Industrial Site Cleanups
DEED ..... Deed Restriction Listing
VCP ..... Voluntary Cleanup Program Properties
WIP ..... Well Investigation Program Case List
CDL ..... Clandestine Drug Labs
RESPONSE ..... State Response Sites
HAZNET ..... Facility and Manifest Data
EMI ..... Emissions Inventory Data
HAULERS ..... Registered Waste Tire Haulers Listing
ENVIROSTOR ..... EnviroStor Database

TRIBAL RECORDS

INDIAN RESERV ..... Indian Reservations

INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
INDIAN UST ---------- Underground Storage Tanks on Indian Land
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

Manufactured Gas Plants ---- EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations -- EDR Proprietary Historic Gas Stations
EDR Historical Cleaners ------ EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 05/12/2008 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
L 1018 RECEIVER SITE DANA POIN	***34271 DEL OBISPO ST***	***0 - 1/8 NNE***	***A3***	***9***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 05/12/2008 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ELEGANT DRY CLEANERS	***34255 PACIFIC COAST HWY***	***1/8 - 1/4 WNW***	***11***	***20***

EXECUTIVE SUMMARY

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 05/12/2008 has revealed that there is 1 RCRA-NonGen site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ORANGE COUNTY CAPO YARD	***34102 DEL OBISPO ST***	***1/8 - 1/4 NE***	***E17***	***25***

STATE AND LOCAL RECORDS

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 06/09/2008 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
DEL OBISPO DISPOSAL STATION #3	34052 DEL OBISPO RD. @	1/4 - 1/2 NE	20	29

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

A review of the Cortese list, as provided by EDR, and dated 04/01/2001 has revealed that there are 9 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SOUTHERN CALIFORNIA GAS CO	***34271 DEL OBISPO ST***	***0 - 1/8 NNE***	***A2***	***7***
SERRA	***34152 DEL OBISPO ST***	***1/8 - 1/4 NE***	***C9***	***13***
SAN JUAN CAPISTRANO MAIN.	***34102 DEL OBISPO***	***1/8 - 1/4 NE***	***E18***	***26***
CAPISTRANO REALTY	***34656 PACIFIC COAST HWY***	***1/4 - 1/2 E***	***I29***	***45***
SERRA LUMBER CO.	***25802 VICTORIA BLVD***	***1/4 - 1/2 ENE***	***J30***	***47***
FORMER EXXON STATION 7-4816	***34295 DOHENY PARK RD***	***1/4 - 1/2 E***	***33***	***51***

Lower Elevation	Address	Dist / Dir	Map ID	Page
DANA POINT FUEL DOCK	***34661 PUERTO PLACE***	***1/4 - 1/2 SSW***	***F21***	***29***
EMBARCADERO MARINA	***34512 EMBARCADERO PL***	***1/4 - 1/2 SW***	***G23***	***39***
CANNAN-BART, INC	***25742 VICTORIA BLVD***	***1/4 - 1/2 ENE***	***H25***	***41***

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 07/03/2008 has revealed that there are 19 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SOUTHERN CALIFORNIA GAS CO	***34271 DEL OBISPO ST***	***0 - 1/8 NNE***	***A2***	***7***
Facility Status: Case Closed				
SERRA	***34152 DEL OBISPO ST***	***1/8 - 1/4 NE***	***C9***	***13***
SOUTH EAST REGIONAL RECLAMATN	***34152 DEL OBISPO ST***	***1/8 - 1/4 NE***	***C10***	***16***
Facility Status: Case Closed				
SAN UAN CAPISTRANO MAIN. YARD	34102 DEL OBISPO ST	1/8 - 1/4 NE	E15	23
COUNTY OF ORANGE EMA	34102 DEL OBISPO ST	1/8 - 1/4 NE	E16	24
SAN JUAN CAPISTRANO MAIN.	***34102 DEL OBISPO***	***1/8 - 1/4 NE***	***E18***	***26***
Facility Status: Case Closed				
THRIFTY OIL S S #390	34306 COAST	1/4 - 1/2 ESE	27	43
Facility Status: Case Closed				
CAPISTRANO REALTY	34656 PACIFIC COAST HWY	1/4 - 1/2 E	I28	44
CAPISTRANO REALTY	***34656 PACIFIC COAST HWY***	***1/4 - 1/2 E***	***I29***	***45***
Facility Status: Pollution Characterization				
SERRA LUMBER CO.	***25802 VICTORIA BLVD***	***1/4 - 1/2 ENE***	***J30***	***47***
Facility Status: Case Closed				
Facility Status: Case Closed				
SERRA LUMBER COMPANY	***25802 VICTORIA BLVD***	***1/4 - 1/2 ENE***	***J31***	***50***
JOHN GROTY/SERRA LUMBER	25802 VICTORIA BLVD	1/4 - 1/2 ENE	J32	51
FORMER EXXON STATION 7-4816	***34295 DOHENY PARK RD***	***1/4 - 1/2 E***	***33***	***51***
Facility Status: Pollution Characterization				

Lower Elevation	Address	Dist / Dir	Map ID	Page
DANA POINT FUEL DOCK	***34661 PUERTO PLACE***	***1/4 - 1/2 SSW***	***F21***	***29***
Facility Status: Case Closed				
DANA POINT FUEL DOCK	***34661 PUERTO PL***	***1/4 - 1/2 SSW***	***F22***	***37***
EMBARCADERO MARINA	***34512 EMBARCADERO PL***	***1/4 - 1/2 SW***	***G23***	***39***
EMBARCADERO MARINA	34512 EMBARCADERO PL	1/4 - 1/2 SW	G24	39
Facility Status: Case Closed				
CANNAN-BART, INC	***25742 VICTORIA BLVD***	***1/4 - 1/2 ENE***	***H25***	***41***
CANNON BART INC	25742 VICTORIA BLVD	1/4 - 1/2 ENE	H26	41
Facility Status: Case Closed				

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 3 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DOHENY STATE BEACH	***25300 DANA POINT HARBOR***	***0 - 1/8 SW***	***B5***	***11***
SOUTH EAST REGIONAL RECLAMATN	***34152 DEL OBISPO ST***	***1/8 - 1/4 NE***	***C10***	***16***
COUNTY MAINTENANCE YARD	34551 PUERTO PL	1/8 - 1/4 SW	D12	22

EXECUTIVE SUMMARY

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 07/10/2008 has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SOUTHERN CALIF GAS CO	34271 DEL OBISPO ST	0 - 1/8 NNE	A4	11
DOHENY STATE BEACH	***25300 DANA POINT HARBOR***	***0 - 1/8 SW***	***B6***	***12***
SOUTH EAST REGIONAL RECLAMATN	34156 DEL OBISPO ST	1/8 - 1/4 NE	C7	12
COUNTY MAINTENANCE YARD	***34551 PUERTO PL***	***1/8 - 1/4 SW***	***D14***	***23***
EMA	34102 DEL OBISPO ST	1/8 - 1/4 NE	E19	28

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 4 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DANA POINT	34271 DEL OBISPO ST	0 - 1/8 NNE	A1	6
DOHENY STATE BEACH	***25300 DANA POINT HARBOR***	***0 - 1/8 SW***	***B5***	***11***
J.B. LATHAM WASTEWATER TREATME	34152 DEL OBISPO ST	1/8 - 1/4 NE	C8	13
DANA POINT MAINTENANCE FACILIT	34551 PUERTO PL	1/8 - 1/4 SW	D13	22

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 3 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DOHENY STATE BEACH	***25300 DANA POINT HARBOR***	***0 - 1/8 SW***	***B6***	***12***
SOUTH EAST REGIONAL RECLAMATN	***34152 DEL OBISPO ST***	***1/8 - 1/4 NE***	***C10***	***16***
COUNTY MAINTENANCE YARD	***34551 PUERTO PL***	***1/8 - 1/4 SW***	***D14***	***23***

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 08/05/2008 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

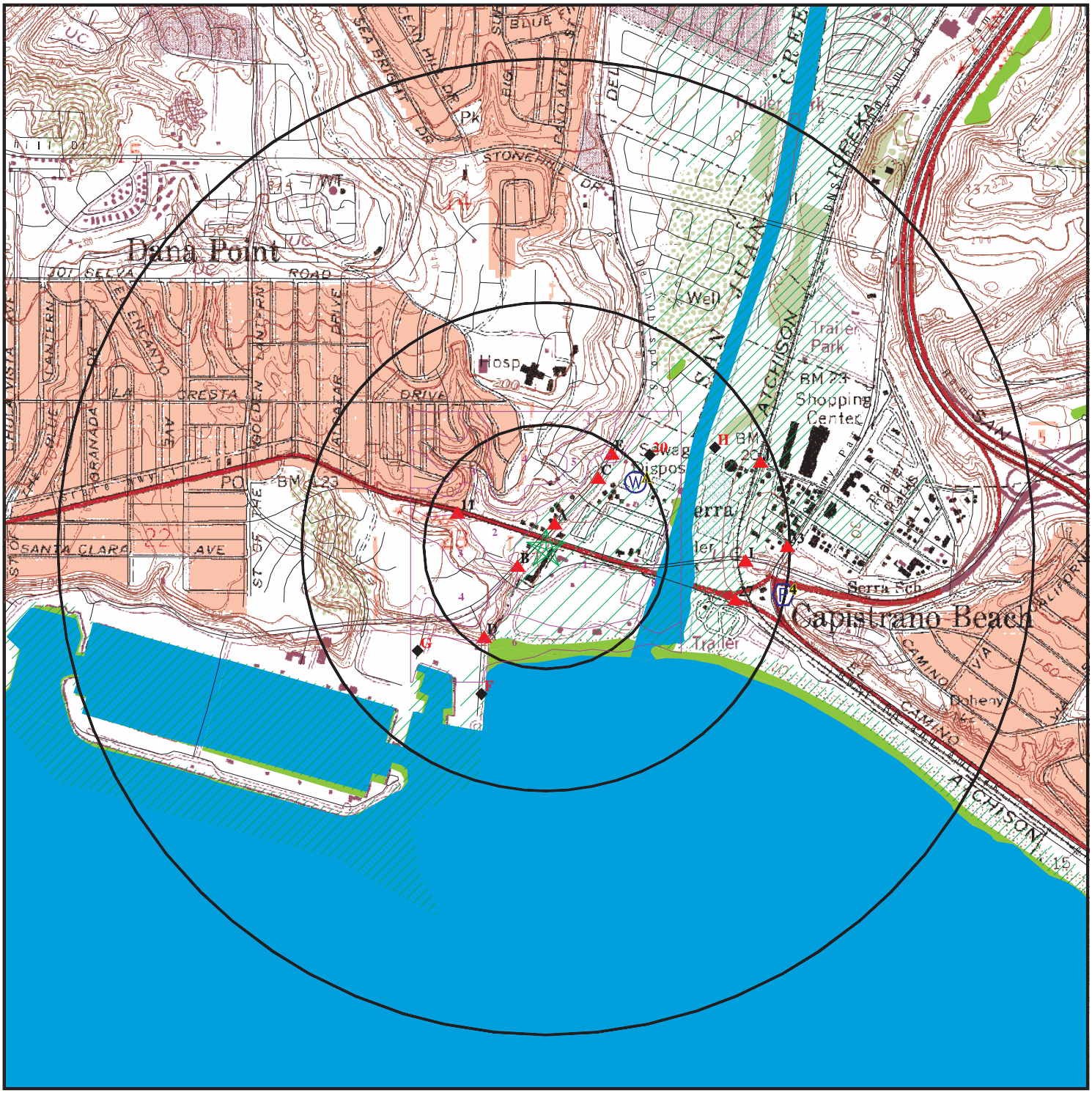
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ELEGANT DRY CLEANERS	***34255 PACIFIC COAST HWY***	***1/8 - 1/4 WNW***	***11***	***20***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
DANA POINT UNOCAL #7329	SWEEPS UST
PACIFIC SIGN CENTER (MWK CORP DBA: PACIFIC SIGN CE	DRYCLEANERS
PACIFIC CLEANERS	HAZNET, DRYCLEANERS
NIPTON UNAUTHORIZED LANDFILL	CERC-NFRAP
PRIMA DESHECHA TRASH REMOVAL GRANT 2136	SWF/LF
CONOCOPHILLIPS #257329	UST
OR CO FIRE STATION #30	UST
BART'S IRON	HIST UST
UNOCAL SERVICE STATION #5434	HAZNET
DEL OBISPO DISPOSAL STATION #3	FINDS
SAN JUAN CREEK PROPERTY	ENVIROSTOR

OVERVIEW MAP - 2312160.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Former Service Station Property ADDRESS: 34311 Pacific Coast Highway Dana Point CA 92629 LAT/LONG: 33.4648 / 117.6874	CLIENT: URS Corporation CONTACT: Janet Tentler INQUIRY #: 2312160.2s DATE: September 08, 2008 4:40 pm

DETAIL MAP - 2312160.2s

0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Former Service Station Property ADDRESS: 34311 Pacific Coast Highway Dana Point CA 92629 LAT/LONG: 33.4648 / 117.6874	CLIENT: URS Corporation CONTACT: Janet Tentler INQUIRY #: 2312160.2s DATE: September 08, 2008 4:40 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	0	NR	NR	0
LIENS 2		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA-TSDF		0.500	0	0	0	NR	NR	0
RCRA-LQG		0.250	1	0	NR	NR	NR	1
RCRA-SQG		0.250	0	1	NR	NR	NR	1
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
RCRA-NonGen		0.250	0	1	NR	NR	NR	1
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
US CDL		TP	NR	NR	NR	NR	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
STATE AND LOCAL RECORDS								
HIST Cal-Sites		1.000	0	0	0	0	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SWF/LF		0.500	0	0	1	NR	NR	1
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	1	2	6	NR	NR	9
SWRCY		0.500	0	0	0	NR	NR	0
LUST		0.500	1	5	13	NR	NR	19
CA FID UST		0.250	1	2	NR	NR	NR	3
SLIC		0.500	0	0	0	NR	NR	0
UST		0.250	2	3	NR	NR	NR	5
HIST UST		0.250	2	2	NR	NR	NR	4
LIENS		TP	NR	NR	NR	NR	NR	0
AST		0.250	0	0	NR	NR	NR	0
SWEEPS UST		0.250	1	2	NR	NR	NR	3
CHMIRS		TP	NR	NR	NR	NR	NR	0
Notify 65		1.000	0	0	0	0	NR	0
Orange Co. Industrial Site		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.250	0	1	NR	NR	NR	1
WIP		0.250	0	0	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
RESPONSE		1.000	0	0	0	0	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
HAULERS		TP	NR	NR	NR	NR	NR	0
ENVIROSTOR		1.000	0	0	0	0	NR	0
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY RECORDS								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
NNE
< 1/8
0.052 mi.
272 ft.

DANA POINT
34271 DEL OBISPO ST
DANA POINT, CA 92629

Site 1 of 4 in cluster A

HIST UST **U001576911**
N/A

Relative:
Equal

Actual:
20 ft.

HIST UST:

Region:	STATE
Facility ID:	00000007542
Facility Type:	Other
Other Type:	PUBLIC UTILITY
Total Tanks:	0003
Contact Name:	ABBOTT, G. T.
Telephone:	2138237945
Owner Name:	SOUTHERN CALIF. GAS COMPANY
Owner Address:	BOX 3249 TERMINAL ANNEX
Owner City,St,Zip:	LOS ANGELES, CA 90051

Tank Num:	001
Container Num:	TSBU300
Year Installed:	1952
Tank Capacity:	00003000
Tank Used for:	PRODUCT
Type of Fuel:	1
Tank Construction:	Not reported
Leak Detection:	Visual

Tank Num:	001
Container Num:	TSBU303
Year Installed:	1945
Tank Capacity:	00000700
Tank Used for:	WASTE
Type of Fuel:	5
Tank Construction:	6 inches
Leak Detection:	Visual

Tank Num:	002
Container Num:	TSBU301
Year Installed:	1945
Tank Capacity:	00000700
Tank Used for:	WASTE
Type of Fuel:	5
Tank Construction:	6 inches
Leak Detection:	Visual

Tank Num:	003
Container Num:	TSBU302
Year Installed:	1945
Tank Capacity:	00000700
Tank Used for:	WASTE
Type of Fuel:	5
Tank Construction:	6 inches
Leak Detection:	Visual

A2
NNE
< 1/8
0.052 mi.
272 ft.

SOUTHERN CALIFORNIA GAS CO
34271 DEL OBISPO ST
DANA POINT, CA 92629

Site 2 of 4 in cluster A

LUST **S102437824**
Cortese **N/A**

Relative:
Equal

Actual:
20 ft.

LUST:

Region:	STATE
Status:	Case Closed
Case Number:	9UT1356
Local Case #:	Not reported
Chemical:	Waste Oil
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Release Date:	1988-10-26 00:00:00
Discover Date:	1987-12-01 00:00:00
Report Date:	1989-05-22 00:00:00
Enforcement Dt:	Not reported
Review Date:	1993-06-23 00:00:00
Enter Date:	1989-07-05 00:00:00
Stop Date:	1987-12-01 00:00:00
Confirm Leak:	Not reported
Case Type:	Drinking Water Aquifer affected
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0605902383
Workplan:	Not reported
Prelim Assess:	1988-08-16 00:00:00
Pollution Char:	Not reported
Remed Plan:	1988-10-25 00:00:00
Remed Action:	Not reported
Monitoring:	Not reported
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	30
Org Name:	Not reported
Reg Board:	San Diego Region
Contact Person:	Not reported
Responsible Party:	SOUTHERN CA GAS COMPANY
RP Address:	BOX 3249 TERMINAL ANNEX, LOS ANGELES, CA 90051
Interim:	Yes
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
Staff:	UNA
Staff Initials:	Not reported
Lead Agency:	Regional Board
Local Agency:	Not reported

SOUTHERN CALIFORNIA GAS CO (Continued) **S102437824**

Hydr Basin #: SAN JUAN VALLEY (9-1
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: SOUTHERN CALIFORNIA GAS CO
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: 6/29/2006 - Only record exists in Geotracker, no paper file at Orange LOP or RB. It is likely it was a tank removal with some over excavation and soil removal at same time with no more active cleanup activities. IN CALL TO JIM STROZIER OF 05/22/89, ORANGE COUNTY HEALTH CARE AGENCY CLOSED CASE, HE DID NOT HAVE DATE OF CLOSURE OR THE CASE NUMBER ASSIGNED BY THE COUNTY, SOME SOIL TAKEN OFFSITE MUN B/E

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1356
Local Case: NONE7
Substance: Waste Oil
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: Orange
How Found: Other Means
How Stopped: Other Means
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Aquifer affected
Date Found: 12/01/1987
Date Stopped: 12/01/1987
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: 08/16/1988
Desc Pollution: Not reported
Remed Plan: 10/25/1988
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 10/26/1988
Enforce Date: Not reported
Closed Date: 5/22/89
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 901.20
GW Depth: Not reported
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Not reported
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SOUTHERN CALIFORNIA GAS CO (Continued) **S102437824**

Cortese:
Region: CORTESE
Facility Addr2: Not reported

A3
NNE
< 1/8
0.052 mi.
272 ft.

L 1018 RECEIVER SITE DANA POINT STATION **FINDS** **1000167607**
34271 DEL OBISPO ST **RCRA-LQG** **CAD981423163**
DANA POINT, CA 92629

Site 3 of 4 in cluster A

Relative:
Equal

Actual:
20 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

RCRA-LQG:

Date form received by agency:	11/13/2006
Facility name:	L 1018 RECEIVER SITE DANA POINT STATION
Facility address:	34271 DEL OBISPO ST DANA POINT, CA 92629
EPA ID:	CAD981423163
Mailing address:	6875 CONSOLIDATED WY SD 1373 SAN DIEGO, CA 92121 2602
Contact:	PAT J CANNEY
Contact address:	6875 CONSOLIDATED WY SD 1373 SAN DIEGO, CA 92121 2602
Contact country:	US
Contact telephone:	858-653-3104
Contact email:	PCANNEY@SEMPRAUTILITIES.COM
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	SOUTHERN CALIFORNIA GAS CO
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported

L 1018 RECEIVER SITE DANA POINT STATION (Continued) **1000167607**

Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1963
Owner/Op end date: Not reported

Owner/operator name: SOUTHERN CALIFORNIA GAS CO
Owner/operator address: 555 W FIFTH ST
LOS ANGELES, CA 90013
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1963
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Historical Generators:
Date form received by agency: 06/23/1986
Facility name: L 1018 RECEIVER SITE DANA POINT STATION
Site name: SO CALI GAS CO/DANA POINT STATION
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

L 1018 RECEIVER SITE DANA POINT STATION (Continued) **1000167607**

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D018
Waste name: BENZENE

Violation Status: No violations found

A4
NNE
< 1/8
0.052 mi.
272 ft.
Relative: Equal
Actual: 20 ft.

SOUTHERN CALIF GAS CO **UST** **U003783329**
34271 DEL OBISPO ST **N/A**
DANA POINT, CA 92629

Site 4 of 4 in cluster A

UST:
Local Agency: 30000
Facility ID: 5052

B5
SW
< 1/8
0.070 mi.
368 ft.
Relative: Higher
Actual: 24 ft.

DOHENY STATE BEACH **CA FID UST** **1000209057**
25300 DANA POINT HARBOR DR **HIST UST** **N/A**
DANA POINT, CA 92629

Site 1 of 2 in cluster B

CA FID UST:
Facility ID: 30017561
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7144920802
Mail To: Not reported
Mailing Address: 3030 AVENIDA DEL PRESIDEN
Mailing Address 2: Not reported
Mailing City,St,Zip: DANA POINT 92629
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST UST:
Region: STATE
Facility ID: 00000040787
Facility Type: Other
Other Type: STATE BEACH
Total Tanks: 0001
Contact Name: CHARLES O. POTTHAST
Telephone: 7144920953
Owner Name: CALIFD DEPART PARKS AND RECREA
Owner Address: 3030 AVE. DEL PRESIDENTE
Owner City,St,Zip: SAN CLEMENTE, CA 92672

DOHENY STATE BEACH (Continued) **1000209057**

Tank Num: 001
Container Num: 1
Year Installed: 1970
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual

B6 **DOHENY STATE BEACH** **UST** **U003804641**
SW **25300 DANA POINT HARBOR DR** **SWEEPS UST** **N/A**
< 1/8 **DANA POINT, CA 92629**
0.070 mi.
368 ft. **Site 2 of 2 in cluster B**

Relative:
Higher

Actual:
24 ft.

UST:
Local Agency: 30000
Facility ID: 6858

SWEEPS UST:
Status: A
Comp Number: 6858
Number: 9
Board Of Equalization: 44-016533
Ref Date: 09-30-92
Act Date: 09-15-92
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

C7 **SOUTH EAST REGIONAL RECLAMATN** **UST** **U003659704**
NE **34156 DEL OBISPO ST** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.173 mi.
915 ft. **Site 1 of 4 in cluster C**

Relative:
Higher

Actual:
31 ft.

UST:
Local Agency: 30000
Facility ID: 7760

C8
NE
1/8-1/4
0.178 mi.
939 ft.

J.B. LATHAM WASTEWATER TREATME
34152 DEL OBISPO ST
DANA POINT, CA 92629

Site 2 of 4 in cluster C

HIST UST **U001576919**
N/A

Relative:
Higher

Actual:
31 ft.

HIST UST:

Region:	STATE
Facility ID:	00000064513
Facility Type:	Other
Other Type:	TREATMENT PLANT
Total Tanks:	0001
Contact Name:	MICHAEL WILSON, CHIEF OPERATOR
Telephone:	7144961786
Owner Name:	SOUTH EAST REGIONAL RECLAMATIO
Owner Address:	25411 CABOT ROAD, SUITE 209
Owner City,St,Zip:	LAGUNA HILLS, CA 92653
Tank Num:	001
Container Num:	01
Year Installed:	1972
Tank Capacity:	00000200
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Tank Construction:	Not reported
Leak Detection:	Visual, Stock Inventor

C9
NE
1/8-1/4
0.178 mi.
939 ft.

SERRA
34152 DEL OBISPO ST
DANA POINT, CA 92629

Site 3 of 4 in cluster C

LUST **1000589882**
Cortese **N/A**
EMI

Relative:
Higher

Actual:
31 ft.

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT764
Local Case:	89UT189
Substance:	Waste Oil
Qty Leaked:	Not reported
Abate Method:	Not reported
Local Agency:	Orange
How Found:	Tank Closure
How Stopped:	Close Tank
Source:	Unknown
Cause:	Unknown
Lead Agency:	Local Agency
Case Type:	Aquifer affected
Date Found:	04/22/1987
Date Stopped:	/ /
Confirm Date:	/ /
Submit Workplan:	Not reported
Prelim Assess:	06/11/1987
Desc Pollution:	Not reported
Remed Plan:	/ /
Remed Action:	Not reported
Began Monitor:	Not reported
Release Date:	05/22/1987
Enforce Date:	Not reported
Closed Date:	5/11/90

SERRA (Continued) **1000589882**

Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 901.20
GW Depth: 4'
Beneficial Use: Municipal groundwater use
NPDES Number: Not reported
Priority: Not reported
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 34152 DEL OBISPO ST

EMI:

Year:	1987
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC
SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	8
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC
SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC

SERRA (Continued) **1000589882**

SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	9
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC
SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	16
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC
SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	16
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC
SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18.269359
Reactive Organic Gases Tons/Yr:	1.79

SERRA (Continued) **1000589882**

Carbon Monoxide Emissions Tons/Yr:	16.0111
NOX - Oxides of Nitrogen Tons/Yr:	1.706
SOX - Oxides of Sulphur Tons/Yr:	1.4192125
Particulate Matter Tons/Yr:	0.020125
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.02
Year:	2005
County Code:	30
Air Basin:	SC
Facility ID:	3866
Air District Name:	SC
SIC Code:	4952
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.355435
Reactive Organic Gases Tons/Yr:	.255190347
Carbon Monoxide Emissions Tons/Yr:	16.21302
NOX - Oxides of Nitrogen Tons/Yr:	1.11855
SOX - Oxides of Sulphur Tons/Yr:	1.429288
Particulate Matter Tons/Yr:	.10134
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.1013397

C10 **SOUTH EAST REGIONAL RECLAMATN** **LUST** **U001743088**
NE **34152 DEL OBISPO ST** **CA FID UST** **N/A**
1/8-1/4 **DANA POINT, CA 92629** **CA WDS**
0.178 mi. **SWEEPS UST**
939 ft. **Site 4 of 4 in cluster C**

Relative:
Higher

Actual:
31 ft.

LUST:

Region:	STATE
Status:	Case Closed
Case Number:	9UT764
Local Case #:	89UT189
Chemical:	Waste Oil
Qty Leaked:	0
Abate Method:	Not reported
Release Date:	1987-04-22 00:00:00
Discover Date:	1987-04-22 00:00:00
Report Date:	1990-05-11 00:00:00
Enforcement Dt:	Not reported
Review Date:	Not reported
Enter Date:	Not reported
Stop Date:	9999-09-09 00:00:00
Confirm Leak:	Not reported
Case Type:	Other ground water affected
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global Id:	T0605902609
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported

SOUTH EAST REGIONAL RECLAMATN (Continued) **U001743088**

Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported
Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: MIKE WILSON
RP Address: 34152 DEL OBISPO
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: UNA
Staff Initials: JS
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: ORANGE
Facility Id: 89UT189
Current Status: Certification (Case Closed)
Released Substance: Waste oil/Used oil
Date Closed: 05/11/1990
Case Type: Other Ground Water
Record ID: RO0001137

CA FID UST:
Facility ID: 30006561
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7144961786
Mail To: Not reported
Mailing Address: 34152 DEL OBISPO
Mailing Address 2: Not reported
Mailing City,St,Zip: DANA POINT 92629

SOUTH EAST REGIONAL RECLAMATN (Continued) **U001743088**

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

CA WDS:
Facility ID: San Diego 0000175S1
Facility Type: Municipal/Domestic - Facility that treats sewage or a mixture of predominantly sewage and other waste from districts, municipalities, communities, hospitals, schools, and publicly or privately owned systems (excluding individual subsurface leaching systems disposing of less than 1,000 gallons per day).
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CA0107417 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 9
Facility Telephone: 9494961786
Facility Contact: MIKE WILSON
Agency Name: SOCWA-SAN JUAN CREEK OCEAN O/F
Agency Address: 34156 DEL OBISPO
Agency City,St,Zip: DANA POINT 92629
Agency Contact: DAVE CARETTO
Agency Telephone: 9492345421
Agency Type: Special District (Includes districts established under general acts, sanitary districts, water districts irrigation districts, etc.)
SIC Code: 4952
SIC Code 2: Not reported
Primary Waste: Domestic Sewage combined with Industrial Waste
Primary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 13
Baseline Flow: 10
Reclamation: No reclamation requirements associated with this facility.
POTW: POTW has a local pretreatment program that has been approved by the U.S. EPA (or the regional board if the state is delegated the Federal Pretreatment Program) as being in conformance with federal prtreatment regulations [40CFR Part 403].
Treat To Water: Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Complexity: Category A - Any major NPDES facility, any non-NPDES facility (particularly those with toxic wastes) that would be a major if discharge was made to surface or ground waters, or any Class I disposal site. Includes any small-volume complex facility (particularly those with toxicwastes) with numerous discharge points, leak detection systems or ground water monitoring wells.

SOUTH EAST REGIONAL RECLAMATN (Continued) **U001743088**

Facility ID:	San Diego 0000175S1
Facility Type:	Municipal/Domestic - Facility that treats sewage or a mixture of predominantly sewage and other waste from districts, municipalities, communities, hospitals, schools, and publicly or privately owned systems (excluding individual subsurface leaching systems disposing of less than 1,000 gallons per day).
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CA0107417 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	9
Facility Telephone:	9494961786
Facility Contact:	MIKE WILSON
Agency Name:	SOCWA-SAN JUAN CREEK OCEAN O/F
Agency Address:	34156 DEL OBISPO
Agency City,St,Zip:	DANA POINT 92629
Agency Contact:	DAVE CARETTO
Agency Telephone:	9492345421
Agency Type:	Special District (Includes districts established under general acts, sanitary districts, water districts irrigation districts, etc.)
SIC Code:	4952
SIC Code 2:	Not reported
Primary Waste:	Domestic Sewage combined with Industrial Waste
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	13
Baseline Flow:	10
Reclamation:	No reclamation requirements associated with this facility.
POTW:	POTW has a local pretreatment program that has been approved by the U.S. EPA (or the regional board if the state is delegated the Federal Pretreatment Program) as being in conformance with federal prtreatment regulations [40CFR Part 403].
Treat To Water:	Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Complexity:	Category A - Any major NPDES facility, any non-NPDES facility (particularly those with toxic wastes) that would be a major if discharge was made to surface or ground waters, or any Class I disposal site. Includes any small-volume complex facility (particularly those with toxicwastes) with numerous discharge points, leak detection systems or ground water monitoring wells.

SWEEPS UST:

Status:	A
Comp Number:	7760
Number:	9
Board Of Equalization:	44-016626
Ref Date:	09-30-92
Act Date:	09-15-92
Created Date:	02-29-88

SOUTH EAST REGIONAL RECLAMATN (Continued) **U001743088**

Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	Not reported
Actv Date:	Not reported
Capacity:	Not reported
Tank Use:	Not reported
Stg:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

11
WNW
1/8-1/4
0.194 mi.
1026 ft.

ELEGANT DRY CLEANERS **RCRA-SQG** **1000232751**
34255 PACIFIC COAST HWY **FINDS** **CAD981985666**
DANA POINT, CA 92629 **DRYCLEANERS**

Relative:
Higher

Actual:
48 ft.

RCRA-SQG:

Date form received by agency:	03/31/1987
Facility name:	ELEGANT DRY CLEANERS
Facility address:	34255 PACIFIC COAST HWY DANA POINT, CA 92629
EPA ID:	CAD981985666
Mailing address:	PACIFIC COAST HWY DANA POINT, CA 92629
Contact:	ENVIRONMENTAL MANAGER
Contact address:	34255 PACIFIC COAST HWY DANA POINT, CA 92629
Contact country:	US
Contact telephone:	(714) 661-1728
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	KEVIN NGUYEN
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported

ELEGANT DRY CLEANERS (Continued) **1000232751**

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CLEANERS:

EPA Id:	CAD981985666
NAICS Code:	Not reported
NAICS Description:	Not reported
SIC Code:	Not reported
Create Date:	7/3/1987
Facility Active:	No
Inactive Date:	1/1/1995
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	34255 PACIFIC COAST HWY
Mailing Address 2:	Not reported
Mailing State:	CA
Mailing Zip:	926290000
Region Code:	4
Owner Name:	--
Owner Address:	--
Owner Address 2:	Not reported
Owner Telephone:	0000000000
Owner Fax Number:	Not reported
Contact Name:	UNDELIVERABLE PER SURVEY
Contact Address:	12/94 NW
Contact Address 2:	Not reported
Contact Telephone:	--

ELEGANT DRY CLEANERS (Continued) **1000232751**

SIC Description: Not reported

D12 **COUNTY MAINTENANCE YARD** **CA FID UST** **U002096022**
SW **34551 PUERTO PL** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.224 mi.
1181 ft. **Site 1 of 3 in cluster D**

Relative:
Higher

Actual:
67 ft.

CA FID UST:

Facility ID:	30017526
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7146617013
Mail To:	Not reported
Mailing Address:	10852 DOUGLAS RD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	DANA POINT 92629
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

D13 **DANA POINT MAINTENANCE FACILIT** **HIST UST** **U001576915**
SW **34551 PUERTO PL** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.224 mi.
1181 ft. **Site 2 of 3 in cluster D**

Relative:
Higher

Actual:
67 ft.

HIST UST:

Region:	STATE
Facility ID:	00000031624
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0003
Contact Name:	RICHARD DYER
Telephone:	7146617013
Owner Name:	COUNTY OF ORANGE ENVIRONMENTAL
Owner Address:	811 N BROADWAY P.O. BOX 4048
Owner City,St,Zip:	SANTA ANA, CA 92702
Tank Num:	001
Container Num:	#1
Year Installed:	Not reported
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	None
Tank Num:	002
Container Num:	#2

DANA POINT MAINTENANCE FACILIT (Continued) **U001576915**

Year Installed: Not reported
Tank Capacity: 00000700
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 003
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: None

D14 **COUNTY MAINTENANCE YARD** **UST** **U003783729**
SW **34551 PUERTO PL** **SWEEPS UST** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.224 mi.
1181 ft. **Site 3 of 3 in cluster D**

Relative:
Higher

Actual:
67 ft.

UST:
Local Agency: 30000
Facility ID: 6090

SWEEPS UST:
Status: A
Comp Number: 6090
Number: 9
Board Of Equalization: 44-016424
Ref Date: 09-30-92
Act Date: 09-15-92
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

E15 **SAN UAN CAPISTRANO MAIN. YARD** **LUST** **S102436380**
NE **34102 DEL OBISPO ST** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.234 mi.
1237 ft. **Site 1 of 5 in cluster E**

Relative:
Higher

Actual:
22 ft.

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1506
Local Case: 87UT229
Substance: Diesel

SAN UAN CAPISTRANO MAIN. YARD (Continued) **S102436380**

Qty Leaked:	Not reported
Abate Method:	Not reported
Local Agency:	Orange
How Found:	Other Means
How Stopped:	Not reported
Source:	Unknown
Cause:	Unknown
Lead Agency:	Local Agency
Case Type:	Soil only
Date Found:	08/22/1986
Date Stopped:	/ /
Confirm Date:	/ /
Submit Workplan:	12/15/88
Prelim Assess:	06/14/1989
Desc Pollution:	Not reported
Remed Plan:	/ /
Remed Action:	Not reported
Began Monitor:	Not reported
Release Date:	12/15/1988
Enforce Date:	Not reported
Closed Date:	10/27/89
Enforce Type:	Not reported
Pilot Program:	LOP
Basin Number:	901.20
GW Depth:	12'
Beneficial Use:	Municipal groundwater use
NPDES Number:	Not reported
Priority:	Not reported
File Dispn:	File discarded, case closed
Interim Remedial Actions:	No
Cleanup and Abatement order Number:	Not reported
Waste Discharge Requirement Number:	Not reported

E16 **COUNTY OF ORANGE EMA** **LUST** **S102428429**
NE **34102 DEL OBISPO ST** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.234 mi.
1237 ft. **Site 2 of 5 in cluster E**

Relative:
Higher

Actual:
22 ft.

LUST:

Region:	ORANGE
Facility Id:	87UT229
Current Status:	Certification (Case Closed)
Released Substance:	Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed:	10/19/1989
Case Type:	Soil Only
Record ID:	RO0001679

E17
NE
1/8-1/4
0.234 mi.
1237 ft.

ORANGE COUNTY CAPO YARD
34102 DEL OBISPO ST
DANA POINT, CA 92629

Site 3 of 5 in cluster E

FINDS **1000818866**
RCRA-NonGen **CAD983647959**

Relative:
Higher

Actual:
22 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

RCRA-NonGen:

Date form received by agency:	07/17/1997
Facility name:	ORANGE COUNTY CAPO YARD
Facility address:	34102 DEL OBISPO ST DANA POINT, CA 92629
EPA ID:	CAD983647959
Mailing address:	P O BOX 4048 SANTA ANA, CA 927024048
Contact:	CHRIS CROMPTON
Contact address:	P O BOX 4048 SANTA ANA, CA 927024048
Contact country:	US
Contact telephone:	(714) 567-6339
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	ORANGE COUNTY OF
Owner/operator address:	PO BOX 4048 SANTA ANA, CA 92702
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 834-2427
Legal status:	County
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No

ORANGE COUNTY CAPO YARD (Continued) **1000818866**

Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

E18 **SAN JUAN CAPISTRANO MAIN.** **HAZNET** **S103654109**
NE **34102 DEL OBISPO** **LUST** **N/A**
1/8-1/4 **DANA POINT, CA 92629** **Cortese**
0.234 mi.
1237 ft. **Site 4 of 5 in cluster E**

Relative:
Higher

Actual:
22 ft.

HAZNET:

Gepaid:	CAD983647959
Contact:	ORANGE COUNTY PF & RD
Telephone:	7148342457
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10852 DOUGLASS RD
Mailing City,St,Zip:	ANAHEIM, CA 928060000
Gen County:	Orange
TSD EPA ID:	CAT080010101
TSD County:	San Diego
Waste Category:	Off-specification, aged, or surplus organics
Disposal Method:	Not reported
Tons:	4.6269
Facility County:	Orange

Gepaid:	CAD983647959
Contact:	ORANGE COUNTY PF & RD
Telephone:	7148342457
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10852 DOUGLASS RD
Mailing City,St,Zip:	ANAHEIM, CA 928060000
Gen County:	Orange
TSD EPA ID:	CAT080010101
TSD County:	San Diego
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Not reported
Tons:	.4587
Facility County:	Orange

Gepaid:	CAD983647959
Contact:	ORANGE COUNTY PF & RD
Telephone:	7148342457
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10852 DOUGLASS RD
Mailing City,St,Zip:	ANAHEIM, CA 928060000
Gen County:	Orange
TSD EPA ID:	AZD049318009
TSD County:	99
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Tons:	1.3969
Facility County:	Orange

SAN JUAN CAPISTRANO MAIN. (Continued) **S103654109**

Gepaid:	CAD983647959
Contact:	ORANGE COUNTY PF & RD
Telephone:	7148342457
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10852 DOUGLASS RD
Mailing City,St,Zip:	ANAHEIM, CA 928060000
Gen County:	Orange
TSD EPA ID:	CAT080010101
TSD County:	San Diego
Waste Category:	Off-specification, aged, or surplus organics
Disposal Method:	Transfer Station
Tons:	2.9190
Facility County:	Orange

Gepaid:	CAD983647959
Contact:	ORANGE COUNTY PF & RD
Telephone:	7148342457
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10852 DOUGLASS RD
Mailing City,St,Zip:	ANAHEIM, CA 928060000
Gen County:	Orange
TSD EPA ID:	AZD049318009
TSD County:	99
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Transfer Station
Tons:	.2000
Facility County:	Orange

Click this hyperlink while viewing on your computer to access
5 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:

Region:	STATE
Status:	Case Closed
Case Number:	9UT1506
Local Case #:	87UT229
Chemical:	Diesel
Qty Leaked:	0
Abate Method:	Not reported
Release Date:	1986-08-22 00:00:00
Discover Date:	1986-08-22 00:00:00
Report Date:	1989-10-19 00:00:00
Enforcement Dt:	Not reported
Review Date:	Not reported
Enter Date:	Not reported
Stop Date:	9999-09-09 00:00:00
Confirm Leak:	Not reported
Case Type:	Soil only
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown

SAN JUAN CAPISTRANO MAIN. (Continued) **S103654109**

Global Id: T0605902390
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported
Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: DON SCHILLING
RP Address: 10852 DOUGLAS RD
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: UNA
Staff Initials: JS
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

Cortese:
Region: CORTESE
Facility Addr2: Not reported

E19 **EMA** **UST** **U003783728**
NE **34102 DEL OBISPO ST** **N/A**
1/8-1/4 **DANA POINT, CA 92629**
0.234 mi.
1237 ft. **Site 5 of 5 in cluster E**

Relative:
Higher

Actual:
22 ft.

UST:
Local Agency: 30000
Facility ID: 6089

20
NE
1/4-1/2
0.284 mi.
1500 ft.

DEL OBISPO DISPOSAL STATION #3
34052 DEL OBISPO RD. @ VICTORIA ST
DANA POINT, CA

SWF/LF **S105155554**
N/A

Relative:
Lower

Actual:
18 ft.

SWF/LF:

Region:	STATE
Facility ID:	30-CR-0102
Lat/Long:	33.46751 / -117.68368
Owner Name:	City Of Dana Point
Owner Telephone:	7142483582
Owner Address:	Not reported
Owner Address2:	33282 Golden Lantern
Owner City,St,Zip:	Dana Point, CA 92629
Operator:	Not reported
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	Not reported
Operator City,St,Zip:	Not reported
Operator's Status:	Closed
Permit Date:	Not reported
Permit Status:	Not reported
Permitted Acreage:	$0.00
Activity:	Solid Waste Disposal Site
Regulation Status:	Pre-regulations
Landuse Name:	Residential,Industrial,Commercial
GIS Source:	Map
Category:	Disposal
Unit Number:	01
Inspection Frequency:	Annual
Accepted Waste:	Not reported
Closure Date:	12/31/1958
Closure Type:	Estimated
Disposal Acreage:	$0.00
Swisnumber:	30-CR-0102
Issue & Observations:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	0
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	0
Remaining Capacity:	0
Remaining Capacity with Units:	Not reported

F21
SSW
1/4-1/2
0.329 mi.
1739 ft.

DANA POINT FUEL DOCK
34661 PUERTO PLACE
DANA POINT, CA 92629

Site 1 of 2 in cluster F

HAZNET **S105034719**
LUST **N/A**
CHMIRS
Cortese

Relative:
Lower

Actual:
6 ft.

HAZNET:

Gepaid:	CAL000160594
Contact:	JOHN VAN DIXHORN
Telephone:	9494966113
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	34661 PUERTO PL
Mailing City,St,Zip:	DANA POINT, CA 926290000
Gen County:	Orange
TSD EPA ID:	CAD099452708

DANA POINT FUEL DOCK (Continued) **S105034719**

TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: Not reported
Tons: 13.38
Facility County: Not reported

Gepaid: CAL000160594
Contact: JOHN VAN DIXHORN
Telephone: 9494966113
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 34661 PUERTO PL
Mailing City,St,Zip: DANA POINT, CA 926290000
Gen County: Orange
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.3
Facility County: Orange

Gepaid: CAL000160594
Contact: JOHN VAN DIXHORN
Telephone: 9494966113
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 34661 PUERTO PL
Mailing City,St,Zip: DANA POINT, CA 926290000
Gen County: Orange
TSD EPA ID: CAT080013352
TSD County: Orange
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Tons: 1.14
Facility County: Orange

Gepaid: CAL000160594
Contact: JOHN VAN DIXHORN
Telephone: 9494966113
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 34661 PUERTO PL
Mailing City,St,Zip: DANA POINT, CA 926290000
Gen County: Orange
TSD EPA ID: CAD099452708
TSD County: Orange
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 24.79
Facility County: Orange

Gepaid: CAL000160594
Contact: JOHN VAN DIXHORN
Telephone: 9494966113
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 34661 PUERTO PL

DANA POINT FUEL DOCK (Continued) **S105034719**

Mailing City,St,Zip: DANA POINT, CA 926290000
Gen County: Orange
TSD EPA ID: CAD028409019
TSD County: Orange
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 0.15
Facility County: Orange

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:
Region: STATE
Status: Case Closed
Case Number: 9UT3041
Local Case #: 95UT014
Chemical: 12034,800661
Qty Leaked: 0
Abate Method: Not reported
Release Date: 1995-02-21 00:00:00
Discover Date: 1995-02-21 00:00:00
Report Date: 2002-12-18 00:00:00
Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Stop Date: 9999-09-09 00:00:00
Confirm Leak: Not reported
Case Type: Surface Water
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global Id: T0605902512
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported
Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: JOHN VAN DIXHORN
RP Address: 34661 PUERTO PLACE
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *

DANA POINT FUEL DOCK (Continued) **S105034719**

MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: UNA
Staff Initials: JS
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: COMM,MAR,REC-2
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

CHMIRS:
OES Incident Number: 99-2631
OES notification: 6/22/199909:39:57 AM
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Comments: Not reported

DANA POINT FUEL DOCK (Continued) **S105034719**

Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Dana Point Harbor
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1999
Agency:	Dana Point Fuel Dock
Incident Date:	6/22/199912:00:00 AM
Admin Agency:	Orange County Emergency Managment Div
Amount:	Not reported
Contained:	No
Site Type:	Waterways
E Date:	Not reported
Substance:	Diesel
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	0
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Description:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Sheen behind the fuel dock which appears to be in the same place as a previous spill which occurred approx 2 years ago from and underground tank. RP has checked inventory levels and sumps and it appears that there has been no leak. RP is currently cVia NRC report, the caller reports that the vessel "Reel Summertime" fueled at the dock and that fuel escaped out a vent without owner knowing. The fuel dock has deployed absorbents to the water, the remaining material will dissipate naturally.Sunken vessel, spill is boomed and containedonducting a tank test. RP states that the sheen appears to be disipating.
OES Incident Number:	00-5635
OES notification:	12/1/200008:16:34 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported

DANA POINT FUEL DOCK (Continued) **S105034719**

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Dana Point Harbor
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2000
Agency:	Dana Point Harbor patrol
Incident Date:	12/1/200012:00:00 AM
Admin Agency:	Orange County Emergency Managment Div
Amount:	Not reported
Contained:	Yes
Site Type:	Ship/Harbor/Port
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	5-10
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0

DANA POINT FUEL DOCK (Continued) **S105034719**

Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Description:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Sheen behind the fuel dock which appears to be in the same place as a previous spill which occurred approx 2 years ago from and underground tank. RP has checked inventory levels and sumps and it appears that there has been no leak. RP is currently cVia NRC report, the caller reports that the vessel "Reel Summertime" fueled at the dock and that fuel escaped out a vent without owner knowing. The fuel dock has deployed absorbents to the water, the remaining material will dissipate naturally.Sunken vessel, spill is boomed and containedonducting a tank test. RP states that the sheen appears to be disipating.
OES Incident Number:	02-0684
OES notification:	2/5/200210:54:53 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Dana Point Harbor

DANA POINT FUEL DOCK (Continued) **S105034719**

Spill Site:	Not reported
Cleanup By:	Fuel Dock
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2002
Agency:	NRC
Incident Date:	2/5/200212:00:00 AM
Admin Agency:	Orange County Emergency Managment Div
Amount:	Not reported
Contained:	Yes
Site Type:	Ship/Harbor/Port
E Date:	Not reported
Substance:	Fuel Oil
Quantity Released:	Not reported
BBLS:	0
Cups:	0
CUFT:	0
Gallons:	2
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Description:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Sheen behind the fuel dock which appears to be in the same place as a previous spill which occurred approx 2 years ago from and underground tank. RP has checked inventory levels and sumps and it appears that there has been no leak. RP is currently cVia NRC report, the caller reports that the vessel "Reel Summertime" fueled at the dock and that fuel escaped out a vent without owner knowing. The fuel dock has deployed absorbents to the water, the remaining material will dissipate naturally.Sunken vessel, spill is boomed and containedonducting a tank test. RP states that the sheen appears to be disipating.

Cortese:

Region:	CORTESE
Facility Addr2:	Not reported

F22 **DANA POINT FUEL DOCK** **LUST** **U003432945**
SSW **34661 PUERTO PL** **UST** **N/A**
1/4-1/2 **DANA POINT, CA 92629** **HIST UST**
0.329 mi. **SWEEPS UST**
1739 ft. **Site 2 of 2 in cluster F**

Relative:
Lower

Actual:
6 ft.

LUST:
Region: ORANGE
Facility Id: 95UT014
Current Status: Certification (Case Closed)
Released Substance: Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed: 12/18/2002
Case Type: Surface Water
Record ID: RO0001261

Region: ORANGE
Facility Id: 95UT014
Current Status: Not reported
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 12/18/2002
Case Type: Surface Water
Record ID: RO0001261

UST:
Local Agency: 30000
Facility ID: 4453

UST:
Facility ID: FA0023972

HIST UST:
Region: STATE
Facility ID: 00000057194
Facility Type: Other
Other Type: MARINE FUELING
Total Tanks: 0006
Contact Name: REGGIE DOLL, OWNER
Telephone: 7144966113
Owner Name: DANA POINT FUEL DOCK
Owner Address: 34661 PUERTO PLACE
Owner City,St,Zip: DANA POINT, CA 92629

Tank Num: 001
Container Num: NO. 1
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Pressure Test

Tank Num: 002
Container Num: NO. 2
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported

DANA POINT FUEL DOCK (Continued) **U003432945**

Leak Detection: Pressure Test

Tank Num: 003
Container Num: NO. 3
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Pressure Test

Tank Num: 004
Container Num: NO. 4
Year Installed: 1971
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Pressure Test

Tank Num: 005
Container Num: NO. 5
Year Installed: 1971
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Pressure Test

Tank Num: 006
Container Num: NO. 6
Year Installed: 1971
Tank Capacity: 00000400
Tank Used for: WASTE
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Pressure Test

SWEEPS UST:
Status: A
Comp Number: 4453
Number: 9
Board Of Equalization: 44-016197
Ref Date: 09-30-92
Act Date: 09-15-92
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

G23 **EMBARCADERO MARINA** **LUST** **U003713572**
SW **34512 EMBARCADERO PL** **Cortese** **N/A**
1/4-1/2 **DANA POINT, CA 92629** **UST**
0.338 mi. **SWEEPS UST**
1786 ft. **Site 1 of 2 in cluster G**

Relative:
Lower

Actual:
14 ft.

LUST:
Region: ORANGE
Facility Id: 97UT001
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 09/08/2000
Case Type: Other Ground Water
Record ID: RO0000889

Cortese:
Region: CORTESE
Facility Addr2: 34512 EMBARCADERO PL

UST:
Local Agency: 30000
Facility ID: 4449

SWEEPS UST:
Status: A
Comp Number: 4449
Number: 9
Board Of Equalization: 44-016195
Ref Date: 09-30-92
Act Date: 09-15-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 30-000-004449-000003
Actv Date: Not reported
Capacity: 550
Tank Use: UNKNOWN
Stg: P
Content: Not reported
Number Of Tanks: 1

G24 **EMBARCADERO MARINA** **LUST** **S105033329**
SW **34512 EMBARCADERO PL** **N/A**
1/4-1/2 **DANA POINT, CA 92629**
0.338 mi.
1786 ft. **Site 2 of 2 in cluster G**

Relative:
Lower

Actual:
14 ft.

LUST:
Region: STATE
Status: Case Closed
Case Number: 9UT3406
Local Case #: 97UT001
Chemical: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Release Date: 1996-12-16 00:00:00
Discover Date: 1996-12-16 00:00:00
Report Date: 2000-09-08 00:00:00

EMBARCADERO MARINA (Continued) **S105033329**

Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Stop Date: 9999-09-09 00:00:00
Confirm Leak: Not reported
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global Id: T0605902542
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported
Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: BRIAN DUNN
RP Address: P O BOX 4048
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff: UNA
Staff Initials: JS
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

H25 **CANNAN-BART, INC** **LUST** **S101299413**
ENE **25742 VICTORIA BLVD** **Cortese** **N/A**
1/4-1/2 **CAPISTRANO BEACH, CA 92624**
0.402 mi.
2120 ft. **Site 1 of 2 in cluster H**

Relative:
Lower

Actual:
14 ft.

LUST REG 9:

Region:	9
Status:	Remedial action (cleanup) Underway
Case Number:	9UT694
Local Case:	86UT47
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Remove Free Product - remove floating product from water table
Local Agency:	Orange
How Found:	Not reported
How Stopped:	Close Tank
Source:	Tank
Cause:	Corrosion
Lead Agency:	Local Agency
Case Type:	Aquifer affected
Date Found:	/ /
Date Stopped:	/ /
Confirm Date:	/ /
Submit Workplan:	Not reported
Prelim Assess:	06/11/1987
Desc Pollution:	Not reported
Remed Plan:	09/09/1992
Remed Action:	10/16/93
Began Monitor:	Not reported
Release Date:	01/01/1986
Enforce Date:	Not reported
Closed Date:	Not reported
Enforce Type:	Not reported
Pilot Program:	LOP
Basin Number:	901.27
GW Depth:	11’
Beneficial Use:	Municipal groundwater use
NPDES Number:	Not reported
Priority:	Not reported
File Dispn:	Not reported
Interim Remedial Actions:	Yes
Cleanup and Abatement order Number:	Not reported
Waste Discharge Requirement Number:	Not reported

Cortese:

Region:	CORTESE
Facility Addr2:	25742 VICTORIA BLVD

H26 **CANNON BART INC** **LUST** **S102426296**
ENE **25742 VICTORIA BLVD** **N/A**
1/4-1/2 **DANA POINT, CA 92624**
0.402 mi.
2120 ft. **Site 2 of 2 in cluster H**

Relative:
Lower

Actual:
14 ft.

LUST:

Region:	STATE
Status:	Case Closed
Case Number:	9UT694

CANNON BART INC (Continued) **S102426296**

Local Case #:	86UT047
Chemical:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Release Date:	1986-04-28 00:00:00
Discover Date:	1986-04-11 00:00:00
Report Date:	2005-05-09 00:00:00
Enforcement Dt:	Not reported
Review Date:	Not reported
Enter Date:	Not reported
Stop Date:	9999-09-09 00:00:00
Confirm Leak:	Not reported
Case Type:	Other ground water affected
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	CLOS
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global Id:	T0605902604
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	1994-05-23 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	30
Org Name:	Not reported
Reg Board:	San Diego Region
Contact Person:	Not reported
Responsible Party:	JAMES JENNISON
RP Address:	116 NORTH SANTA FE STREET
Interim:	Not reported
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE and MTBE detected
Staff:	UNA
Staff Initials:	JS
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Operator:	Not reported
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0

CANNON BART INC (Continued) **S102426296**

Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: ORANGE
Facility Id: 86UT047
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 05/09/2005
Case Type: Other Ground Water
Record ID: RO0001921

---

27 **THRIFTY OIL S S #390** **LUST** **S105791064**
ESE **34306 COAST** **N/A**
1/4-1/2 **DANA POINT, CA 92629**
0.403 mi.
2127 ft.

Relative:
Equal

Actual:
20 ft.

LUST:
Region: STATE
Status: Case Closed
Case Number: 9UT828
Local Case #: 87UT214
Chemical: 12035,800661
Qty Leaked: 0
Abate Method: Not reported
Release Date: 1987-10-19 00:00:00
Discover Date: 1987-10-19 00:00:00
Report Date: 1996-01-04 00:00:00
Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Stop Date: 9999-09-09 00:00:00
Confirm Leak: Not reported
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global Id: T0605902615
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported

THRIFTY OIL S S #390 (Continued) **S105791064**

Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: PETER D'AMICO
RP Address: 10000 LAKEWOOD BLVD.
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: UNA
Staff Initials: JS
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

I28 **CAPISTRANO REALTY** **LUST** **S102426308**
East **34656 PACIFIC COAST HWY** **N/A**
1/4-1/2 **CAPISTRANO BEACH, CA 92624**
0.410 mi.
2164 ft. **Site 1 of 2 in cluster I**

Relative:
Higher

Actual:
41 ft.

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1224
Local Case: 88UT196
Substance: Waste Oil
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: Orange
How Found: Not reported
How Stopped: Not reported
Source: Not reported
Cause: Not reported
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 10/19/1988
Date Stopped: / /
Confirm Date: / /
Submit Workplan: 12/2/88
Prelim Assess: 03/01/1989
Desc Pollution: 8/14/89
Remed Plan: / /
Remed Action: Not reported
Began Monitor: 2/15/91
Release Date: 10/19/1988

CAPISTRANO REALTY (Continued) **S102426308**

Enforce Date: 7/9/90
Closed Date: 1/2/92
Enforce Type: SEL
Pilot Program: LOP
Basin Number: 901.30
GW Depth: 13'
Beneficial Use: NBNOC
NPDES Number: Not reported
Priority: Not reported
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

I29 **CAPISTRANO REALTY** **LUST** **U003778685**
East **34656 PACIFIC COAST HWY** **Cortese** **N/A**
1/4-1/2 **CAPISTRANO BEACH, CA 92624** **UST**
0.410 mi.
2164 ft. **Site 2 of 2 in cluster I**

Relative:
Higher

Actual:
41 ft.

LUST:
Region: STATE
Status: Pollution Characterization
Case Number: 9UT1224
Local Case #: 88UT196
Chemical: 12035,800661
Qty Leaked: 0
Abate Method: Not reported
Release Date: 1988-11-29 00:00:00
Discover Date: 1988-10-19 00:00:00
Report Date: Not reported
Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Stop Date: 9999-09-09 00:00:00
Confirm Leak: Not reported
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: Not reported
Funding: SEL
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global Id: T0605902371
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: 1989-03-10 00:00:00
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported

CAPISTRANO REALTY (Continued) **U003778685**

Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: RALPH PARKER
RP Address: 47201 1-10 SERVICE ROAD, SUITE 403
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: UNA
Staff Initials: SK
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: AGR
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: ORANGE
Facility Id: 88UT196
Current Status: 5C
Released Substance: Waste oil/Used oil
Date Closed: Not reported
Case Type: Other Ground Water
Record ID: RO0001087

Region: ORANGE
Facility Id: 88UT196
Current Status: Not reported
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: Not reported
Case Type: Other Ground Water
Record ID: RO0001087

Cortese:
Region: CORTESE
Facility Addr2: 34656 PACIFIC COAST HWY

UST:
Local Agency: 30000
Facility ID: 10190

J30 **SERRA LUMBER CO.** **LUST** **S102436685**
ENE **25802 VICTORIA BLVD** **Cortese** **N/A**
1/4-1/2 **CAPISTRANO BEACH, CA 92629**
0.473 mi.
2498 ft. **Site 1 of 3 in cluster J**

Relative:
Higher

Actual:
22 ft.

LUST:

Region:	STATE
Status:	Case Closed
Case Number:	9UT1626
Local Case #:	90UT050
Chemical:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Release Date:	1990-02-14 00:00:00
Discover Date:	1990-02-14 00:00:00
Report Date:	1991-02-28 00:00:00
Enforcement Dt:	Not reported
Review Date:	Not reported
Enter Date:	Not reported
Stop Date:	9999-09-09 00:00:00
Confirm Leak:	Not reported
Case Type:	Soil only
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global Id:	T0605902400
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	30
Org Name:	Not reported
Reg Board:	San Diego Region
Contact Person:	Not reported
Responsible Party:	NORM CLOW
RP Address:	25802 VICTORIA BLVD
Interim:	Not reported
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff:	UNA
Staff Initials:	JS
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported

SERRA LUMBER CO. (Continued) **S102436685**

Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

Region: STATE
Status: Case Closed
Case Number: 9UT1696
Local Case #: 90UT155
Chemical: Diesel
Qty Leaked: 0
Abate Method: Not reported
Release Date: 1990-05-16 00:00:00
Discover Date: 1990-06-13 00:00:00
Report Date: 1990-10-23 00:00:00
Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Stop Date: 9999-09-09 00:00:00
Confirm Leak: Not reported
Case Type: Soil only
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Unknown
Global Id: T0605902416
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported
Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: JOHN GROTY
RP Address: 1116 SAN JOSE AVE
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0

SERRA LUMBER CO. (Continued) **S102436685**

MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: UNA
Staff Initials: JS
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1626
Local Case: 90UT50
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: Orange
How Found: Not reported
How Stopped: Not reported
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 02/14/1990
Date Stopped: / /
Confirm Date: / /
Submit Workplan: 3/14/90
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 03/14/1990
Enforce Date: Not reported
Closed Date: 2/28/91
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 901.14
GW Depth: Not reported
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: Not reported
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SERRA LUMBER CO. (Continued) **S102436685**

Region: 9
Status: Case Closed
Case Number: 9UT1696
Local Case: 90UT155
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: Orange
How Found: Not reported
How Stopped: Not reported
Source: Not reported
Cause: Not reported
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 05/16/1990
Date Stopped: / /
Confirm Date: / /
Submit Workplan: 6/20/90
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 05/16/1990
Enforce Date: Not reported
Closed Date: 10/23/90
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 901.14
GW Depth: Not reported
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Not reported
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25802 VICTORIA BLVD

Region: CORTESE
Facility Addr2: 25802 VICTORIA BLVD

J31 **SERRA LUMBER COMPANY** **LUST U003778703**
ENE **25802 VICTORIA BLVD** **UST N/A**
1/4-1/2 **CAPISTRANO BEACH, CA 92624**
0.473 mi.
2498 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
22 ft.

LUST:
Region: ORANGE
Facility Id: 90UT050
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 02/28/1991

SERRA LUMBER COMPANY (Continued) **U003778703**

Case Type: Soil Only
Record ID: RO0002090

UST:
Local Agency: 30000
Facility ID: 10251

J32 **JOHN GROTY/SERRA LUMBER** **LUST** **S103866846**
ENE **25802 VICTORIA BLVD** **N/A**
1/4-1/2 **DANA POINT, CA 92624**
0.473 mi.
2498 ft. **Site 3 of 3 in cluster J**

Relative:
Higher

Actual:
22 ft.

LUST:
Region: ORANGE
Facility Id: 90UT155
Current Status: Certification (Case Closed)
Released Substance: Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed: 10/23/1990
Case Type: Soil Only
Record ID: RO0000744

---

33 **FORMER EXXON STATION 7-4816** **LUST** **S103723417**
East **34295 DOHENY PARK RD** **Cortese** **N/A**
1/4-1/2 **CAPISTRANO BEACH, CA 92624**
0.495 mi.
2614 ft.

Relative:
Higher

Actual:
40 ft.

LUST:
Region: STATE
Status: Pollution Characterization
Case Number: 9UT3830
Local Case #: 99UT010
Chemical: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Release Date: 1999-01-11 00:00:00
Discover Date: 1996-02-01 00:00:00
Report Date: Not reported
Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Stop Date: 9999-09-09 00:00:00
Confirm Leak: Not reported
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: Not reported
Funding: SEL
How Discovered: SA
How Stopped: Other Means
Leak Cause: Unknown
Leak Source: Unknown
Global Id: T0605902575
Workplan: Not reported
Prelim Assess: 1996-02-01 00:00:00
Pollution Char: 1997-08-27 00:00:00

FORMER EXXON STATION 7-4816 (Continued) **S103723417**

Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 30
Org Name: Not reported
Reg Board: San Diego Region
Contact Person: Not reported
Responsible Party: MARLA GUENSLER
RP Address: 3700 WEST 190TH STREET, TPT-2-7
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: UNA
Staff Initials: DB
Lead Agency: Local Agency
Local Agency: 30000L
Hydr Basin #: Not reported
Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: ORANGE
Facility Id: 99UT010
Current Status: 5C
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: Not reported
Case Type: Other Ground Water
Record ID: RO0001273

LUST REG 9:
Region: 9
Status: Preliminary site assessment workplan submitted
Case Number: 9UT3830
Local Case: 99UT10
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: Orange
How Found: Other Means

FORMER EXXON STATION 7-4816 (Continued) **S103723417**

How Stopped: Other Means
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 02/01/1996
Date Stopped: 02/01/1996
Confirm Date: / /
Submit Workplan: 2/18/99
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 02/18/1999
Enforce Date: Not reported
Closed Date: Not reported
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 901.20
GW Depth: Not reported
Beneficial Use: MUNBU
NPDES Number: Not reported
Priority: Medium priority
File Dispn: Administratively opened on database, however no file physically exists
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Cortese:
Region: CORTESE
Facility Addr2: Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CAPISTRANO BEACH	U001576756	BART'S IRON	VICTORIA	92624	HIST UST
DANA POINT	S106797601	SAN JUAN CREEK PROPERTY	34500 BLK-WEST OF DOHENY PARK RD	92624	ENVIROSTOR
DANA POINT	1006828988	DEL OBISPO DISPOSAL STATION #3	SE CORNER OF DEL OBISPO RD.& V	92629	FINDS
DANA POINT	S109149069	PACIFIC SIGN CENTER (MWK CORP DBA: PACIFIC SIGN CE	24422 DEL PRADO STE 2	92629	DRYCLEANERS
DANA POINT	U003966298	CONOCOPHILLIPS #257329	34306 PACIFIC COAST HWY STE B	92629	UST
DANA POINT	S106925146	DANA POINT UNOCAL #7329	34306 PACIFIC COAST HWY B	92629	SWEEPS UST
DANA POINT	S106661322	PACIFIC CLEANERS	34098 PACIFIC COAST HWY STE#A	92629	HAZNET, DRYCLEANERS
DANA POINT	S108985736	PRIMA DESHECHA TRASH REMOVAL GRANT 2136	PAIFIC COAST HWY / CAMINO CAPISTRANO		SWF/LF
DANA POINT	U003940941	OR CO FIRE STATION #30	23831 STONEHILL DR # 30	92629	UST
NIPTON	1003879943	NIPTON UNAUTHORIZED LANDFILL	1 MI NW OF NIPTON	92624	CERC-NFRAP
SOUTH LAGUNA BEACH	S102812859	UNOCAL SERVICE STATION #5434	32842 PCH HWY	92629	HAZNET

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34

Source: EPA
Telephone: N/A
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34

Source: EPA
Telephone: N/A
Last EDR Contact: 08/27/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 05/06/2008
Date Made Active in Reports: 06/09/2008
Number of Days to Update: 34

Source: EPA
Telephone: N/A
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 34

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 07/22/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/03/2007
Date Data Arrived at EDR: 12/06/2007
Date Made Active in Reports: 02/20/2008
Number of Days to Update: 76

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 06/17/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 06/13/2008
Date Data Arrived at EDR: 06/27/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/25/2008
Date Data Arrived at EDR: 06/30/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 56

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 05/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/21/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 05/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/21/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 05/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/21/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 05/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/21/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 05/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/21/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/23/2008
Date Data Arrived at EDR: 07/29/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/23/2008
Date Data Arrived at EDR: 07/29/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 01/23/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 54

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/25/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 07/15/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 41

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/15/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 72

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/29/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 12/28/2007
Number of Days to Update: 25

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/27/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 04/30/2008
Date Made Active in Reports: 05/30/2008
Number of Days to Update: 30

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 07/15/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 08/08/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 08/31/2007
Date Made Active in Reports: 10/11/2007
Number of Days to Update: 41

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/05/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 06/09/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 04/25/2008
Date Data Arrived at EDR: 06/12/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 74

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/18/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 45

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 07/13/2007
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 03/25/2008
Date Data Arrived at EDR: 04/17/2008
Date Made Active in Reports: 05/15/2008
Number of Days to Update: 28

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/28/2008
Date Data Arrived at EDR: 06/25/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 61

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/25/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 08/11/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/12/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 38

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 07/12/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 38

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 59
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/04/2007
Date Data Arrived at EDR: 02/07/2008
Date Made Active in Reports: 03/17/2008
Number of Days to Update: 39
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 08/07/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/08/2008
Date Data Arrived at EDR: 08/05/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 20
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/29/2008
Date Data Arrived at EDR: 07/31/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 25
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/31/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 47

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/06/2007
Date Made Active in Reports: 04/13/2007
Number of Days to Update: 38

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Biennially

SCRD DRYCLEANERS: State Coalition for Redediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 05/14/2008
Date Data Arrived at EDR: 05/28/2008
Date Made Active in Reports: 08/25/2008
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Varies

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/25/2008
Date Data Arrived at EDR: 08/27/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/27/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/09/2008
Date Data Arrived at EDR: 06/11/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 9

Source: Integrated Waste Management Board
Telephone: 916-341-6320
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 05/29/2001
Date Made Active in Reports: 07/26/2001
Number of Days to Update: 58

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/10/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 07/10/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/03/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 20

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 07/11/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 08/11/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/22/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 07/03/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 20

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 07/11/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 08/11/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Annually

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/10/2008
Date Data Arrived at EDR: 07/10/2008
Date Made Active in Reports: 07/25/2008
Number of Days to Update: 15

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 07/10/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/23/2008
Date Data Arrived at EDR: 06/23/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 9

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 11/01/2007
Date Data Arrived at EDR: 11/27/2007
Date Made Active in Reports: 02/14/2008
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/04/2008
Date Data Arrived at EDR: 08/08/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 26

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Varies

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/09/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/30/2008
Date Data Arrived at EDR: 06/30/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 31

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/25/2008
Date Data Arrived at EDR: 08/27/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/27/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/05/2008
Date Data Arrived at EDR: 08/05/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 29

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 07/03/2008
Next Scheduled EDR Contact: 08/11/2008
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 02/26/2008
Date Data Arrived at EDR: 04/23/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 07/25/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 14

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 09/08/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/25/2008
Date Data Arrived at EDR: 08/27/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/27/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 10/04/2007
Date Made Active in Reports: 11/07/2007
Number of Days to Update: 34

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 08/08/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 23

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 04/18/2008
Next Scheduled EDR Contact: 07/14/2008
Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 07/15/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 13

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 09/08/2008
Next Scheduled EDR Contact: 12/08/2008
Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 08/25/2008
Date Data Arrived at EDR: 08/27/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/27/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 08/08/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/28/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 59

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/17/2008
Date Data Arrived at EDR: 03/27/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 40

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/17/2008
Date Data Arrived at EDR: 03/27/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 40
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 03/12/2008
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 6
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 07/11/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 28
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/30/2008
Date Data Arrived at EDR: 05/30/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 70
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 06/16/2008
Date Data Arrived at EDR: 06/16/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 53
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
A listing of underground storage tank locations on Indian Land.

Date of Government Version: 03/12/2008
Date Data Arrived at EDR: 03/14/2008
Date Made Active in Reports: 03/20/2008
Number of Days to Update: 6
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 03/17/2008
Date Data Arrived at EDR: 03/27/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 40
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 12/21/2007
Date Data Arrived at EDR: 12/21/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 34

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 06/16/2008
Date Data Arrived at EDR: 06/16/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 53

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/14/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 21

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 05/28/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 59

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 07/11/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
No description is available for this data

Date of Government Version: 05/30/2008
Date Data Arrived at EDR: 06/27/2008
Date Made Active in Reports: 08/08/2008
Number of Days to Update: 42

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 08/21/2008
Date Data Arrived at EDR: 08/22/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/20/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 08/21/2008
Date Data Arrived at EDR: 08/22/2008
Date Made Active in Reports: 08/29/2008
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/20/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/03/2008
Date Data Arrived at EDR: 06/05/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 15

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 08/07/2008
Date Data Arrived at EDR: 08/08/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 26

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 08/04/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/30/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 08/11/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 08/12/2008
Date Data Arrived at EDR: 08/22/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 12

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 08/13/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/01/2008
Date Data Arrived at EDR: 03/20/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 25

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 09/08/2008
Next Scheduled EDR Contact: 12/08/2008
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/14/2008
Date Data Arrived at EDR: 04/10/2008
Date Made Active in Reports: 05/06/2008
Number of Days to Update: 26

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 08/11/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 22

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/26/2008
Date Data Arrived at EDR: 02/27/2008
Date Made Active in Reports: 03/14/2008
Number of Days to Update: 16

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 08/25/2008
Next Scheduled EDR Contact: 11/10/2008
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 05/07/2008
Date Data Arrived at EDR: 05/27/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 36

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/08/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 7

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 09/04/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/16/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 4

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 09/04/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 07/14/2008
Number of Days to Update: 31
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 09/04/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 07/23/2007
Date Data Arrived at EDR: 07/23/2007
Date Made Active in Reports: 08/09/2007
Number of Days to Update: 17
Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/15/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 13
Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/02/2008
Date Data Arrived at EDR: 07/29/2008
Date Made Active in Reports: 08/29/2008
Number of Days to Update: 31
Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Contaminated Sites
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/08/2008
Date Data Arrived at EDR: 08/08/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 26
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/08/2008
Date Data Arrived at EDR: 08/08/2008
Date Made Active in Reports: 09/03/2008
Number of Days to Update: 26
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/23/2008
Date Data Arrived at EDR: 06/23/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 38

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005
Date Data Arrived at EDR: 05/18/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 29

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 07/29/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/2007
Date Data Arrived at EDR: 02/05/2008
Date Made Active in Reports: 02/14/2008
Number of Days to Update: 9

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 06/04/2008
Date Data Arrived at EDR: 07/25/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 6

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 07/03/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 17

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 07/14/2008
Number of Days to Update: 41
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/12/2008
Date Data Arrived at EDR: 06/13/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 19
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 07/14/2008
Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/18/2008
Date Data Arrived at EDR: 06/18/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 2
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 07/10/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 20
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 07/17/2008
Date Data Arrived at EDR: 07/18/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 07/09/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Varies

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/06/2008
Date Data Arrived at EDR: 06/10/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 10

Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 09/02/2008
Next Scheduled EDR Contact: 12/01/2008
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/23/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2008
Date Data Arrived at EDR: 07/03/2008
Date Made Active in Reports: 07/25/2008
Number of Days to Update: 22

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/23/2008
Next Scheduled EDR Contact: 09/22/2008
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 07/21/2008
Next Scheduled EDR Contact: 10/20/2008
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/04/2007
Date Data Arrived at EDR: 05/04/2007
Date Made Active in Reports: 05/24/2007
Number of Days to Update: 20

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/30/2008
Next Scheduled EDR Contact: 09/29/2008
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2007
Date Data Arrived at EDR: 08/29/2007
Date Made Active in Reports: 09/26/2007
Number of Days to Update: 28
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/18/2008
Next Scheduled EDR Contact: 11/17/2008
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/11/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 06/27/2008
Date Data Arrived at EDR: 07/11/2008
Date Made Active in Reports: 07/25/2008
Number of Days to Update: 14
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/11/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 05/13/2008
Date Data Arrived at EDR: 05/30/2008
Date Made Active in Reports: 07/02/2008
Number of Days to Update: 33
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/28/2008
Next Scheduled EDR Contact: 07/14/2008
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 06/15/2007
Date Made Active in Reports: 08/20/2007
Number of Days to Update: 66
Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/13/2008
Next Scheduled EDR Contact: 09/08/2008
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 09/30/2007
Date Data Arrived at EDR: 12/04/2007
Date Made Active in Reports: 12/31/2007
Number of Days to Update: 27

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 08/08/2008
Next Scheduled EDR Contact: 11/03/2008
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/27/2008
Date Data Arrived at EDR: 05/29/2008
Date Made Active in Reports: 07/10/2008
Number of Days to Update: 42

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/28/2008
Next Scheduled EDR Contact: 11/24/2008
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 12/21/2007
Date Made Active in Reports: 01/10/2008
Number of Days to Update: 20

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 09/08/2008
Next Scheduled EDR Contact: 12/08/2008
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 06/03/2008
Date Made Active in Reports: 08/07/2008
Number of Days to Update: 65

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/16/2008
Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/22/2008
Date Made Active in Reports: 09/08/2008
Number of Days to Update: 17

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 08/22/2008
Next Scheduled EDR Contact: 10/06/2008
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

FORMER SERVICE STATION PROPERTY
34311 PACIFIC COAST HIGHWAY
DANA POINT, CA 92629

TARGET PROPERTY COORDINATES

Latitude (North):	33.46478 - 33° 27' 53.2''
Longitude (West):	117.68737 - 117° 41' 14.5''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	436125.5
UTM Y (Meters):	3702833.0
Elevation:	20 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33117-D6 DANA POINT, CA
Most Recent Revision:	1975

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

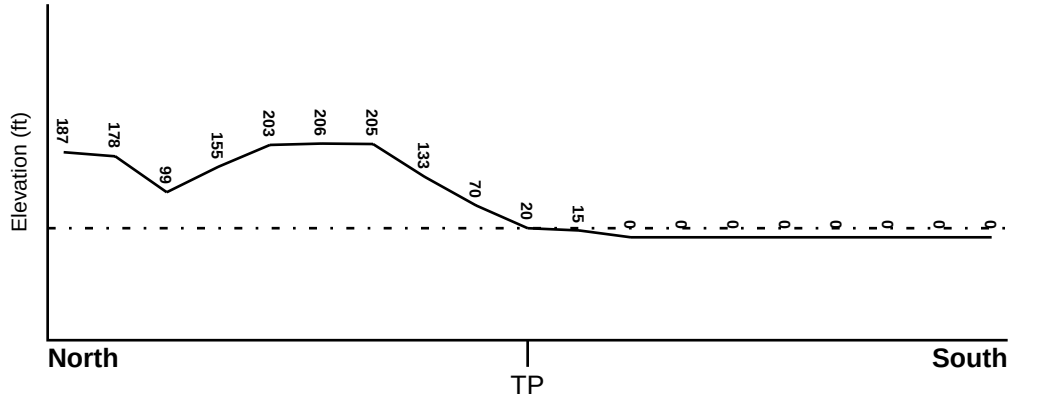
TOPOGRAPHIC INFORMATION

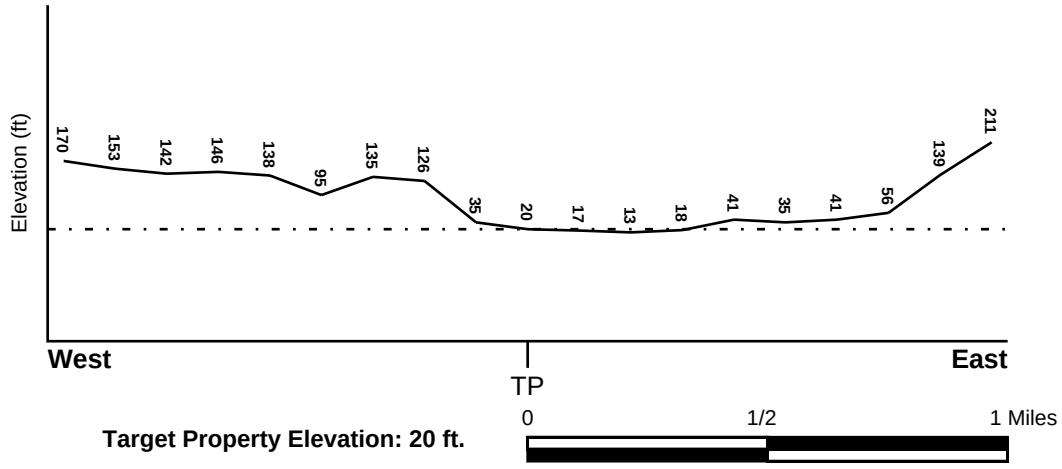
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 20 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
ORANGE, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06059C0078E

Additional Panels in search area: 06059C0075F
06059C0074E

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
DANA POINT	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

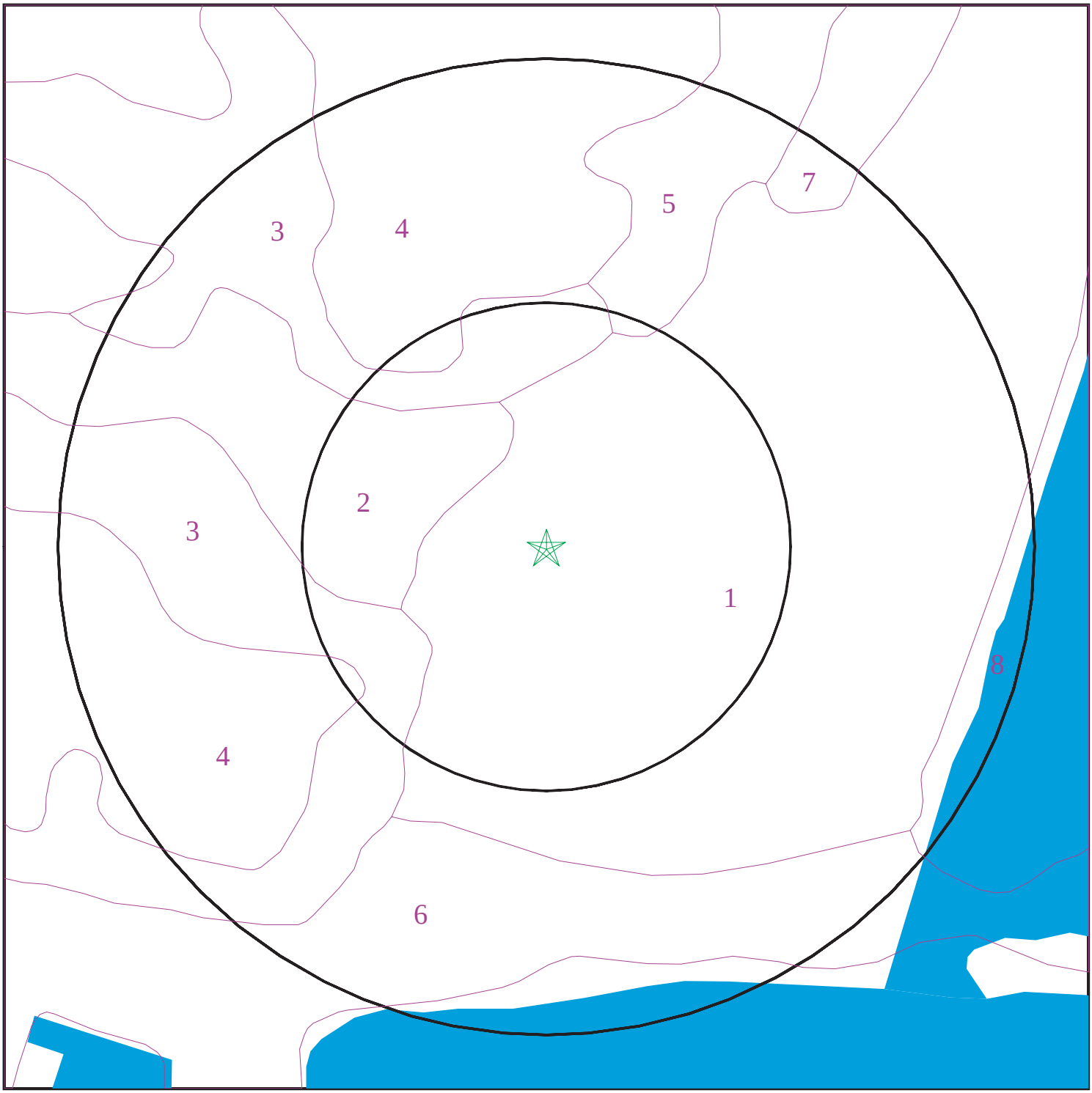
Era:	Cenozoic
System:	Tertiary
Series:	Miocene
Code:	Tm *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 2312160.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Former Service Station Property	CLIENT:	URS Corporation
ADDRESS:	34311 Pacific Coast Highway Dana Point CA 92629	CONTACT:	Janet Tentler
LAT/LONG:	33.4648 / 117.6874	INQUIRY #:	2312160.2s
		DATE:	September 08, 2008 4:40 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: METZ

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6
2	16 inches	62 inches	stratified sand to fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: CORRALITOS

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
2	9 inches	59 inches	stratified sand to loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6

Soil Map ID: 3

Soil Component Name: CIENEBA

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:
2	7 inches	11 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:

Soil Map ID: 4

Soil Component Name: MYFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	11 inches	18 inches	sandy clay	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1
3	18 inches	27 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1
4	27 inches	70 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1
5	70 inches	79 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 6.1

Soil Map ID: 5

Soil Component Name: CALLEGUAS

Soil Surface Texture: clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:
2	14 inches	18 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1.4 Min: 0	Max: Min:

Soil Map ID: 6

Soil Component Name: BEACHES

Soil Surface Texture: sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 92 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sand	Not reported	Not reported	Max: 141 Min: 42	Max: 7.8 Min: 5.1
2	5 inches	59 inches	coarse sand	Not reported	Not reported	Max: 141 Min: 42	Max: 7.8 Min: 5.1

Soil Map ID: 7

Soil Component Name: SORRENTO

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	clay loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9
2	11 inches	61 inches	silty clay loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9
3	61 inches	72 inches	stratified loamy fine sand to silt loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 8

Soil Component Name: RIVERWASH

Soil Surface Texture: sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: Min:
2	5 inches	59 inches	stratified coarse sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
4	CA3010055	1/4 - 1/2 Mile ESE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	8661	1/8 - 1/4 Mile NE
A2	8660	1/8 - 1/4 Mile NE
A3	8659	1/8 - 1/4 Mile NE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)		DISTANCE FROM TP (Miles)	
1/8 - 1/4 Mile	ENE		

PHYSICAL SETTING SOURCE MAP - 2312160.2s

0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

N

SITE NAME:	Former Service Station Property	CLIENT:	URS Corporation
ADDRESS:	34311 Pacific Coast Highway Dana Point CA 92629	CONTACT:	Janet Tentler
LAT/LONG:	33.4648 / 117.6874	INQUIRY #:	2312160.2s
		DATE:	September 08, 2008 4:40 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
NE **CA WELLS** **8661**
1/8 - 1/4 Mile
Lower

Water System Information:

Prime Station Code:	08S/08W-23A07 S	User ID:	TEE
FRDS Number:	3010055002	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	332800.0 1174100.0	Precision:	Undefined
Source Name:	WELL 07 - DESTROYED		
System Number:	3010055		
System Name:	CAPISTRANO BEACH CWD		
Organization That Operates System:			
	BOX 2515		
	CAPISTRANO BEACH 92624		
Pop Served:	22766	Connections:	7133
Area Served:	CAPISTRANO,DANA PT.		

A2
NE **CA WELLS** **8660**
1/8 - 1/4 Mile
Lower

Water System Information:

Prime Station Code:	08S/08W-23A04 S	User ID:	TEE
FRDS Number:	3010055001	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	332800.0 1174100.0	Precision:	Undefined
Source Name:	WELL 04 - DESTROYED		
System Number:	3010055		
System Name:	CAPISTRANO BEACH CWD		
Organization That Operates System:			
	BOX 2515		
	CAPISTRANO BEACH 92624		
Pop Served:	22766	Connections:	7133
Area Served:	CAPISTRANO,DANA PT.		

A3
NE **CA WELLS** **8659**
1/8 - 1/4 Mile
Lower

Water System Information:

Prime Station Code:	08S/08W-14Q01 S	User ID:	TEE
FRDS Number:	3010055003	County:	Orange
District Number:	08	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Destroyed
Source Lat/Long:	332800.0 1174100.0	Precision:	Undefined
Source Name:	WELL 07 - DESTROYED		

System Number: 3010055
System Name: CAPISTRANO BEACH CWD
Organization That Operates System:
BOX 2515
CAPISTRANO BEACH 92624
Pop Served: 22766 Connections: 7133
Area Served: CAPISTRANO,DANA PT.

4
ESE **FRDS PWS** **CA3010055**
1/4 - 1/2 Mile
Higher

PWS ID: CA3010055 PWS Status: Not Reported
Date Initiated: Not Reported Date Deactivated: Not Reported
PWS Name: CAPISTRANO BEACH WD
CAPISTRANO BEACH, CA 92624

Addressee / Facility: Not Reported

Facility Latitude: 33 27 48 Facility Longitude: 117 40 41
City Served: CAPISTRANO,DANA
Treatment Class: Treated Population: 22766

Violations information not reported.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

ENE
1/8 - 1/4 Mile | **OIL_GAS** | **CAOG40000008769**

Apinumber:	25901223	Operator:	Union Oil Co. of California
Lease:	Vaciadero Fee Core Hole	Well no:	5
Field:	ORANGE COUNTY	Cagasoil m2 area:	Not Reported
Map:	W1-4		
Status:	Plugged and abandoned-dry hole		
Source:	hud		
Latitude:	33.466324		
Longitude:	-117.683131		
Td:	3200		
Sec:	23		
Twn:	8S	Rge:	8W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/12/1968 00:00:00
Abanddate:	12/30/1899 00:00:00	Comments:	Not Reported
District:	1	Site id:	CAOG40000008769

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
92629	14	0	0.00

Federal EPA Radon Zone for ORANGE County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for ORANGE COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.763 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

APPENDIX C
HISTORICAL AERIAL PHOTOGRAPHS

Former Service Station Property
34311 Pacific Coast Highway
Dana Point, CA 92629

Inquiry Number: 2312160.5
September 08, 2008

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

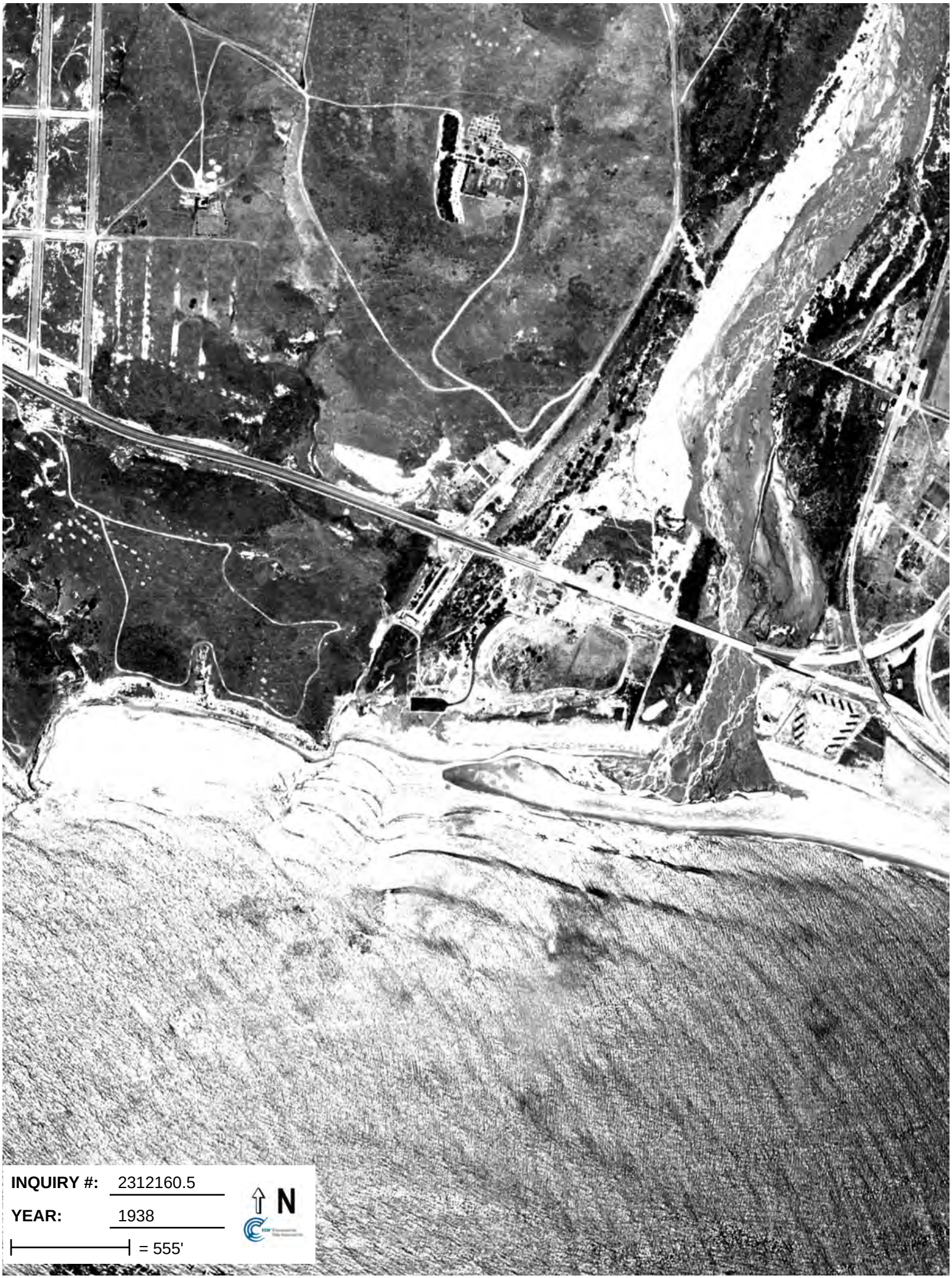
Aerial Photography September 08, 2008

Target Property:

34311 Pacific Coast Highway

Dana Point, CA 92629

Year	***Scale***	***Details***	***Source***
1938	Aerial Photograph. Scale: 1"=555'	Flight Year: 1938 Best Copy Available from original source	Laval
1946	Aerial Photograph. Scale: 1"=655'	Flight Year: 1946	Jack Ammann
1952	Aerial Photograph. Scale: 1"=555'	Flight Year: 1952	Pacific Air
1968	Aerial Photograph. Scale: 1"=480'	Flight Year: 1968	Teledyne
1977	Aerial Photograph. Scale: 1"=666'	Flight Year: 1977	Teledyne
1990	Aerial Photograph. Scale: 1"=666'	Flight Year: 1990	USGS
1994	Aerial Photograph. Scale: 1"=666'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=666'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=485'	Flight Year: 2005	EDR


INQUIRY #: 2312160.5
YEAR: 1938
= 555'
N


INQUIRY #: 2312160.5
YEAR: 1946
= 655'
N


INQUIRY #: 2312160.5
YEAR: 1952
= 555'
N


INQUIRY #: 2312160.5
YEAR: 1968
= 480'
N


INQUIRY #: 2312160.5
YEAR: 1977
= 666'
N

INQUIRY #: 2312160.5

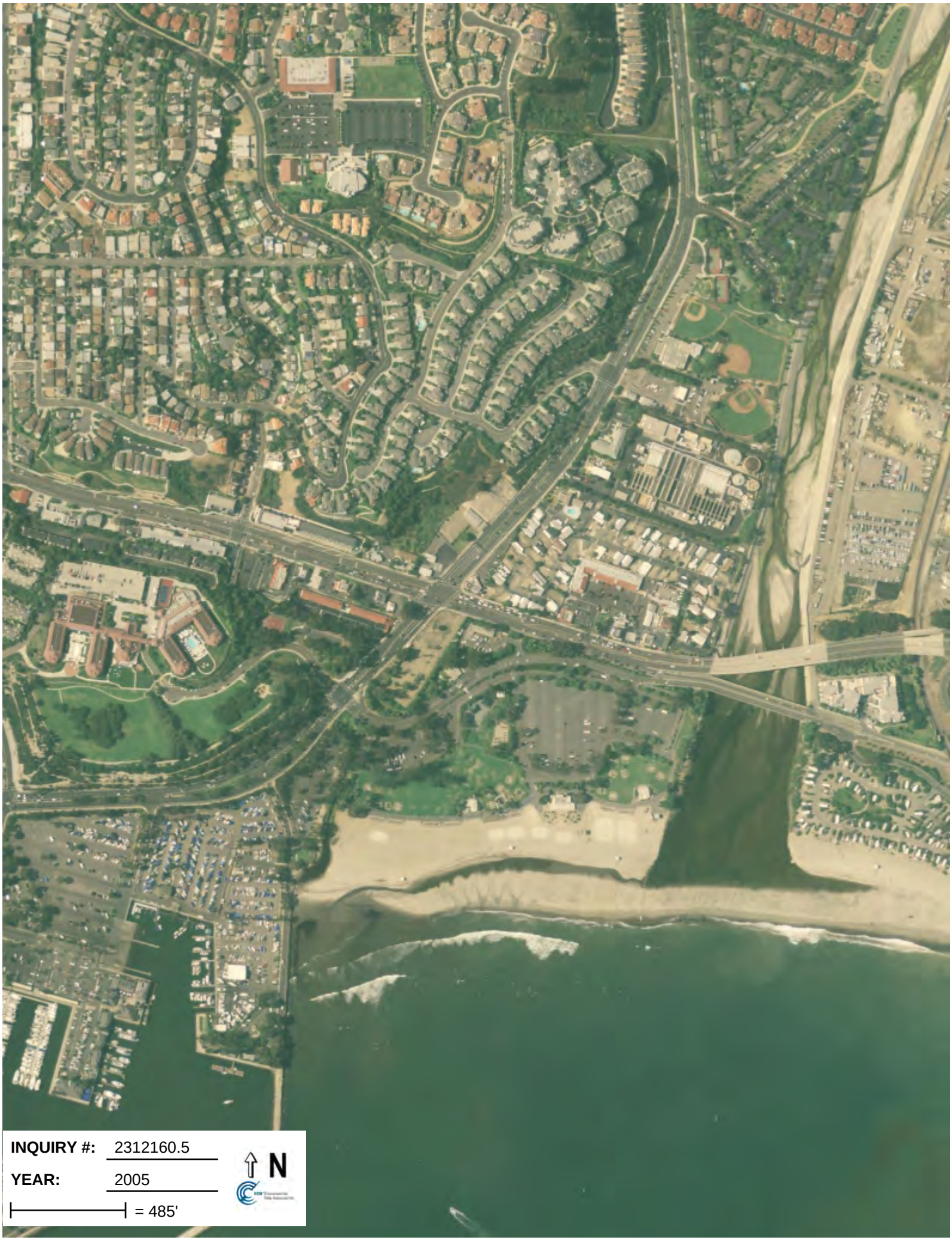
YEAR: 1990

= 666'

N


INQUIRY #: 2312160.5
YEAR: 1994
= 666'
N


INQUIRY #: 2312160.5
YEAR: 2002
= 666'
N


INQUIRY #: 2312160.5
YEAR: 2005
= 485'
N

Appendix G

Preliminary Water Quality Management Plan

PRELIMINARY

WATER QUALITY MANAGEMENT PLAN (PWQMP)




FOR

THE DANA POINT HOTEL

25323 DANA POINT HARBOR DRIVE
AT THE SOUTHWEST CORNER OF DANA POINT HARBOR DRIVE
AND PACIFIC COAST HIGHWAY (SR-1)
DANA POINT, CA

Prepared for:

Beverly Hills Hospitality Group, LLC
25325 Dana Point Harbor Drive
Dana Point, CA 92626
(949) 493-5001

Prepared by

Hunsaker and Associates Irvine, Inc.
Three Hughes
Irvine, CA 92618
(949) 583-1010

AMENDED: September 7, 2011

WO # 3506-3

Preliminary
Water Quality Management Plan
(PWQMP)

for:

The Dana Point Hotel

25323 Dana Point Harbor Drive
At the Southwest Corner of Dana Point Harbor Drive
and Pacific Coast Highway (SR 1)
Dana Point, CA 92629

APNs: 682-166-03, -05, -06, -08, and -021
Resolution XX-XX-XX-XX
Site Development Permit (SDP 09-0032)

Prepared for:

Beverly Hills Hospitality Group, LLC
25325 Dana Point Harbor Drive
Dana Point, CA 92629
(949) 493-5001

Prepared by:

Hunsaker & Associates Irvine, Inc.
3 Hughes
Irvine, CA 92618
(949) 583-1010
Daniel P. Gerken, CPESC, CPSWQ
dgerken@hunsaker.com

AMENDED: September 7, 2011

CITY OF DANA POINT
Public Works and Engineering Department

This plan is signed by the Water Quality Engineer for concept and adherence to City standards and requirements only. The Water Quality Engineer is not responsible for design, assumptions, or accuracy.

Reviewed _____ City Water Quality Engineer

Date 12 oct 2011

W.O. # 3506-3

Owner's Certification
Water Quality Management Plan (WQMP)

Project Name: Dana Point Hotel
Tract/Parcel Map Number: APNs: 682-166-03, -05, -06, -08, and -021

This Water Quality Management Plan (WQMP) has been prepared for the Dana Point Hotel for Beverly Hills Hospitality Group, LLC by Hunsaker & Associates Irvine, Inc. The WQMP is intended to comply with the requirements of the City of Dana Point's Local Implementation Plan and Storm Water /Surface Runoff Water Quality Ordinance, as well as the Municipal Separate Storm Sewer System (MS4) Permit, Order R9-2009-0002 which requires the preparation of a project WQMP for priority development projects.

The undersigned, while Beverly Hills Hospitality Group, LLC owns the subject property, is responsible for the implementation of the provisions of this WQMP. The undersigned will ensure that this plan is carried out and amended as appropriate to reflect up-to-date conditions on the site consistent with the current City of Dana Point Local Implementation Plan and the intent of Order R9-2009-0002, as authorized by the State and EPA, into perpetuity. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP, as necessary. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party having responsibility for implementing portions of this WQMP.

To be completed by the Owner or Developer.

Signed: _____ Date: 10/18/11

Name: Michael Draz

Title: CEO / Director of Development

Company: Beverly Hills Hospitality Group

Address: 215 N. Wetherly Dr Beverly Hills 90211

Telephone #: 310) 666-6619

Email Address: MichaelDraz@DrazInvestments.com

Table of Contents

INTRODUCTION

A. PROJECT LOCATION

The project site is Dana Point Hotel, located in the City of Dana Point (City), County of Orange. The site is bounded by Pacific Coast Highway (PCH) on the north, Dana Point Harbor Drive on the east, and Park Lantern on the south.

B. STUDY PURPOSE

This study is preliminary and to accompany the submittal of Conceptual Water Quality Management Plan (CWQMP) for the project. This study determines the 100-year peak storm runoff produced from the project site in the existing and proposed conditions.

C. METHODOLOGY

The hydrology calculations were prepared using the 1986 *Orange County Hydrology Manual* as incorporated in the Advanced Engineering Software (AES) "RATSC" program. The Geotechnical Report was used to determine the hydrologic soil types.

D. DISCUSSION FOR HYDROLOGY

In the existing condition, the site is 2 two-story motel buildings located at 25325 Dana Point Harbor Drive. Storm runoff produced from the site and the surrounding areas are discharged into the existing storm drain system and the first flush/dry weather flows are treated with a CDS unit as shown.

In the proposed condition the two motel buildings and the two buildings located at 34297 and 34299 PCH will be converted to a Dana Point Hotel.

There were no drainage reports for the project site available during researches at the City Engineering Department Record; therefore, the total flow rate produced from the off-site areas contributing to the existing storm drain system shown on the hydrology map of section 2 is unknown.

The land use is unchanged and storm runoff produced from the site will still be discharged into the same storm drain system as in the existing condition. However, there will be more catch basins provided and a portion of the existing storm drain will be realigned to avoid the building footage in the proposed condition. Moreover, there will be two green roofs proposed for the development. According to the IDEQ Storm Water Best Management Practices Catalog, dated September 2005, up to 90% of the precipitation can be absorbed.

In addition to the existing CDS unit protected in place and the proposed green roofs, one 8' x 4' and one 8' x 6' proposed Katchall Purestream Bio-filtration Vault will be used to treat first flush/dry weather flows produced from the development (see color exhibit enclose in the WQMP report for details)

Section 1 Project Description

This PWQMP is intended to comply with the requirements of the City of Dana Point Planning Commission and City Council, Resolution No. XX-XX-XX-XX, Tentative Tract Map TTM XXXXX and Site Development Permit SDP 09-0032 for development of The Dana Point Hotel located on the southwest corner of Pacific Coast Highway and Dana Point Harbor Drive (as adopted by the City Council of Dana Point on Date XX, XXXX), Conditions Number XX and XX requiring the preparation of a Water Quality Management Plan. The project SDP has not yet been approved. However, typical water quality conditions previously adopted by the City for similar projects read as follows:

01. Prior to issuance of any grading or building permit, the applicant shall include in the plans any urban runoff control measures deemed necessary by the Director of Public Works and shall submit to the City for review and approval a Water Quality Management Plan (PWQMP) that:

    - Fulfills all the requirements of the City's Standard Urban Stormwater Mitigation Plan (SUSMP, also know as the City's PWQMP is Exhibit 7.V of the City's Local Implementation Plan),
    - Addresses Site Design BMPs such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge areas", and conserving natural areas,
    - Incorporates the applicable Routine Source Control BMPs as defined in the SUSMP,
    - Incorporates the applicable Treatment Control BMPs as defined in the SUSMP,
    - Generally describes the long-term operation and maintenance requirements for the BMPs,
    - Identifies the entity that will be responsible for the long-term operation and maintenance requirements for the BMPs,
    - Describes the mechanism for funding the long-term operation and maintenance requirements for the BMPs.

02. Prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall:

    - Demonstrate that all structural best management practices (BMPs) described in the project PWQMP have been constructed and installed in conformance with the approved plans and specifications,
    - Demonstrate that applicant is prepared to implement all non-structural BMPs described in the Project PWQMP,
    - Demonstrate that an adequate number of copies of the approved project PWQMP are available onsite,
    - Submit for review, and receive approval by the City for an Operations and Maintenance Manual (O&M) Plan for all BMPs,
    - Submit copies from County Recorder verifying that the existence, maintenance and funding of structural BMPs into perpetuity have been recorded with the property, along with the City's right of entry to inspect the BMPS.

1. **Detailed Development Description:**

Beverly Hills Hospitality Group, LLC (BHHG) proposes The Dana Point Hotel development as a significant redevelopment. The development will include one multi-level hotel building with a subterranean parking structure for valet parking only located on property owned by BHHG. An ingress and egress driveway between Dana Point Harbor Drive and the hotel valet serviced entrance.

The project's property is owned by BHHG and is comprised of approximately 1.51 acres. Pacific Coast Highway is situated to the north and adjacent to the BHHG property, with Dana Point Harbor Drive situated to the east, and City of Dana Point public property located to the south.

The hotel building will be approximately 186,632 SF in gross building size. The north portion of the hotel will be two stories in height. The south portion of the hotel will be four stories in height. The majority of the roofs for both levels will be employed as green roof infiltration and evaportranspiration treatment control BMPs. Other hotel uses include approximately 293 guest rooms, a valet-only, partially subterranean, parking structure with 205 regular parking stalls and 43 additional parking spaces in between aisles for valet parking use only (for a total of 248 parking spaces), a combination conference/banquet room, four meeting rooms, a lobby, two restaurants, a main kitchen, auxiliary kitchens and bars, an administration office, an employees' room, restrooms, a patio, one loading dock with access from Pacific Coast Highway, a housekeeping room and related maintenance and service areas and rooms.

An offsite parking lot area is also proposed for the project. However, the configuration of the offsite parking area is not known presently. Therefore, the City of Dana Point is currently allowing a delay to the inclusion of this issue as part of this WQMP. When a configuration is known and needs to be addressed in the project WQMP per the City of Dana Point, the WQMP text, BMP narratives and exhibits for the offsite parking lot area will be added as an amendment to this WQMP or included in a site specific final WQMP for the project.

This project is classified as a Priority Development (PDP) Project Category 2. (All redevelopment projects that create, add or replace at least 5,000 or more square feet of impervious surface on an already developed site, and the existing development or redevelopment project falls under another Priority Project category below. If the redevelopment results in the addition or replacement of less than 50% of the existing impervious area onsite and the existing development was not subject to WQMP requirement, the numeric sizing criteria discussed below only applies to the addition or replacement area. If the addition or replacement accounts for 50% or more of the existing impervious area, the WQMP requirements apply to the entire development areas) and Category 7 (Restaurants where the land area of development or redevelopment is 5,000 square feet or more including parking area. "restaurants" shall mean 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 code 5812]. Restaurants where land development is less than 5,000 square feet shall met all WQMP requirements except for LID BMP retention, treatment control BMP, and hydro-modification requirements). Therefore, treatment control BMPs are required to remove pollutants typically associated with urban runoff.

City of Dana Point Local Implementation Plan (revised December 2010).

2. **Project Location and Site Address:**

The project site is located at the southwest corner of Dana Point Harbor Drive and Pacific Coast Highway (SR 1) in Dana Point, California.

Prior to construction, the project site is comprised of various parcels with various addresses. Three of those addresses are provided as follows: 34299 Pacific Coast Highway, 34297 Pacific Coast Highway and 25325 Dana Point Harbor Drive, in Dana Point, CA 92629.

3. **Property Size:**

The proposed project is 1.51 acres, approximately 65,776 SF.

4. **Existing Use:**

The existing uses of the project are comprised of a 1-story commercial building with a parking lot and a small outside storage area; a Jack-in-the-Box fast food restaurant with a parking lot (both of these structures front on Pacific Coast Highway); and two 2-story motel buildings with access from Dana Point Harbor Drive, with a parking lot, a swimming pool, concrete patio and landscaping planters throughout. A water quality vortex separator treatment control BMP is located in the east edge of the City of Dana Point property to the south.

Existing uses on the project also include the related improvements needed to implement and continue said uses including improvements for storm drain systems, sanitary sewer systems, domestic water and irrigation systems, electricity, cable TV, telephone, street lights, gas and a water quality/storm drain diversion structure and treatment control BMP.

5. **Type of Development:**

The project is a commercial hotel development with related improvements and amenities. Four stories are planned over a subterranean parking level for a portion of the hotel building structure. Two stories are planned over the subterranean parking level for the remaining portion of the hotel building structure. The Exhibit A Site Plan in Section 7 and architectural details at the end of Appendix D refer.

6. **Impervious/Pervious Surface Areas:**

In the existing condition, impervious areas consisted of buildings, roads and asphalt areas used for parking. In the developed condition impervious areas will consist of access ways, uncovered parking, sidewalks and portions of rooftops. Area quantities are listed in the table below:

Project Area	Pre construction			Post construction		
	Acreage	Sq. ft.	%	Acreage	Sq. ft.	%
Total Space	1.51 ac.	65,776	100%	1.51 ac.	65,776	100%
Pervious	0.60 ac.	26,310	40%	0.49 ac.	21,344	32%
Impervious	0.91 ac.	39,466	60%	1.02 ac.	44,431	68%

7. **Property Ownership:**

The ownership of the project of 1.51 acres (65,688 SF) is comprised of various private parcels located in the north portion of the project and owned by BHHG. The contact person for BHHG is Michael Draz. Mr. Draz can be reached at 25325 Dana Point Harbor Drive, Dana Point, CA 92629 (949) 493-5001.

8. **Other:**

This redevelopment project proposes to retain and/or treat pollutants of concern based on land use and proximity to potentially relevant 303(d) listed water bodies (Pacific Ocean Shoreline, Dana Point HAS, Dana Point Harbor, San Juan Creek [mouth], Pacific Ocean Shoreline, Lower San Juan HAS). The project is incorporating two (2) green roofs comprising approximately 79% of the hotel building's total roof area, Katchall Biofiltration Units and two Katchall trench drain filtration devices as the project's water quality BMP. The exhibits in Section 7 and Appendix D refer.

Section 2 Project Location Map

The project is located in the La Plaza Market Area of the Dana Point Specific Plan. The location of the project site is illustrated in Figures 2.1 and 2.2.

Figure 2.1 Location Map

Orange County Thomas Brothers Guide page 971, Grid J6.

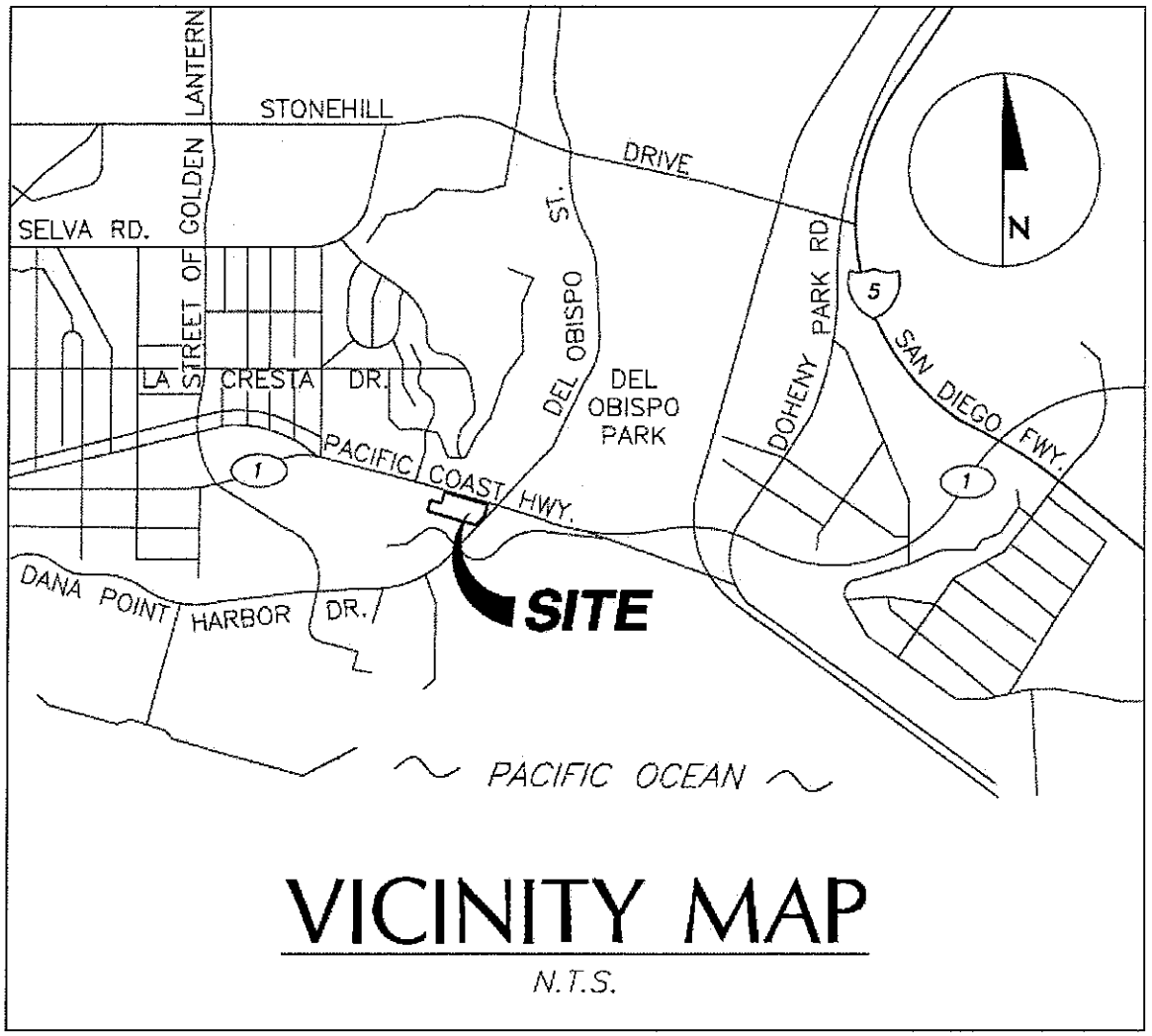


Figure 2.1 Aerial Photo

North
Not to scale

Section 3 Project Site Assessment

This project site assessment section provides important information that is used when considering the potential water quality and hydrologic impacts that could be caused by the proposed project. This information is important when considering the appropriate BMPs to reduce identified potential impacts as well as when developing measures to reduce those impacts.

1. **Zoning and Land Use Designation:**

   The project is zoned as Commercial and is located within the La Plaza Market Area of the Dana Point Specific Plan.

2. **Existing and Proposed Drainage:**

   In the existing condition, site drainage flows northerly and southeasterly. The north portion and western edge of the site discharges sheet drains northerly into the offsite Pacific Coast Highway street gutter system and is thence conveyed offsite to the east to Dana Point Harbor Drive thence in a southerly direction until it discharges into an offsite catch basin located on the west side of Dana Point Harbor Drive. Flows are thence discharged into an offsite 54" RCP storm drain pipe which conveys flows southeasterly under Dana Point Harbor Drive where flows are discharged onto Doheny State Park and thence the Pacific Ocean. The southern portion of the site discharges its flows in an easterly direction into catch basins. Flows are unified in a 21" storm drain line which run to the east and connect to an onsite portion of the 54" RCP described above.

   In the developed condition, onsite runoff will be collected by a proposed storm drain system. The northwest portion of the existing onsite 54" RCP will be relocated outside of the hotel's building footprint area. Flows from the proposed hotel area will be discharged into a new 21" RCP storm drain line, located parallel to the southerly boundary which connects to an existing offsite 54" RCP storm drain, south of the site.

   To provide maximum water quality treatment for storm water flows generated by the proposed hotel development, two Katchall Purestream Biofiltration units (8'x4' and 8'x6'), two green roofs and two Katchall Trench Drain Filtration devices are proposed. Rainwater from the 1st level at the site's main entrance, the open air terrace areas and the strip of land north of the open air terrace area (see BMP Drainage Exhibit) will be treated by the project's Katchall Purestream Biofiltration units. Additional surface flows from the valet ramp down to the parking area will be collected via two Katchall Trench Drain Filtration devices. Rainwater at the ramp entrance to the parking is captured in the Katchall Trench Drain Filtration devices and directed to the storm drain, before entering the parking garage. Inside the below ground parking, a garage level drain will pump to a grease trap separator before entering the sanitary sewer system. The flows from these trench drains will discharge into the proposed 18" storm drain line offsite, and to the south. Furthermore, two "flat" green roofs (upper roof level) are proposed at the hotel's westerly end and will serve as an additional treatment control BMP as well as onsite landscaping. BMP volume calculations have been provided for the green roofs and project specific cross sections and/or design details will be provided at the final design stage and the WQMP shall be amended accordingly.

   A proposed hanging storm drain line located in the parking garage will collect storm water flows from offsite and to the north via grate inlets. The proposed hanging storm drain line will connect to the onsite storm drain system.

The large, grassy, terrace overlook area in the east part of the adjacent offsite City of Dana Point parcel to the south drains its sheet flows easterly to a proposed v-ditch and grate inlets, thence southerly to a proposed storm drain pipe, which in turn, connects with an 54" RCP pipe.

3. **Will the drainage system be modified by the development?**

Yes. New storm drain improvements include one new onsite catch basin, new storm drain lines and a relocation of an existing major storm drain line by connecting upstream and discharging downstream, offsite, to an existing 54" City of Dana Point drain line system that eventually flows through an existing Vortex separator BMP treatment control system offsite and thence continues offsite, downstream Doheny State Beach outfall which then discharges into the Pacific Ocean. Exhibit A in Section 7 refers.

4. **Will drainage coincide with City's system or flow to a creek or ocean?**

Project drainage will connect to an existing City of Dana Point Storm Drain line system and will thence be conveyed offsite to and discharged at the nearby Doheny State Beach prior to discharging to the Pacific Ocean.

5. **Watershed and Receiving Waters:**

The project is located in the San Juan Creek Watershed Management Area. Project drainage flows ultimately flow to and discharge at Doheny State Beach, approximately 600' west of the mouth of San Juan Creek and thence into the Pacific Ocean.

6. **303(d) Listed Receiving Waters:**

The project is approximately 0.2 miles northwest of the Pacific Ocean Shoreline (Cal Watershed 90114000) via Storm Drain pipe at the Doheny State Beach outlet. This site is currently USEPA 2006 303d-listed for Indicator Bacteria from Nonpoint/Point sources. Because project flows eventually discharge into the nearby Pacific Ocean, four other water bodies in the project's vicinity are potential 303(d) receiving waters. The Dana Point Harbor is listed on the 303(d) list for the following impairments: Copper, Toxicity and Zinc. The existing jetty separates the Dana Point Harbor from the project's discharge point. These waters are located approximately 500 yards from the project in the surrounding vicinity. They are each impaired solely by Indicator Bacteria:

- Pacific Ocean, Lower San Juan HSA
- San Juan Creek (mouth)
- Pacific Ocean, Dana Point HSA
- Dana Point Harbor

7. **Total Maximum Daily Loads (TMDLs):**

Total Maximum Daily Loads (TMDLs) for Indicator Bacteria are required and are in development fro San Juan Creek mouth and the Pacific Ocean.

8. **Environmentally Sensitive Areas (ESAs) and/or Areas of Special Biological Significance (ASBA):**

The project does not directly discharge to Environmentally Sensitive areas (ESAs) or Areas of Special Biological Significance (ASBSs).

9. **Soil Type(s) and Condition:**

Regionally, the project site is located in the Peninsular Ranges province. The site area is underlain by marine terrace alluvial sediments. Based on site observations, the site is underlain to the depths explored by Surficial undocumented fill soils, quaternary-age alluvium and marine terrace deposits (not encountered during site explorations).

Undocumented fill soils were encountered during borings excavated across the areas observed and these materials generally consisted of silty fine sand to fine sandy silty clay. Furthermore, quaternary-age alluvium was encountered in the borings excavated in the study areas where interbedded silty fine sand and sandy silty clay are the dominant soil types found. Overall, and based on the Geotechnical Engineer's experience in this area, site materials are likely to possess a very low to medium expansion potential.

Section 4 Pollutants of Concern

This section of the water quality management plan identifies primary and secondary pollutants of concern. Pollutants of concern are those that are anticipated to be generated by the proposed project. Pollutants of concern are differentiated between primary and secondary depending on the condition of downstream receiving waters. If the project will drain to a receiving water that is impaired for a pollutant anticipated from that project, that pollutant is a primary pollutant of concern. Pollutants frequently identified on the 303(d) list of California impaired water bodies include metals, nitrogen, nutrients, indicator bacteria, pesticides and trash (for the 303(d) list see www.swrcb.ca.gov/tmdl/303d_lists.html). In some cases, there may be specific conditions (i.e. other known water quality problems) that warrant identifying an anticipated pollutant as a primary pollutant of concern. If there is no corresponding impairment or other water quality problem in the receiving waters for an anticipated pollutant, the pollutant is a secondary pollutant of concern.

1. **Project categories and features and anticipated and potential pollutants:**

   The proposed project is a significant redevelopment to develop a 293 guest room hotel with enclosed parking structure consisting of an access road, drive courts, landscaping, buffer strips, storm drain and other related improvements. Per the following Table 4.1, anticipated and potential pollutants will include:

   - *Bacteria and viruses.* Anticipated sources include animal excrement (found in areas where pets are often walked), sanitary sewer overflow, and trash container handling areas.
   - *Nutrients.* Nutrients, including nitrogen, phosphorous, and other compounds can be anticipated to be generated by or founding organic litter, fertilizers, food waste, sewage and sediment.
   - *Pesticides.* Sources of pesticides include household bug-spray, weed killers and other household sources.
   - *Organic Compounds*: These are carbon based compounds found in commercially available pesticides, solvents, and hydrocarbons as well as naturally occurring compounds.
   - *Sediment.* Driveways and roof-tops are expected to be common sources of sediment due to wear.
   - *Trash and Debris.* These sources include common litter, biodegradable organic matter such as leaves, grass cuttings and food wastes from landscaped areas and homeowners.
   - *Oxygen-Demanding Substances.* Potential sources include biodegradable organic materials and various household chemicals, which deplete dissolved oxygen levels in water courses.
   - *Oil and Grease.* Potential sources of oil and grease include motor vehicles.
   - *Heavy metals*: Potential sources of metals (copper, lead, cadmium, nickel and zinc) include motor vehicles, hardscape/construction materials and chemicals.

2. **Primary Pollutants of Concern:**

Indicator Bacteria.

3. **Secondary Pollutants of Concern:**

Secondary Pollutants of Concern identified in Table 7.V-2 of the City of Dana Point's Local Implementation Plan include Heavy Metals, Nutrients, Pesticides, Organic Compounds, Sediment, Trash & Debris, Oxygen-demanding Substances, and Oil & Grease.

4. **Project Water Quality Analyses:**

No prior water quality analyses related to the project are known to be available.

5. **Project Watershed Information:**

The project is located in the San Juan Creek Watershed.

Visit these sites for further information:

http://www.miocean.org/projects.asp
http://danapointdocs.org/PDF/SanJuanCreek.pdf

Table 4.1 Potential Pollutants for Project Categories

Categories and/or Project Features	Anticipated Pollutants								
	Bacteria/ Virus	Heavy Metals	Nutrients	Pesticides	Organic Compounds	Sediments	Trash & Debris	Oxygen Demanding Substances (cleaning agents)	Oil & Grease
Detached Residential Development	X		X	X		X	X	X	X
Attached Residential Development	X		X	X		X	X	X	X
Commercial/ Industrial Development greater than 100,000 ft^2	**X**		**X**	**X**	**X**	**X**	**X**	**X**	**X**
Automotive Repair Shops		X			X		X		X
Restaurants	**X**						**X**	**X**	**X**
Hillside Development greater than 5,000 ft^2	X		X	X		X	X	X	X
Parking Lots		**X**	**X**	**X**		**X**	**X**	**X**	**X**
Streets, Highways & Freeways		X	X	X	X	X	X	X	X

Section 5 Hydromodification/Hydrologic and Geotechnical Conditions of Concern/Drainage Report

Hydromodification is the alteration of natural flow characteristics and sediment supply, which can result from new development and significant redevelopment projects without appropriate preventative controls. Common impacts to the hydrologic regime resulting from development include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; and faster time to reach peak flow. Under certain circumstances, new development and significant redevelopment could also result in the reduction in the amount of sediment supplied to the channel for transport. If the sediment supplied to the channel is reduced such that in-stream flows are transporting sediment faster than it can be replenished, then erosion of the channel's bed and bank may occur. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to a Priority Project site's hydrologic characteristics would be considered a condition of concern if the change would have a significant impact on downstream natural channels and habitat integrity. In determining whether an impact is significant, the cumulative effects on the watershed must be considered.

The first step to determine whether or not hydromodification requirements apply is based on the proposed Project's location and point of discharge. All PDPs must meet the hydromodication requirements unless:

- the project site discharges into an underground storm drain system that discharges direct to a bay or ocean; or
- the project site discharges into a conveyance channel whose bed and bank are concrete lined all the way from the point of discharge to ocean waters, enclosed bays, estuaries or water storage reservoirs and lakes.

The project is located in the San Juan Creek Watershed and is approximately 300 yards northwest of the Pacific Ocean Shoreline (Cal Watershed 9011400) via storm drain pipe at the Doheny State Beach outlet, and west of the mouth of San Juan Creek.

The project site runoff discharges to a City storm drain system which drains directly to the Pacific Ocean. The North Creek outlet was determined to "drain directly to the ocean" by the following: The ocean mean highest water elevation is 7.48' (adjusted to NAVD 88 datum). The elevation at the outlet structure into North Creek is at 6.73', therefore the North Creek outlet is below the ocean water elevation during mean highest tide. Additionally, City staff observed, during the high tide on February 17, 2011, a rise in the water level at the North Creek outlet confirming a direct influence of the ocean water surface at the outlet structure. Furthermore, a field survey analysis was conducted for the North Creek outfall and based on an e-mail from Brad Fowler, Director of Public Works and Engineering Services dated February 18, 2011 accepting the analysis that the outlet drains directly to an ocean tidally influenced water body. In conclusion, based on the information provided above and included in Appendix F of the Preliminary Water Quality Management Plan dated September 7, 2011, the project site is not applicable from hydro modification control requirements.

1. Topography, soil type and vegetation:

Topography of the local area indicates the subject site is situated in the south perimeter of a low know or knob (i.e. A broad flattened ridge) near the head of a moderate canyon. This feature was believed to be formed by dissection from the tributaries to San Juan Creek. These tributaries formed broad to moderate canyons/valley forms to the north

and west, and moderate to steep canyon terrain to the south. Subsequent earthwork operations have filled these features during past development construction historical. The result is a bedrock knoll bounded by fills.

Undocumented fill soils were encountered during borings excavated across the areas observed and these materials generally consisted of silty fine sand to fine sandy silty clay. Furthermore, quaternary-age alluvium was encountered in the borings excavated in the study areas where interbedded silty fire sand and sandy silty clay are the dominant soil types found. Overall, and based on the Geotechnical Engineer's experience in this area, site materials are likely to possess a very low to medium expansion potential.

2. Drainage features:

The site contains relatively flat pads for hotel interspersed with a few landscaped berms and slopes. An existing 51" RCP storm drain line runs directly underneath a portion of the project site, which will be removed and relocated outside the project's southerly boundary.

3. Relevant hydrologic and environmental factors:

The project does not directly discharge to Environmentally Sensitive Areas (ESAs) or Areas of Special Biological Significance (ASBSs). The project is approximately 0.2 miles northwest of the Pacific Ocean Shoreline (Cal Watershed 90114000) via Storm Drain pipe at the Doheny State Beach outlet. This site is currently USEPA 2006 303d-listed for Indicator Bacteria from Nonpoint/Point sources.

4. Proposed hydrologic conditions:

The total 100-year storm runoff provided from the onsite in the proposed condition contributing to the existing storm drain system is 25.0 cfs, compared to 24.9 cfs. In the site's existing condition for a 100-year storm.

5. Significant impact on downstream channels and habitat integrity:

Hydrologic Conditions of Concern for any development such as the proposed project may include potential water quality degradation; increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration and peaks; and faster time to reach peak flow resulting from development, it is anticipated that the proposed project would not have a significant potential for erosive conditions nor alteration of habitat of the downstream streams and channels because there is a negligible change in overall site impervious area.

6. Project hydrology analyses:

Enclosed as Appendix B.

Hydrologic or geotechnical conditions of concern are identified through a review of on-site and downstream drainage paths. If the proposed project would cause or contribute flows to problems along on-site or downstream drainage paths, these problems or future problems are considered conditions of concern. Conditions of concern can include problems such as flooding, erosion, scour, and other impacts that can adversely affect channel and habitat integrity.

In order to identify conditions of concern, a comprehensive understanding of flow volume, rate, duration, energy, and peak flow is necessary. Often, a formal drainage study is necessary which considers the project area's location in the larger watershed, topography, soil and vegetation conditions, percent impervious area, natural and infrastructure drainage features, and any other relevant hydrologic and environmental factors. As part of the study, the drainage report includes:

- Computed rainfall and runoff characteristics including a minimum of peak flow rate, flow velocity, runoff volume, time of concentration and retention volume
- Establishment of site design, source control and treatment control measures to be incorporated and maintained to address downstream conditions of concern

There will be no changes to the hydrologic system due to the proposed development. This is a similar land use and impervious areas will result in virtually identical characteristics. For the developed condition, there will be no changes that will impact downstream conveyance channels. Offsite flows will not be increased, and there will be no detrimental effects on erosion or scour.

The site, including downstream conditions have been observed on numerous occasions. Field surveys have also been conducted and a portion of the survey data is provided in Appendix F. The only anticipated change to downstream conditions is improved runoff which has undergone treatment through the project BMP's in comparison to the existing condition. No negative effects on existing channel erosion potential, or habitat integrity is anticipated. The proposed treatment BMPs will provide a benefit to downstream habitat.

In addition, the proposed green roofs will help reduce the volume of runoff produced by the project site. Typically, a green roof mimics pre-development conditions by limiting the impervious area created by the development. The project's green roofs will filter, absorb and evapotranspire rainwater to help mitigate the effects of excess runoff to the downstream local storm drain system.

A drainage report was prepared for the proposed project by Hunsaker & Associates Irvine, Inc., as required by the City, and is included as Appendix B.

A geotechnical report was also prepared for the proposed project by Geotek Inc., as required by the City, and is included as Appendix C.

Section 6 Best Management Practices (BMPs)

Minimizing a development's effects on water quality and the environment can be most effectively achieved by using a combination of BMPs which include Site Design, Source Control and Treatment Control measures. These design and control measures employ a multi-level strategy. The strategy consists of: 1) reducing or eliminating post-project runoff; 2) controlling sources of pollutants; and 3) treating storm water runoff before discharging it to the storm drain system or to receiving waters.

This PWQMP and the proposed BMPs for the proposed project have been developed to minimize drainage impacts identified in Section 5 and the introduction of pollutants identified in Section 4 into the municipal storm drain system and/or ultimate drainage receiving water body.

For more detailed information on the use and design of BMPs please see the California Stormwater Quality Association New development and Redevelopment handbook. The handbook is available at **www.cabmphandbooks.com**. Additional information is also available in the City's PWQMP.

6.1 Site Design BMPs

The most effective means of avoiding or reducing water quality and hydrologic impacts is through incorporation of measures into the project design. These measures should be taken into consideration early in the planning of a project as they can affect the overall design of a project.

The design of the proposed project has considered and incorporated site design concepts as described below.

SITE DESIGN CONCEPT 1: MINIMIZE STORMWATER RUNOFF, MINIMIZE PROJECT'S IMPERVIOUS FOOTPRINT AND CONSERVE NATURAL AREAS

1. **Minimizing Impervious Footprint:**

   The incorporation of 2 green roof elements into the hotel roof design significantly decreases impervious area. See the Table in Item 2 on Page 3.

2. **Conservation of Natural Areas:**

   There is no onsite natural area to preserve.

3. **Use of Permeable Paving or Other Surfaces:**

   Permeable paving was considered, but is not proposed for this project.

4. **Designing to Minimum Widths Necessary:**

   Streets, sidewalks and parking lot aisles will be designed to the minimum widths necessary specified in the City of Dana Point Municipal Code § 7.08.050 (Street Widths) and §9.35.050 (Access), while complying with ADA regulations and other life safety requirements. Generally, project streets have been designed to the minimum width specified for private streets serving four (4) or less parcels with a minimum pavement width of twenty-eight (28) feet.

5. **Incorporation of Landscaped Buffers:**

Landscaped buffers are incorporated along Pacific Coast Highway, along Dana Point Harbor Drive and in guest parking areas.

6. **Reduced Street Widths:**

The project has incorporated reduced alley way widths where off-street parking is available. Driveway courts which access the hotel entrance and access to the overlook terrace area, and are 24' in compliance with §9.35.050 (Access).

7. **Maximize Canopy Interception:**

Site Landscape Plan proposes to maximize canopy interception through use of a range of plantings that include habitat enhancement/naturalization trees, flowering or fruiting accent trees, medium screening trees, medium theme and massing trees, and low/spreading flowering, accent and theme trees. Refer to the project Landscape Plan for more information.

8. **Use of Native or Drought Tolerant Trees/Shrub:**

Native, (or "California-friendly") drought tolerant trees, shrubs and groundcover including Pinus torreyana, Cupresses Macrocarpa, Jacaranda Acutifolia, Platanus Racemosa, Populus fremontii, Quercus agrifolia, Salix babylonica, Myoporum pacifica, Baccharis pilularis, Rosemarinum o. 'Prostratus", or City approved equals, per the project Landscape Architect.

9. **Minimizing Impervious Surfaces in Landscaping:**

Use of impervious surfaces and decorative concrete in landscaped areas will be avoided wherever appropriate.

10. **Use of Natural Drainage Systems:**

Some onsite drainage will be allowed to flow over landscaped areas prior to entering area drains and the project storm drain system.

11. **Low Flow Infiltration:**

Fluctuating and a relatively high ground water table is not suitable for low flow infiltration.

12. **Onsite Ponding Areas or Retention Facilities:**

There are no onsite ponding or retention areas planned for this project.

13. **Other Site Design Features:**

The project is incorporating two (2) green roofs consisting of approximately 79% of the entire site's roof coverage. Appendix D refers to typical green roof details for the proposed project.

SITE DESIGN CONCEPT 2: MINIMIZE DIRECTLY CONNECTED IMPERVIOUS AREAS (DCIAs)

1. **Draining Rooftops into Adjacent Landscaping:**

Rooftops will drain via down spouts on the south and east roof areas into adjacent landscaping located along the project's easterly boundary. Roof drains will be attached to area drain system prior to flowing offsite into an existing storm drain system.

The project's vegetated green roofs are complex structures that shall require consideration of the load-bearing capacity of roof decks, the moisture and root penetration resistance of the roof membrane, hydraulics, and wind shear, suitability of plant material and management of drainage.

The plants shall be installed and maintained to help recreate the hydrologic function of open space in the following ways:

- Capturing and holding precipitation in the plant foliage.
- Absorbing water in the root zone.
- Slowing the velocity of direct runoff by extending the flow path through the vegetation.
- Cooling the temperature of the air and runoff. (Green roofs can be very effective measures for reducing the "thermal shock" caused by flash runoff from hot roof surfaces.)

See Item 3 below for additional detailed Green Roof information.

2. **Draining to Adjacent Landscaping:**

Impervious sidewalks, walkways, trails, and patios will drain into adjacent landscaping prior to entering area drains and the project storm drain system.

3. **Green Roofs:**

The project proposes two (2) green roofs. The vegetated rooftops project at the Dana Point hotel is a vegetated cover system installed on top of the second and fourth story roofs. Each roof system is intended to mimic the natural hydrologic processes of interception, storage, and detention to control the 24-hour, 85th percentile storm event. The distinguishing features of this system include:

- Synthetic under-drain layer that promotes rapid drainage of water form the surface of the roof deck.
- Thin, lightweight growth media that permits installation on existing conventional roofs without the need for structural reinforcement.

The installed vegetated roof cover is only 2.74 inches thick (approximately) including the drainage layer. The system weighs less than 5 pounds per square foot when dry and less than 17 pounds per square foot when saturated. The saturated moisture content of the media is 45 percent by volume. The saturated infiltration capacity is 3.5 inches per hour. Appendix D refers.

The project's green roof vegetated covers shall be designed to control small storm events by intercepting and retaining water until the rainfall peak has passed, while also allowing larger storm events to be safely conveyed away from the building.

The project's vegetated roofs are complex structures that shall require consideration of the load-bearing capacity of roof decks, the moisture and root penetration resistance of the roof membrane, hydraulics, and wind shear, suitability of plant material and management of drainage.

The plants shall be installed and maintained to help recreate the hydrologic function of open space in the following ways:

- Capturing and holding precipitation in the plant foliage.
- Absorbing water in the root zone.
- Slowing the velocity of direct runoff by extending the flow path through the vegetation.
- Cooling the temperature of the air and runoff. (Green roofs can be very effective measures for reducing the "thermal shock" caused by flash runoff from hot roof surfaces.)

4. **Site Drainage System:**

Rural swale systems and urban curb/swale systems have not been incorporated as a part of this project.

5. **Residential Driveways:**

Not Applicable – This is a Commercial Project.

6. **Residential Parking Areas:**

Not Applicable – This is a Commercial Project.

7. **Non-Residential Parking Areas:**

A subterranean parking structure is included in the southern portion of the hotel building. Parking of vehicles shall be performed only by valet parking attendants. The structure is comprised by 205 regular parking spaces. An additional 43 parking spaces are provided when valet parking between aisle parking is performed. Therefore, the parking structure has a total capacity of 248 parking spaces.

6.2 Source Control BMPs

Source Control BMPs are measures focusing on reducing or eliminating post-project runoff and controlling sources of pollutants. Source Control BMPs must be included in all projects and can be represented in structural measures such as landscape, irrigation, signage considerations, materials, and design of areas; and non-structure measures such as requirements, cleaning, education, and maintenance.

Table 6.1 Source Control Structural and Non-Structural BMPs

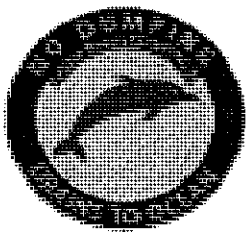
Number	BMP and Objective	Included
Routine Non-Structural BMPs (numbers correspond to those in City's PWQMP)		
N1	**Education for Property Owners, Tenants and Occupants:** Practical informational materials are provided to residents, occupants, or tenants to increase the public's understanding of stormwater quality, sources of pollutants, and what they can do to reduce pollutants in stormwater. The Owner (BHHG) will insure that all maintenance staff and contractors be given information outlining the environmental awareness education materials and establish requirements for the implementation of an awareness program that informs the staff of the impacts of dumping oil, paints, solvents or other potentially harmful chemicals into the storm drain; the proper use and management of fertilizers, pesticides and herbicides in home landscaping and gardening practices; the impacts of littering and improper. Environmental awareness education materials, including, but not limited to those included in Appendix A of this PWQMP, shall be provided to all members of the maintenance staff and annually thereafter by the HOA.	Y
N2	**Activity Restrictions:** Rules or guidelines for developments are established within appropriate documents (i.e. CC&Rs, lease terms, etc.) which prohibit activities that can result in discharges of pollutants. The Owner (BHHG) shall be required to limit the activities within the limits of the proposed project to those applicable to its intended use. Therefore, activities that have the potential to impact water quality, such as outdoor vehicle maintenance, will not be allowed on the premises. Within the Rules prepared by Owner (BHHG), language shall be included to identify surface water quality protection required by the Owner (BHHG). Surface water quality activities shall also be conducted in conformance with the Water Quality Management Plan as it relates to the handling and disposal of contaminants. The following example from a similar project's Master Declaration of Rules provides additional direction for controlling activities that may affect the environment of the project and/or surrounding areas. EXCERPT FROM MASTER DECLARATION OF CONDITIONS COVENANTS AND RESTRICTIONS, SECTION 2.13 2.13 POLLUTANT RUNOFF (a) The Maintenance Corporation shall periodically provide to their members environmental awareness education materials made available by the local municipalities. These materials will describe the use of chemicals (including household types) that should be limited to the Covered Property with no discharge of specified wastes via hosing or other direct discharge to gutter, catch basins, settling basins and storm drains. The materials shall also provide a description of fertilizer and pesticide usage guidelines consistent with County Management Guidelines for Use of Fertilizers and Pesticides. (b) The Maintenance Corporation shall establish trash management and litter control procedures aimed at reducing pollution of drainage water.	Y

Number	BMP and Objective	Included
	(c) The Maintenance Corporation shall have any drainage systems, streets and catch basins on property they maintain inspected and cleaned, and any streets and parking areas they maintain swept on a weekly basis. (d) The Maintenance Corporation shall implement irrigation and landscaping practices which will include provision of water sensors, programmable irrigation times, grouping of plants with similar water requirements in order to reduce excess irrigation runoff and to promote surface filtration. The Maintenance Corporation shall maintain erosion control devices on the property they maintain until adequate vegetation coverage has been achieved following establishment.	
N3	**Common Area Landscape Management:** Specific practices are followed and ongoing maintenance is conducted to minimize erosion and over-irrigation, conserve water, and reduce pesticide and fertilizer applications. Landscape management programs will be designed and established by the Owner BHHG). The Owner (BHHG) will maintain all project common landscaped areas. These programs will include how to mitigate the potential dangers of fertilizer and pesticide usage through the incorporation of an Integrated Pest Management Program (IPM).Ongoing maintenance will be consistent with the City of Dana Point Municipal Code Chapter 9.55 (Landscaping Standards and Requirements) and Chapter 15.10 Storm Water and Surface Runoff Water Quality.	Y
N4	**BMP Maintenance:** In order to ensure adequate and comprehensive BMP implementation, all responsible parties are identified for implementing all non-structural BMPs and for structural BMPs, cleaning, inspection, and other maintenance activities are specified including responsible parties for conducting such activities. As indicated in (N2) above, the Rules shall identify the Owner (BHHG) as being responsible for implementation of each applicable non-structural BMP as well as scheduling inspection and maintenance cleaning of all applicable structural BMP facilities. The Owner (BHHG), through its landscape maintenance contractor, will be responsible for inspection and maintenance activities in landscape areas. Debris and other water pollutants will be controlled, contained and disposed of in a proper manner by the maintenance contractor.	Y
N5	**Title 22 CCR Compliance:** Hazardous waste is managed properly through compliance with applicable Title 22 regulations. The project shall comply with Title 22 of California Code of Regulations and relevant sections of the California Health and Safety Code regarding hazardous waste management, which will be enforced by County Environmental Health on behalf of the State. All materials considered as hazardous must be properly handled and disposed of by an approved disposal facility.	Y
N6	**Local Water Quality Permit Compliance:** The project complies with water quality permits issued by the City to ensure clean stormwater discharges. Project incorporates SD RWQCB and Storm Water/Surface Runoff Water Quality Code requirements, requiring the preparation of a PWQMP and treatment of project pollutants of concern.	Y

Number	BMP and Objective	Included
N7	**Spill Contingency Plan:** A Spill Contingency Plan is implemented to ensure that spills are managed properly by requiring stockpiling of cleanup materials, notification of responsible agencies, disposal of cleanup materials, documentation, etc. This requirement generally applies to commercial or industrial developments that fuel, store or dispense hazardous materials. A spill contingency plan shall be prepared by the Owner (BHHG) for the project as it relates to notification of responsible agencies, disposal of cleanup materials, documentation, etc. with regards to the City of county of Orange fact sheet "Spill Prevention, Control & Cleanup" IC-17.	Y
N8	**Underground Storage Tank Compliance:** Because of the known or potential presence of underground storage tanks (USTs) on the project site, applicable UST regulations apply and are adhered to in order to avoid harm to humans or the environment. Not applicable. There are no underground storage tanks onsite.	N
N9	**Hazardous Materials Disclosure Compliance:** Because hazardous materials or wastes will be generated, handled, transported, or disposed of in association with the project, measures are taken to comply with applicable local, state, and federal regulation to avoid harm to humans and the environment. This BMP applies to commercial and industrial facilities that generate, store or dispose of hazardous materials. Compliance with Permittee ordinances are typically enforced by respective fire protection agency for the management of hazardous materials. Orange County, health care agencies, and/or other appropriate agencies (i.e. Department of Toxics Substances Control are typically responsible for enforcing hazardous materials and hazardous waste handling and disposal regulations. All hazardous materials such as chemicals, fertilizers, pesticides and medical use related materials shall be contained in spill proof containers that are locked in protective storage areas. These areas must be covered. All required signage regarding materials on hand shall be in place per requirements.	Y
N10	**Uniform Fire Code Implementation:** The project includes a hazardous material storage facility or other area regulated by Article 80 and therefore implements measures to comply with this section of the Uniform Fire Code. All onsite facilities that generate, store or dispose of hazardous materials will be required to be compliant with Article 80 of the Uniform Fire Code, which will be enforced by the local fire protection agency.	Y
N11	**Common Area Litter Control:** Trash management and litter control procedures are specified, including responsible parties, and implemented to reduce pollution of drainage water. The Owner (BHHG) shall be responsible for common area litter control, emptying of trash receptacles, noting of disposal violations, and investigating violations as necessary.	Y

Number	BMP and Objective	Included
N12	**Employee Training:** Practical informational materials and/or training are provided to employees to increase their understanding of stormwater quality, sources of pollutants, and their responsibility for reducing pollutants in stormwater. An employee training/education program will be established as it would apply to future employees of the Hotel and the Owner (BHHG) to inform and train employees engaged in maintenance activities regarding the impact of dumping oil, paints, solvents or other potentially harmful chemicals into storm drain; the proper use of fertilizers and pesticides in landscaping maintenance practices; and the impacts of littering and improper water disposal.	Y
N13	**Housekeeping of Loading Docks:** Cleaning and clean up procedures are specified and implemented for loading dock areas to keep the area free for pollutants and reduce associated pollutant discharges. There is one onsite "loading dock" as typically found at commercial and industrial facilities. All areas where supplies and materials are transferred to the office building shall be kept in a clean and orderly condition through a regular program of sweeping, litter control and immediate cleanup of spills. Cleanup procedures should minimize or eliminate the use of water. Any wash down water from the loading area must drain to a Sand Oil separator prior to being discharged to the Sanitary Sewer.	Y
N14	**Drainage Facility Inspection:** Inspection procedures, schedules, and responsibilities are established for drainage facilities to ensure regular cleaning, inspection, and maintenance. All project drainage facilities will be owned, inspected and maintained by the Owner (BHHG). Area drains will be inspected on a weekly basis in conjunction with landscape maintenance operations and maintained as necessary. Catch basin maintenance will consist of manual and/or vacuum removal of silt and debris from the bottom of the basins and the entrance of the storm drain. This will be done at minimum on a monthly basis, and prior to the storm season, no later than October 1st of each year	Y
N15	**Street Sweeping Private Streets and Parking Lots:** Street sweeping frequency and responsible parties are identified and regular sweeping is conducted to reduce pollution of drainage water. The owner shall have all project private streets drive aisles and parking lot areas vacuum swept on a bi-weekly minimum basis. This procedure shall be intensified by October 1st of each year at the beginning of the rainy season.	Y
N17	**Retail Gasoline Outlets:** Specific operational and maintenance BMPs are implemented to the extent feasible to reduce potential for pollutant discharge from wash off by runoff, leaks, and spills. Not applicable. No *retail* gasoline outlets proposed.	N

Number	BMP and Objective	Included
Source Control Structural BMPs (numbers correspond to the California BMP Handbook)		
SD-10	**Site Design and Landscape Planning:** Landscape planning methodologies are incorporated into project design to maximize water storage and infiltration opportunities and minimize surface and groundwater contamination from stormwater. The project has incorporated Site Design and Landscape Planning methodologies such as minimizing impervious footprint, incorporation of landscaped buffers and use of native and drought tolerant species as previously detailed in section 6.1 of this report.	Y
SD-11	**Roof Runoff Controls:** Direct roof runoff away from paved areas and to pervious areas, cisterns, infiltration trenches, and/or storage areas for reuse to reduce total volume and rate of site runoff and retain pollutant on site. Rooftops will drain via down spouts on the south and east roof areas into adjacent landscaping located along the project's easterly boundary. Roof drains will be attached to area drain system prior to flowing to the project's treatment BMP. The project proposes two (2) green roofs. The vegetated rooftops at the Dana Point hotel are vegetated cover systems installed on top of the second and fourth story roofs. Each roof system is intended to mimic the natural hydrologic processes of interception, storage, and detention to control the 24-hour, 85th percentile storm event. The distinguishing features of this system include: • Synthetic under-drain layer that promotes rapid drainage of water form the surface of the roof deck. • Thin, lightweight growth media that permits installation on existing conventional roofs without the need for structural reinforcement. The installed vegetated roof cover is only 2.74 inches thick (approximately) including the drainage layer. The system weighs less than 5 pounds per square foot when dry and less than 17 pounds per square foot when saturated. The saturated moisture content of the media is 45 percent by volume. The saturated infiltration capacity is 3.5 inches per hour. Appendix D refers. Previously installed green roofs have showed that vegetated rooftop covers can help to reduce peak runoff rates for a wide range of storm events. The project's green roof vegetated covers shall be designed to control small storm events by intercepting and retaining water until the rainfall peak has passed, while also allowing larger storm events to be safely conveyed away from the building. The project's vegetated roofs are complex structures that shall require consideration of the load-bearing capacity of roof decks, the moisture and root penetration resistance of the roof membrane, hydraulics, and wind shear, suitability of plant material and management of drainage.	Y

Number	BMP and Objective	Included
	The plants shall be installed and maintained to help recreate the hydrologic function of open space in the following ways: • Capturing and holding precipitation in the plant foliage. • Absorbing water in the root zone. • Slowing the velocity of direct runoff by extending the flow path through the vegetation. • Cooling the temperature of the air and runoff. (Green roofs can be very effective measures for reducing the "thermal shock" caused by flash runoff from hot roof surfaces.	
SD-12	**Efficient Irrigation:** Project plans include application methods to minimize irrigation water discharged into stormwater drainage systems. Efficient irrigation practices will be consistent with the City of Dana Point Municipal Code Chapter 9.55 (Landscaping Standards and Requirements) and Chapter 15.10 (Storm Water and Surface Runoff Water Quality). Irrigation systems shall be automatically controlled and designed, installed, and maintained so as to minimize overspray and runoff onto streets, sidewalks, driveways, structures, windows, walls, and fences. Provisions such as water sensors, programmable irrigation times (for short cycles) etc. will be used. These devices will be maintained by the Owner (BHHG).	Y
SD-13	**Storm Drain System Signs:** Stencils or affixed signs a placed adjacent to storm drain inlets to prevent waste dumping at storm drain inlets. As a part of the final civil engineering drawings it will be required by the contractor to label all of the project's catch basins where applicable in paved areas, with catch basin markers which state: "No Dumping – Drains to Ocean, No Descargue Basura". This will be done in a location that can be clearly seen by all and will be routinely inspected twice a year, at minimum and re-labeled, as necessary. Thereafter, the Owner (BHHG)/operator shall routinely inspect and re-label the catch basins, as necessary. 	Y

Number	BMP and Objective	Included
SD-20	**Pervious Pavements:** Porous concrete or asphalt, blocks with pervious spaces or joints, or grass or gravel surfaces are employed to reduce runoff volume and provides treatment. Due to medium to high soil expansion level, the use of permeable pavement is not desirable as it may compromise adjacent structures. Per recommendations of the project Soils Report, all sidewalks and other concrete flatwork should include joints at approximately 10 feet spacing to avoid cracking. No permeable pavement has been planned for project. Granular materials were not considered because the efficiency of this type of infiltration system quickly becomes negated by predictable sediment accumulation and maintenance costs are extremely high because entire system must be removed and replaced on a periodic basis.	N
SD-21	**Alternative Building Materials:** Specialized building materials are employed that have lower potential to leach pollutants, and reduce need for future painting or other pollutant generating maintenance activities. For example, some treated wood contains pollutants that can leach out to the environment and some metal roofs and roofing materials result in high metal content in runoff. Currently no alternative building materials have been proposed. They will be considered during construction of the project and if employed, will be amended to the approved PWQMP.	N
SD-30	**Fueling Areas:** Project plans are developed for cleaning, spill cleanup, containment, leak prevention, and incorporation of design to reduce rain and runoff that could come in contact with fueling areas. No fueling area is proposed by this project's development.	N
SD-31	**Maintenance Bays and Docks:** Project design incorporates measures to cover or otherwise eliminate run-on and off from bays and docks, and direct connections to storm drain are eliminated. The project loading dock area is covered by part of the hotel building's roof proposed to be located above the loading dock. No drain is proposed in the loading area.	Y
SD-32 and DAMP IC-22	**Trash Enclosures:** Trash storage areas are covered and enclosed to prevent introduction of trash and debris to site runoff. This will be specified and enforceable through the Owner (BHHG). Normal hotel use generates trash on a daily basis. Trash will be removed by the local private solid waste management contractor on a weekly basis or twice weekly basis, as necessary, for proper disposal of the trash to landfill. The hotel is anticipated to generate hotel-use related trash and debris. Such trash will be disposed of by the Owner (BHHG) and removed from the project trash enclosures located in the parking lot, by the local private waste management company to a central trash disposal facility offsite. Trash enclosure areas will be constructed at a gradient/slope to keep stormwater away from the enclosures. Approximate location is shown in Section 7, Exhibit A. Further information about trash pickup in the City of Dana Point can be found at this site: http://www.danapoint.org/publicworks/SolidWaste.htm	Y

Number	BMP and Objective	Included
	A trash enclosure shall be provided in the designated area of the development. The site map exhibit in Section 7 refers. The enclosure will be covered to prevent contact with wind and rain. The area will also be designed to prevent contact with storm run-on. Drainage from the trash enclosure area will be prohibited to enter the storm drain. Waste areas will be inspected daily and kept in an orderly manner by BHHG.	
SD-33	**Vehicle and Equipment Washing Areas:** Only a mobile, valet car wash service is proposed. Designated wash areas or facilities are contained and wash water is reused, treated, or otherwise properly disposed of. Wash and rinse water shall be prohibited per the project CC&Rs from draining into and being discharged into any project storm drain or sanitary sewer line system.	Y
SD-34	**Outdoor Material Storage Areas:** Outdoor storage areas for materials containing pollutants, especially hazardous materials, are covered and enclosed, on impervious surfaces, and include secondary containment when applicable. Not applicable. No Outdoor Material Storage Areas proposed for site.	N
SD-35	**Outdoor Work Areas:** Outdoor work areas are covered, contained, and treated as necessary to reduce opportunity of pollutants from work activities to enter stormwater. Not applicable. No Outdoor Work Areas proposed for site.	N
SD-36	**Outdoor Processing Areas:** Outdoor processing areas are covered, contained, and treated as necessary to reduce opportunity of pollutants from work activities to enter stormwater. Not applicable. No Outdoor Processing Areas proposed for site.	N
Special	**Pool and Fountain Cleaning (OC DAMP BMP IC-16):** Nutrients, pH, and Chlorine can adversely affect fish and wildlife in water bodies. The following BMPs will ensure the cleanliness of the pool and fountain facilities and the environment: Regular cleaning of the pool and fountain and adequate chlorine to control algae shall be required. Additionally, pool filters shall be cleaned and inspected regularly. Pool water and fountain water shall be discharged of properly into the sanitary sewer only. Prior to draining the pool, the local wastewater treatment plant will be notified to ensure they are aware of the volume of discharge and the potential effects of chlorine levels. Diatomaceous earth used in pool filters will not be disposed of in surface waters, on the ground, into storm drainage systems or septic systems. It will be dried out as much as possible, bagged in plastic, and disposed of at the landfill.	Y

Water Quality Grease Control Requirements for Food Service Establishments (FSEs)

Waste Cooking Oil /Yellow Grease/Tallow Management

FSEs with food preparation or cooking practices that generate grease or oil as part of their operation shall install a self-contained oil retention unit. No storage of grease barrels/dumpsters shall be allowed outdoors.

Resources for a self-contained oil retention unit include, but are not limited to:

- Darling International CleanStar: www.darlingii.com/services/cleanstar/cleanstar.asp
- RTI: www.rti-inc.com/pages/maxlife.html

Applicant must specify system and show location on BMP Location Map.

Equipment/Mat Washing Areas:

FSE must dedicate a specific area for the washing of floor mats and other equipment. Options include:

- A properly-sized indoor mop or utility sink connected to the grease interceptor.
- A contained outdoor wash-down area connected to the grease interceptor that must be protected from rain water runoff.
- Adequate signage shall be provided to designate washing area and state the prohibition of discharging wash water to the storm drain system.
- Employees must be regularly trained to utilize designated areas for washing.

NOTE: Wash water draining to parking lots, streets and storm drains is prohibited.

Applicant must provide details and show location on BMP Location Map.

Roof Top Grease Control

A grease diaper (hydrophobic absorbent pad) shall be installed and maintained around any/all new or existing rooftop grease exhaust fan(s).

Resources for grease diapers include, but are not limited to:

- www.greasecontrol.com
- www.facilitec-sw.com

6.3 Treatment Control BMPs

Treatment control BMPs utilize treatment mechanisms to remove pollutants that have entered stormwater runoff and consist of public domain BMPs (identified in the following table with as TC-##) and manufactured or proprietary BMPs (identified in the following table with as MP-##). BMP numbers correspond to the California BMP Handbook.

The following table identifies the treatment control BMPs included in the proposed project.

Table 6.2 Treatment Control BMPs

Number	BMP and Objective	Included
	Infiltration	
TC-10	**Infiltration Trench:** A long narrow rock filled trench with no outlet receives water and stores it until it infiltrates into the underlying soil. It is effective at removing most pollutants but can get clogged with sediment.	N

Number	BMP and Objective	Included
	Location/placement must be away from buildings, slopes and drives to avoid undermining of building foundations, slope stability an street support/integrity. Response for all sites constructed in fill or partially in fill unless no silts or clays are present in the soil boring (generally, they are present per soils report: silt per Section 5.2.1, Page 5 and clay lenses per Section 5.2.2) shall be exclude from consideration.	
TC-11	**Infiltration Basin:** A shallow impoundment designed to capture and hold stormwater until it infiltrates into underlying soil. Effective at removing most pollutants but requires large areas and may be constrained by soil types. Response for all sites constructed in fill or partially in fill unless no silts or clays are present in the soil boring (generally, they are present per soils report: silt per Section 5.2.1, Page 5 and clay lenses per Section 5.2.2) shall be exclude from consideration.	N
TC-12	**Retention/Irrigation:** Stormwater is captured in cistern, basin, trench, or other storage area and is subsequently used for irrigation of site landscaping. Project does not have sufficient area to support an irrigation capture system. Vector issues could pose a problem.	N
	Detention and Settling	
TC-20	**Wet Pond:** A constructed basin with a permanent pool of water throughout the year. Differ from wetlands because it is of greater depth. Treats stormwater runoff by settling and biological uptake. Not feasible for a project of this size and scope.	N
TC-21	**Constructed Wetland:** A constructed basin with permanent pool of shallow water throughout most of year with substantial vegetative coverage. Not feasible for a project of this size and scope.	N
TC-22	**Extended Detention Basin:** A constructed basin with an outlet designed to detain storm water for at least 48 hours to allow particles and pollutants to settle. Not feasible for a project of this size and scope.	N
MP-20	**Wetland:** Similar to a constructed wetland but a self contained, manufactured module with vegetation that mimics natural wetland processes. Not feasible for a project of this size and scope. Filterra bioretention units used instead.	N
	Biofiltration	
TC-30	**Vegetated Swale:** Open, shallow, vegetated channels that collect and slowly convey runoff through the property. Filters runoff through vegetation, subsoil matrix, and/or underlying soils; traps pollutants, promotes infiltration and reduce flow velocity. No vegetated swale is proposed. A design with an effective hydraulic residence time was not feasible. Other landscaped areas are incorporated into the site plan to direct drainage over landscape and away from structural foundations. These landscaped areas do not have the length or slope necessary to meet the minimum hydraulic residence time of 5-9 minutes indicated in CASQA TC-30.	N

Number	BMP and Objective	Included
TC-31	**Vegetated Buffer Strip:** Vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Removes pollutants by deceleration, settling, and infiltration. No vegetated grass strip is proposed. Other landscaped areas graded to allow drainage to flow over landscaped areas prior to entering area drains or the street and private storm drain system have been incorporated. However, these are not design vegetated buffer strips as defined by CASQA TC-31.	N
TC-32	**Bioretention:** A soil and plant based filtration strategy that involves capturing stormwater in depressed landscaped areas. Bioretention practices are flexible strategies for using landscaping as treatment. A Katchall Purestream Biofiltration Unit is proposed near the site entrance. This unit is 8' long, 4' wide with a depth of 42", the model number is 8442.	N
	Filtration	
TC-40	**Media Filter:** Usually two-chambered with a pretreatment settling basin and a filter bed filled with sand or other absorptive filter media. Not considered due to project size, scope, maintenance costs and disposal issues surrounding "spent" media.	N
MP-40	**Media Filter:** Similar to constructed media filter but manufactured as self-contained filtering vaults, units, or cartridges. Two Katchall Trench Drain Filtration units are proposed at the projects valet parking ramp down to the below grade parking level. These are approximately 12" in width an 20' in length. The model number has yet to be determined, once completed, this PWQMP will be amended accordingly.	Y
	Flow Through Separation	
TC-50	**Water Quality Inlet:** Vaults with chambers including screens, settling areas, and/or filter media to promote settling and/or separation of pollutants from stormwater. Not adequate treatment for Land-use and 303d pollutants of concern.	N
MP-50	**Wet Vault:** A vault with a permanent water pool and internal features to promote settling and/or separation of pollutants from stormwater. Not adequate treatment for Land-use and 303d pollutants of concern.	N
MP-51	**Vortex Separator:** Similar to wet vaults but round and use centrifugal action as primary separation mechanism. Not adequate treatment for Land-use and 303d pollutants of concern.	N
MP-52	**Drain Inserts:** Boxes, trays, or socks with screens or filter fabric and may also include filter media. They are installed in inlets or catch basins and removal effectiveness for pollutants is generally low except for large sediment.	N
	Other	
TC-60	**Multiple Systems:** A system that uses two or more BMPs in series to increase treatment. Useful when one BMP does not provide sufficient treatment alone. Not practical due to constraints of location needed.	N

6.3.1 Selection

The receiving waters are currently USEPA 2010 303d-listed for Indicator Bacteria from Nonpoint/Point sources. Other anticipated and potential pollutants of concern include nutrients, pesticides, sediment, trash & debris, oxygen-demanding substances and oil & grease.

During the design process a StormCeptor system was briefly considered, but ruled out because it does not treat for bacteria. A treatment train incorporating the Abtech Smart Sponge Plus and the Contech StormFilter was also considered but was ruled out for concerns regarding high maintenance costs and disposal issues surrounding "spent" media.

The project incorporates two (2) Katchall Purestream Biofiltration Units that will collect and treat flows from the open air terrace areas, the 1st level at the site's main entrance, site landscaped area along the project's most east boundary and from the strip of land north of the open air terrace area. (See BMP Boundary Exhibit), two (2) green roofs and two (2) Katchall Trench Drain Filtration devices that will treat flows from the valet parking ramp down to the below grade parking level. The project treatment control BMPs, which have been successfully tested to effectively treat bacteria when properly maintained, will treat for bacteria as a primary pollutant of concern to the maximum extend practicable.

6.3.2 Sizing

Treatment Control BMPs were designed using the Stormwater Quality Design Flow (SQDF) and the Stormwater Quality Design Volume (SQDV) methods described in Section 7.V – 3.3.4 of the City's PWQMP. Units are sized per manufacturer's recommendations.

See Appendix D for details, design calculations and product specifications.

6.3.3 Location

Most of the site runoff will be treated via two (2) green roofs and two (2) Katchall Purestream Biofiltration Units. The Katchall Purestream Biofiltration Units will collect and treat storm water flows from the open terrace areas, the landscaped areas along the easterly project boundary and from the strip of land north of the open air terrace area. In addition, two (2) Katchall Trench Drain Filtration units will treat flows from the valet parking ramp down to the below grade parking level. The approximate locate of the ramp area that drains to the trench drain filtration devices are shown on the BMP Drainage Exhibit.

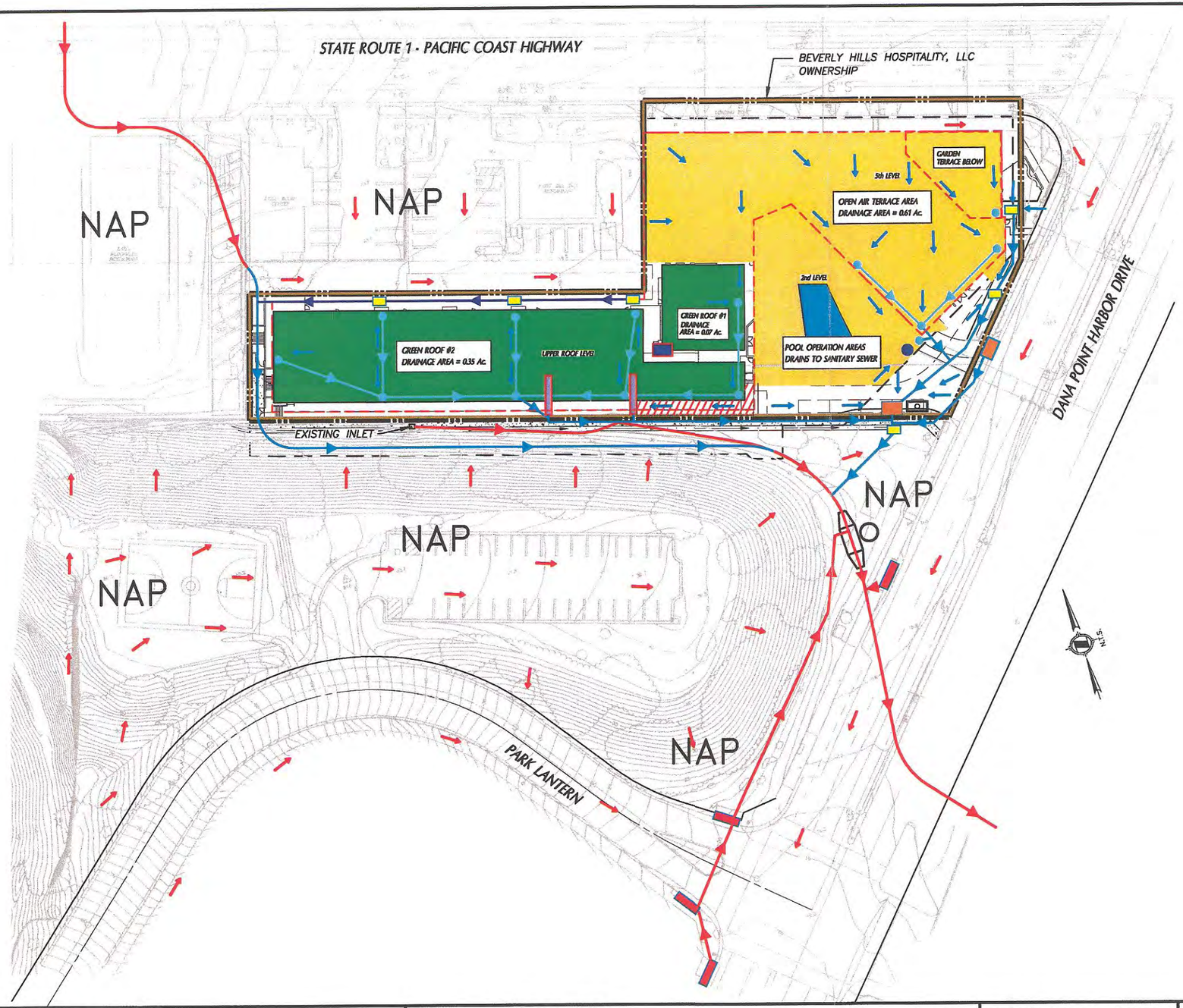
6.3.4 Restrictions on Use of Infiltration BMPs

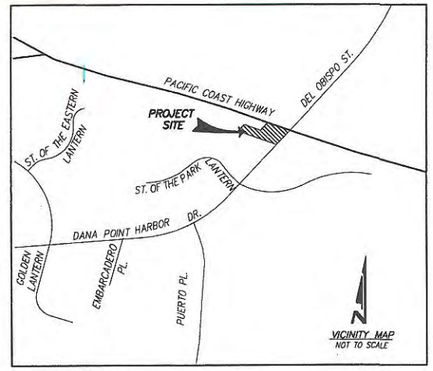
With the exception of the green roofs, the proposed project does not include infiltration BMPs. A fluctuating and relatively high ground water table precludes the use of infiltration BMPs.

Section 7 Project Plan and BMP Location Map

Figure 7.1 illustrates the proposed project and the Source Control structural and Treatment BMPs that will be implemented pursuant to this PWQMP. The following checklist identifies the required information that is included in the BMP map.

Included	Requirement
✓	Legend, north arrow, scale
✓	Show drainage arrows, and drainage areas
✓	Entire property on one map (provided sufficient detail is shown)
✓	Show structures to be constructed and removed
✓	Show proposed and existing storm drain systems
✓	Show all external hardscape surfaces such as walkways, driveways, pools, spas, patio areas etc.
✓	Indicate the landscape areas and planters
✓	Show nearby waterbodies by name, if available
✓	Identify site outlet and/or connection to municipal storm drain system
✓	Identify locations of all source control structural and treatment BMPs on the Map. Indicate the BMP location using the BMP number.
✓	Differentiate/identify pervious and impervious surfaces, buildings, activity areas, etc.
✓	Identify areas of potential soil erosion





LEGEND

- PROJECT BOUNDARY
- BEVERLY HILLS HOSPITALITY, LLC OWNERSHIP
- ROOF LIMIT
- NAP — NOT A PART
- DIRECTION OF SURFACE FLOW (ONSITE)
- DIRECTION OF SURFACE FLOW (OFFSITE)
- PROP. STORM DRAIN & FLOW DIRECTION
- EXISTING STORM DRAIN & FLOW DIRECTION
- PROP. HANGING STORM DRAIN & FLOW DIRECTION (LOCATED IN THE PARKING GARAGE)
- PROPOSED STORM DRAIN FOR ROOF DRAIN & FLOW DIRECTION
- EXISTING CATCH BASIN
- DOWN SPOUT
- OPEN AIR TERRACE AREAS DRAIN TO KATCHALL PURESTREAM BIOFILTRATION UNIT
- FLAT GREEN ROOF (UPPER ROOF LEVEL)
- EXISTING VORTECH SEPARATOR TREATMENT CONTROL BMP - CONSTRUCTED IN MARCH 2003 BY CITY OF DANA POINT (NAP)
- GRATE INLET
- CATCH BASIN (PRIVATE) WITH BMP: KATCHALL PURESTREAM BIOFILTRATION UNIT OR CITY APPROVED EQUAL - 1st LEVEL SD-13 CATCH BASIN STENCLING
- TC-10 KATCHALL TRENCH DRAIN FILTRATION DEVICES
- SWIMMING POOL (2nd LEVEL)
- SEWER INLET FOR GARAGE LEVEL DRAINAGE
- SUMP DRAIN - MANDATORY CONNECTION TO SANITARY SEWER LINE FOR DRAINAGE FROM POOL OPERATIONS AREA
- RAMP AREA DRAINS TO TRENCH DRAIN FILTRATION DEVICE
- OIL/WATER SEPARATOR

PREPARED BY:
HUNSAKER & ASSOCIATES IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

PREPARED FOR:
BEVERLY HILLS HOSPITALITY GROUP, LLC
25325 DANA POINT HARBOR DR.
DANA POINT, CA 92629
PH (949) 493-5001 – FAX (949) 661-6895

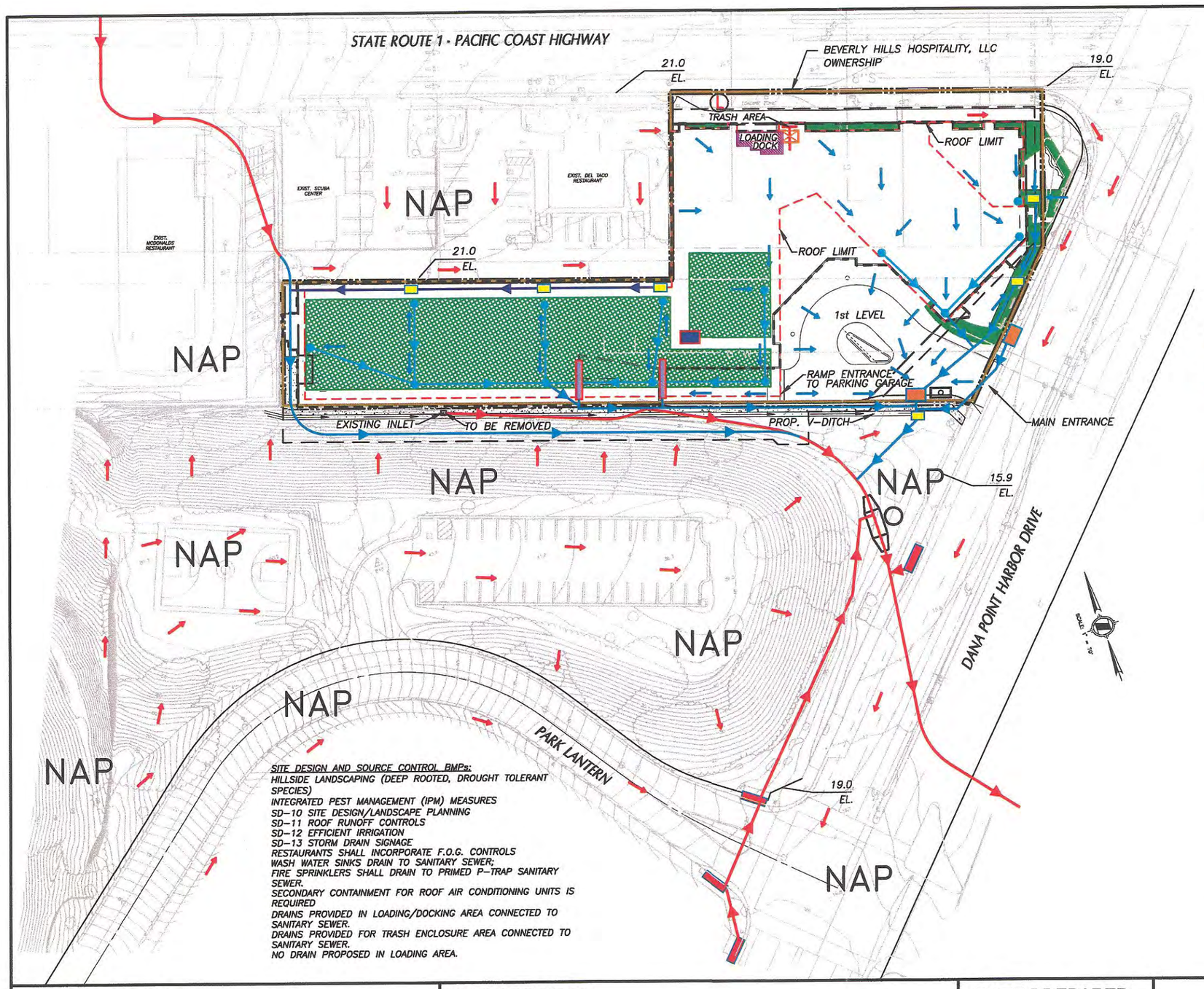
DATE PREPARED: 09/07/11

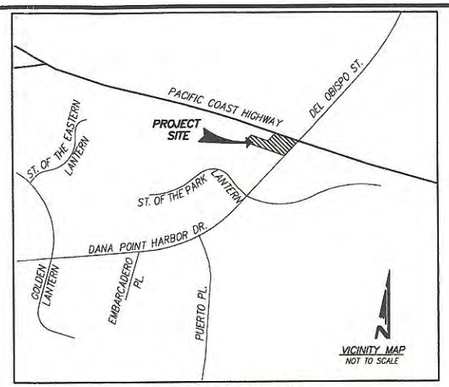
3506-3

DANA POINT HOTEL
25325 DANA POINT HARBOR DR.
CITY OF DANA POINT

PRELIMINARY WATER QUALITY BMP DRAINAGE EXHIBIT

F:\0529\Engineering\OA_Project\WQ\Water Quality BMP Drainage Exhibit.dwg



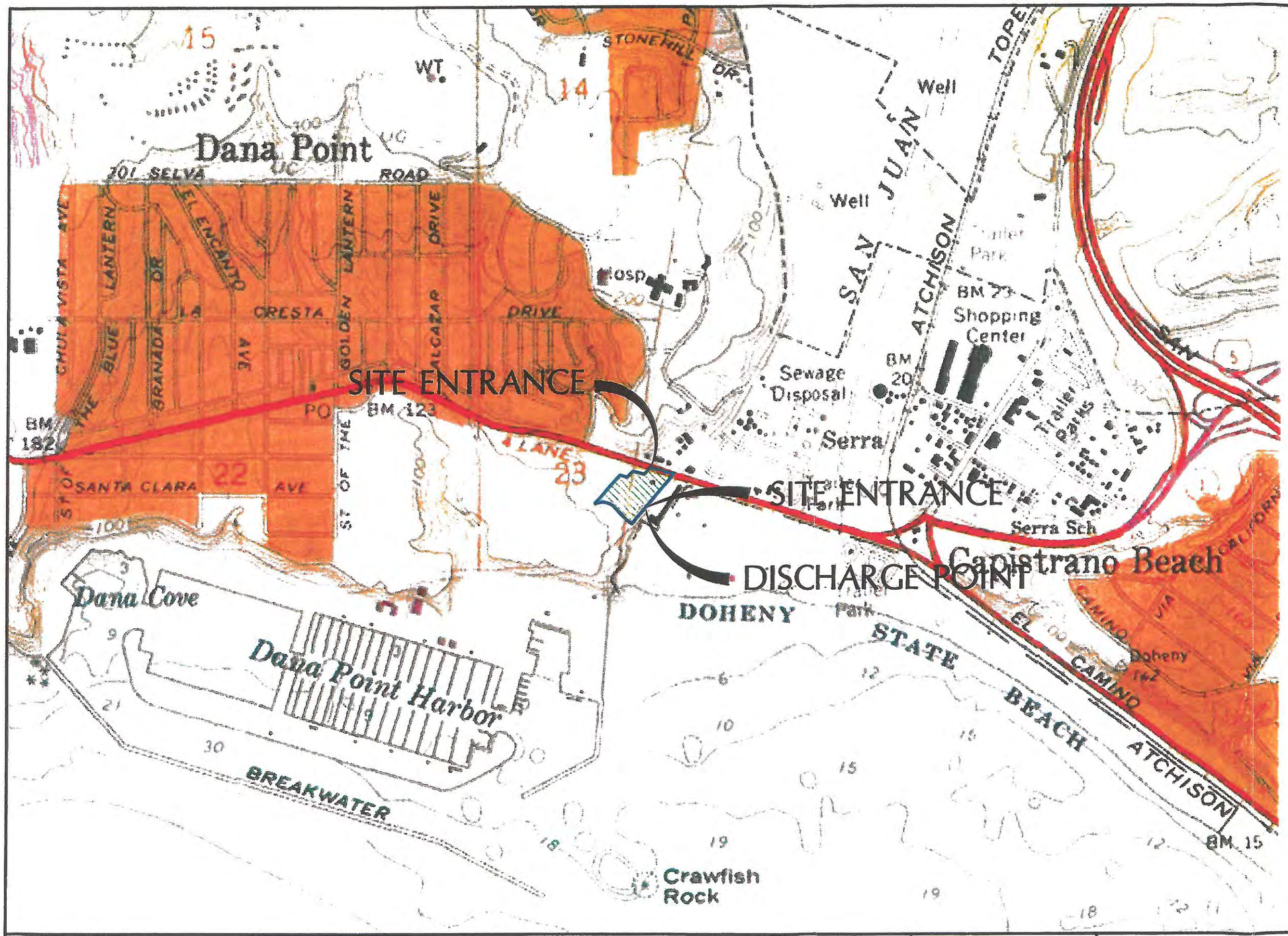


LEGEND

- PROJECT BOUNDARY
- BEVERLY HILLS HOSPITALITY, LLC OWNERSHIP
- BUILDING FOOT PRINT
- ROOF LIMIT
- NAP — NOT A PART
- DIRECTION OF SURFACE FLOW (ONSITE)
- DIRECTION OF SURFACE FLOW (OFFSITE)
- PROP. STORM DRAIN & FLOW DIRECTION
- EXISTING STORM DRAIN & FLOW DIRECTION
- PROP. HANGING STORM DRAIN & FLOW DIRECTION (LOCATED IN PARKING GARAGE)
- PROPOSED STORM DRAIN FOR ROOF DRAIN & FLOW DIRECTION
- LANDSCAPE AREAS WITH BMP's: SD-10 SITE DESIGN/LANDSCAPE PLANNING SD-12 EFFICIENT IRRIGATION
- EXISTING CATCH BASIN
- FLAT GREEN ROOF (UPPER ROOF LEVEL), TREATMENT CONTROL BMP
- LOADING AREA - STREET LEVEL
- SD-31 LOADING DOCK
- SD-32 TRASH ENCLOSURE
- DOWN SPOUT
- EXISTING VORTECH SEPARATOR TREATMENT CONTROL BMP - CONSTRUCTED IN MARCH 2003 BY CITY OF DANA POINT (NAP)
- GRATE INLET
- CATCH BASIN (PRIVATE) WITH BMP: KATCHALL PURESTREAM BIOFILTRATION UNIT OR CITY APPROVED EQUAL - 1st LEVEL SD-13 CATCH BASIN STENCLING
- TC-10 KATCHALL TRENCH DRAIN FILTRATION DEVICES
- SEWER INLET FOR GARAGE LEVEL DRAINAGE
- OIL/WATER SEPARATOR

PREPARED BY:	PREPARED FOR:	DATE PREPARED:		
HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ▪ ENGINEERING ▪ SURVEYING Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759	*BEVERLY HILLS HOSPITALITY GROUP, LLC* *25325 DANA POINT HARBOR DR.* *DANA POINT, CA 92629* *PH (949) 493-5001 – FAX (949) 661-6895*	09/07/11 3506-3	DANA POINT HOTEL 25325 DANA POINT HARBOR DR. CITY OF DANA POINT	PWQMP EXHIBIT A SITE PLAN

F:\0529\Engineering\OA_Project\WQ\WQMP A.dwg



VICINITY MAP
NOT TO SCALE

LEGEND

PROJECT BOUNDARY

PREPARED BY: HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ▪ ENGINEERING ▪ SURVEYING Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759	PREPARED FOR DEVELOPER: *BEVERLY HILLS HOSPITALITY GROUP, LLC* *25325 DANA POINT HARBOR DR.* *DANA POINT, CA 92629* *PH (949) 493-5001 – FAX (949) 661-6895*	DATE PREPARED: 12/09/09 W.O. 3506-3	DANA POINT HOTEL 25325 DANA POINT HARBOR DR. CITY OF DANA POINT	WQMP EXHIBIT B

F:\0529\Engineering\OA_Project\WQ\WQMP B.dwg

Section 8 Stormwater BMP Maintenance

The City does not accept stormwater structural BMPs as meeting the PWQMP requirements standard, unless an Operations and Maintenance (O&M) Plan is prepared and a mechanism is in place that will ensure ongoing long-term maintenance of all structural and non-structural BMPs.

The PWQMP certification Statement requires that the property owner implement the provisions of this PWQMP, which includes on-going BMP maintenance as specified in this PWQMP. The property owner is responsible to ensure that this plan is carried out and amended as appropriate to reflect up-to-date conditions on the site consistent with the current City of Dana Point Urban Runoff Management Program and the intent of the NPDES/MS4 Permit for Waste Discharge Requirements as authorized by the State and EPA. Once the property owner transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the PWQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

BHHG will implement the following maintenance mechanism to ensure ongoing long-term maintenance of all structural and non-structural BMPs.

Project proponent agreement to maintain stormwater BMPs: The City may enter into a contract with the project proponent obliging the project proponent to maintain, repair and replace the stormwater BMP as necessary into perpetuity. Security or a funding mechanism with a "no sunset" clause may be required. BHHG shall be the responsible party until such time as the responsible maintenance mechanism is established.

8.1 Operation and Maintenance (O&M) Plan

A separate and complementary document, the O&M Plan describes the designated responsible party for implementation of this PWQMP, including operation and maintenance of all the stormwater BMP(s), conducting the training/educational program and duties, the maintenance frequency, routine service schedule, specific maintenance activities, copies of resource agency permits, and any other necessary activities. Maintenance agreements shall require the inspection and servicing of all structural BMPs per manufacturer or engineering specifications, or at a minimum of annually.

8.1.1 Responsible Party

Any agreement relating to this project must reference the approved WQMP and O&M plan while indicating that the City will not be responsible for selection, design, construction and operation and maintenance of BMPs; the agreement must grant access to the City for inspection and require maintenance of BMPs to current city standards, or as directed by the Director of Public Works.

The responsible party for implementation of this PWQMP is:

Mr. Michael Draz
Beverly Hills Hospitality Group, LLC.
25325 Dana Point Harbor Drive.
Dana Point, CA 92629
Phone: (949) 493-5001

At such time as the responsible party accepts responsibility for the PWQMP and the respective O&M Plans, this document will be updated to include any new Contact information:

The responsible party shall notify the City Water Quality Engineer of any changes to the Responsible Party or contact information, thereof.

Maintenance Responsible Entity for BHHG Ownership portion of The Dana Point Hotel Project

Contact: _____
Address: _____
_____
Phone number: _____
Email: _____

Entity for City of Dana Point Ownership portion of The Dana Point Hotel Project

Contact: _____
Address: _____
_____
Phone number: _____
Email: _____

8.1.2 Record Keeping

Parties responsible for the respective O&M plans shall retain records for at least 5 years. These documents shall be made available to the City for inspection upon request at any time. A Training Log and Inspection and Maintenance Log are included with the PWQMP and the respective O&M Plans.

All training and educational activities and BMP operation and maintenance shall be documented to verify compliance with this O&M Plan. Please see Appendix E in this PWQMP for the Training/Education Log, BMP Inspection and Maintenance Log and Filterra O&M logs.

The inspection and maintenance, training records and city verification survey forms located at the end of this O&M Plan shall be submitted annual to the City, prior to October 1st, the beginning of the rainy season. **Failure to submit these forms to the City will result in non-compliance and enforcement actions may be taken.**

8.1.3 Vector Control

Standing water which exists for longer than 72 hours may contribute to mosquito breeding areas. Best Management Practices (BMPs) shall be inspected for standing water on a regular basis. Standing water may indicate that the BMP is not functioning properly and proper action to remedy the situation shall be taken in a timely manner.

Elimination of standing water and managing garbage, lawn clippings, and pet droppings, can help decrease the presence of mosquitoes and flies in the area.

The Orange County Vector Control District may be contacted for more information and support at 714-971-2421 or 949-654-2421; or check their website at: http://www.ocvcd.org/index.php

8.1.4 Required Permits

This section must list any permits required for the implementation, operation, and maintenance of the BMPs. Possible examples are:

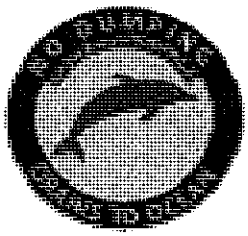
- None available presently known.

8.1.5 Operation and Maintenance Requirements

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
N1. Education for Property Owners, Tenants and Occupants *BHHG*	BHHG will insure that all homeowners will be given a copy of the recorded Rules which will contain a section outlining the environmental awareness education materials at the close of escrow. BHHG shall establish requirements for the implementation of a community awareness program that informs home buyers of the impacts of dumping oil, paints, solvents or other potentially harmful chemicals into the storm drain; the proper use and management of fertilizers, pesticides and herbicides in home landscaping and gardening practices; the impacts of littering and improper watering. Environmental awareness education materials, including, but not limited to those included in Section VII of this PWQMP, shall be provided to all contractors and employees of BHHG and at least annually thereafter by BHHG.	Information to be initially provided to Homeowners upon close of escrow and annually thereafter via website or community newsletters. Other agencies providing services to the homeowners (The City of Dana Point, South Coast Water District, and the County of Orange) provide educational materials to the BHHG upon request for distribution to residents by the BHHG. See these websites for further information: http://www.danapoint.org/ http://www.scwd.org/ http://www.ocwatersheds.com/ Brochures and educational articles for newsletter or website can be requested from City Water Quality Engineer. Brochures can be requested or downloaded from www.ocwatersheds.com.
N2. Activity Restriction *BHHG*	Within the Rules, language shall be included to identify surface water quality protection required of the HOA. Surface water quality activities shall also be conducted in conformance with the Water Quality Management Plan as it relates to the handling and disposal of contaminants.	Continuous

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
N3. Common Area Landscape Management *BHHG*	Landscape management programs will be designed and established by BHHG. The BHHG will own and maintain all project common landscaped areas. These programs will include how to mitigate the potential dangers of fertilizer and pesticide usage through the incorporation of an Integrated Pest Management Program (IPM).Ongoing maintenance will be consistent with the City of Dana Point Municipal Code Chapter 9.55 (Landscaping Standards and Requirements) and Chapter 15.10 (Storm Water and Surface Runoff Water Quality).	Monthly during regular maintenance, manage landscaping in accordance with the County of Orange Water Conservation Ordinance No. 3802 and with management guidelines for use of fertilizers and pesticides.
N4. BMP Maintenance *BHHG*	As indicated in (N2) above, the Rules shall identify the BHHG as being responsible for implementation of each applicable non-structural BMP as well as scheduling inspection and maintenance cleaning of all applicable structural BMP facilities. BHHG, through its landscape maintenance contractor, will be responsible for inspection and maintenance activities in landscape areas. Debris and other water pollutants will be controlled, contained and disposed of in a proper manner by the maintenance contractor.	Per these tables
N5. Title 22 CCR Compliance *BHHG*	The Dana Point Hotel shall comply with Title 22 of California Code of Regulations and relevant sections of the California Health and Safety Code regarding hazardous waste management, which will be enforced by County Environmental Health on behalf of the State. All materials considered as hazardous must be properly handled and disposed of by an approved disposal facility.	Continuous
N6. Local Water Quality Permit Compliance *BHHG*	Project incorporates SD RWQCB and City requirements, requiring the preparation of a PWQMP and treatment of project pollutants of concern. Project owners will abide by operation and maintenance objectives required of all non-structural, structural and treatment BMPs.	Continuous

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
N7. Spill Contingency Plan *BHHG*	This requirement generally apples to commercial or industrial developments that generate, store or dispose of hazardous materials. However in the event that oil, hydrocarbon and other materials that may impact storm water is leaked or spilled within the project area, the material(s) shall be cleaned up immediately and disposed of properly. Refer to the "Spill Prevention Control and Countermeasure Plan" located in Section 3 of the "Temporary Golf Course Maintenance Yard O & M Plan".	Continuous
N9. Hazardous Materials Disclosure Compliance *BHHG*	This BMP applies to commercial and industrial facilities that generate, store or dispose of hazardous materials. Compliance with Permittee ordinances are typically enforced by respective fire protection agency for the management of hazardous materials. Orange County, health care agencies, and/or other appropriate agencies (i.e. Department of Toxics Substances Control are typically responsible for enforcing hazardous materials and hazardous waste handling and disposal regulations. All hazardous materials such as chemicals, fertilizers, pesticides and medical use related materials shall be contained in spill proof containers that are locked in protective storage areas. These areas must be covered. All required signage regarding materials on hand shall be in place per requirements.	Continuous
N10. Uniform Fire Code Implementation *BHHG*	All onsite facilities that generate, store or dispose of hazardous materials will be required to be compliant with Article 80 of the Uniform Fire Code, which will be enforced by the local fire protection agency.	Continuous
N11. Common Area Litter Control *BHHG*	Weekly sweeping and trash pick up as necessary within all project areas and common landscape areas. Daily inspection of trash receptacles to ensure that lids are closed and pick up any excess trash on the ground, noting trash disposal violations by homeowners and reporting the violations to BHHG for investigation.	Daily inspection and weekly sweeping and clean-up or as needed

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
N12. Employee Training *BHHG*	An employee training/education program will be established as it would apply to future employees of the Dana Point Hotel and BHHG to inform and train employees engaged in maintenance activities regarding the impact of dumping oil, paints, solvents or other potentially harmful chemicals into storm drain; the proper use of fertilizers and pesticides in landscaping maintenance practices; and the impacts of littering and improper water disposal.	At first hire and annually thereafter for all personnel and employees, including but not limited to the educational materials contained in the approved Water Quality Management Plan.
N13. Housekeeping of Loading Docks *BHHG*	There is one onsite "loading dock" where supplies and materials are transferred to the building. It shall be kept in a clean and orderly condition through a regular program of sweeping, litter control and immediate cleanup of spills. Cleanup procedures should minimize or eliminate the use of water.	Loading areas will be inspected daily and cleaned as necessary.
N14. Common Area Catch Basin Inspection *BHHG*	Post construction, catch basins will be owned, inspected and maintained by BHHG. Per project Conditions of Approval these activities will be done at a minimum on a yearly basis, and prior to the storm season, no later than October 1st of each year.	At a minimum, basins will be inspected and cleaned around October 1ST of each year, prior to "first flush" storm, or as necessary after large storm events to clear inlets of trash, debris and silt.
N15. Street Sweeping Private Streets and Parking Lots *BHHG*	During construction and prior to the acceptance of the project streets for maintenance by BHHG, BHHG will have all streets and any parking areas vacuum swept on a weekly basis. After acceptance of all streets for maintenance as described herein, above, BHHG shall be responsible for street sweeping and sweeping of the parking lot.	Streets will be vacuum swept on a weekly basis.
Provide Storm Drain System Stenciling and Signage SD13 *BHHG*	As a part of the final civil engineering drawings it will be required by the contractor to label all of the project's catch basins where applicable in paved areas, with catch basin markers which state: "No Dumping - Drains to Ocean, No Descargue Basura". This will be done in a location that can be clearly seen by all and will be routinely inspected and re-labeled, as necessary. Thereafter, the owner/operator shall routinely inspect and re-label the catch basins, as necessary.	Catch basin labels will be inspected annually and relabeled as necessary to maintain legibility. 

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
Trash and Waste Storage Areas to Reduce Pollutant Introduction SD32 *BHHG*	The Dana Point Hotel is anticipated to generate hotel-use related trash and debris. Such trash will be disposed of by BHHG and removed from the project trash enclosures located in the parking lot, by the local private waste management company to a central trash disposal facility offsite. Trash enclosure areas will be graded to keep stormwater away from the enclosures.	A local waste management contractor shall be hired to remove trash, green wastes and recyclables on a weekly basis, or more frequently as necessary, for proper disposal to a trash facility offsite. Further information about trash pickup in the City of Dana Point can be found at this site: http://www.danapoint.org/publicworks/SolidWaste.htm
Use Efficient Irrigation Systems & Landscape Design *BHHG*	The project has incorporated Site Design and Landscape Design methodologies such as minimizing impervious footprint, incorporation of landscaped buffers and use of native and drought tolerant species as previously detailed in section 6.1 of this report. Efficient irrigation practices will be consistent with the City of Dana Point Municipal Code Chapter 9.55 (Landscaping Standards and Requirements) and Chapter 15.10 (Storm Water and Surface Runoff Water Quality). Irrigation systems shall be automatically controlled and designed, installed, and maintained so as to minimize overspray and runoff onto streets, sidewalks, driveways, structures, windows, walls, and fences.	Inspected once a week, in conjunction with maintenance operations. Verify that runoff minimizing landscape design continues to function by checking that water sensors are functioning properly, that irrigation heads are adjusted properly to eliminate overspray to hardscape areas, and to verify that irrigation timing and cycle lengths are adjusted in accordance with water demands, given time of year, weather and day or night time temperatures.
Hillside Landscaping *BHHG*	All hillside areas will be planted with vegetative cover with erosion-resistant mulch and be inspected regularly for erosion. If erosion problems become evident, inspect for all sources of excess water. Repair or redirect the problem flows. Re-grade any rills & gullies and clean paved areas where necessary. Stabilize these areas with mulch and additional deep-rooted plantings. Landscaping will consist of "California-friendly" deep-rooted, native drought-tolerant plantings. Landscape pests and insects will be controlled through an Integrated Pest Management (IPM) program implemented by the Landscape Maintenance firm contracted by BHHG.	Inspected once a week in conjunction with maintenance operations and prior to finalizing any replanting schemes. Verify that plants continue to be grouped according to similar water requirements in order to hillside erosion and reduce excess irrigation runoff.

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
Fueling Areas SD30 *BHHG*	The temporary golf course maintenance yard will have a fueling area that will be designed with a canopy cover and graded to direct any spills or leaks away from onsite storm drains. A spill contingency plan shall be prepared by the owner for the project as it relates to notification of responsible agencies, disposal of cleanup materials, documentation, etc. with regards to the County of Orange fact sheet "Spill Prevention, Control & Cleanup" IC-17	Inspected daily and maintained as necessary for debris, proper functioning, spills or leaks.
Vehicle Wash Area SD33 *BHHG*	The vehicle wash area will include a - covered wash area. Wash and rinse waters draining into or discharged into the sanitary sewer and storm drain systems are prohibited. The wash area shall be maintained.	Inspected daily and maintained as necessary for wash water spills and to keep drainages clear.
Sand-Oil Interceptor for FOG *BHHG*	Jensen Precast Model JP7500S0 Sand-Oil Interceptor Cleaning at prescribed intervals is necessary to maintain the efficiency of an interceptor. After the accumulated sand / oil and waste material have been removed, the interceptor should be checked thoroughly to make certain that the inlet, outlet and air relief ports are clear of obstructions. Backups prior to scheduled maintenance intervals indicate a clogged system, which could result in surcharge. Also, the performance of the interceptor becomes impaired as sand / oil and other materials accumulate because of reduced retention time, resulting from less interceptor volume. The maintenance frequency should be reevaluated on any system that has clogged. Disposal of Intercepted Materials: Sand / oil and other waste matter that has been removed from the interceptor should not be introduced into any drain, sewer, storm drain or natural body of water. The removal and disposal of this material should be done by a professional pumping contractor that is trained and licensed in this field of expertise	On a new installation the first cleaning should be done at 90 days to help establish the cleaning frequency. Sand / oil interceptor cleaning will range somewhere from 30 days to every 12 months. Generally, cleaning should be done when 50% of the sand / oil retention capacity has been reached. This level can be determined by removing the inlet side manhole cover, and using a probe, determining the depth of sand / oil build up.

BMP Name and BMP Implementation, Maintenance, and Inspection Responsibility	Implementation, Inspection and Maintenance Procedures and Requirements	Frequency
Treatment Control BMP *MP-52 Katchall Drain Inserts* *BGGH*		
Katchall Trench Drain *BGGH*		

Appendix A
EDUCATIONAL MATERIALS

The following is a selection of Educational Materials for Homeowners, Contractors and employees that address BMPS and water quality issues. Many are available in English and Spanish.

To meet the educational requirements of this O&M Plan, educational brochures can be downloaded or requested at no charge at www.ocwatersheds.com for inclusion on a website, in a newsletter or mailed to property owners, tenants and/or contractors. Property owners, tenants, staff and/or contractors must receive education/training at least once per year.

Brochure	Pollutant(s) Addressed	Activities Addressed
"The Ocean Begins At Your Front Door" – English, Spanish, Vietnamese	Household hazardous waste, trash, motor oil, chlorine, overwatering, green waste, dirt, pesticides/fertilizer, pet waste	Household maintenance and activities (i.e. hosing driveway), automotive maintenance and washing, pool maintenance, landscape and gardening, trash disposal, pet care
Homeowners Guide for Sustainable Water Use Pamphlet	Household hazardous waste, trash, motor oil, chlorine, overwatering, green waste, dirt, pesticides/fertilizer, pet waste	Preventing urban runoff through low impact development in residential properties, water conservation, use of IPM techniques and California-friendly landscaping, general water pollution prevention methods
"Help Prevent Ocean Pollution: Your Local Used Oil Collection Center" - South– English, Spanish, Vietnamese	Motor Oil	Automotive Maintenance, Disposal of Used Motor Oil
"Help Prevent Ocean Pollution: Tips for Pool Maintenance" – English, Spanish	Chlorine, runoff	Pool Drainage/Maintenance
"Help Prevent Ocean Pollution: Tips for Landscape and Gardening" – English, Spanish	Fertilizer, pesticide, dirt, overwatering, green waste	Landscape maintenance, pesticide/fertilizer application, proper disposal of household hazardous waste and green waste
"Help Prevent Ocean Pollution: Tips for Pet Care" – English, Spanish	Surfactants, chemicals, pet waste	Proper disposal of pet waste, proper pet bathing techniques
"Help Prevent Ocean Pollution: Household Tips" – English, Spanish	Household hazardous waste, pet waste, pesticides/fertilizers, overwatering, green waste, surfactants, motor oil, trash	Household maintenance and activities (i.e. hosing driveway), automotive maintenance and washing, pool maintenance, landscape and gardening, trash disposal, pet care
"Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials" – English, Spanish, Vietnamese	Household hazardous wastes	Proper identification and disposal of household hazardous wastes
"Help Prevent Ocean Pollution: Maintenance Practices for Your Business" – English, Spanish	Fertilizer, pesticides, green waste, overwatering, trash, toxic substances	Landscape maintenance, proper application of pesticides and fertilizers, trash management, proper storage of materials
"Help Prevent Ocean Pollution: Tips for Using Concrete and Mortar" – English, Spanish	Concrete and mortar, slurry	Proper preparation, use, clean up and disposal of concrete and mortar
"Responsible Pest Control"	Pesticides	Proper identification of pests, selection of least toxic chemical, proper pesticide application, spill prevention and proper storage and disposal of pesticides (use of Integrated Pest Management (IPM) techniques)

Brochure	Pollutant(s) Addressed	Activities Addressed
"Help Prevent Ocean Pollution: Residential Pool, Landscape and Hardscape Drains" – English, Spanish	Chlorine, chemicals, pet waste, green waste, overwatering, motor oil and vehicle fluids	Pool maintenance, spill prevention, proper disposal of household hazardous waste, proper disposal of pet waste, proper use of pesticides and fertilizers, proper vehicle maintenance
"Help Prevent Ocean Pollution: Proper Use and Disposal of Paint" – English, Spanish	Paint, chemicals	Proper use, storage and disposal of paint
"Help Prevent Ocean Pollution: Tips for Home Improvement Projects" – English, Spanish	Construction debris, concrete, paint, household hazardous waste, sediment	Proper storage of construction materials, recycling of construction materials, proper disposal of household hazardous waste, proper erosion and spill control
"Help Prevent Ocean Pollution: Children's Coloring & Activity Book"	Trash, pet waste, motor oil, green waste	Litter control, proper disposal of pet waste, proper spill clean up (e.g. use of cat litter)
"Help Prevent Ocean Pollution: Tips for the Automotive Industry" – English, Spanish	Motor oil, metals, surfactants, toxic substances, dirt	Proper maintenance and washing practices for automobiles, proper storage and disposal of automotive liquids and materials
"Help Prevent Ocean Pollution: Tips for the Home Mechanic"	Motor oil, metals, surfactants, toxic substances	Proper maintenance and washing practices for automobiles and automotive detailing materials, proper storage and disposal of automotive liquids and materials, use of used oil collection centers
"Compliance Best Management Practices for Mobile Businesses"	Surfactants, toxic substances, dirt, metals	Mobile car washing and detailing, proper high pressure cleaning, proper storage and disposal of washwater from mobile automotive detailing, washing and carpet and fabric cleaning
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" – English, Spanish, Vietnamese	Grease, food waste, trash	Proper food waste disposal, proper grease and oil disposal, proper procedures for spill cleanup, proper maintenance of trash dumpsters, proper floor mat cleaning, proper wastewater disposal

Regulatory Information

1. Dana Point Municipal Code Chapter 15.10 Storm Water/Surface Runoff Water Quality
2. Dana Point Municipal Code Chapter 9.55 Landscaping Standards and Requirements

Both of the above Code Chapters are available on the City's website at:
www.danapoint.org/municipalcode

PRELIMINARY DRAINAGE STUDY

FOR

DANA POINT HOTEL

City of Dana Point

County of Orange

PREPARED BY:

HUNSAKER & ASSOCIATES IRVINE, INC.

THREE HUGHES

IRVINE, CA 92618

(949) 583-1010

PREPARED FOR:

BEVERLY HILLS HOSPITALITY GROUP, LLC

25325 DANA POINT HARBOR DRIVE

DANA POINT, CA 92626

(949) 493-5001

September 16, 2011

W.O. #3506-3

PRELIMINARY DRAINAGE STUDY

FOR

DANA POINT HOTEL

City of Dana Point

County of Orange

PREPARED UNDER THE SUPERVISION OF:

Tu Trinh, R.C.E. 71555, Exp. 12/31/11 — 9/16/2011 Date

TABLE OF CONTENTS

INTRODUCTION

A. PROJECT LOCATION

The project site is Dana Point Hotel, located in the City of Dana Point (City), County of Orange. The site is bounded by Pacific Coast Highway (PCH) on the north, Dana Point Harbor Drive on the east, and Park Lantern on the south.

B. STUDY PURPOSE

This study is preliminary and to accompany the submittal of Conceptual Water Quality Management Plan (CWQMP) for the project. This study determines the 100-year peak storm runoff produced from the project site in the existing and proposed conditions.

C. METHODOLOGY

The hydrology calculations were prepared using the 1986 *Orange County Hydrology Manual* as incorporated in the Advanced Engineering Software (AES) "RATSC" program. The Geotechnical Report was used to determine the hydrologic soil types.

D. DISCUSSION FOR HYDROLOGY

In the existing condition, the site is 2 two-story motel buildings located at 25325 Dana Point Harbor Drive. Storm runoff produced from the site and the surrounding areas are discharged into the existing storm drain system and the first flush/dry weather flows are treated with a CDS unit as shown.

In the proposed condition the two motel buildings and the two buildings located at 34297 and 34299 PCH will be converted to a Dana Point Hotel.

The land use is unchanged and storm runoff produced from the site will still be discharged into the same storm drain system as in the existing condition. However, there will be more catch basins provided and a portion of the existing storm drain will be realigned to avoid the building footage.

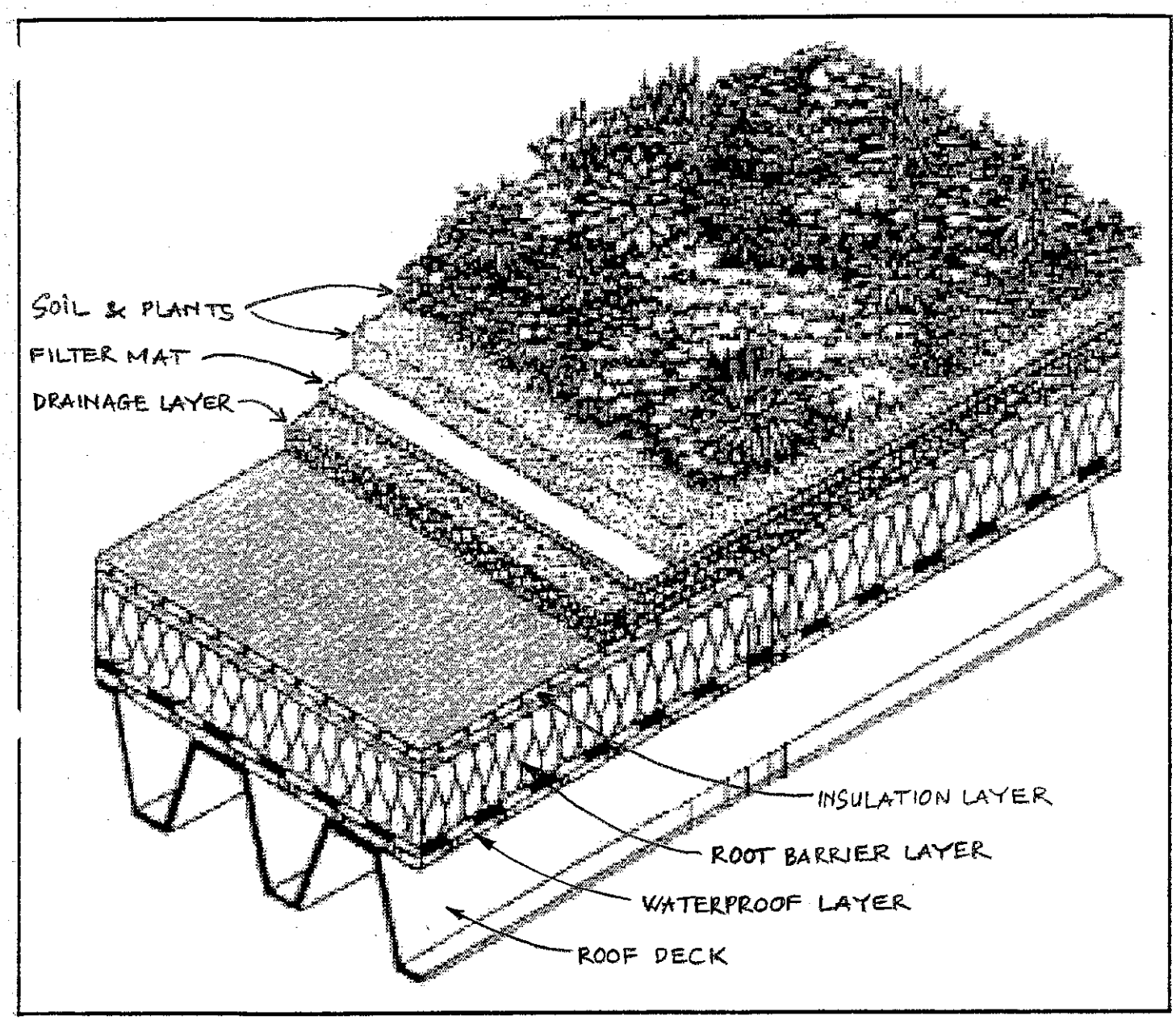
There were no drainage reports for the project site available during researches at the City Engineering Department Record; therefore, the total flow rate produced from the off-site areas contributing to the existing storm drain system shown on the hydrology map of section 2 is unknown.

The total 100-year storm runoff produced from the on-site in the existing condition (see map in section 2) contributing to the existing storm drain system is 25.1cfs.

The total 100-year storm runoff produced from the on-site in the proposed condition (see map in section 3) contributing to the existing storm drain system is 25.0cfs with the use of two green

roofs. According to the IDEQ Storm Water Best Management Practices Catalog, dated September 2005, up to 90% of the precipitation can be absorbed.

In addition to the existing CDS unit protected in place and the proposed green roofs, one 8' x 4' and one 8' x 6' proposed Katchall Purestream Bio-filtration Vault will be used to treat first flush/dry weather flows produced from the development (see color exhibit enclose in the WQMP report for details)



Components of the vegetated roof cover.

Green Roofs BMP 18

Description

Green rooftops are veneers of living vegetation installed atop buildings, from small garages to large industrial structures. Green roofs help manage stormwater by mimicking a variety of hydrologic processes normally associated with open space. Plants capture rainwater on their foliage and absorb it in their root zone, encouraging evapotranspiration and preventing much stormwater from ever entering the runoff stream.

General Information

Green roofs provide an opportunity to mitigate the developmental impacts of construction practices by replicating the functions eliminated by the building footprint through the design of rooftops. Green roofs embody many environmental benefits, especially when applied to urban settings, where nature is at a premium. They can help restore the ecological value of open space to densely developed city centers

On-site stormwater retention and runoff control from expansive roof surface areas of buildings can be accomplished through green roofs. Green roofs reduce the volume of stormwater flowing into streams and drainage channels, resulting in the control of sediment transport and overall soil erosion.

Depending on rain intensity and green roof soil depths, between 15 to 90 % of the precipitation can be absorbed, thereby considerably reducing runoff and potential pollutants from traditional impervious roofing surfaces. Plants intercept and delay rainfall runoff and the peak flow rate, and eventually return water to the surrounding atmosphere by evaporation and transpiration. Average runoff absorption rates are between 50 and 60%.

The green roof concept is akin to the garden roofs found atop buildings worldwide, which are traditionally heavy and difficult to maintain,. Green roofs are the result of a complete underlying roof build-up system, providing continuous, uninterrupted layers of protection and drainage. Recent strides in technology have advanced the properties of green roofs, making them lighter, more durable and better able to withstand the extreme climatic conditions of the rooftop.

Green roofs are thoroughly engineered systems which address all the critical aspects of design, including: the saturated weight of the system and load bearing capacity of the underlying roof deck; moisture and root penetration resistance of the waterproofing membrane; resistance to wind shear; management of drainage; and the suitability of the proposed plant material.

All green rooftops include the following basic component layers, listed from the bottom up:

- Waterproofing and root barrier
- Insulation (optional)
- Drainage and filter layer

- Soil and plants

Green rooftops can be built in a variety of ways, but the simplest involves a relatively light system of drainage and filtering components and a thin layer of soil mix (2 to 4 inches), which is installed and planted with drought-tolerant herbaceous vegetation.

Vegetation is typically succulents, grass, herbs, and/or wildflowers adapted to harsh conditions (minimal soils, seasonal drought, high winds, and strong sun exposure – i.e., alpine conditions) prevalent on rooftops. Proven hardy green roof plants are the alpine types and those that can retain a certain amount of moisture within their leaves or bulbs. Other plants known to flourish in areas of high heat, drought, wind, direct sun, and temperature extremes should be particularly adaptable to the sometimes harsh conditions of a green roof. Some examples of species include: sempervivum, sedum, creeping thyme, allium, phloxes, and anntenaria. Most plants naturally occurring along county roads, expressways, abandoned sites, and similar sites, that do not receive irrigation would adapt well to the green roof environment.

Additional Resources

Environmental Building News, 2003. "A Garden Overhead: the benefits and challenges of green roofs", Vol. 10, No. 11, Special Reprint.

London Ecology, *Building Green: A Guide to Using Plants on Roofs, Walls and Pavements*

Peck, Steven W. *The Green Roof Infrastructure Monitor,* The Cardinal Group Inc. Available at Greenroofs website.

Additional information also available at Greenroofs website: www.greenroofs.com

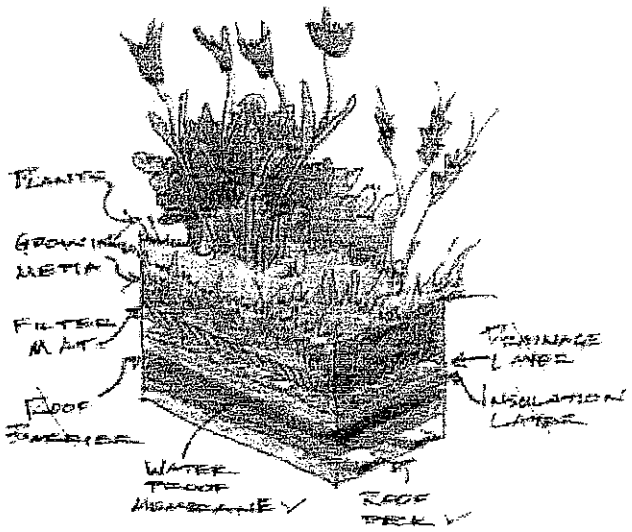


Figure 18-1. Green roofs

100-YR STUDY

EXISTING CONDITION

```
**************************************************************************
              RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            (Reference: 1986 ORANGE COUNTY HYDROLOGY CRITERION)
          (c) Copyright 1983-2011 Advanced Engineering Software (aes)
              Ver. 18.0  Release Date: 07/01/2011  License ID 1239

                              Analysis prepared by:

                              HUNSAKER & ASSOCIATES
                                    Irvine,Inc
                           Planning * Engineering * Surveying
                    Three Hughes * Irvine, California 92618 * (949)583-1010

 ************************** DESCRIPTION OF STUDY **************************
* W.O. #3506-2, DANA POINT PROJECT                                        *
* 100-YR STUDY                                                            *
* EXISTING CONDITION                                                      *
 **************************************************************************

  FILE NAME: DANA_E.DAT
  TIME/DATE OF STUDY: 18:19 09/15/2011
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                        --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.90
  *DATA BANK RAINFALL USED*
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:   MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE   FACTOR
NO.   (FT)     (FT)     SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)     (n)
===  =====  =========  ================  ======  =====  ======  =====  =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

**************************************************************************
  FLOW PROCESS FROM NODE       1.00 TO NODE       2.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   280.00
  ELEVATION DATA: UPSTREAM(FEET) =     32.00  DOWNSTREAM(FEET) =     21.00

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.532
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  5.839
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 C        0.68      0.25       0.100    86    5.53
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      3.56
  TOTAL AREA(ACRES) =      0.68   PEAK FLOW RATE(CFS) =      3.56

**************************************************************************
  FLOW PROCESS FROM NODE       2.00 TO NODE       3.00 IS CODE =  61
```

A1

```
-----------------------------------------------------------------------------
  >>>>>COMPUTE STREET FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>(STANDARD CURB SECTION USED)<<<<<
=============================================================================
  UPSTREAM ELEVATION(FEET) =   21.00  DOWNSTREAM ELEVATION(FEET) =   15.00
  STREET LENGTH(FEET) =   660.00   CURB HEIGHT(INCHES) =  6.0
  STREET HALFWIDTH(FEET) = 50.00

  DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =  45.00
  INSIDE STREET CROSSFALL(DECIMAL) =  0.017
  OUTSIDE STREET CROSSFALL(DECIMAL)  =  0.017

  SPECIFIED NUMBER OF HALFSTREETS CARRYING RUNOFF =  1
  STREET PARKWAY CROSSFALL(DECIMAL)  =  0.020
  Manning's FRICTION FACTOR for Streetflow Section(curb-to-curb) =   0.0150
  Manning's FRICTION FACTOR for Back-of-Walk Flow Section =   0.0200

    **TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      10.02
    STREETFLOW MODEL RESULTS USING ESTIMATED FLOW:
    STREET FLOW DEPTH(FEET) =  0.47
    HALFSTREET FLOOD WIDTH(FEET) =   19.81
    AVERAGE FLOW VELOCITY(FEET/SEC.) =    2.90
    PRODUCT OF DEPTH&VELOCITY(FT*FT/SEC.) =    1.35
  STREET FLOW TRAVEL TIME(MIN.) =   3.80   Tc(MIN.) =    9.33
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.328
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                  C        3.30      0.25      0.100    86
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =     3.30      SUBAREA RUNOFF(CFS) =   12.78
  EFFECTIVE AREA(ACRES) =      3.98    AREA-AVERAGED Fm(INCH/HR) =  0.03
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        4.0       PEAK FLOW RATE(CFS) =      15.42

  END OF SUBAREA STREET FLOW HYDRAULICS:
  DEPTH(FEET) = 0.53   HALFSTREET FLOOD WIDTH(FEET) =  24.85
  FLOW VELOCITY(FEET/SEC.) =  3.21   DEPTH*VELOCITY(FT*FT/SEC.) =   1.70
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =     940.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =    9.33
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.328
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                  C        0.50      0.25      0.100    86
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =     0.50      SUBAREA RUNOFF(CFS) =    1.94
  EFFECTIVE AREA(ACRES) =      4.48    AREA-AVERAGED Fm(INCH/HR) =  0.03
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        4.5       PEAK FLOW RATE(CFS) =      17.35

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     12.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   300.00
  ELEVATION DATA: UPSTREAM(FEET) =     92.00  DOWNSTREAM(FEET) =     25.00

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    6.436
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  5.354
```

A2

A3

```
 SUBAREA Tc AND LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS   Tc
      LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
 RESIDENTIAL
 ".4 DWELLING/ACRE"          C        1.06      0.25      0.900    86    6.44
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.900
 SUBAREA RUNOFF(CFS) =      4.89
 TOTAL AREA(ACRES) =      1.06   PEAK FLOW RATE(CFS) =      4.89

****************************************************************************
 FLOW PROCESS FROM NODE     12.00 TO NODE     13.00 IS CODE =  51
----------------------------------------------------------------------------
 >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
 >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =     25.00  DOWNSTREAM(FEET) =     18.00
 CHANNEL LENGTH THRU SUBAREA(FEET) =   210.00   CHANNEL SLOPE =  0.0333
 CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =   2.000
 MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   1.00
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  5.153
 SUBAREA LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
      LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 RESIDENTIAL
 "11+ DWELLINGS/ACRE"        C        0.66      0.25      0.200    86
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.200
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      6.41
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   7.87
 AVERAGE FLOW DEPTH(FEET) =   0.64   TRAVEL TIME(MIN.) =   0.44
 Tc(MIN.) =    6.88
 SUBAREA AREA(ACRES) =     0.66      SUBAREA RUNOFF(CFS) =    3.03
 EFFECTIVE AREA(ACRES) =     1.72    AREA-AVERAGED Fm(INCH/HR) =   0.16
 AREA-AVERAGED Fp(INCH/HR) =   0.25  AREA-AVERAGED Ap =   0.63
 TOTAL AREA(ACRES) =      1.7        PEAK FLOW RATE(CFS) =      7.73

 END OF SUBAREA CHANNEL FLOW HYDRAULICS:
 DEPTH(FEET) =  0.68   FLOW VELOCITY(FEET/SEC.) =   8.27
 LONGEST FLOWPATH FROM NODE     11.00 TO NODE     13.00 =     510.00 FEET.
============================================================================
 END OF STUDY SUMMARY:
 TOTAL AREA(ACRES)      =       1.7  TC(MIN.) =      6.88
 EFFECTIVE AREA(ACRES) =      1.72  AREA-AVERAGED Fm(INCH/HR)=  0.16
 AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap = 0.631
 PEAK FLOW RATE(CFS)    =      7.73
============================================================================
============================================================================
 END OF RATIONAL METHOD ANALYSIS
```

A4

A5

1" = 80'

A1
0.68

Q_{100}=3.6cfs
t=5.5

A2
3.30

A3
0.50

A4
1.06

A5
0.66

Q_{100}=4.9cfs
t=6.4

Q_{100}=7.7cfs
t=6.9

Q_{100}=17.4cfs
t=9.3

PACIFIC COAST HIGHWAY

DANA POINT HARBOR DRIVE

PARK LANTERN

MC DONALD BLDG

34289 PCH DEL TACO

35325 DANA POINT HARBOR DR. 2-STORY MOTEL

34297 PCH JACK IN THE BOX

34299 PCH

EXIST. 51" RCP

EX. 21" RCP

EXIST. 54" RCP

BASKETBALL COURT

PARKING LOT

EX. 18" RCP

EX. 21" RCP

EXIST. CDS UNIT

EXIST. 54" RCP

HYDROLOGY MAP FOR DANA POINT MOTEL EXISTING CONDITION

#3506-2

F:\0529\Engineering\SY_Hydrology\Exh_General\DanaPoint-Existing-4.dwg

100-YR STUDY

PROPOSED CONDITION

```
*****************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
          (Reference: 1986 ORANGE COUNTY HYDROLOGY CRITERION)
        (c) Copyright 1983-2011 Advanced Engineering Software (aes)
            Ver. 18.0  Release Date: 07/01/2011  License ID 1239

                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                Three Hughes * Irvine, California 92618 * (949)583-1010

 ************************** DESCRIPTION OF STUDY **************************
* W.O. #3506-2, DANA POINT PROJECT                                        *
* 100-YR STUDY                                                            *
* PROPOSED CONDITION                                                      *
 *************************************************************************

  FILE NAME: DANA_P.DAT
  TIME/DATE OF STUDY: 13:20 09/16/2011
=============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
=============================================================================
                      --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.90
  *DATA BANK RAINFALL USED*
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-   CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP    HIKE  FACTOR
NO.   (FT)      (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)   (FT)    (n)
===  =====  =========  ================  ======  =====  ======  =====  =======
  1   30.0      20.0   0.018/0.018/0.020   0.67    2.00 0.0312 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

****************************************************************************
  FLOW PROCESS FROM NODE       1.00 TO NODE       2.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   280.00
  ELEVATION DATA: UPSTREAM(FEET) =     32.00  DOWNSTREAM(FEET) =     21.00

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.532
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  5.839
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap      SCS   Tc
       LAND USE           GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                C        0.68      0.25      0.100    86    5.53
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      3.56
  TOTAL AREA(ACRES) =      0.68   PEAK FLOW RATE(CFS) =      3.56

****************************************************************************
  FLOW PROCESS FROM NODE       2.00 TO NODE       3.00 IS CODE =  61
```

A1

```
------------------------------------------------------------------------
  >>>>>COMPUTE STREET FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>(STANDARD CURB SECTION USED)<<<<<
========================================================================
  UPSTREAM ELEVATION(FEET) =   21.00  DOWNSTREAM ELEVATION(FEET) =   15.00
  STREET LENGTH(FEET) =   660.00   CURB HEIGHT(INCHES) =  6.0
  STREET HALFWIDTH(FEET) = 50.00

  DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =  45.00
  INSIDE STREET CROSSFALL(DECIMAL) =  0.017
  OUTSIDE STREET CROSSFALL(DECIMAL)  =  0.017

  SPECIFIED NUMBER OF HALFSTREETS CARRYING RUNOFF =  1
  STREET PARKWAY CROSSFALL(DECIMAL)  =  0.020
  Manning's FRICTION FACTOR for Streetflow Section(curb-to-curb) =   0.0150
  Manning's FRICTION FACTOR for Back-of-Walk Flow Section =   0.0200

    **TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       5.65
    STREETFLOW MODEL RESULTS USING ESTIMATED FLOW:
    STREET FLOW DEPTH(FEET) =  0.40
    HALFSTREET FLOOD WIDTH(FEET) =   15.77
    AVERAGE FLOW VELOCITY(FEET/SEC.) =    2.53
    PRODUCT OF DEPTH&VELOCITY(FT*FT/SEC.) =    1.01
  STREET FLOW TRAVEL TIME(MIN.) =   4.35   Tc(MIN.) =    9.88
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.188
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp          Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                  C        1.11      0.25      0.100    86
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =    1.11      SUBAREA RUNOFF(CFS) =    4.16
  EFFECTIVE AREA(ACRES) =      1.79    AREA-AVERAGED Fm(INCH/HR) =  0.03
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        1.8        PEAK FLOW RATE(CFS) =       6.71

  END OF SUBAREA STREET FLOW HYDRAULICS:
  DEPTH(FEET) = 0.42   HALFSTREET FLOOD WIDTH(FEET) =  16.91
  FLOW VELOCITY(FEET/SEC.) =  2.63   DEPTH*VELOCITY(FT*FT/SEC.) =   1.10
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =     940.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =  81
------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
========================================================================
  MAINLINE Tc(MIN.) =    9.88
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.188
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp          Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                  C        0.50      0.25      0.100    86
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =    0.50      SUBAREA RUNOFF(CFS) =    1.87
  EFFECTIVE AREA(ACRES) =      2.29   AREA-AVERAGED Fm(INCH/HR) =  0.03
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        2.3        PEAK FLOW RATE(CFS) =       8.58

****************************************************************************
  FLOW PROCESS FROM NODE      4.00 TO NODE      5.00 IS CODE =  21
------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   250.00
  ELEVATION DATA: UPSTREAM(FEET) =     23.00  DOWNSTREAM(FEET) =     19.00

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    7.493
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.907
```

A2

A3

```
 SUBAREA Tc AND LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS   Tc
      LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
 CONDOMINIUMS                C        0.72      0.25       0.350    86    7.49
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.350
 SUBAREA RUNOFF(CFS) =      3.12
 TOTAL AREA(ACRES) =      0.72   PEAK FLOW RATE(CFS) =      3.12

****************************************************************************
 FLOW PROCESS FROM NODE     11.00 TO NODE     12.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   300.00
 ELEVATION DATA: UPSTREAM(FEET) =     92.00  DOWNSTREAM(FEET) =     25.00

 Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
 SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    6.436
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  5.354
 SUBAREA Tc AND LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS   Tc
      LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
 RESIDENTIAL
 ".4 DWELLING/ACRE"          C        1.06      0.25       0.900    86    6.44
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.900
 SUBAREA RUNOFF(CFS) =      4.89
 TOTAL AREA(ACRES) =      1.06   PEAK FLOW RATE(CFS) =      4.89

****************************************************************************
 FLOW PROCESS FROM NODE     12.00 TO NODE     13.00 IS CODE =  51
----------------------------------------------------------------------------
 >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
 >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =     25.00  DOWNSTREAM(FEET) =     17.00
 CHANNEL LENGTH THRU SUBAREA(FEET) =   520.00   CHANNEL SLOPE =  0.0154
 CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =   2.000
 MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   1.00
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.770
 SUBAREA LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
      LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 RESIDENTIAL
 "2 DWELLINGS/ACRE"          C        1.07      0.25       0.700    86
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.700
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      7.11
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   6.03
 AVERAGE FLOW DEPTH(FEET) =   0.77   TRAVEL TIME(MIN.) =   1.44
 Tc(MIN.) =    7.87
 SUBAREA AREA(ACRES) =     1.07       SUBAREA RUNOFF(CFS) =    4.43
 EFFECTIVE AREA(ACRES) =      2.13     AREA-AVERAGED Fm(INCH/HR) =   0.20
 AREA-AVERAGED Fp(INCH/HR) =   0.25  AREA-AVERAGED Ap =   0.80
 TOTAL AREA(ACRES) =        2.1          PEAK FLOW RATE(CFS) =       8.76

 END OF SUBAREA CHANNEL FLOW HYDRAULICS:
 DEPTH(FEET) =  0.83   FLOW VELOCITY(FEET/SEC.) =   6.38
 LONGEST FLOWPATH FROM NODE     11.00 TO NODE     13.00 =     820.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE     13.00 TO NODE     13.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
 MAINLINE Tc(MIN.) =    7.87
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.770
 SUBAREA LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
```

A4

A5

A6

```
      LAND USE              GROUP   (ACRES)   (INCH/HR)   (DECIMAL)   CN
  COMMERCIAL                  C       0.28       0.25       0.100     86
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =     0.28      SUBAREA RUNOFF(CFS) =     1.20
  EFFECTIVE AREA(ACRES) =      2.41   AREA-AVERAGED Fm(INCH/HR) =  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap =  0.72
  TOTAL AREA(ACRES) =        2.4       PEAK FLOW RATE(CFS) =       9.96

****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     13.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =    7.87
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.770
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                  C       0.78       0.25       0.100     86
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.25
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =     0.78      SUBAREA RUNOFF(CFS) =     3.33
  EFFECTIVE AREA(ACRES) =      3.19   AREA-AVERAGED Fm(INCH/HR) =  0.14
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap =  0.57
  TOTAL AREA(ACRES) =        3.2       PEAK FLOW RATE(CFS) =      13.29
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)      =        3.2  TC(MIN.) =      7.87
  EFFECTIVE AREA(ACRES) =      3.19  AREA-AVERAGED Fm(INCH/HR)=  0.14
  AREA-AVERAGED Fp(INCH/HR) =  0.25  AREA-AVERAGED Ap = 0.567
  PEAK FLOW RATE(CFS)    =      13.29
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

A7

A8

1" = 80'

PACIFIC COAST HIGHWAY

DANA POINT HARBOR DRIVE

MC DONALD BLDG

34289 PCH DEL TACO

BASKETBALL COURT

PARK LANTERN

TRACT NO. 933

A1 0.68

A2 1.11

A3 0.50

A4 0.72

A5 1.06

A6 1.07

A7 0.28

A8 0.78

1

2

3

4

5

11

12

13

Q_{100}=3.6cfs
t=5.5

Q_{100}=3.1cfs
t=7.5

Q_{100}=4.9cfs
t=6.4

Q_{100}=1.2cfs
t=7.9

Q_{100}=8.8cfs
t=7.9

Q_{100}= 8.6cfs
t=9.9

EXIST. 51" RCP

EX. 21" RCP

EXIST. 54" RCP

EXIST. CDS UNIT

EX. 18" RCP

EX. 21" RCP

EXIST. 54" RCP

Proposed Katchall Purestream Biofiltration

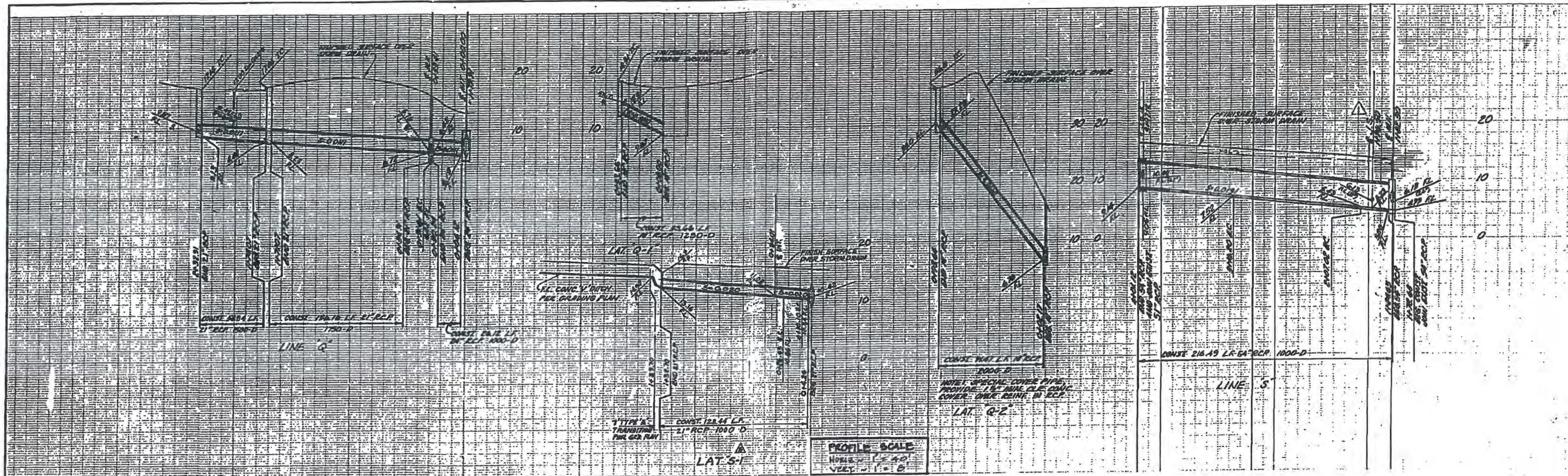
Proposed Katchall Purestream Biofiltration

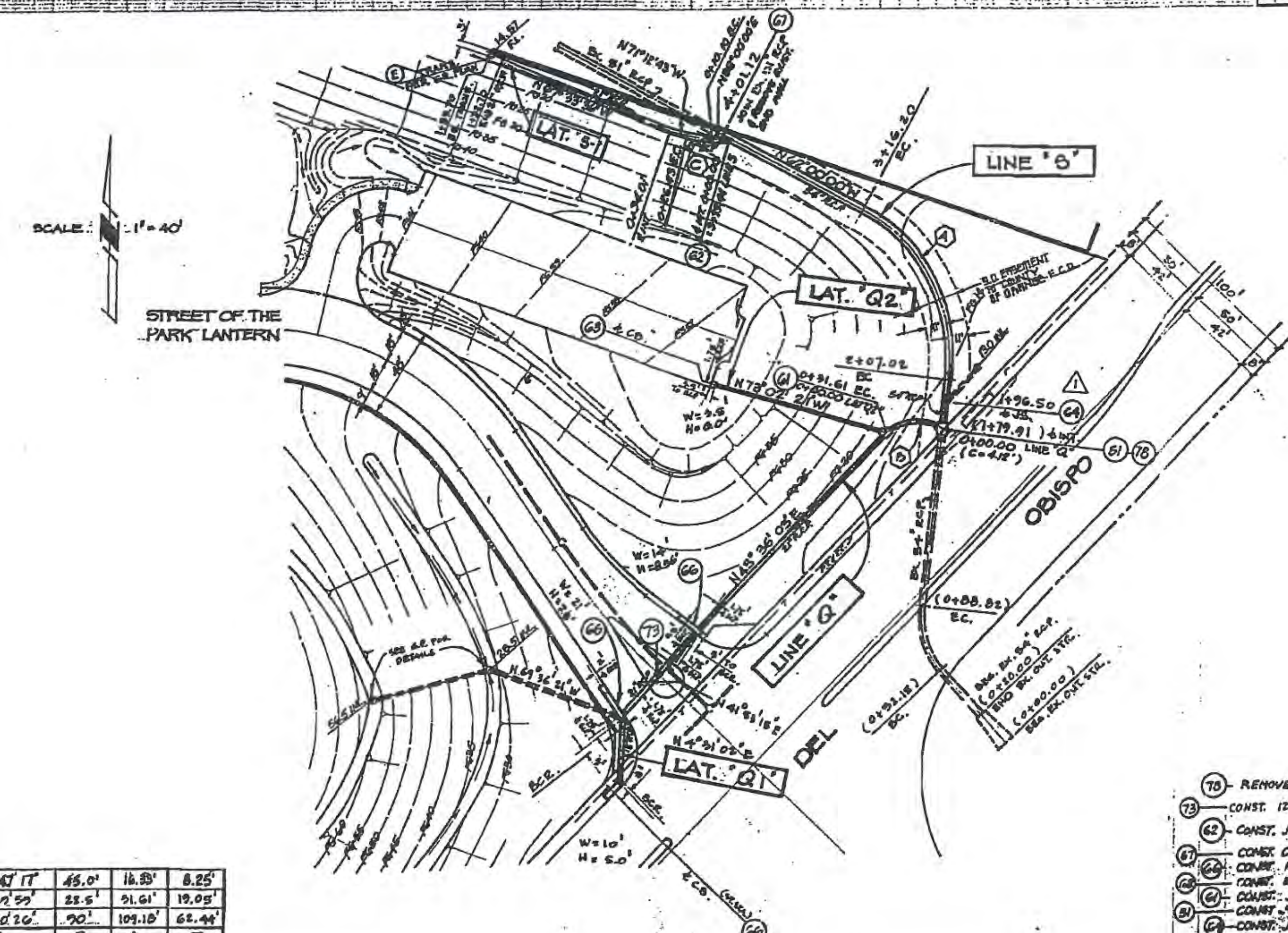
HYDROLOGY MAP FOR DANA POINT HOTEL PROPOSED CONDITION

W.O. #3506-2

F:\0529\Engineering\SY_Hydrology\Exh_General\DanaPoint-Proposed-5.dwg

REFERENCES





ID.	Δ	R	L	T
C	20°47'17"	45.0'	16.33'	8.25'
B	80°29'59"	28.5'	51.61'	19.05'
A	69°30'26"	90'	109.18'	62.44'

℄ RCP. CURVE DATA

(78) - REMOVE EXIST. HEADWALL.
(73) - CONST. 12"x12" SPEE-D-TUFF GRATE (NDS. 1212 OR APP'D EQUAL) FOR LANDSCAPED MEDIAN.
(62) - CONST. JCT. STR. TYPE IV PER OCEMA STD. PLAN Nº 313
(67) - CONST. CONC. COLLAR PER OCEMA STD. PLAN NO. 317.
(66) - CONST. INLET TYPE II PER OCEMA STD. PLAN NO 302.
(68) - CONST. INLET TYPE I PER OCEMA STD. PLAN. NO. 301.
(61) - CONST. JCT. STR. TYPE I PER OCEMA STD. PLAN NO. 310.
(51) - CONST. JCT. STR. TYPE III PER OCEMA STD. PLAN NO 312.
(64) - CONST. JUNCTION STRUCTURE TYPE VI PER OCEMA STD. PLAN NO. 315

CONSTRUCTION NOTES

* NOTICE TO CONTRACTOR
ALL EXISTING UTILITY LINES SHALL BE PROTECTED IN PLACE. IN CASE AN EXISTING LINE NEEDS TO BE RELOCATED THE PROPER AGENCY SHALL BE NOTIFIED.

PHASE I

TRACT NO. 11153

STORM DRAIN

SHEET 24 OF 29 SHEETS

TR. IMP. (11153)

SD-098-07

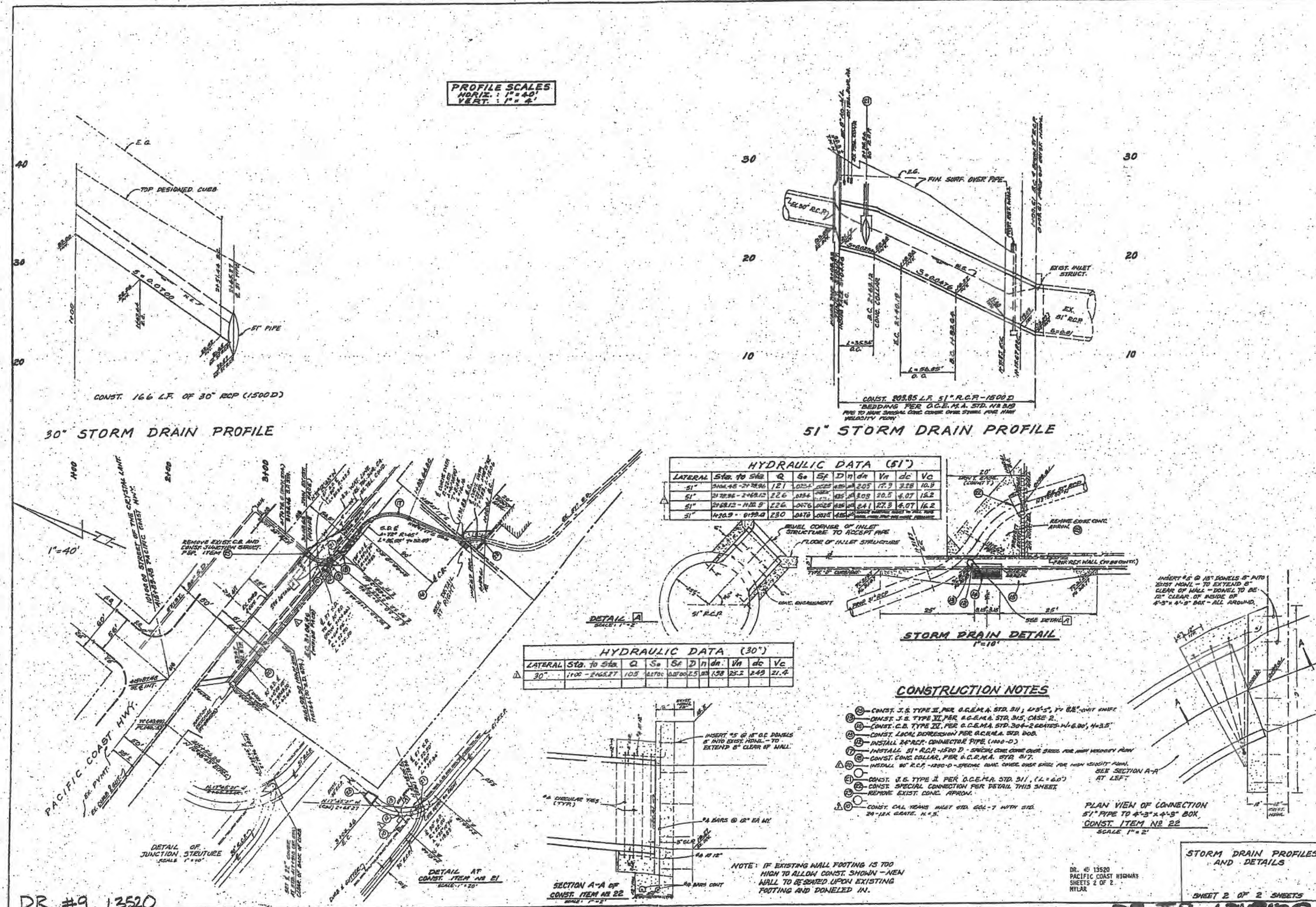
Del Obispo ... Coast Hwy Drainage Area 6

SI-101-02

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

DRAWING NUMBER

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552



HYDRAULIC DATA (51")

LATERAL	Sta. to Sta.	Q	So	Sf	D	n	dn	Vn	dc	Vc
51"	3+06.45 - 2+78.96	121	.0234	.0025	4.25	.013	2.05	17.9	3.28	10.9
51"	2+78.96 - 2+69.12	226	.0254	[illegible]	4.25	.013	3.08	20.5	4.07	15.2
51"	2+69.12 - 1+20.9	226	.0476	.0026	4.25	.013	2.41	27.3	4.07	16.2
51"	1+20.9 - 0+99.0	230	.0476	.0025	4.25	.013	[illegible]			

HYDRAULIC DATA (30")

LATERAL	Sta. to Sta.	Q	So	Sf	D	n	dn	Vn	dc	Vc
30"	1+00 - 2+65.27	105	0.0700	0.0700	2.5	.013	1.98	25.2	2.49	21.4

CONSTRUCTION NOTES

- (25) CONST. J.S. TYPE II, PER O.C.E.M.A. STD. 311; L=5'-5", T= 6½" - UNIT SHAFT
- (13) CONST. J.S. TYPE VI PER O.C.E.M.A. STD. 315, CASE 2.
- (14) CONST. C.B. TYPE IV, PER O.C.E.M.A. STD. 304-2 GRATES W=6.30', H=3.5'
- (15) CONST. LOCAL DEPRESSION PER O.C.E.M.A. STD. 308.
- (16) INSTALL 24" RCP CONNECTOR PIPE (1000-D)
- (17) INSTALL 51" RCP -1500 D - SPECIAL CONC. COVER OVER STEEL FOR HIGH VELOCITY FLOW
- (18) CONST. CONC. COLLAR, PER O.C.E.M.A. STD. 317.
- (20) INSTALL 30" R.C.P. -1250-D - SPECIAL CONC. COVER OVER STEEL FOR HIGH VELOCITY FLOW.
- (21) CONST. J.S. TYPE II PER O.C.E.M.A. STD. 311, (L=6.0')
- (22) CONST. SPECIAL CONNECTION PER DETAIL THIS SHEET.
- (23) REMOVE EXIST. CONC. APRON.
- (10) CONST. CAL TRANS INLET STD. GOL-7 WITH STD. 24-12X GRATE. H=3.

NOTE: IF EXISTING WALL FOOTING IS TOO HIGH TO ALLOW CONST. SHOWN - NEW WALL TO BE SEATED UPON EXISTING FOOTING AND DOWELED IN.

DR. 40 13520
PACIFIC COAST HIGHWAY
SHEETS 2 OF 2
MYLAR

STORM DRAIN PROFILES AND DETAILS

SHEET 2 OF 2 SHEETS

DR. #9 13520

DR. #9 13520

PIPING CONTROL DATA

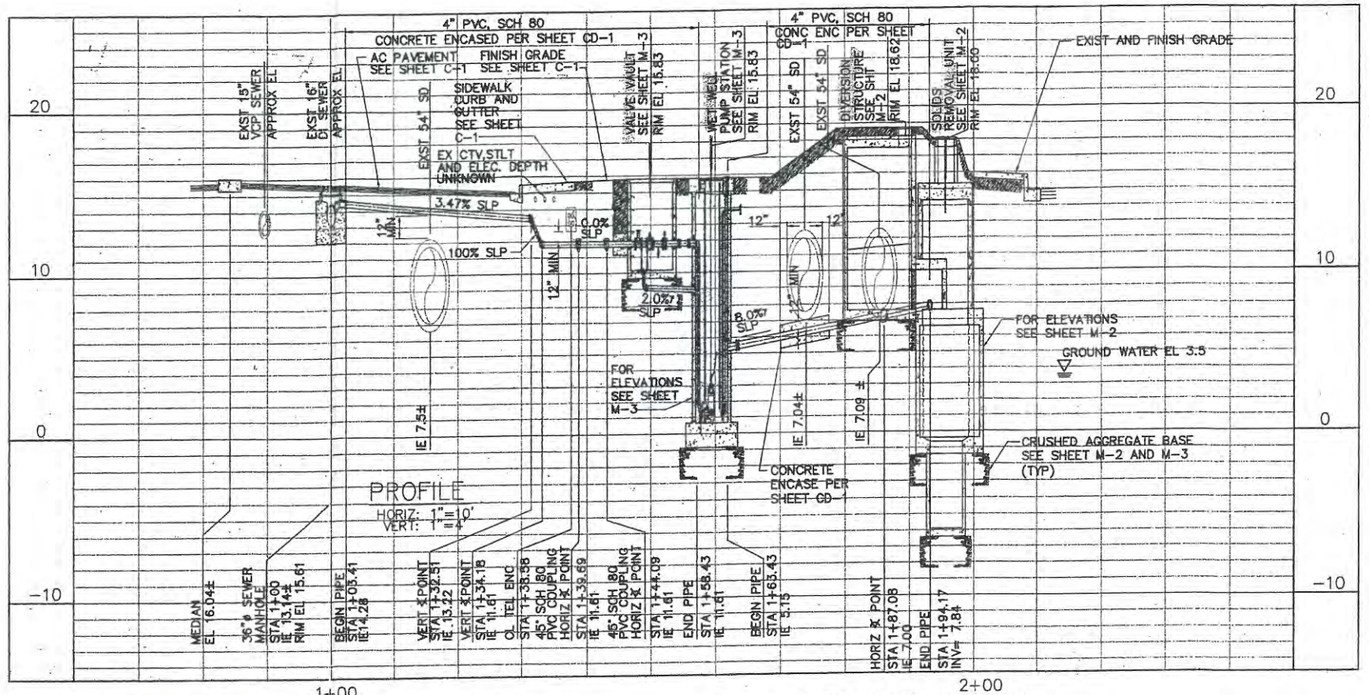
POINT NO	NORTHING	EASTING	STATION	DESCRIPTION
1	N 2115595.88	E 6122941.44		BEGIN 21" RCP
2	N 2115633.88	E 6122864.66		CENTER OF MANHOLE
3	N 2115633.77	E 6122974.44		54" STORM DRAIN @ DIVERSION STRUCTURE ℄
4	N 2115620.17	E 6122980.23	1+92.74	4" PVC PENETRATION @ SOLIDS REMOVAL UNIT
5	N 2115613.61	E 6122977.51	1+85.84	4" PVC HORIZ ANGLE POINT
6	N 2115595.72	E 6122960.39	1+60.86	4" PVC PENETRATION @ WET WELL
7	N 2115561.75	E 6122947.00	1+41.54	4" PVC HORIZ ANGLE POINT
8	N 2115577.35	E 6122947.00	1+37.14	4" PVC HORIZ ANGLE POINT
9	N 2115550.28	E 6122975.26	1+00.00	CENTER OF MANHOLE, RIM EL 15.66
10	N 2115485.60	E 6122848.21		TOP OF CURB FACE
11	N 2115688.81	E 6123085.35		TOP OF CURB FACE

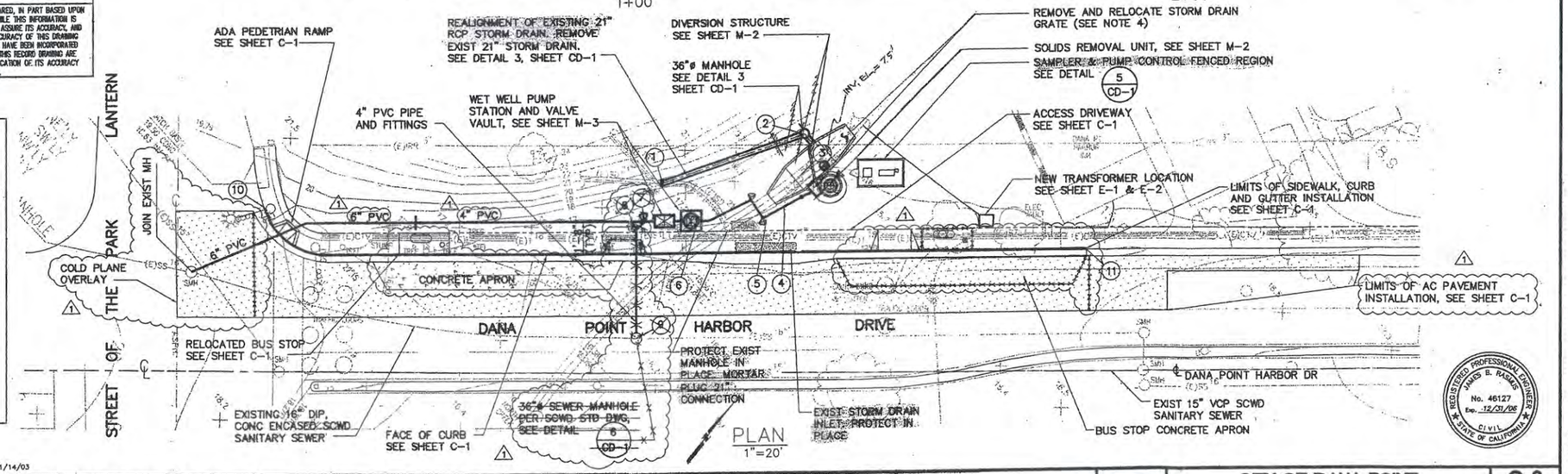
NOTES:

1. SEE SHEET M-2 AND M-3 FOR MECHANICAL PLAN AND SECTION OF DIVERSION STRUCTURE,SOLIDS REMOVAL UNIT, WET WELL PUMP STATION, AND VALVE VAULT.
2. PROTECT ALL EXISTING TRAFFIC SIGNALS AND SIGNAGE IN PLACE.
3. REMOVE ALL EXISTING TREES AND STUMPS WITHIN SIDEWALK LOCATION PER SHEET C-1.
4. EXISTING STORM DRAIN GRATE AND CONNECTION SHALL BE REMOVED DURING CONSTRUCTION. RELOCATE AND INSTALL NEW CONNECTION TO 54" RCP PER SHEET C-1. ADJUST ADJACENT GRADE TO DRAIN TO NEW STORM DRAIN GRATE LOCATION.
5. THRUST BLOCKS SHALL BE PER PF&RD STANDARD PLANS 508-0 AND 508-C.
6. FOR TRAFFIC CONTROL, SEE SHEETS T-1 TO T-5.

"RECORD DRAWING"
R.E. 46127 EXP. 12/31/06 — 12/7/05 DATE

THIS RECORD DRAWING HAS BEEN PREPARED, IN PART BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, PBS&J CANNOT ASSURE ITS ACCURACY, AND THUS IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS DRAWING OR FOR ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT. THOSE RELYING ON THIS RECORD DRAWING ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE.





NOTE:

PROPOSED ELEVATIONS FOR THE SOLIDS REMOVAL UNIT, DIVERSION WEIR BOX AND PUMP STATION WET WELL ARE BASED ON AN INVERT ELEVATION IN THE EXISTING 54" PIPE AT THE LOCATION OF THE UPSTREAM SIDE OF THE DIVERSION WEIR BOX OF 7.5 FEET MSL. THIS INVERT ELEVATION WAS BASED ON FIELD INVESTIGATION AND REVIEW OF EXISTING IMPROVEMENT DRAWINGS. DURING CONSTRUCTION, IF INVERT ELEVATION AT THIS LOCATION IS DETERMINED TO DIFFER FROM 7.5-FEET MSL, ADJUST ALL NECESSARY ELEVATIONS IN THE DRAWINGS BY AN EQUIVALENT AMOUNT.

REGISTERED PROFESSIONAL ENGINEER JAMES B. RASMUS No. 46127 Exp. 12/31/06 CIVIL STATE OF CALIFORNIA

E:\DESIGN\195\621461\10\as-built\62146110C2.dwg 1/14/03

REVISION	DESCRIPTION	APPROVED	DATE
1	RECORD DRAWING		12/01/05
11/19/03	MARK UP BY R.L. TIRRELL.		

SCALE: AS SHOWN
ACAD FILE NO. 62146110C1.DWG
PROJECT NO. 621461.10

DESIGNED: MRB | DRAWN: MRB | CHECKED: JJC

ENGINEER OF WORK — DATE 46127 R.C.E. NO.

SOUTH COAST WATER DISTRICT
ACCEPTED BY: GLEN KAU Principal Engineer — DATE

PLANS PREPARED BY: PBS&J 175 Calle Magdalena Encinitas, CA 92024 (760) 753-1120

BENCHMARK
OCS BENCHMARK NO. 3P-24-68
ELEV. 15.94 NAVD 88 OCS 1995 ADJUSTMENT
YEAR LEVELED: 1989

APPROVED
CITY ENGINEER /PUBLIC WORKS DIRECTOR — DATE

CITY OF DANA POINT

NORTH CREEK STORM DRAIN DIVERSION
SITE PIPING PLAN AND PROFILE

C-2
CIP NO. 1162
4 OF 18 SHEETS

ORIGINAL SCALE: 0 1" 2" 3" 4"

Appendix C

Geotechnical Study

PRELIMINARY GEOTECHNICAL EVALUATION

FOR

DANA POINT HOTEL PROJECT
CITY OF DANA POINT, ORANGE COUNTY, CALIFORNIA

PREPARED FOR

BEVERLY HILLS HOSPITALITY GROUP, LLC
25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

PREPARED BY

GEOTEK, INC.
4130 FLAT ROCK DRIVE, SUITE 140
RIVERSIDE, CALIFORNIA 92505

PROJECT NO. 0480-CR3 DECEMBER 18, 2009

GEOTEK

GeoTek, Inc.
4130 Flat Rock Drive, Suite 140, Riverside, CA 92505-5864
951-710-1160 Office 951-710-1167 Fax www.geotekusa.com

December 18, 2009
Project No. 0480-CR3

Beverly Hills Hospitality Group, LLC
25325 Dana Point Harbor Drive
Dana Point, California 92629

Attention: Mr. Michael Draz

Subject: Preliminary Geotechnical Evaluation
Dana Point Hotel Project
City of Dana Point, Orange County, California

Dear Mr. Draz:

We are pleased to provide herewith the results of our preliminary geotechnical evaluation for the proposed Dana Point Hotel project, located southwest of the intersection of Pacific Coast Highway and Harbor Drive, in the City of Dana Point, Orange County, California. This report presents the results of our evaluation, discussion of our findings, and provides preliminary geotechnical parameters and recommendations for the proposed structure(s). In our opinion, site development appears feasible from a geotechnical viewpoint provided that the geotechnical parameters and recommendations included herein are incorporated into the design and construction phases of site development.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
GeoTek, Inc.

REGISTERED GEOLOGIST
EDWARD H. LaMONTO
No. 1892
Exp. 7-31-10
Certified Engineering Geologist
STATE OF CALIFORNIA

Edward H. LaMont
CEG 1892, Exp. 07/31/10
Principal Geologist

REGISTERED PROFESSIONAL ENGINEER
EDMOND VARDEH
No. 56992
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

Edmond Vardeh
RCE 56992, Exp. 06/30/11
Project Engineer

Distribution: (6) Addressee

G:\GeoTek\Projects\0451 to 0500\0480CR3 Beverly Hills Hospitality Group\0480CR3 Preliminary Geo Report.doc

TABLE OF CONTENTS

TABLE OF CONTENTS

ENCLOSURES

1. INTENT

It is the intent of this report to aid in the design and construction of the proposed hotel building at the subject site. Implementation of the advice presented in Section 6 of this report is intended to reduce risk associated with construction projects. The professional opinions and geotechnical advice contained in this report are not intended to imply total performance of the project or guarantee that unusual or variable conditions will not be discovered during or after construction.

The scope of our field evaluation is limited to the areas explored. Further, no evaluation of any existing site improvements is included. The scope is based on our understanding of the project and the client's needs, and geotechnical engineering standards normally used on similar projects in this region.

2. PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to evaluate the general geotechnical conditions on the site with respect to currently anticipated improvements. Services provided for this study included the following:

- Research and review of available geologic, geotechnical data, online aerial photographs, and general information pertinent to the site.
- Scheduling of and boring location mark out for Underground Service Alert, including onsite meeting with some utility representatives.
- Site exploration consisting of the excavation, logging, and sampling of four (4) exploratory hollow-stem borings; two (2) bucket-auger borings; and, five (5) cone penetrometer test borings.
- Laboratory testing of representative soil samples collected during the field investigation.

- Review and evaluation of site seismicity.
- Data compilation, geologic and engineering review and analyses, and
- Compilation of this geotechnical report which presents our findings, conclusions, and recommendations for anticipated site improvements.

3. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

3.1 SITE DESCRIPTION

The project site is located within the City of Dana Point, Orange County, California (see Figure 1). The site is bounded by Dana Point Harbor Drive to the southeast, Pacific Coast Highway to the northeast, Park Lantern to the southwest, and existing commercial properties to the west. Two existing commercial buildings are located on the property adjacent Pacific Coast Highway, and two hotel buildings with related improvements and parking areas are situated just south and southwest of the commercial buildings described above, toward the central portion of the site. The southern site area is occupied by a City of Dana Point parking lot, located atop a small hill.

The central to northeastern portions of the subject property are relatively flat-lying. The City parking lot area is bounded by descending slopes to the north, south and east, which are up to roughly 20 feet in height. Existing slope gradients are roughly 2:1 (horizontal to vertical). An outdoor basketball court (not part of the subject property) is located to the west of the parking lot.

Based on our local experience and review of published geologic maps, the site is underlain by middle-to upper-Miocence age marine sediments which form the hill in the southern portion of the site, and are blanketed by a variable depth of Quaternary age alluvium in flat-lying central to northeastern portions of the site. A site area geologic map is shown on Figure 2 at the back of the text of this report. Quaternary age terrace deposits may also be present, as might fill soils associated with existing site improvements. The relatively flat-lying site areas are identified by the State of California (Seismic Hazard Zone Maps) as being underlain by land which requires an

evaluation for earthquake induced liquefaction potential, and the hillside portion of the site as requiring an evaluation of earthquake induced landslide potential. No Earthquake Fault Zone (Alquist-Priolo) is shown to be on or near the site.

3.2 PROPOSED DEVELOPMENT

Based on review of the conceptual drawings provided, the site will be developed into a multi-story hotel building, with portions below existing grades. The improvements are anticipated to include retail, business centers, commercial facilities, hotel rooms and parking areas. The building is anticipated to be up to 6-stories in height, and be comprised of a combination of concrete and wood frame structural areas. Existing site improvements are to be razed. Proposed building loads are not presently known.

In addition, a relatively large retaining wall is anticipated to be constructed within the existing slope between the building site and the parking area to the west. The retaining wall may be utilized as a common wall for the building/below ground parking area of the hotel, and a retaining wall for the slope. Total height of this wall may be up to approximately 20 feet. A schematic site development plan is included herein as Figure 3.

4. FIELD EXPLORATION AND LABORATORY TESTING

4.1 FIELD EXPLORATION

Field exploration was conducted in August and November of 2008 and consisted of excavating four exploratory borings with a hollow stem auger drill rig to a maximum depth of 100.2 feet; two bucket auger borings to a maximum depth of 51 feet; and, five cone penetrometer test borings to a maximum depth of roughly 60 feet. An engineering geologist from our firm logged the excavations and collected soil samples for use in subsequent laboratory testing. Logs of exploratory borings are included in Appendix A. Boring locations are shown on the Boring Location Map (Figure 4).

4.2 LABORATORY TESTING

Laboratory testing was performed on selected disturbed and relatively undisturbed samples collected during the field investigation. The purpose of the laboratory testing was to confirm the field classification of the soil materials encountered and to evaluate their physical properties for use in the engineering design and analyses. The results of the laboratory testing program along with a brief description and relevant information regarding testing procedures are included in Appendix B.

5. GEOLOGIC AND SOILS CONDITIONS

5.1 REGIONAL SETTING

The subject property is situated in the Peninsular Ranges province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends from the Transverse Ranges geomorphic province and the Los Angeles Basin, 975 miles south to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Three major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zones trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

The subject property is located approximately 5.4 km east of the Newport-Inglewood fault zone. In general, the site area is underlain by marine terrace alluvial sediments. A geologic map for the area is included on Figure 2 at the back of the text of this report.

5.2 GENERAL SOIL CONDITIONS

A brief description of the earth materials encountered in our borings is presented in the following sections, along with a description of some of the laboratory test results. More

detailed descriptions of these materials are provided in the logs of the exploratory borings included in Appendix A. Based on our site observations, subsurface excavations and review of published geologic maps, the site is underlain to the depths explored by surficial undocumented fill soils, Quaternary-age alluvium and marine terrace deposits (not encountered in our explorations).

5.2.1 Undocumented Fill Soils

Fill soils were encountered in the upper portions of our borings excavated across the areas explored (see logs in Appendix A). These materials generally consist of silty fine sand to fine sandy silty clay. The fill materials encountered were roughly five to ten feet deep at our boring locations toward the eastern (low-lying) portions of the site, and 15-20 feet deep in the parking lot area toward the western site area. Fill material thicknesses are likely variable across the site. Existing undocumented fill materials are not suitable for support of anticipated improvements, due primarily to their lack of documentation and unknown overall condition.

5.2.2 Alluvium

Quaternary-age alluvium was encountered in all of the borings excavated in the study area, to the depths explored. In general, interbedded silty fine sand and fine sandy silty clay are the dominant soil types encountered. Based on our experience in the area and with similar soils, the onsite materials possess a very low to medium expansion potential ($0<EI<90$), when tested in accordance with Table 18A-I-B of the 2007 California Building Code (CBC). Overall, site materials are likely in the very low to medium expansion potential level as well, with local variations likely in more clayey lenses.

The consolidation potential of selected alluvial materials was evaluated in the laboratory on representative soil samples in general accordance with the consolidation test procedure per ASTM D 2435. Inundation with water was performed at an equivalent overburden pressure of 2 kips/sf. The test results indicate that the potential for 'hydro-consolidation' in the alluvium is considered low (less than 1.0 percent). The test results are included in Appendix B.

5.3 SURFACE AND GROUNDWATER

5.3.1 Surface Water

If encountered during earthwork construction at the site, surface and/or near surface water on this property is the result of precipitation or surface run-off from surrounding sites. Overall site drainage is in a southwesterly direction, and is via sheet flow. Provisions for surface drainage will need to be addressed by the project civil engineer.

5.3.2 Groundwater

Groundwater was encountered at a depth as shallow as 13 feet below ground surface (bgs) in Boring HSA-1. Groundwater is anticipated to impact currently planned site development, as a below ground level garage is planned. Dewatering will likely be required prior to some below-ground construction activities. This should be further addressed when more specific site development plans become available.

5.4 FAULTING AND SEISMICITY

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The site is in a seismically active region. No active or potentially active fault is known to exist at this site nor is the site situated within an *"Alquist-Priolo"* Earthquake Fault Zone. No active faulting was noted or suspected on the site. The site is located within a State of California designated Seismic Hazard Zone for earthquake induced liquefaction potential. This is addressed in later sections of this report.

The project site is located within approximately 5.4 kilometers of the Newport-Inglewood fault zone (see attached EQFAULT (Blake) computer program printouts in Appendix C).

5.4.1 Design Response Spectra

The site is located at approximately 33.4649 Latitude and -117.6886 Longitude. Site spectral accelerations (S_S and S_1), for 0.2 and 1.0 second periods for a Class "E" site, was determined from the USGS Website, Earthquake Hazards Program, Interpolated Probabilistic Ground

Motion for the Conterminous 48 States by Latitude/Longitude, 2002 Data. The results are presented in the following table:

SITE SEISMIC PARAMETERS	
Mapped 0.2 sec Period Spectral Acceleration, Ss	1.575g
Mapped 1.0 sec Period Spectral Acceleration, S1	0.579g
Site Coefficient for Site Class "E", Fa	0.9
Site Coefficient for Site Class "E", Fv	2.4
Maximum Considered Earthquake Spectral Response Acceleration Parameter at 0.2 Second, SMS	1.418g
Maximum Considered Earthquake Spectral Response Acceleration Parameter at 1 second, SM1	1.377g
Design Spectral Response Acceleration for Parameter for 0.2 Second, SDS	0.945g
Design Spectral Response Acceleration for Parameter 1.0 Second, SD1	0.918g

5.5 LIQUEFACTION AND SETTLEMENT

As previously indicated, the subject site is located within a State of California designated Seismic Hazard Zone for earthquake induced liquefaction potential. As a result, we have completed a liquefaction analyses for the site (see Appendix D). Based on the results of our analyses, we have concluded that there is a liquefaction potential on this site. Our analyses included dry settlement and liquefaction analyses for the current groundwater condition of 13 ft bgs and a rise to 5 feet bgs. Our analysis is included in Appendix D.

Total settlement as a result of earthquake induced strain is estimated to be on the order of 5.6 inches for current groundwater conditions, and 6.6 inches for high groundwater conditions (see analysis). It is important to note that, while it is typical to assume that differential settlements are on the order of 1/2 of the total predicted, due to the homogeneity of subsurface conditions on this site and the recommended remedial grading, the seismic induced settlement is likely to be global and over a large area mitigating much of the potential for differential.

5.6 OTHER SEISMIC HAZARDS

Evidence of ancient landslides or slope instabilities at this site was not observed during our investigation. Slope instabilities would not be expected at this site due to the flat nature of the proposed development areas, and the large retaining wall proposed within the existing slope that descends from the city parking lot area down to the eastern portions of the site. The potential for landslides and/or slope instabilities is considered low.

The potential for secondary seismic hazards such as seiche and tsunami are considered to be low due to site elevation and distance from an open body of water. Surface fault rupture potential is considered negligible due to absence of any nearby active faults.

Lateral spreading potential is considered negligible due to the absence of any significant slope(s) on or in the immediate vicinity of the site that would support the eastern portion of the site, which is the site area most susceptible to liquefaction.

The potential for settlement is addressed above.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 GENERAL

Anticipated site development as described in Section 3.2, appears feasible from a geotechnical viewpoint, provided that the following recommendations are incorporated into the design and construction phases of development. The potential for seismically induced settlements is considered the most significant concern for the site. Currently proposed site development should meet with the minimum geotechnical design parameters provided herein. Site development plans should be submitted to GeoTek for review and comment as they become available. Additional or modified recommendations will be warranted.

As no specific design plans are currently available, it is not yet plausible to offer specific recommendations for actual site development. However, geotechnical parameters are

provided to assist the structural engineer in developing the criteria for anticipated site construction, based on our understanding of the project.

6.2 EARTHWORK CONSIDERATIONS

Grading/earthwork planned for the site should be performed in general accordance with the local City of Dana Point and/or County of Orange grading ordinances and applicable provisions of the 2010 California Building Code (CBC). GeoTek should be consulted to review proposed grading plans when they become available and provide specific recommendations as may be appropriate. The following recommendations should be considered for site work, and are in-part intended to reduce differential settlement.

- Any site preparation should start with the removal of deleterious materials and vegetation, and be disposed of properly off site.

- Temporary excavations within the onsite materials should be stable at 1H:1V inclinations for short durations during construction, and where cuts do not exceed 5 feet in height.

- Building pad areas should be excavated a minimum of seven (7) feet below finish pad grade, or two (2) feet below proposed footings, whichever is deeper. Over-excavations should extend a minimum of seven (7) feet beyond the limits of proposed structure foundations. After the excavation bottom is scarified and compacted a layer of geogrid (BX4100 or BX4200, or equivalent) should be placed followed by placement of two (2) feet of compacted fill an additional geogrid layer and the remaining portion of the fill. The intent of the removal and geogrid is to help mitigate the surface effects of the anticipated differential settlements.

- Pavement and free standing wall areas should be overexcavated a minimum of three (3) feet below finish pad grade, or one foot below deepest foundation.

- Any proposed design cut areas should be observed by a representative of GeoTek upon excavation. Cuts into existing undocumented fill will likely require additional remedial grading and replacement with compacted fill in order to meet with acceptable industry standards.

- Prior to replacing the overexcavated area with compacted fill materials, the exposed bottom subgrade should be scarified to a minimum of eight inches, brought to at least optimum moisture content and then recompacted to minimum project standards.

- The on-site materials are considered suitable for reuse as compacted fill provided they are free from vegetation, roots, and rock or hard lumps greater than six inches in diameter. The earthwork contractor should ensure that all proposed excavated materials to be used for backfilling at this project are approved by the soils engineer.

- Any undercut areas should be brought to final grade elevations with fill compacted in layers no thicker than eight inches compacted to at least 92 percent of maximum dry density at near optimum moisture content, as determined in accordance with ASTM D 1557. Prior to receiving fill, the bottom of any excavation should be scarified to a depth of six inches; moisture conditioned, and recompacted to at least 90 percent of the maximum dry density.

- Several factors will impact earthwork balancing on the site, including shrinkage and subsidence. For planning purposes, a shrinkage factor of 10-15% may be considered for the materials requiring removal and recompaction. Subsidence may occur in site alluvial areas as a result of compaction below the removal bottom or surcharging. Subsidence could range from 0 to 0.10 feet.

- Excavations in the onsite materials should be generally accomplished with conventional earthmoving or excavating equipment in good operating condition.

- Utility trenches should be properly backfilled. After bedding has been placed in accordance with project specifications, backfill should be compacted in layers no thicker than 12 inches and to at least 90 percent of the maximum dry density (or to the otherwise recommended compaction level), at or above optimum moisture content, as determined in accordance with ASTM Test Method D 1557.

6.3 DESIGN RECOMMENDATIONS

Foundation design criteria for a conventional foundation system in conformance with the 2007 CBC are presented herein based on the presence of very low to medium expansive materials. These are typical design criteria for the proposed foundations and are not intended to supersede the design by the structural engineer. The foundation system should also be designed to tolerate up to 3.3 inches (½ of the total) of differential settlement in any 40 foot span and 1.65 inches overall assuming the geogrid mats are constructed as recommended above. Other types of foundations may require additional evaluation and a review of the recommendations presented herein. The basement for the proposed hotel will likely be supported on a mat slab supported by caissons.

6.3.1 Foundation Design Criteria

It should be noted that the following recommendations are based on soil support characteristics only. The structural engineer should analyze and design the slab and beam reinforcement based on actual loading conditions. Conditions (static and dynamic loads), soils structure interaction and consideration of stiffness and deflections in various slab and foundation scenarios should be considered in order to develop appropriate design and specific details. We provide the following criteria for design of conventional and mat-type foundations:

6.3.1.1 Shallow Foundations: An allowable bearing capacity of 2000 pounds per square foot (psf) may be used to design shallow continuous footings with a minimum of 12 inch soil penetration and overall depth of 18 inches and a minimum width of 12 inches, and also for isolated pad footings at least 24 inches square and 24 inches deep. This value may be increased by 200 pounds per square foot for each additional 12 inches in depth or 200 pounds per square foot for each additional 12 inches in width to a maximum value of 3000 psf. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind loads). The passive earth pressure may be computed as an equivalent fluid having a density of 250 psf per foot of depth, to a maximum earth pressure of 2,000 psf for footings founded on compacted fill. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

6.3.1.2 Continuous footings should be provided with reinforcement consisting of at least four No. 5 reinforcing bars, two near the top and two near the bottom.

6.3.2 Floor Slab Design

6.3.2.1 Concrete slab-on-grade floor construction should have a minimum thickness of five (5) inches and be reinforced with No. 3 bars at 18 inches on center in each direction, placed at the mid-depth of the slab. The design parameters do not account for concentrated loads (e.g. heavy machinery, fork lifts, etc.). Subgrade materials should be compacted to a minimum of 95% of the maximum laboratory density to a depth of 12 inches.

These recommendations are meant as minimums. The project structural engineer should review and verify that the minimum recommendations presented herein are considered adequate with respect to anticipated uses.

We recommend that control joints be placed in two directions spaced the numeric equivalent of two times the thickness of the slab in inches changed to feet (e.g. a five inch slab would have control joints at ten feet centers). These joints are a widely accepted means to control cracks and should be reviewed by the project structural engineer.

If flexible design is utilized, then the modulus of subgrade reaction (k-value) may be used in the design of the floor slabs *supporting heavy live loads (e.g. fork lifts, machine foundations and heavy storage areas.) A k-value (modulus of subgrade reaction) of 75 pounds per square inch per inch (pci) should be used for preliminary slab design.* If grading recommendations are complied with, concrete floor slabs may be supported on a 4-inch layer of aggregate base material. If vapor /moisture intrusion is undesireable it is recommended that a plastic water vapor retarder is utilized below the slab. The retarder should conform to the specifications presented in ASTM E1745-97 and should be placed as described in ASTM E1643-98 and the Guide for Concrete Floor and Slab Construction, published by the American Concrete Institute (ACE 302.IR-96).

6.3.3 Foundation Settlement

Based on the prevailing subsurface conditions, the total settlement is expected to be on the order of 1 to 2 inch under static loading and up to 6.6 inches under seismic loading (3.3 inches

if recommendations provided herein are implemented). The majority of the static settlement will occur during construction. The recommended geogrid system and removal is intended to lessen the surface effects of seismically induced settlements (to 3.3 inches). Post-grading differential settlement under static conditions is expected to be limited to less than 1 inch in a 40-foot span.

6.4 RETAINING WALL DESIGN AND CONSTRUCTION

6.4.1 General Design Recommendations (as applicable for walls retaining up to 10 feet of material)

An allowable bearing capacity of 1,500 pounds per square foot, including both dead and live loads, may be used if footings are founded at a minimum of 18 inches into compacted fill and/or dense formational materials. The allowable bearing value may be increased by one-third when considering short-term live loads (e.g. seismic and wind loads). The passive resistance may be computed as an equivalent fluid pressure having a density of 250 psf per foot of depth, to a maximum earth pressure of 2,500 psf. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

An equivalent fluid pressure approach may be used to compute the horizontal active pressure against the proposed walls. The appropriate fluid unit weights are given in Table 6.4.1 below for specific slope gradients of retained materials.

TABLE 6.4.1 – ACTIVE EARTH PRESSURES

Surface Slope of Retained Materials (H:V)	Equivalent Fluid Pressure (PCF)
Level	35
2:1	55

The above equivalent fluid weights do not include other superimposed loading conditions such as expansive soil, vehicular traffic, structures, seismic conditions or adverse geologic conditions.

6.4.2 Wall Backfill and Drainage

Selected onsite or import soil (SM/SW materials with EI<21 & PI<4) should be used for backfill provided they are screened of greater than 3-inch size gravels. Presence of other materials might necessitate revision to the parameters provided and modification of wall designs. The backfill materials should be placed in lifts no greater than 8-inches in thickness, moisture conditioned to at least optimum moisture content, and compacted at 90 percent relative compaction in accordance with ASTM Test Method D1557. The select backfill should extend up and away from the back of the retaining wall footing, at a gradient of 1:1 (h:v), to the proposed finish grade. Proper surface drainage needs to be provided and maintained.

Retaining walls should be provided with an adequate pipe and gravel back drain system to prevent build up of hydrostatic pressures. Backdrains should consist of a 4-inch diameter perforated PVC pipe (schedule 40 or approved equivalent) embedded in a minimum of one cubic foot per lineal foot of 3/8 to one inch clean crushed rock or equivalent, wrapped in filter fabric (Mirafi 140N or approved equivalent). The drain system should be connected to a suitable outlet. A minimum of two outlets should be provided for each drain section. Walls from 2 to 4 feet in height may be drained using localized gravel packs behind weep holes at 10 feet maximum spacing (e.g. approximately 1.5 cubic feet of gravel in a woven plastic bag). Wall drainage should comply with the minimum requirements by the wall designer or manufacturer.

6.5 PRELIMINARY SHORING DESIGN

A temporary shoring system consisting of cantilever steel beams and wood lagging would likely be installed to allow for the required excavation for the large site retaining wall(s). The ultimate embedment depth should be provided by the project structural engineer and/ or shoring contractor based on the geotechnical parameters provided herein.

It should be noted that some difficulty may be experienced in the drilling of piles due to groundwater. Caving could occur during drilling of the piles and the anchors through sand deposits. Casing and/or drilling mud may be necessary to utilize during the drilling and installation of the piles. Alternatively, piles may be driven into place. Final selection of an appropriate system must include due consideration of the potential effects of vibrations, deflections, and footing area disturbance on the neighboring structures. If shoring is removed following construction, it will create void spaces which must be filled as shoring removal

progresses. To reduce the risk of possible settlement induced distress on adjacent properties, shoring elements along property boundaries should be abandoned in place.

6.5.1 Lateral Pressure

For design of cantilevered shoring, a triangular distribution of lateral earth pressure may be used. It may be assumed that the retained soils with a level surface behind the shoring will exert a lateral pressure equal to that developed by a fluid with a density of 35 pounds per cubic foot (pcf). Retained soils with a 2:1 backslope ratio will exert a lateral pressure equal to a fluid with a density of 50 pcf.

If street traffic is located within 10 feet of the shoring, the upper 10 feet of shoring adjacent to the traffic should be designed to resist a uniform lateral pressure of 100 pounds per square foot (psf), which is a result of an assumed 300 psf surcharge behind the shoring due to normal street traffic.

6.5.2 Design of Piles

For the design of standard soldier piles adjacent to a level excavation bottom, and spaced at least two diameters on centers, the allowable lateral bearing value (passive value) of the soils below the level of excavation may be assumed to be 300 psf per foot of depth, up to a maximum of 3000 psf. To develop the full lateral value, provisions should be taken to assure firm contact between the soldier piles and the undisturbed soils.

The soldier piles below the excavated level may be used to resist downward loads, if any. The downward skin frictional resistance between the soldier piles and the soils below the excavated level may be taken as equal to 300 psf.

6.5.3 Lagging

Continuous wood lagging will be required between the soldier piles. The soldier piles should be designed for the full anticipated lateral pressure. However, the pressure on the lagging will be less due to arching in the soils. We recommend that the lagging be designed for the recommended earth pressure, but limited to a maximum value of 1,000 psf. If the shoring designer determines that the pressures are in excess of the carrying capacity of wood lagging, steel sheet piles could be used.

6.5.4 Deflection

It is difficult to accurately predict the amount of deflection of a shored profile. It should be realized, however, that some deflection will occur. We anticipate that this deflection would be on the order of 1 inch at the top of the planned 10- to 12-foot shoring. If greater deflection occurs during construction, additional bracing may be necessary to minimize deflection. If desired to reduce the deflection of the shoring, a greater active pressure leading to a more stiffer section could be used.

6.5.5 Dewatering

A dewatering system would be required to lower the groundwater level at the site during basement removal/excavation. It is GeoTek's opinion that surrounding areas should not experience any adverse affects due to temporary dewatering. However, if dewatering should lower the existing ground water elevation by more than three feet below the basement level during construction, the effects to the surrounding areas should be re-evaluated by the project geotechnical engineer.

6.5.6 Monitoring

Some means of monitoring the performance of the shoring system are recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all the soldier piles and the lateral movement along the entire lengths of selected soldier piles. We suggest that photographs and survey data of the adjacent improvements be made prior to excavation.

6.5.7 Foundation Set Backs

Where applicable (not anticipated for this site), the following setbacks should apply to all foundations. Any improvements not conforming to these setbacks may be subject to lateral movements and/or differential settlements:

- The outside bottom edge of all footings should be set back a minimum of H/3 (where H is the slope height) from the face of any descending slope. The setback should be at least seven feet and need not exceed 40 feet.
- The bottom of all footings for structures near retaining walls should be deepened so as to extend below a 1:1 projection upward from the bottom inside edge of the wall stem.
- The bottom of any existing foundations for structures should be deepened so as to extend below a 2:1 projection upward from the bottom of the nearest excavation or trench.
- Setbacks from ascending slope(s) should meet with minimum CBC requirements guidelines.

6.5.8 Soil Corrosivity

The soil resistivity at this site was tested in the laboratory on representative samples collected during the field investigation. The results of the testing indicate that the onsite soils are considered severely corrosive to buried metal in accordance with current standards used by corrosion engineers. The corrosion test results include a pH of 7.75, a chloride content of 96 ppm, and a resistivity of 660 ohm-cm. These characteristics can be considered typical of soils commonly found in southern California. We recommend that a corrosion engineer be consulted to provide recommendations for proper protection of buried metal at this site.

6.5.9 Soil Sulfate Content

The sulfate content was determined in the laboratory for a representative onsite soil sample. The results indicate that the water soluble sulfate range is less than 0.1 percent by weight, which is considered negligible as per Table 19-A-4 of the 2007 CBC. Based upon the test results, type II cement or an equivalent may be used. Based on the proximity of the site to the ocean, shallow groundwater conditions and proposed site development (below ground parking garage), Type V concrete, with a water to cement ratio of 0.45, is recommended due to likely severe sulfate exposures.

6.6 POST CONSTRUCTION CONSIDERATIONS

6.6.1 Landscape Maintenance and Planting

Water has been shown to weaken the inherent strength of soil, and slope stability is significantly reduced by overly wet conditions. Positive surface drainage away from graded slopes if any should be maintained and only the amount of irrigation necessary to sustain plant life should be provided for planted slopes. Controlling surface drainage and runoff, and maintaining a suitable vegetation cover can minimize erosion. Plants selected for landscaping should be lightweight, deep-rooted types that require little water and are capable of surviving the prevailing climate.

Overwatering should be avoided. The soils should be maintained in a solid to semi-solid state as defined by the materials Atterberg Limits. Care should be taken when adding soil amendments to avoid excessive watering. Leaching as a method of soil preparation prior to planting is not recommended. An abatement program to control ground-burrowing rodents should be implemented and maintained. This is critical as burrowing rodents can decreased the long-term performance of slopes and/or compacted fills.

It is common for planting to be placed adjacent to structures in planter or lawn areas. This will result in the introduction of water into the ground adjacent to the foundation. This type of landscaping should be avoided. If used, then extreme care should be exercised with regard to the irrigation and drainage in these areas. Waterproofing of the foundation and/or subdrains may be warranted and advisable. We could discuss these issues, if desired, when plans are made available.

6.6.2 Drainage

The need to maintain proper surface drainage and subsurface systems cannot be overly emphasized. Positive site drainage should be maintained at all times. Drainage should not flow uncontrolled down any descending slope. Water should be directed away from foundations and not allowed to pond or seep into the ground. Pad drainage should be directed toward approved area(s) and not be blocked by other improvements.

It is the owner's responsibility to maintain and clean drainage devices on or contiguous to their lot. In order to be effective, maintenance should be conducted on a regular and routine schedule and necessary corrections made prior to each rainy season.

6.7 PLAN REVIEW AND CONSTRUCTION OBSERVATIONS

We recommend that site grading, specifications, and foundation plans be reviewed by this office prior to construction to check for conformance with the recommendations of this report. We also recommend that GeoTek representatives be present during site grading and foundation construction to check for proper implementation of the geotechnical recommendations. These representatives should perform at least the following duties:

- Observe site clearing and grubbing operations for proper removal of all unsuitable materials.
- Observe and test bottom of removals prior to fill placement.
- Evaluate the suitability of on-site and import materials for fill placement, and collect soil samples for laboratory testing where necessary.
- Observe the fill for uniformity during placement including utility trenches. Also, test the fill for field density and relative compaction.
- Observe and probe foundation materials to confirm suitability of bearing materials.
- Provide inspection and testing of steel and concrete components.

7. LIMITATIONS

The materials observed on the project site appear to be representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

Since our recommendations are based on the site conditions observed and encountered, and laboratory testing, our conclusion and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

8. SELECTED REFERENCES

ASTM, 2000, "Soil and Rock: American Society for Testing and Materials," vol. 4.08 for ASTM test methods D-420 to D-4914, 153 standards, 1,026 pages; and vol. 4.09 for ASTM test method D-4943 to highest number.

Blake, T., 2000, EQFAULT, version 3.00, a Computer Program for Deterministic Estimation of Maximum Earthquake Event and Peak Ground Acceleration.

California Code of Regulations, Title 24, 2007 "California Building Code," 3 volumes.

California Department of Water Resources groundwater well data (http://wdl.water.ca.gov).

California Division of Mines and Geology (CDMG), 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada: International Conference of Building Officials.

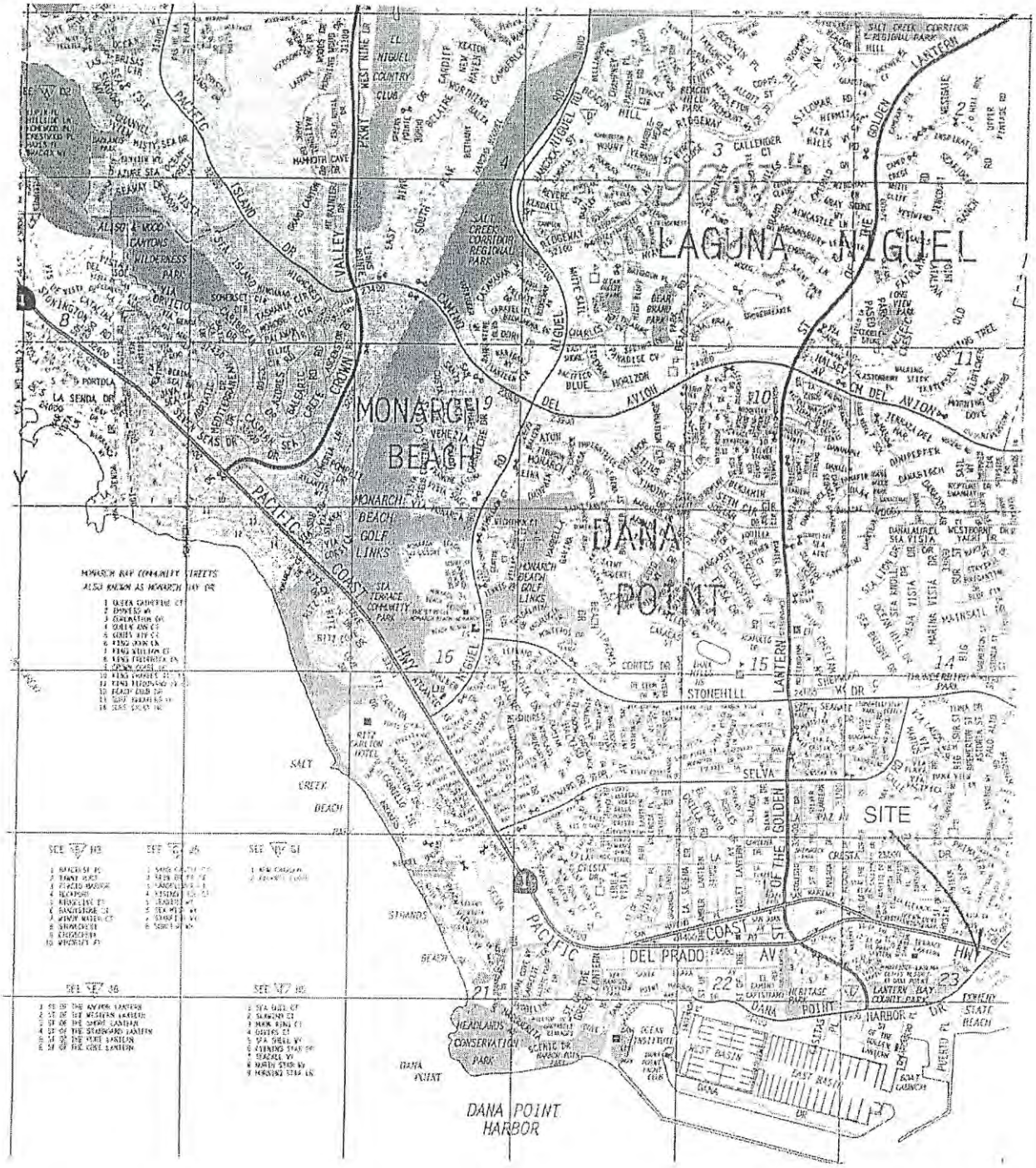
California Division of Mines and Geology (CDMG), 1997, "Guidelines for Evaluating and Mitigating Seismic Hazards in California," Special Publication 117.

California Division of Mines and Geology (CDMG), 1992, Geologic Map of California, Santa Ana Sheet, 1:250,000 scale.

California Division of Mines and Geology (CDMG), 1977, Geologic Map of California, 1:750,000 scale.

GeoTek, Inc., In-house proprietary information.

Standard Specifications for Public Works Construction, 2006, Building News, Inc., Los Angeles, California.



Beverly Hills Hospitality Group, LLC
Dana Point Hotel Project
City of Dana Point, California

GeoTek Project No.: 0480-CR3

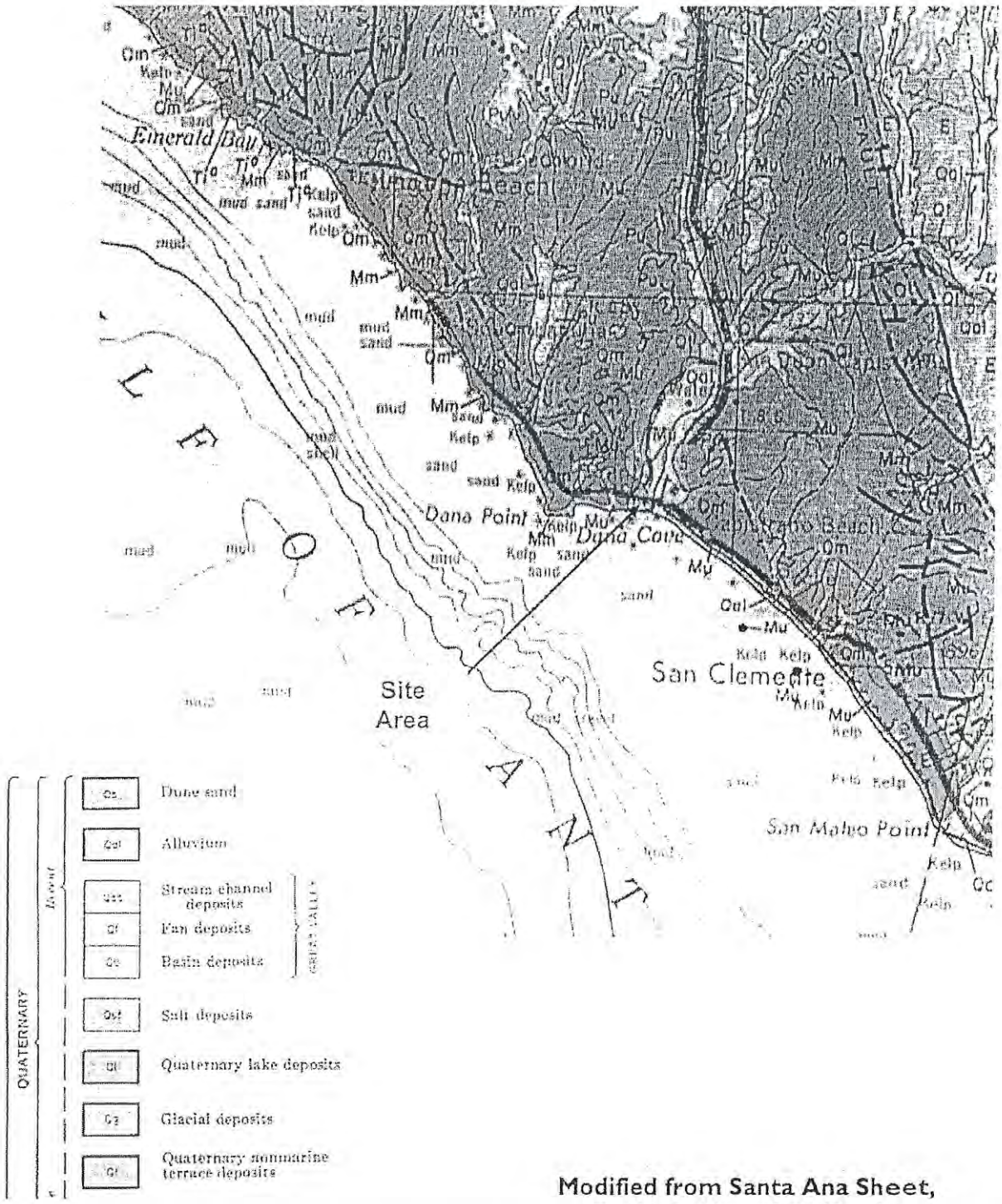
N

Modified from The Thomas Guide, Orange County, Scale: 1" = 2400'

Figure 1

Site Location Map

GEOTEK



Modified from Santa Ana Sheet, Geologic Map of California

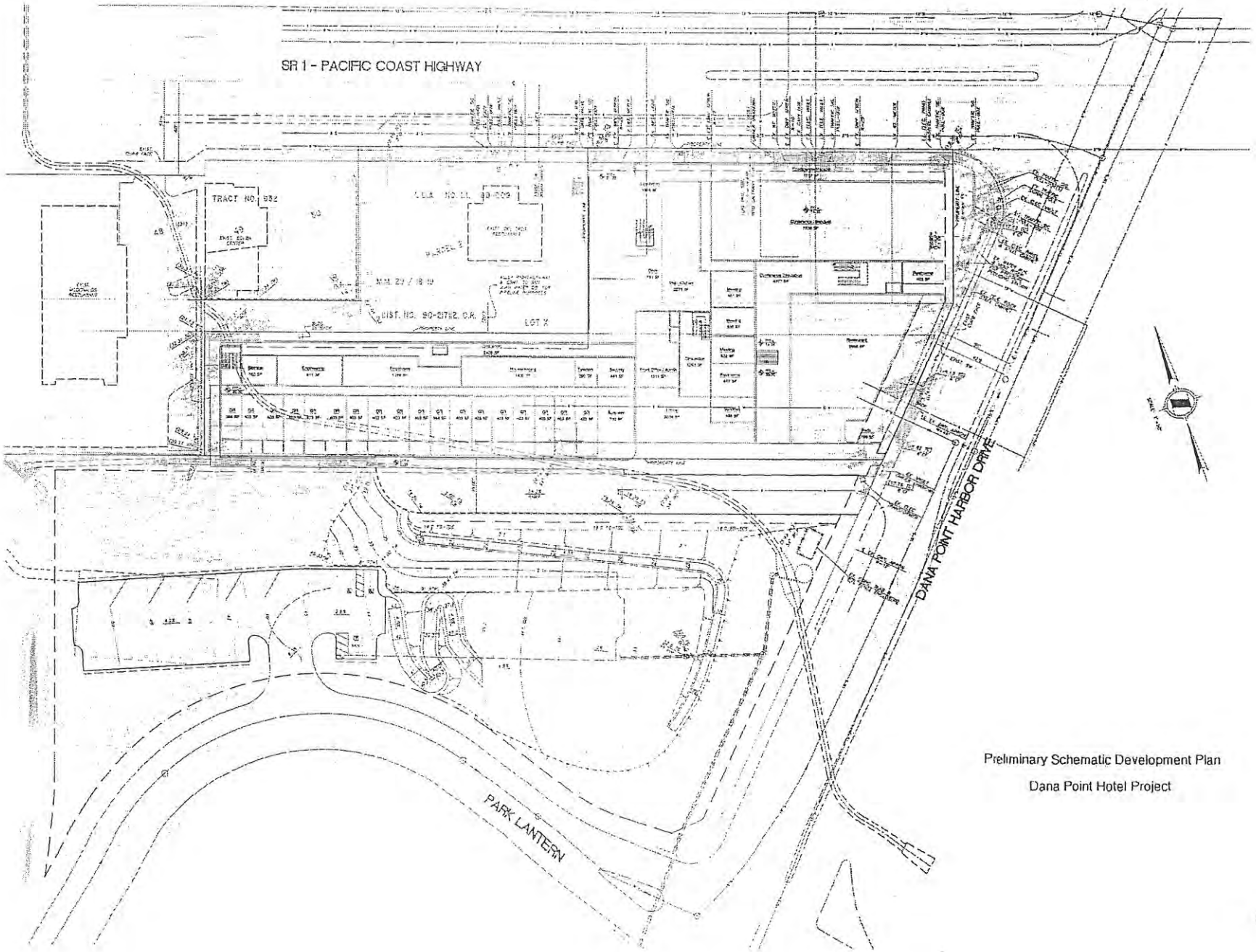
Beverly Hills Hospitality Group, LLC
Dana Point Hotel Project
Dana Point, California

GeoTek Project No.: 0480-CR3

Figure 2

Site Area Geology Map

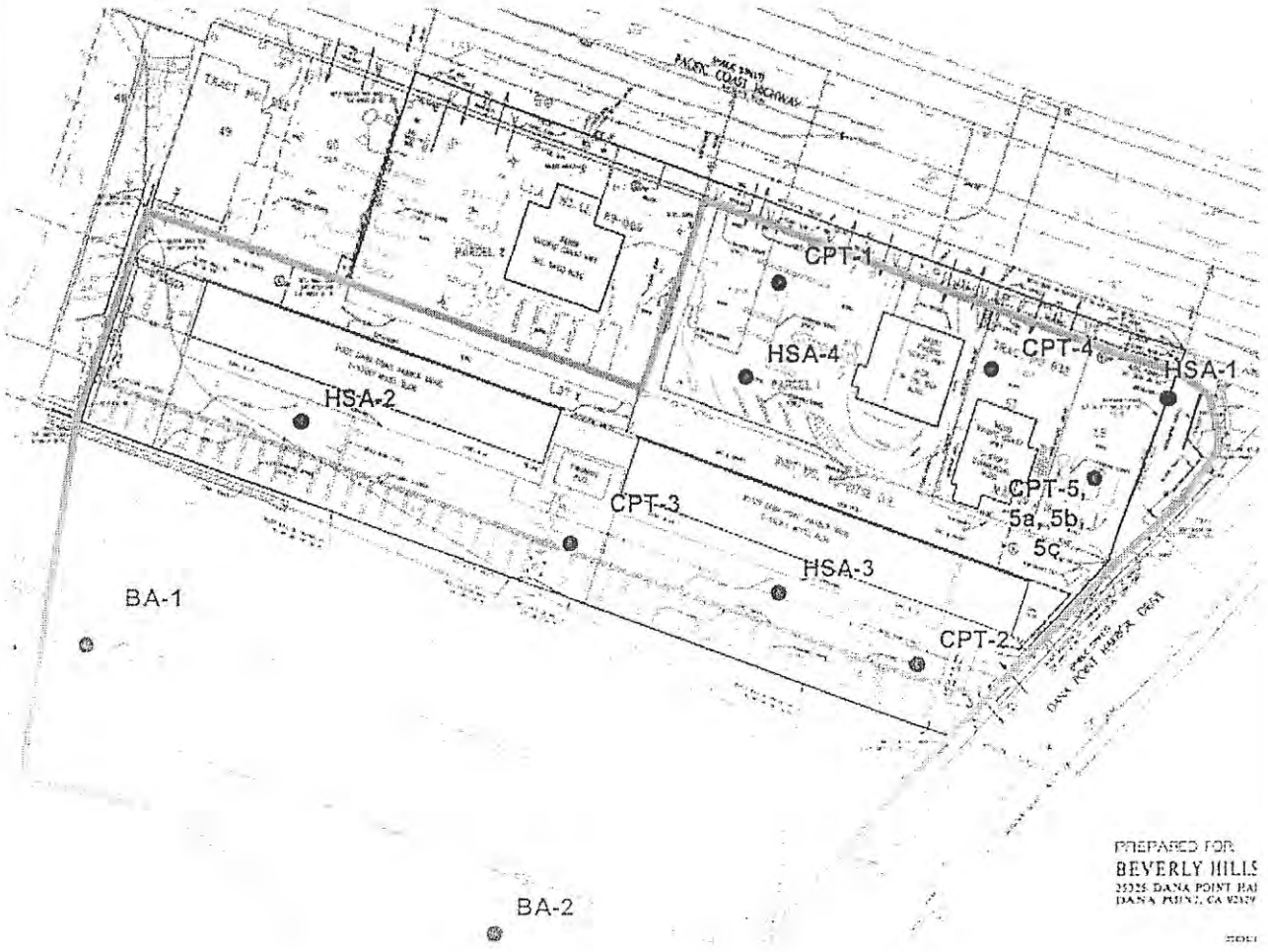
GEOTEK



Preliminary Schematic Development Plan

Dana Point Hotel Project

Figure 3



Legend	
BA-1 ●	Bucket Auger Boring
CPT-5c ●	Cone Penetrometer Test,
HSA-4 ●	Hollow Stem Auger Boring

Doheny Hotel Project
Dana Point, California

Project No. 0480-CR3

N

Figure 4

Boring Location Map

GEOTEK

APPENDIX A

LOG OF EXPLORATORY BORINGS &
CONE PENETROMETER TEST RESULTS

Dana Point Hotel Project
City of Dana Point, Orange County, California
Project No. 0480-CR3

GEOTEK

A - FIELD TESTING AND SAMPLING PROCEDURES

The Standard Penetration Test (SPT)

The SPT is performed in accordance with ASTM Test Method D 1586-99. The SPT sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The split-barrel sampler has an external diameter of 2 inches and an unlined internal diameter of 1-3/8 inches. The samples of earth materials collected in the sampler are typically classified in the field, bagged, sealed and transported to the laboratory for further testing.

The Modified Split-Barrel Sampler (Ring)

The Ring sampler is driven into the ground in accordance with ASTM Test Method D 3550-84. The sampler, with an external diameter of 3.0 inches, is lined with 1-inch long, thin brass rings with inside diameters of approximately 2.4 inches. The sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The samples are removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

Bulk Samples (Large)

These samples are normally large bags of representative earth materials over 20 pounds in weight collected from the field by means of hand digging or exploratory cuttings.

Bulk Samples (Small)

These are plastic bag samples which are normally airtight and contain less than 5 pounds in weight of representative earth materials collected from the field by means of hand digging or exploratory cuttings. These samples are primarily used for determining natural moisture content and classification indices.

B - BORING LOG LEGEND

The following abbreviations and symbols often appear in the classification and description of soil and rock on the logs of borings:

SOILS

USCS	Unified Soil Classification System
f-c	Fine to coarse
f-m	Fine to medium

GEOLOGIC

B: Attitudes	Bedding: strike/dip
J: Attitudes	Joint: strike/dip
C:	Contact line
.....	Dashed line denotes USCS material change
———	Solid Line denotes unit / formational change
———	Thick solid line denotes end of boring

(Additional denotations and symbols are provided on the logs of borings)

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

BORING NO.: *HSA-1*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
				SM	Asphaltic Concrete 0 - 3" Artificial Fill: Clayey gravelly silty SAND (SM), medium gray brown, slightly moist to moist, loose to medium dense			
5		6 6 8	B1-1		SAME			
10		6 8 7	B1-2	CL	Alluvium: Silty CLAY (CL), dark gray, moist to very moist, soft to medium/stiff	24.4	93.5	
▽					Groundwater @ 13'			
15		3 4 6	B1-3		SAME	38.6	79.2	HC
20		2 4 9	B1-4		Silty SAND (SM), gray, saturated, stiff			SA
25		4 2 3	B1-5	CL/SM	Silty CLAY (CL) and silty medium SAND (SM), interbedded, dark gray, saturated, loose/soft	32.2	93.5	
30								

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/Resistivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME:	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

BORING NO.: *HSA-1 continued*

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
30		3 4 10	B1-6	CL	continued Silty CLAY (CL), dark gray, saturated, stiff			
35		3 5 8	B1-7		SAME	22.3	93.3	HC
40		5 11 19	B1-8	ML	Fine sandy clayey SILT (ML), dark gray, saturated, very stiff			SA
45		8 18 35	B1-9	ML/SM	Fine sandy SILT (ML) to silty fine SAND (SM), gray, saturated, very stiff/dense	22.8	100.8	
50		6 11 19	B1-10	SM	Silty fine SAND (SM), medium gray, saturated, medium dense to dense			SA
55								
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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

BORING NO.: *HSA-1 continued*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
60		7 23 50	B1-11	SM	continued Silty fine to medium SAND (SM), light to medium gray, saturated, dense			
65								
70		4 7 8	B1-12	ML	Sandy clayey SILT (ML), medium gray, saturated, stiff			SA
75								
80		9 17 23	B1-13	CL	Silty CLAY (CL), dark gray, saturated, very stiff			
85								
90								

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= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME:	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: *HSA-1 continued* / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
90		17 35 45	B1-14		**continued** **Older Alluvium:** Silty clayey Siltstone & silty Sandstone, thinly bedded, moist, dipping ~30°, ~ 80% to 90% Claystone			
95								
100		50-2"	B1-15		SAME			
					BORING TERMINATED AT 100.2 FEET Groundwater encountered at 13' Boring backfilled with soil cuttings			
105								
110								
115								
120								

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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

BORING NO.: *HSA-2*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
					Asphaltic Concrete 0 - 3"			
				SM	Artificial Fill: Silty SAND (SM), medium gray, moist, loose to medium dense			
5		3 3 3	B2-1		SAME	11.6	109.0	
10		3 5 6	B2-2	SC	Alluvium: Clayey silty SAND (SC), brown, very moist, loose to medium dense	25.2	96.0	
15 ▽		3 5 6	B2-3		Groundwater @ 15' Clayey silty SAND (SC), dark gray brown, saturated, loose to medium dense	28.4	94.7	
20		2 2 2	B2-4		SAME			SA
25		4 5 6	B2-5		SAME	21.8	101.8	HC
30								

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/Resistivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: *HSA-2 continued* — MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
30		1 1 2	B2-6	SC	continued Sandy silty CLAY (CL), dark gray, saturated, soft			
35		4 4 7	B2-7	CL	Sandy silty CLAY (CL), dark gray, saturated, soft to medium	26.4	97.3	
40		3 5 7	B2-8		Fine to medium sandy CLAY (CL) and silty CLAY (CL), interbedded, dark gray, saturated, stiff			AL
45								
50		10 21 28	B2-9		Silty CLAY (CL), dark gray, very moist, very stiff	34.5	83.9	AL
55								
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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in.	SAMPLES: Sample Number	USCS Symbol	BORING NO.: *HSA-2 continued* MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
60		4 7 10	B2-10	CL	continued Silty CLAY (CL), dark gray, very moist, stiff to very stiff			
					BORING TERMINATED AT 61.5 FEET Groundwater encountered at 15' Boring backfilled with soil cuttings			
65								
70								
75								
80								
85								
90								

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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	5" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/12/2008

BORING NO.: *HSA-3*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
				CL	Alluvium: Sandy silty CLAY (CL), dark gray, very moist, medium to stiff			
5		2 3 3	B3-1		SAME	18.9	104.6	
10		3 2 3	B3-2		SAME			
15		2 3 4	B3-3		Groundwater @ 15' SAME	20.9	97.7	
20		3 4 5	B3-4	ML	Clayey SILT (ML), dark gray, saturated, stiff			AL
25		2 4 5	B3-5		SAME			
30								

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/Resistivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	6" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/12/2008

BORING NO.: *HSA-3 continued*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
30		Push 4 3	B3-6	SM	continued Silty fine SAND (SM), medium gray, saturated, loose			
35		Push 4 5	B3-7		SAME			
40		1 2 4	B3-8	SM/ML	Clayey silty fine SAND (SM) and clayey SILT (ML), dark gray, saturated, loose			SA
45								
50		5 7 23	B3-9	SM	Silty fine SAND (SM), medium gray, saturated, loose to medium			
					BORING TERMINATED AT 51.5 FEET Groundwater encountered at 15' Boring backfilled with soil cuttings			
55								
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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME:	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/12/2008

BORING NO.: *HSA-4*

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Asphaltic Concrete 0 - 3"			MD, SR
					Artificial Fill:			
				CL	Sandy silty CLAY (CL), mottled yellow brown, moist, firm			
5		4	B4-1		SAME			
		2			**Alluvium:**			
		6		CL	Silty clay (CL), dark gray, very moist, soft, porous			
10		4	B4-2		SAME			
		5						
		6						
15		2	B4-3		Groundwater @ 15'			
		4		CL/ML	Silty CLAY (CL) to clayey SILT (ML), medium brown, very moist, soft			
		5						
20		Push	B4-4		SAME			
		1						
		2						
25		1	B4-5	CL	Silty CLAY (CL), dark gray, very moist, soft			HC
		3						
		4						
30								

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/Resistivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/12/2008

BORING NO.: *HSA-4 continued*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
30		Push 1 2	B4-6	CL	continued Silty CLAY (CL), dark gray, very moist, soft			
35		7 6 7	B4-7		SAME	14.4	104.2	
40		Push 1 2	B4-8		SAME			AL
45								
50		3 6 8	B4-9		SAME	16.9	105.3	
55								
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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	2R Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	8" Hollow Stem	OPERATOR:	Nick
PROJECT NO.:	0480-CR3	HAMMER:	Auto 140#/30"	RIG TYPE:	CME 75
LOCATION:	See Boring Location Plan			DATE:	8/11/2008

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: *HSA-4 continued* / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
60		2 2 4	B4-10	CL	continued Silty CLAY (CL) with some sand, dark gray, very moist, soft			
					BORING TERMINATED AT 61.5 FEET Groundwater encountered at 15' Boring backfilled with soil cuttings			
65								
70								
75								
80								
85								
90								

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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	Al Roy Drilling	LOGGED BY:	EHL
PROJECT NAME	Dana Point Hotel	DRILL METHOD:	24" Bucket Auger	OPERATOR:	Erik
PROJECT NO.:	0480-CR3	HAMMER:	See Log Below	RIG TYPE:	EZ Bore
LOCATION:	See Boring Location Plan			DATE:	11/24/2008

BORING NO.: *BA-1*

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
				SM	Grass 0 - 4" **Undocumented Fill:** Silty SAND (SM) with clay, occasional gravel and cobbles, light to medium yellow brown, slightly moist to moist			
5		2	BA1-1	ML/CL	Clayey sandy SILT (ML) to fine sandy silty CLAY (CL), medium to dark brown, moist			
10				CL	Cobbly sandy CLAY (CL), dark gray mottled, moist, up to 12" diameter rounded cobble clasts, ~20% clasts			
15		Push 1	BA1-2		Gravelly cobbly silty CLAY (CL), dark brown gray mottled, moist, piece of concrete	15.7	108.3	
20		Push 2	BA1-3	CL	Alluvium: Sandy silty CLAY (CL), dark gray, slightly moist to moist, stiff			SH
25					@25', becomes very gravelly - silty GRAVEL, 1/4 to 1/2" gravel, saturated, angular, very uniform. @28', Silty CLAY (CL), dark gray, very moist to saturated			
30								

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/Resistivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	Al Roy Drilling	LOGGED BY:	EHL
PROJECT NAME:	Dana Point Hotel	DRILL METHOD:	24" Bucket Auger	OPERATOR:	Erik
PROJECT NO.:	0480-CR3	HAMMER:	See Log Below	RIG TYPE:	EZ Bore
LOCATION:	See Boring Location Plan			DATE:	11/24/2008

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: *BA-1 continued* / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
30		3	BA1-4	CL	continued SAME @33', Caving and Refusal; ~7' of water in hole with some gravel	13.3	111.7	
					BORING TERMINATED AT 33 FEET Groundwater encountered at 26' Boring backfilled with soil cuttings			
35								
40								
45								
50								
55								
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/Resistivity Test	SH = Shear Test	HC= Hydrocollapse	MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	Al Roy Drilling	LOGGED BY:	EHL
PROJECT NAME:	Dana Point Hotel	DRILL METHOD:	24" Bucket Auger	OPERATOR:	Erik
PROJECT NO.:	0480-CR3	HAMMER:	See Log Below	RIG TYPE:	EZ Bore
LOCATION:	See Boring Location Plan			DATE:	11/24/2008

BORING NO.: *BA-2*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Water Content (%)	Dry Density (pcf)	Others
				SM	**Undocumented Fill:** Cobbly gravelly silty SAND (SM), gray brown mottled, damp, loose, ~20-40% cobble, rounded clasts up to 10" diameter			
5					Too rocky to sample.			
10		3	BA2-1		Clayey cobbly silty SAND (SM), light to medium yellow brown mottled, moist, medium dense			
15		3	BA2-2		SAME	7.6	126.5	
				SC	Alluvium: Clayey SAND (SC) with some gravel, dark brown, moist			
20		Push 1	BA2-3		@20', Becomes mottled with more clay, yellow brown and dark gray, moist, stiff	10.6	115.7	
25				CL	Silty CLAY (CL), dark gray, moist to very moist			
30								

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/Resistivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	Beverly Hills Hospitality Group	DRILLER:	Al Roy Drilling	LOGGED BY:	EHL
PROJECT NAME:	Dana Point Hotel	DRILL METHOD:	24" Bucket Auger	OPERATOR:	Erik
PROJECT NO.:	0480-CR3	HAMMER:	See Log Below	RIG TYPE:	EZ Bore
LOCATION:	See Boring Location Plan			DATE:	11/24/2008

BORING NO.: *BA-2 continued*

Depth (ft)	Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Water Content (%)	Dry Density (pcf)	Others
30		Push	BA2-4	CL	continued SAME	14.7	111.3	
					Becomes more mottled with some calcium carbonate staining/veins			
35								
40		Push	BA2-5		Sandy silty CLAY (CL), dark gray, very moist, firm, very plastic, some hair-size roots, occasional small well-rounded gravel	14.4	115.0	
45								
				SC	Clayey fine to medium SAND (SC), light to medium gray, very moist			
50		6	BA2-6		Clayey silty fine to medium SAND (SC), light olive gray, moist, medium dense to dense	12.1	119.7	
					BORING TERMINATED AT 51 FEET			
					No groundwater encountered Boring backfilled with soil cuttings			
55								
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/Resistivity Test; SH = Shear Test; HC= Hydrocollapse; MD = Maximum Density

APPENDIX B

RESULTS OF LABORATORY TESTING

Dana Point Hotel Project
City of Dana Point, Orange County, California
Project No. 0480-CR3

GEOTEK

SUMMARY OF LABORATORY TESTING

Classification
Soils were classified visually according to the Unified Soil Classification System (ASTM Test Method D 2487). The soil classifications are shown on the logs of exploratory borings included in Appendix A.

Moisture-Density Relations
Laboratory testing was performed on a representative sample collected during the subsurface exploration. The laboratory maximum dry density and optimum moisture content for a representative soil type was determined in general accordance with test method ASTM Test Procedure D1557. The result is included herein on Plate MD-1.

Particle Size Analysis
Washed sieve and hydrometer analyses were performed on selected site soil samples per ASTM D1140 and D-422. Atterberg limits tests were also completed on selected soil samples, per ASTM D4318 (see attached results).

Consolidation Tests
Consolidation testing was performed on representative samples of the site soils according to ASTM Test Method D-2435. The results of this testing is presented on Plates HC-1 through HC-4.

Sulfate Content
Analysis to determine the water-soluble sulfate content was performed in accordance with California Test No. 417. Results of the testing indicated a 0.0720% by weight sulfate content, which is considered negligible as per Table 19-A-4 of the 2007 CBC.

Resistivity
A representative soil sample was tested for resistivity in accordance with California Test 643. The results of the testing are included herein.

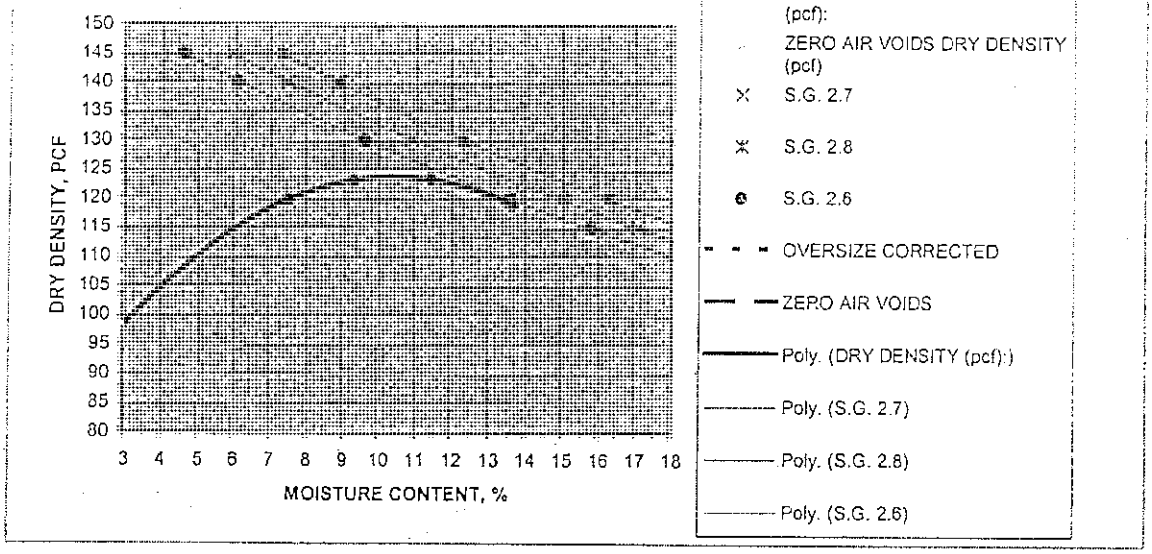
GEOTEK
4130 Flat Rock Drive, Suite 140, Riverside, CA, 92505-5864
951-710-1160 Office 951-710-1167 Fax

MOISTURE/DENSITY RELATIONSHIP

Client:	Beverly Hills Hospitality Group	**Job No.:**	0480-CR3
Project:	Dana Point Hotel	**Lab No.:**	Riv
Location:	Dana Point		
Material Type:	Clayey Sand w/ Gravel		
Material Supplier:	N/A		
Material Source:	0		
Sample Location:	Hollow Stem Auger Boring 4 @ 0 - 5'		
Sampled By:	EHL	**Date Sampled:**	12-Aug-08
Received By:	N/A	**Date Received:**	12-Aug-08
Tested By:	BD	**Date Tested:**	19-Sep-08
Reviewed By:	N/A	**Date Reviewed:**	17-Dec-09

Test Procedure: ASTM 1557 **Method:** 0
Oversized Material (%): 0.0 **Correction Required:** ☐ Yes ☐ No

MOISTURE/DENSITY RELATIONSHIP CURVE



MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	125.0	@ Optimum Moisture, %	10.5
Corrected Maximum Dry Density, pcf		@ Optimum Moisture, %	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

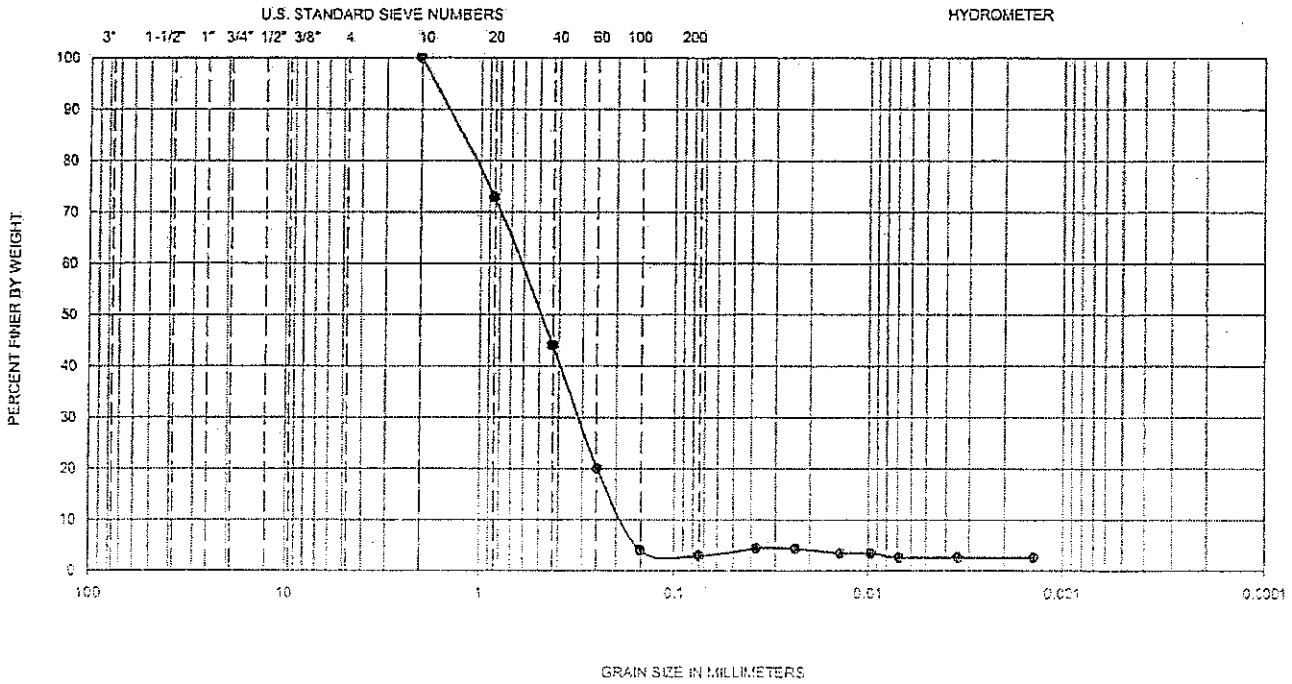
Classification:
Unified Soils Classification:
AASHTO Soils Classification:

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Plate MD-1

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay



Symbol	Hole No.	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
	H.S.A-1	@ 20'	--	--	--	--	--	--	--	--	3.0	SP-SM

GEOTEK

Checked By: EHL	Lab: Riverside
Project No. 0480-CR3	

SIEVE ANALYSIS

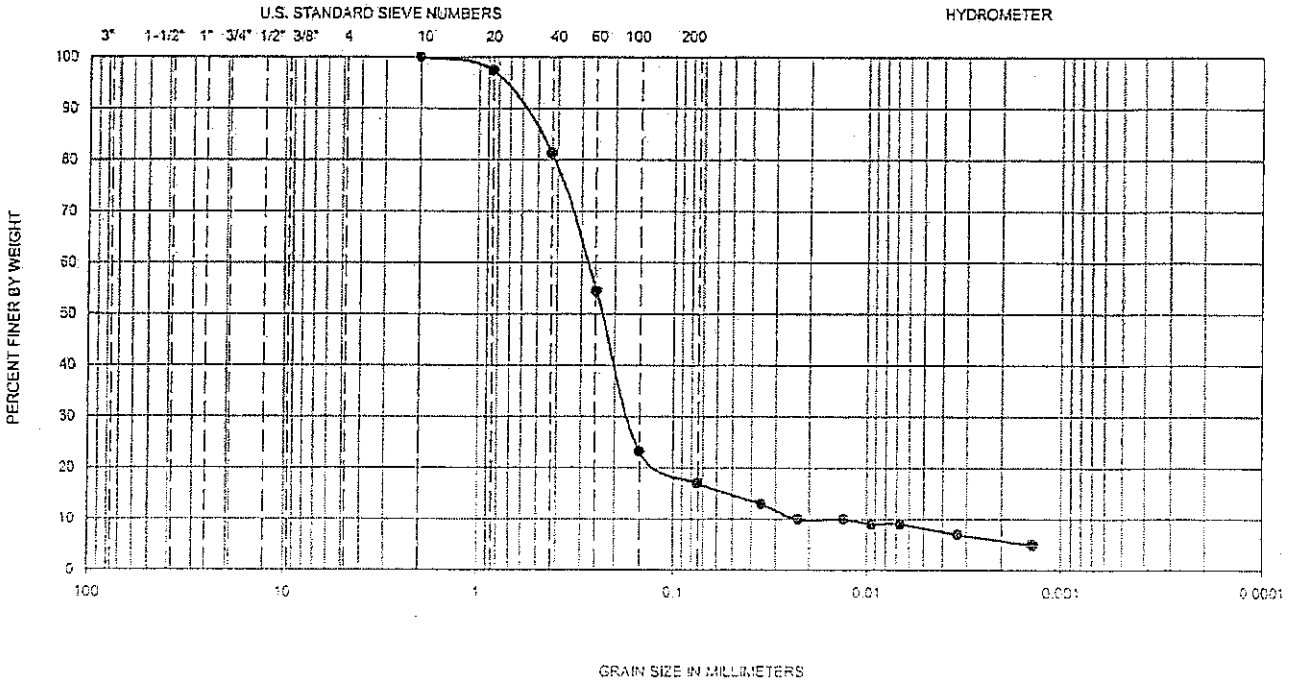
Sample: HSA-1 @ 20'

Beverly Hills Hospitality Group

Dana Point Hotel

Plate SA-1

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay



Symbol	Hole No.	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
	H.S.A-1	@ 40'	--	--	--	--	--	--	--	--	17.0	SM

GEOTEK

Checked By: EHL	Lab: Riverside
Project No. 0480-CR3	

SIEVE ANALYSIS

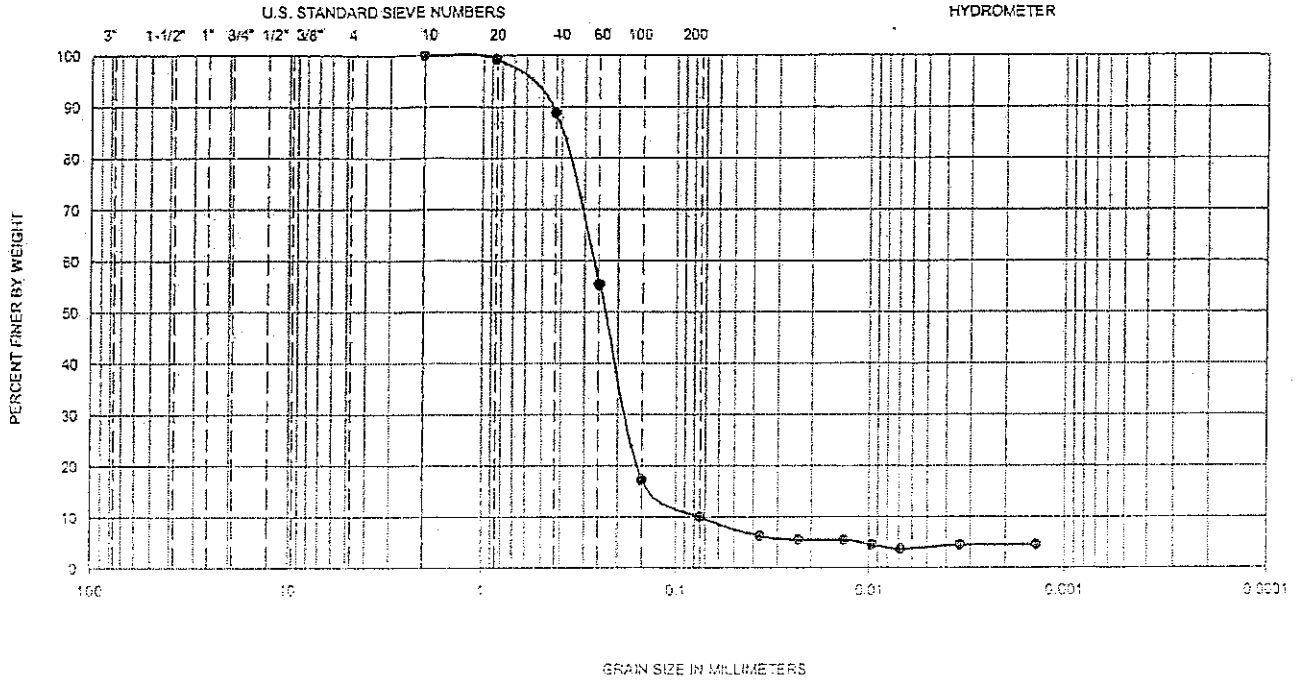
Sample: HSA-1 @ 40'

Beverly Hills Hospitality Group

Dana Point Hotel

Plate SA-2

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay



Symbol	Hole No.	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
	H.S.A-1	@ 50'	--	--	--	--	--	--	--	--	10.0	SP-SM

GEOTEK

Checked By: EHL	Lab: Riverside
Project No. 0480-CR3	

SIEVE ANALYSIS

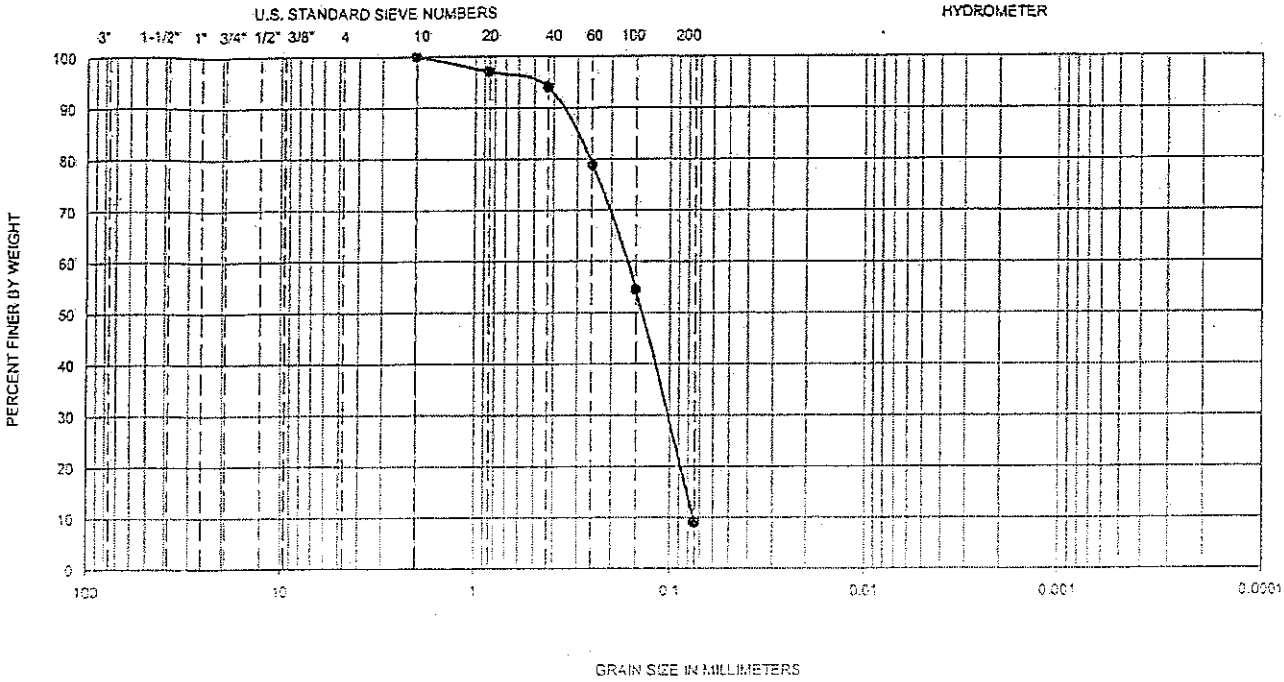
Sample: HSA-1 @ 50'

Beverly Hills Hospitality Group

Dana Point Hotel

Plate SA-3

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay



Symbol	Hole No.	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
	H.S.A-1	@ 70'	--	--	--	--	--	--	--	--	9.0	SP-SM

GEOTEK

Checked By: EHL	Lab: Riverside
Project No. 0480-CR3	

SIEVE ANALYSIS

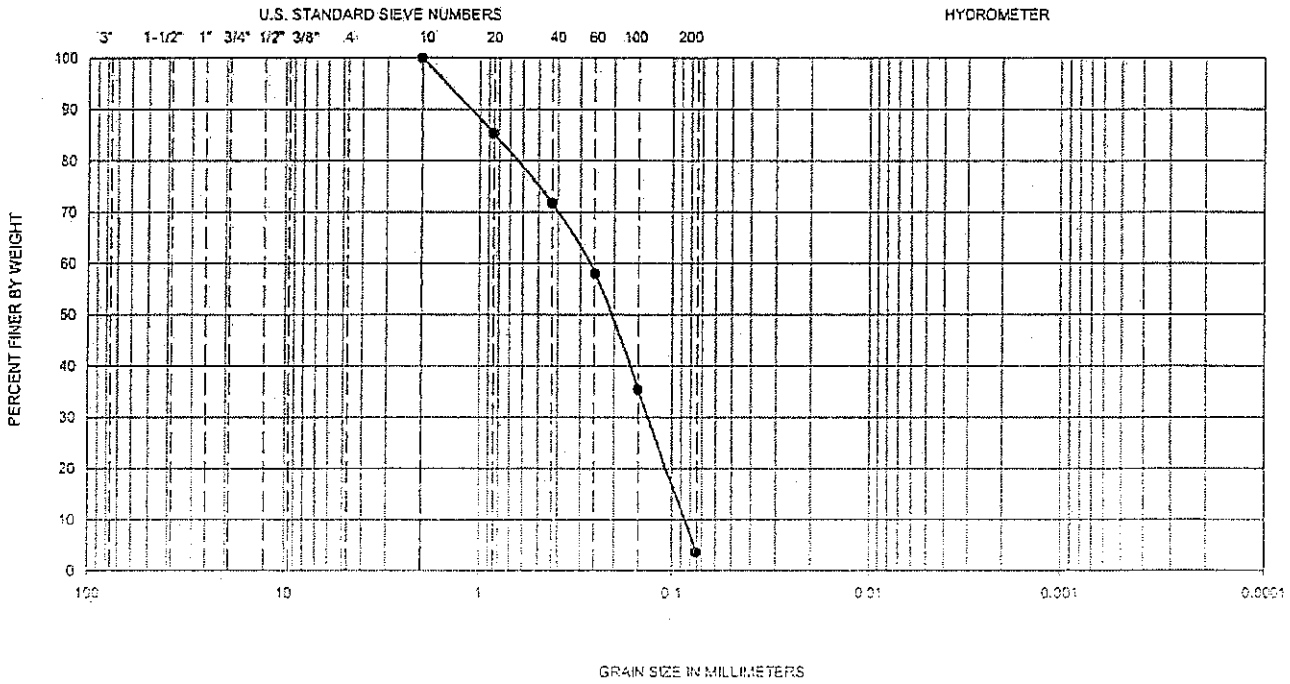
Sample: HSA-1 @ 70'

Beverly Hills Hospitality Group

Dana Point Hotel

Plate SA-4

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay



Symbol	Hole No.	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
	H.S.A-2	@ 20'	--	--	--	--	--	--	--	--	3.6	SP-SM

GEOTEK

Checked By: EHL	Lab: Riverside
Project No. 0480-CR3	

SIEVE ANALYSIS

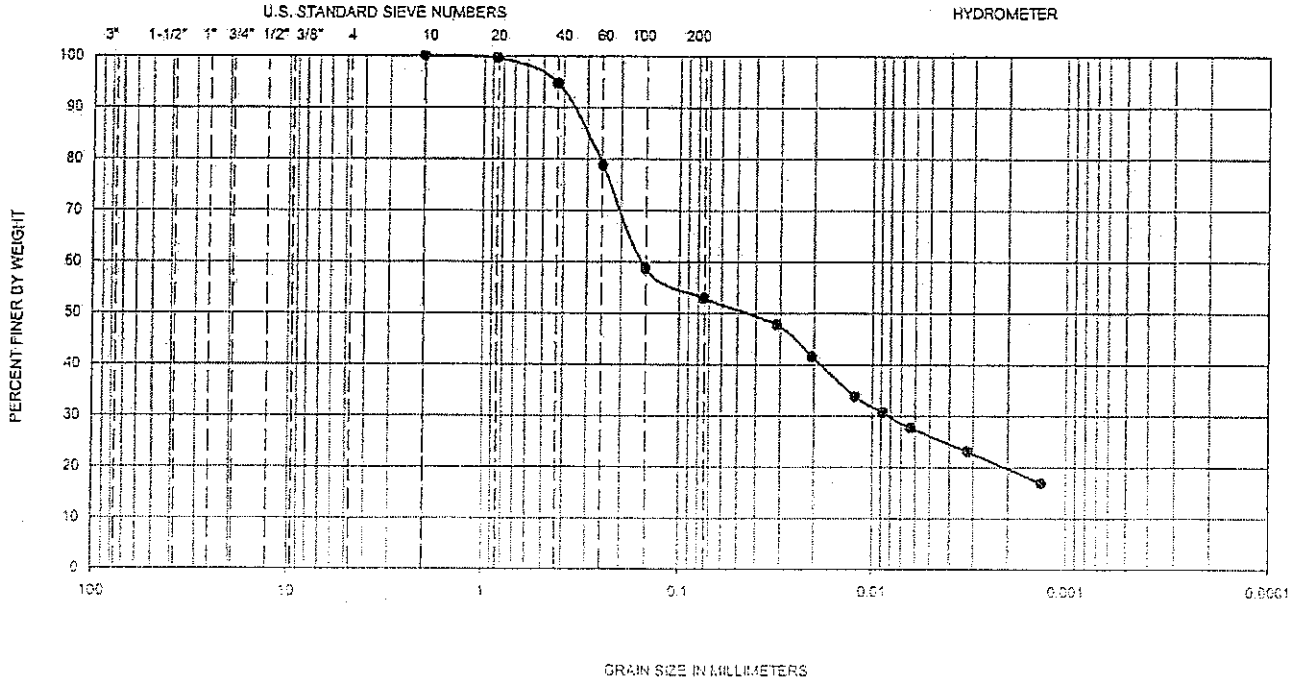
Sample: HSA-2 @ 20'

Beverly Hills Hospitality Group

Dana Point Hotel

Plate SA-5

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	Silt	Clay



Symbol	Hole No.	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
	H.S.A-3	@ 40'	--	--	--	--	--	--	--	--	53.0	SM

GEOTEK

Checked By: EHL	Lab: Riverside
Project No. 0480-CR3	

SIEVE ANALYSIS

Sample: HSA-3 @ 40'

Beverly Hills Hospitality Group

Dana Point Hotel

Plate SA-6

GEOTEK

Job # => 0480-CR3
Project => Dana Point Hotel
Client => Beverly Hills Hospitality Group
Date Sampled => 8/11/2008
Date Received => 8/11/2008

Sample Location => Hollow Stem Auger Boring No. 2 @ 40'
Sampled By => EHL
Tested By => EV

	Plastic Limit			Liquid Limit			
Trial # =>	One	Two	Three	One	Two	Three	Four
Tare Label =>	DD	M		35			
# of Blows =>				25			
Wt. of Tare + Wet Soil =>	11.40	12.80		49.70			
Wt. of Tare + Dry Soil =>	10.50	11.60		45.00			
Wt. of Moisture =>	0.90	1.20		4.70			
Wt. of Can =>	6.00	6.00		30.60			
Wt. of Dry Soil =>	4.50	5.60		14.40			
% Moisture =>	20.0	21.4		32.6			

LL Spec =>				PI Spec =>	
Liquid Limit =>	33	Plastic Limit =>	21	Plasticity Index =>	12
	L		P		(L-P)

Base Aggregates	Table 1	PI		PI		PI
CCPW Plastic Limits	.1 to 3.0	15	4.1 to 5.0	9	8.1 to 11.0	4
Minus 200 =>	3.1 to 4.0	12	5.1 to 8.0	6	11.1 to 15	3

Plate AL-1

GEOTEK

Job # => 0480-CR3
Project => Dana Point Hotel
Client => Beverly Hills Hospitality Group
Date Sampled => 8/11/2008
Date Received => 8/11/2008

Sample Location => Hollow Stem Auger Boring No. 2 @ 50'
Sampled By => EHL
Tested By => EV

	Plastic Limit			Liquid Limit			
Trial # =>	One	Two	Three	One	Two	Three	Four
Tare Label =>	X	Q		AA			
# of Blows =>				25			
Wt. of Tare + Wet Soil =>	13.00	13.90		25.40			
Wt. of Tare + Dry Soil =>	11.10	11.80		18.80			
Wt. of Moisture =>	1.90	2.10		6.60			
Wt. of Can =>	6.00	6.00		6.00			
Wt. of Dry Soil =>	5.10	5.80		12.80			
% Moisture =>	37.3	36.2		51.6			

LL Spec =>			PI Spec =>	
Liquid Limit =>	52	Plastic Limit =>	37	Plasticity Index =>	15
	L		P		(L-P)

Base Aggregates	Table 1	PI		PI		PI
CCPW Plastic Limits	.1 to 3.0	15	4.1 to 5.0	9	8.1 to 11.0	4
Minus 200 =>	3.1 to 4.0	12	5.1 to 8.0	6	11.1 to 15	3

Plate AL-2

GEOTEK

Job # => 0480-CR3
Project => Dana Point Hotel
Client => Beverly Hills Hospitality Group
Date Sampled => 8/12/2008
Date Received => 8/12/2008

Sample Location => Hollow Stem Auger Boring No. 3 @ 20'
Sampled By => EHL
Tested By => EV

	Plastic Limit			Liquid Limit			
Trial # =>	One	Two	Three	One	Two	Three	Four
Tare Label =>	X	M		P			
# of Blows =>				25			
Wt. of Tare + Wet Soil =>	17.20	11.40		24.50			
Wt. of Tare + Dry Soil =>	14.80	10.30		20.20			
Wt. of Moisture =>	2.40	1.10		4.30			
Wt. of Can =>	6.00	6.00		6.00			
Wt. of Dry Soil =>	8.80	4.30		14.20			
% Moisture =>	27.3	25.6		30.3			

LL Spec =>					PI Spec =>	
Liquid Limit =>	30	Plastic Limit =>	26		Plasticity Index =>	4
	L		P			(L-P)

Base Aggregates	Table 1	PI		PI		PI
CCPW Plastic Limits	.1 to 3.0	15	4.1 to 5.0	9	8.1 to 11.0	4
Minus 200 =>	3.1 to 4.0	12	5.1 to 8.0	6	11.1 to 15	3

Plate AL-3

GEOTEK

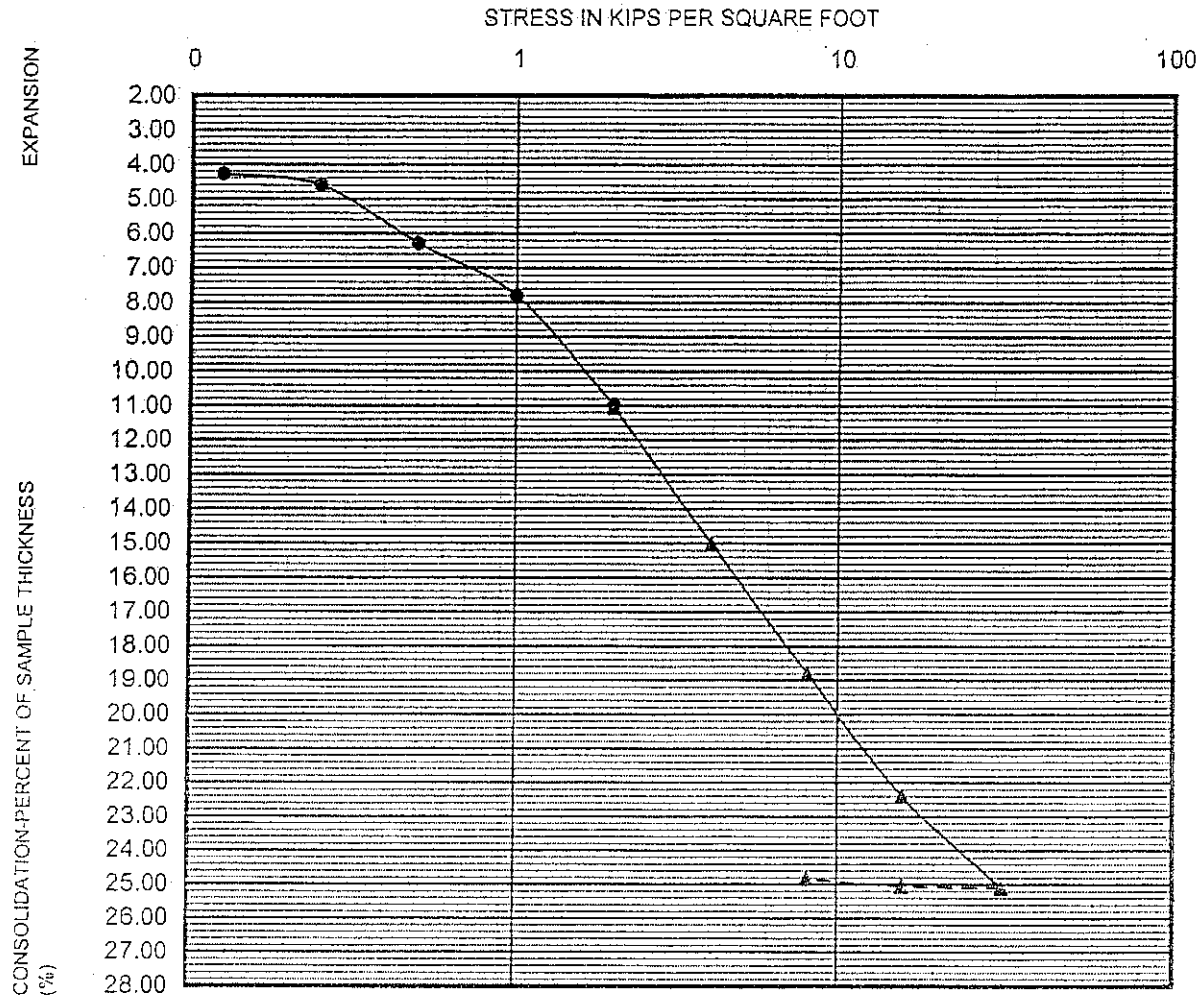
Job # => 0480-CR3
Project => Dana Point Hotel
Client => Beverly Hills Hospitality Group
Date Sampled => 8/12/2008
Date Received => 8/12/2008

Sample Location => Hollow Stem Auger Boring No. 4 @ 40'
Sampled By => EHL
Tested By => EV

	Plastic Limit			Liquid Limit			
Trial # =>	One	Two	Three	One	Two	Three	Four
Tare Label =>	AA	DD		Q			
# of Blows =>				25			
Wt. of Tare + Wet Soil =>	12.60	13.10		26.60			
Wt. of Tare + Dry Soil =>	11.30	11.80		20.30			
Wt. of Moisture =>	1.30	1.30		6.30			
Wt. of Can =>	6.00	6.00		6.00			
Wt. of Dry Soil =>	5.30	5.80		14.30			
% Moisture =>	24.5	22.4		44.1			

LL Spec =>				PI Spec =>	
Liquid Limit =>	44	Plastic Limit =>	24	Plasticity Index =>	21
	L		P		(L-P)

Base Aggregates	Table 1	PI		PI		PI
CCPW Plastic Limits	.1 to 3.0	15	4.1 to 5.0	9	8.1 to 11.0	4
Minus 200 =>	3.1 to 4.0	12	5.1 to 8.0	6	11.1 to 15	3



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

Per ASTM Method D2435

GEOTEK

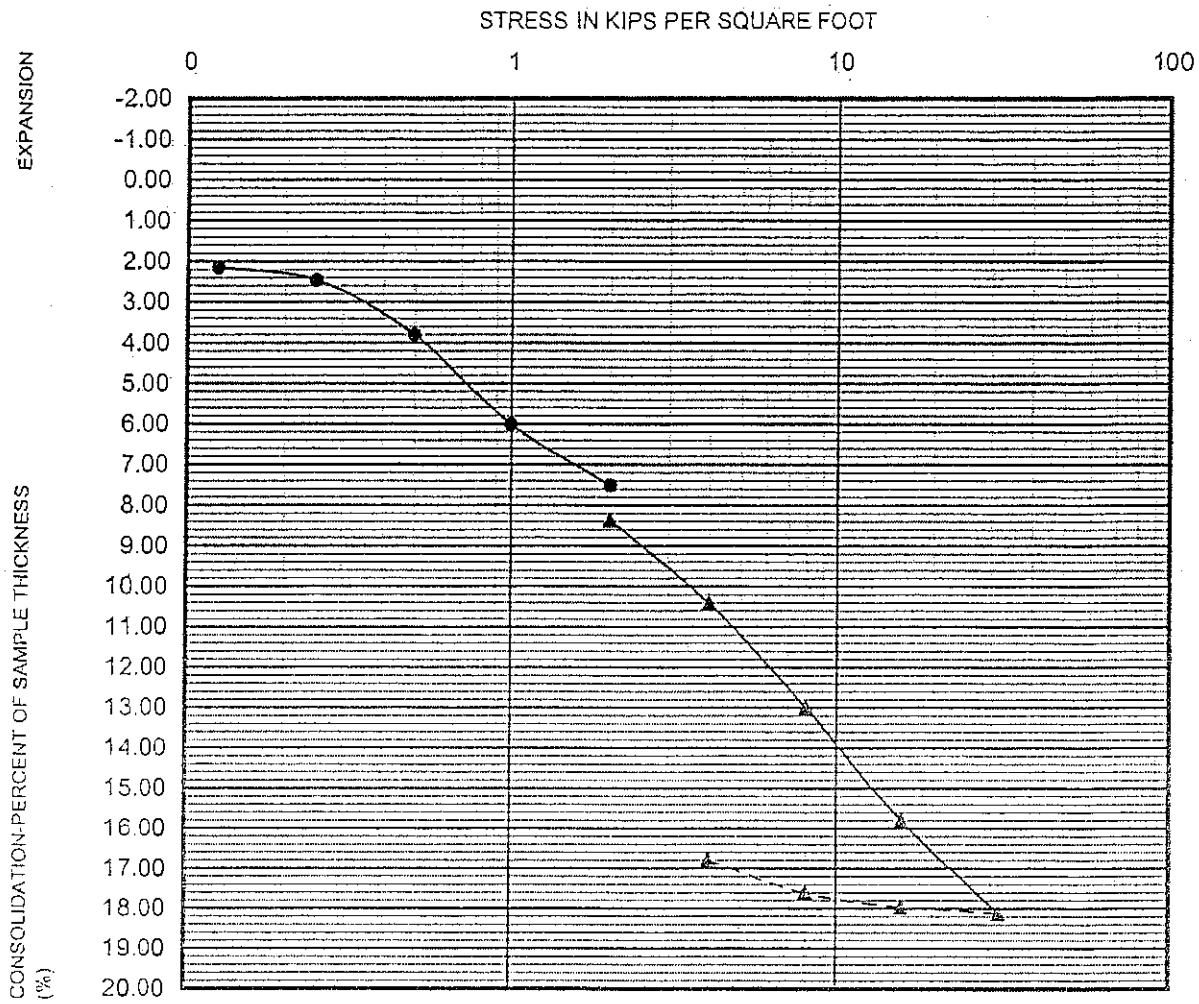
CHECKED BY: EHL	Lab: RIV
PROJECT NO.: 0480-CR3	Date: 12/29/08

CONSOLIDATION REPORT

Sample: HSA-1 @ 15'

Beverly Hills Hospitality Group
Dana Point

Plate HC-1



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

Per ASTM Method D2435

GEOTEK

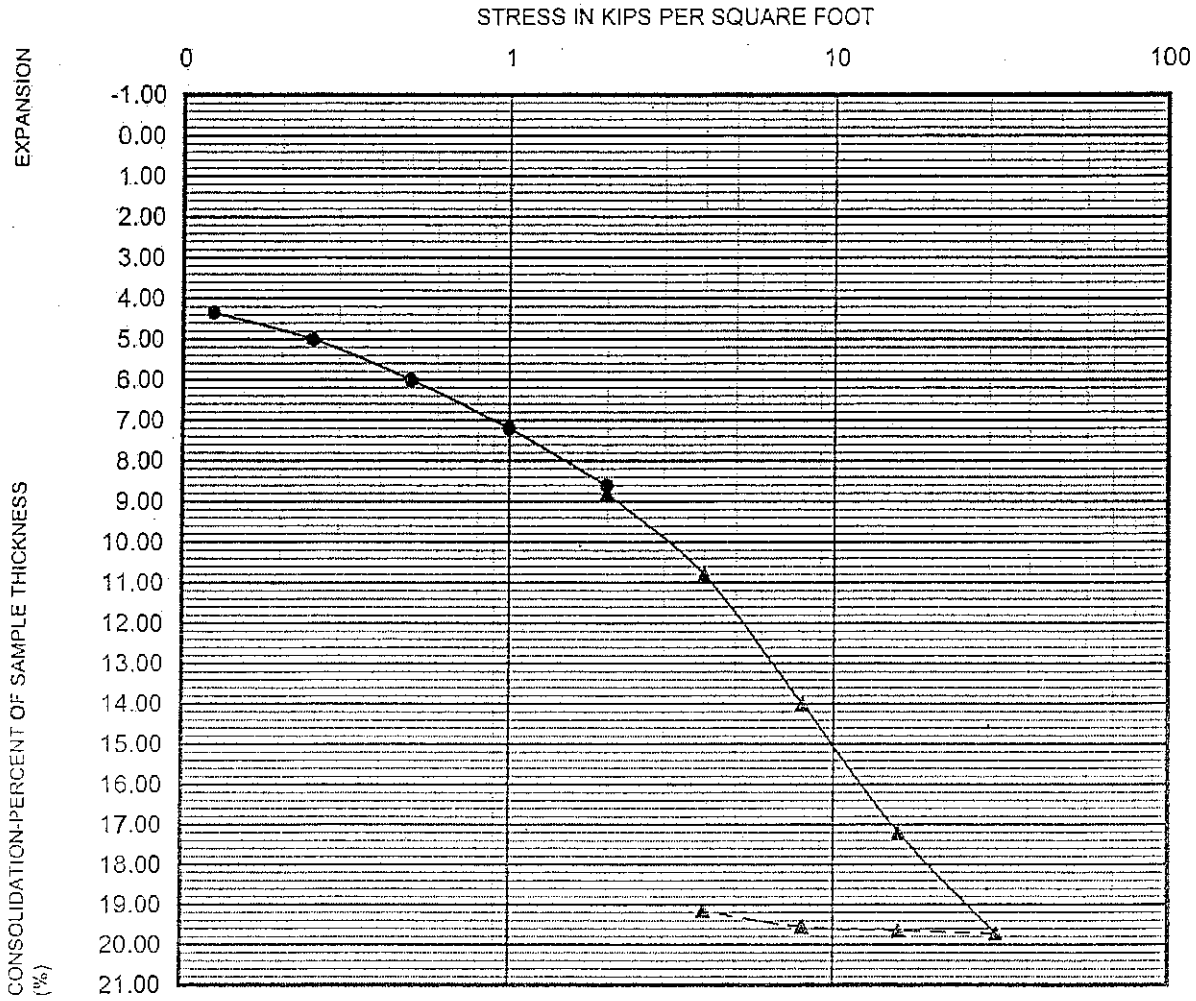
CHECKED BY: EHL	Lab: RIV
PROJECT NO.: 0480-CR3	Date:12/19/08

CONSOLIDATION REPORT

Sample: HSA-1 @ 35'

Beverly Hills Hospitality Group
Dana Point

Plate HC-2



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

Per ASTM Method D2435

GEOTEK

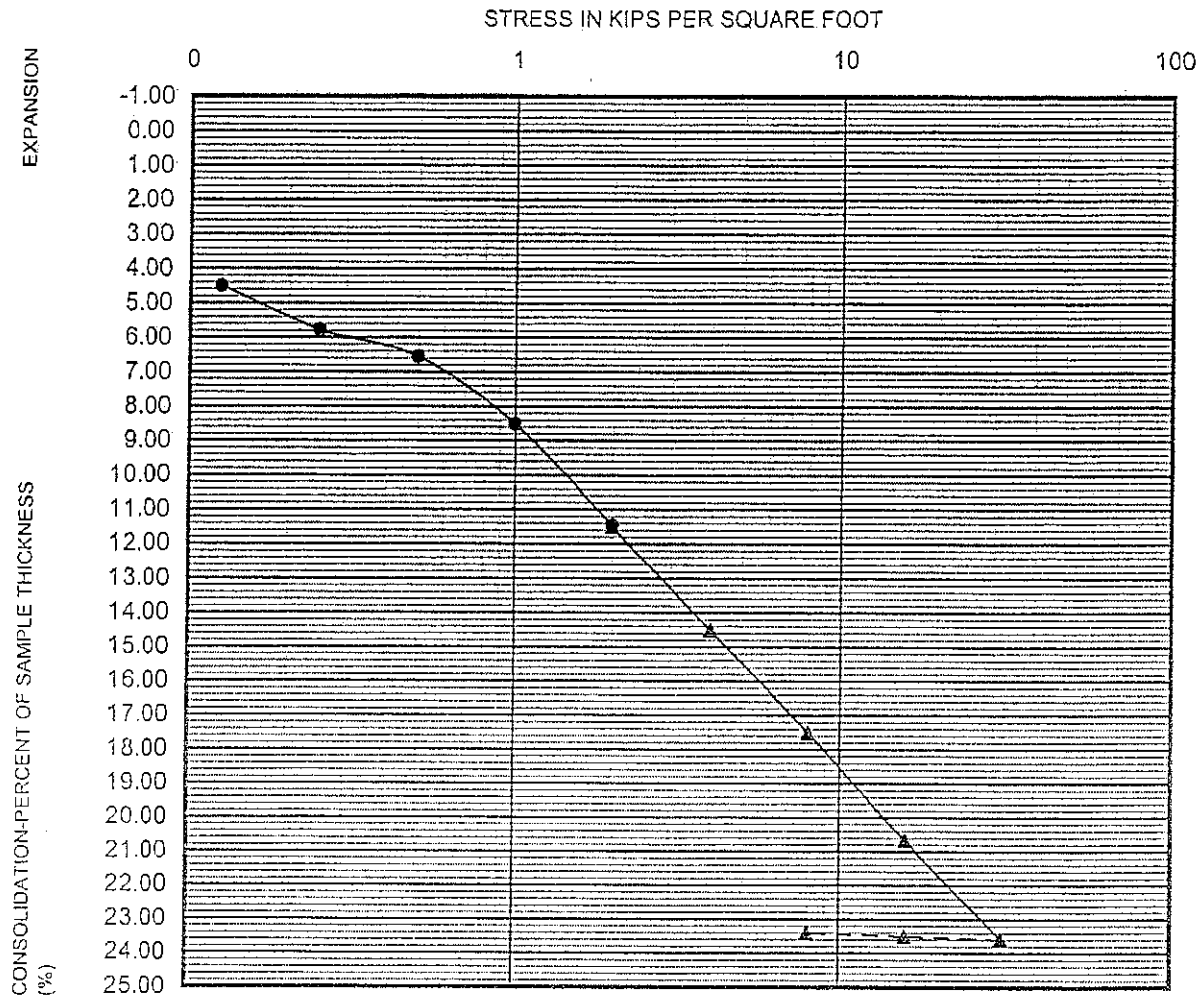
CHECKED BY: EHL	Lab: RIV
PROJECT NO.: 0480-CR3	Date:12/19/08

CONSOLIDATION REPORT

Sample: HSA-2 @ 25'

Beverly Hills Hospitality Group
Dana Point

Plate HC-3



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

Per ASTM Method D2435

GEOTEK

CHECKED BY: EHL	Lab: RIV
PROJECT NO.: 0480-CR3	Date:12/29/08

CONSOLIDATION REPORT

Sample: HSA-4 @ 25'

Beverly Hills Hospitality Group
Dana Point

Plate HC-4

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

September 23, 2008

Geo Tek Inc.
4130 Flatrock, Suite 140
Riverside, California 92505

Attn: Mr. Edward Lamont

RE: LABORATORY TEST RESULTS/REPORT

Client: Beverly Hill Investment
W.O. 0480-CR3
Project: N/A
QCI Job No.: 08-167-09a

Gentlemen:

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

TEST	METHOD
Corrosion Potential	CT- 417, CT- 422, CT-532 (643)

Enclosed is Summary of Laboratory Test Results.

We appreciate the opportunity to provide testing services to Geo Tek, Inc. Should you have any questions, please call the undersigned.

Sincerely yours,
Quartech Consultants (QCI)

Jack C. Lee, PE, GE
President

Enclosure

576 E. Lambert Road, Brea, CA 92821; Tel: 714-671-1050, Fax: 714-671-1090

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

For: GeoTek, Inc.
W.O.: 0480-CR3
Client: Beverly Hill Investment
Project: N/A

QCI Project No.:08-167-09a
Date: September 23, 2008
Summarized by: ABK

Sample ID #	Sample Depth (Feet)	pH CT-532 (643)	Chloride CT-422 (ppm)	Sulfate CT-417 (% By Weight)	Resistivity CT-532 (643) (ohm-cm)
HSA-4	0-5'	7.75	96	0.0720	660

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

APPENDIX C

COMPUTER PRINTOUTS OF SEISMIC ANALYSES

Dana Point Hotel Project
City of Dana Point, Orange County, California
Project No. 0480-CR3

GEOTEK

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

DETERMINISTIC ESTIMATION OF
PEAK ACCELERATION FROM DIGITIZED FAULTS

JOB NUMBER: 0480-CR3
DATE: 12-17-2009

JOB NAME: Beverly Hills Hospitality Group

CALCULATION NAME: Dana Point Hotel

FAULT-DATA-FILE NAME: CDMGFLTE.DAT

SITE COORDINATES:
   SITE LATITUDE: 33.4649
   SITE LONGITUDE: 117.6956

SEARCH RADIUS: 80 mi

ATTENUATION RELATION: 14, Campbell & Bozorgnia (1997 Rev.) - Alluvium
   UNCERTAINTY (M=Median, S=Sigma): M   Number of Sigmas: 0.0
   DISTANCE MEASURE: rclst
   SCONS: 0
   Basement Depth: 5.00 km   Campbell SSR: 0   Campbell SHR: 0
   COMPUTE PEAK HORIZONTAL ACCELERATION

FAULT-DATA FILE USED: CDMGFLTE.DAT

MINIMUM DEPTH VALUE (km): 3.0

EQFAULT SUMMARY

DETERMINISTIC SITE PARAMETERS

Page 1

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.
NEWPORT-INGLEWOOD (Offshore)	3.4(5.4)	6.9	0.468	X
NEWPORT-INGLEWOOD (L.A.Basin)	16.8(27.1)	6.9	0.167	VIII
PALOS VERDES	18.9(30.4)	7.1	0.171	VIII
CORONADO BANK	19.4(31.2)	7.4	0.206	VIII
ELSINORE-GLEN IVY	22.2(35.8)	6.8	0.112	VII
ELSINORE-TEMECULA	23.2(37.4)	6.8	0.106	VII
CHINO-CENTRAL AVE. (Elsinore	24.8(39.9)	6.7	0.096	VII
NORTON THRUST	26.6(42.8)	8.1	0.081	VII
WHITTIER	27.1(43.6)	6.8	0.100	VII
NOBE CANYON	27.8(44.7)	6.5	0.083	VII
ELYSIAN PARK THRUST	28.2(45.4)	6.7	0.074	VII
ELSINORE-JULIAN	39.8(63.9)	7.1	0.071	VI
SAN JOSE	41.7(67.1)	6.5	0.041	V
SAN JACINTO-SAN JACINTO VALLEY	46.4(74.6)	6.9	0.050	VI
SAN JACINTO-SAN BERNARDINO	48.2(77.7)	6.7	0.042	V
SIERRA MADRE	47.3(76.2)	7.0	0.050	VI
CUCAMONGA	47.3(76.4)	7.0	0.051	VI
SAN JACINTO-ANZA	48.4(77.9)	7.2	0.060	VI

-END OF SEARCH- 19 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.

THE NEWPORT-INGLEWOOD (Offshore) FAULT IS CLOSEST TO THE SITE.
IT IS ABOUT 3.4 MILES (5.4 km) AWAY.

LARGEST MAXIMUM-EARTHQUAKE SITE ACCELERATION: 0.4678 g

Conterminous 48 States
2006 International Building Code
Latitude = 33.464912
Longitude = -117.688634
Spectral Response Accelerations Ss and S1
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0 ,Fv = 1.0
Data are based on a 0.009999999776482582 deg grid spacing

Period (sec)	Sa (g)	
0.2	1.575	(Ss, Site Class B)
1.0	0.574	(S1, Site Class B)

Conterminous 48 States
2006 International Building Code
Latitude = 33.464912
Longitude = -117.688634
Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class E - Fa = 0.9 ,Fv = 2.4

Period (sec)	Sa (g)	
0.2	1.418	(SMs, Site Class E)
1.0	1.377	(SM1, Site Class E)

Conterminous 48 States
2006 International Building Code
Latitude = 33.464912
Longitude = -117.688634
Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class E - Fa = 0.9 ,Fv = 2.4

Period (sec)	Sa (g)	
0.2	0.945	(SDs, Site Class E)
1.0	0.918	(SD1, Site Class E)

Conterminous 48 States
2006 International Building Code
Latitude = 33.464912
Longitude = -117.688634
MCE Response Spectrum for Site Class B
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0 ,Fv = 1.0

Period (sec)	Sa (g)	Sd (inches)
0.000	0.630	0.000
0.073	1.575	0.082
0.200	1.575	0.616
0.364	1.575	2.043
0.400	1.435	2.243
0.500	1.148	2.804
0.600	0.957	3.364
0.700	0.820	3.925
0.800	0.717	4.486
0.900	0.638	5.047
1.000	0.574	5.607
1.100	0.522	6.168
1.200	0.478	6.729
1.300	0.441	7.289
1.400	0.410	7.850
1.500	0.383	8.411
1.600	0.359	8.972
1.700	0.338	9.532
1.800	0.319	10.093
1.900	0.302	10.654
2.000	0.287	11.215

Conterminous 48 States
2006 International Building Code
Latitude = 33.464912
Longitude = -117.688634
Site Modified Response Spectrum for Site Class E
SMs = FaSs and SM1 = FvS1
Site Class E - Fa = 0.9 ,Fv = 2.4

Period (sec)	Sa (g)	Sd (inches)
0.000	0.567	0.000
0.194	1.418	0.523

0.972	1.418	13.074
1.000	1.377	13.457
1.100	1.252	14.803
1.200	1.148	16.149
1.300	1.060	17.495
1.400	0.984	18.840
1.500	0.918	20.186
1.600	0.861	21.532
1.700	0.810	22.878
1.800	0.765	24.223
1.900	0.725	25.569
2.000	0.689	26.915

Conterminous 48 States
2006 International Building Code
Latitude = 33.464912
Longitude = -117.688634
Design Response Spectrum for Site Class E
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class E - Fa = 0.9 ,Fv = 2.4

Period (sec)	Sa (g)	Sd (inches)
0.000	0.378	0.000
0.194	0.945	0.349
0.200	0.945	0.369
0.972	0.945	8.716
1.000	0.918	8.972
1.100	0.835	9.869
1.200	0.765	10.766
1.300	0.706	11.663
1.400	0.656	12.560
1.500	0.612	13.457
1.600	0.574	14.355
1.700	0.540	15.252
1.800	0.510	16.149
1.900	0.483	17.046
2.000	0.459	17.943

APPENDIX D

LIQUEFACTION AND SETTLEMENT ANALYSES

Dana Point Hotel Project
City of Dana Point, Orange County, California
Project No. 0480-CR3

GEOTEK

LIQUEFACTION ANALYSIS

Project: Dana Point Hotel
Client: Beverly Hills Hospitality

Project No. 0480-CR3
Date: 12/19/2009

BORING: HAS-1

Fault Distance: 5.4 km
Groundwater Depth: 13 feet

A_{max}: 0.45 g
M_w: 6.90

Sampler: S = SPT without Liner, 1.375" Dia (C_S = 1.20); R = Split Spoon/California w/ Rings, 3.5" Dia (C_S = 0.63); SL = SPT with Liner, 1.375" Dia (C_S = 1.00)

Boring: Drilled Diameter = 8 inches; Sampled Diameter = 4 inches

Hammer: 140 lb w/ 30 inch Drop

Depth h (ft)	Dry Density (pcf) γ_d	Wet Density (pcf) γ_w	Total Stress (psf) σ	Effective Stress (psf) σ'	Sampler Type	Fines (%)	Field N (B/Ft)	Corrections to Field N-Value (From Table 5.2) C_N	C_E	C_B	C_R	C_S	Additive Correction Factor * C_{Fines}	Corrected N_1 (B/ft)	Magnitude Scaling Factor (From Fig 7.2)	CRR Cyclic Resistance Ratio (From Fig 7.1) M = 7.5	M = 6.9	r_d ** (From Fig 7.3)	Induced Cyclic Stress Ratio	Safety Factor
2.0	109	121.6	243	243	R	3	12	2.00	1.00	1.15	0.75	0.63	0	13	1.300	0.142	0.185	0.995	0.281	NL-G
4.0	96	120.2	484	484	R	3	11	2.00	1.00	1.15	0.75	0.63	0	12	1.300	0.131	0.170	0.991	0.280	NL-G
6.0	96	120.2	724	724	R	3	11	1.68	1.00	1.15	0.75	0.63	0	10	1.300	0.108	0.140	0.986	0.288	NL-G
8.0	96	120.2	964	964	R	3	11	1.44	1.00	1.15	0.75	0.63	0	9	1.300	0.098	0.127	0.981	0.287	NL-G
10.0	96	120.2	1205	1205	R	3	15	1.29	1.00	1.15	0.75	0.63	0	11	1.300	0.118	0.155	0.977	0.286	NL-G
12.0	93.5	116.3	1437	1437	R	53	15	1.18	1.00	1.15	0.75	0.63	0	10	1.300	0.102	0.250	0.972	0.284	NL-G
14.0	93.5	116.3	1670	1606	R	53	15	1.12	1.00	1.15	0.85	0.63	7	17	1.300	0.325	0.423	0.967	0.294	1.44
16.0	79.2	109.7	1889	1702	R	53	10	1.08	1.00	1.15	0.85	0.63	6	13	1.300	0.240	0.312	0.963	0.313	1.00
18.0	79.2	109.7	2109	1797	S	53	13	1.06	1.00	1.15	0.85	1.20	8	24	1.300	1.000	1.300	0.958	0.329	3.95
20.0	93.5	123.6	2356	1919	S	5	13	1.02	1.00	1.15	0.85	1.20	0	16	1.300	0.176	0.229	0.953	0.342	0.67
22.0	93.5	123.6	2603	2042	S	5	13	0.99	1.00	1.15	0.95	1.20	0	17	1.300	0.188	0.244	0.948	0.354	0.69
24.0	93.5	123.6	2850	2184	S	5	13	0.96	1.00	1.15	0.95	1.20	0	16	1.300	0.176	0.229	0.944	0.364	0.63
26.0	93.5	123.6	3098	2286	R	53	5	0.94	1.00	1.15	0.95	0.63	6	9	1.300	0.178	0.231	0.939	0.372	0.62
28.0	93.5	123.6	3345	2409	R	53	5	0.91	1.00	1.15	0.95	0.63	6	9	1.300	0.178	0.231	0.935	0.380	0.61
30.0	93.5	123.6	3592	2531	S	53	14	0.89	1.00	1.15	0.95	1.20	8	24	1.300	1.000	1.300	0.930	0.386	3.37
32.0	93.5	123.6	3839	2654	S	53	14	0.87	1.00	1.15	0.95	1.20	8	24	1.300	1.000	1.300	0.913	0.387	3.36
34.0	93.3	114.1	4067	2757	R	53	13	0.85	1.00	1.15	1.00	0.63	7	15	1.300	0.275	0.358	0.897	0.387	0.92
36.0	93.3	114.1	4296	2860	R	53	13	0.84	1.00	1.15	1.00	0.63	7	15	1.300	0.275	0.358	0.881	0.387	0.92
38.0	93.3	114.1	4524	2964	R	53	13	0.82	1.00	1.15	1.00	0.63	7	15	1.300	0.275	0.358	0.865	0.388	0.93
40.0	93.3	114.1	4752	3067	S	17	32	0.81	1.00	1.15	1.00	1.20	5	38	1.300	1.000	1.300	0.848	0.384	3.38
42.0	93.3	114.1	4980	3171	S	17	30	0.79	1.00	1.15	1.00	1.20	5	38	1.300	1.000	1.300	0.832	0.382	3.40
44.0	93.3	114.1	5208	3274	S	17	30	0.78	1.00	1.15	1.00	1.20	5	37	1.300	1.000	1.300	0.816	0.380	3.43
46.0	100.6	123.7	5456	3397	R	17	53	0.77	1.00	1.15	1.00	0.63	5	34	1.300	1.000	1.300	0.799	0.376	3.46
48.0	100.6	123.7	5703	3519	R	10	53	0.75	1.00	1.15	1.00	0.63	1	30	1.300	1.000	1.300	0.783	0.371	3.50
50.0	100.6	123.7	5951	3642	S	10	30	0.74	1.00	1.15	1.00	1.20	2	33	1.300	1.000	1.300	0.767	0.366	3.55

Liquefaction Analysis Per

1. *Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction in California*, March 1999, Organized Through the Southern California Earthquake Center, University of Southern California
2. Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, December 31, 1997, National Center for Earthquake Engineering Research

* Additive Fines Content Correction for SPT

$C_{Fines} = [\alpha + \beta (N_1)_{60}] - (N_1)_{60}$ (From NCEER)

FC	α	β
For FC ≤ 5% :	0.0	1.0
For 5% < FC < 35% :	$\exp(1.76 - (190 / FC^2)$	$0.99 + (FC^{1.5} / 1000)$
For FC ≥ 35% :	5.0	1.2

** r_d

Depth (ft)	r_d (From NCEER)
For h ≤ 30' :	$r_d = 1.0 - 0.00765(0.305)h$
For 30' < h ≤ 75' :	$r_d = 1.174 - 0.0267(0.305)h$
For 75' < h ≤ 100' :	$r_d = 0.744 - 0.008(0.305)h$
For h < 100' :	$r_d = 0.50$

LEGEND:

- C_N: Depth Correction Factor $[0.4 \le (2000 / \sigma')^{0.5} \le 2.0]$
- C_E: Energy Ratio Correction Factor
- C_B: Borehole Diameter Correction Factor
- C_R: Rod Length Correction Factor
- C_S: Sampling Method Correction Factor
- C_{SPT}: Large Diameter Sampler to SPT Correction Factor
- C_{Fines}: Fines Correction Factor

Induced Cyclic Stress Ratio = $0.65 (A_{max}/g) (\sigma / \sigma') r_d$

NL-F: No Liquefaction due to Clay and Fines Content

NL-G: No Liquefaction due to Soil Layer Being Above Ground Water

LIQUEFACTION SETTLEMENT - SUBMERGED SOILS

Project. Dana Point Hotel
Client: Beverly Hills Hospitality

Project No. 0480-CR3
Date: 12/19/2009
1/0/1900

BORING: HAS-1

Depth h (feet)	Fines (%)	Additive Corr Factor to N_1 From Table 7.2	Corrected N_1 (Blf)	Cyclic Resistance Ratio M = 6.9	Induced Cyclic Stress Ratio	Safety Factor	Volumetric Strain (From Fig 7.11) (%)	Settlement (feet)
2.0	3	0	13	0.185	0.291	NL-G	N/A-G	N/A-G
4.0	3	0	12	0.170	0.290	NL-G	N/A-G	N/A-G
6.0	3	0	10	0.140	0.288	NL-G	N/A-G	N/A-G
8.0	3	0	9	0.127	0.287	NL-G	N/A-G	N/A-G
10.0	3	0	11	0.155	0.286	NL-G	N/A-G	N/A-G
12.0	53	0	10	0.250	0.284	NL-G	N/A-G	N/A-G
14.0	53	4	14	0.423	0.294	1.44	N/A- SF > 1.1	N/A-SF
16.0	53	4	11	0.312	0.313	1.00	2.40%	0.048
18.0	53	4	20	1.300	0.329	3.95	N/A- SF > 1.1	N/A-SF
20.0	5	0	16	0.229	0.342	0.67	1.80%	0.036
22.0	5	0	17	0.244	0.354	0.69	1.70%	0.034
24.0	5	0	16	0.229	0.364	0.63	1.80%	0.036
26.0	53	4	7	0.231	0.372	0.62	3.10%	0.062
28.0	53	4	7	0.231	0.380	0.61	3.10%	0.062
30.0	53	4	20	1.300	0.386	3.37	N/A- SF > 1.1	N/A-SF
32.0	53	4	20	1.300	0.387	3.36	N/A- SF > 1.1	N/A-SF
34.0	53	4	12	0.358	0.387	0.92	2.30%	0.046
36.0	53	4	12	0.358	0.387	0.92	2.30%	0.046
38.0	53	4	12	0.359	0.386	0.93	2.30%	0.046
40.0	17	1	34	1.300	0.384	3.38	N/A- SF > 1.1	N/A-SF
42.0	17	1	34	1.300	0.382	3.40	N/A- SF > 1.1	N/A-SF
44.0	17	1	33	1.300	0.380	3.43	N/A- SF > 1.1	N/A-SF
46.0	17	1	30	1.300	0.376	3.46	N/A- SF > 1.1	N/A-SF
48.0	10	1	30	1.300	0.371	3.50	N/A- SF > 1.1	N/A-SF
50.0	10	1	32	1.300	0.366	3.55	N/A- SF > 1.1	N/A-SF
							Total Liquefaction Settlement	**0.416 feet**
								4.992 inches
							Estimated Differential Settlement	**0.208 feet**
								2.496 inches

Liquefaction Settlement Analysis Per Takimatsu, K. and Seed,H.B., 1987,
Evaluation of Settlements in Sands Due to Earthquake Shaking,
Journal of the Geotechnical Engineering Division, ASCE, Volume 113, No. 8, August

N/A-G : Not Applicable due to soil layer being above ground water
N/A-SF Not applicable due to Safety Factor ≥ 1.1

EARTHQUAKE INDUCED SETTLEMENT IN DRY SANDY SOIL

Project. Dana Point Hotel
Client. Beverly Hills Hospitality

Project No. 0480-CR3
Date: 12/19/2009
1/0/1900

BORING: HAS-1

Depth h (feet)	Total Stress σ_o (psf)	Avg Stress p (psf)	Addition to N1 for Percent Fines	Corrected N_1 (B/ft)	Void Ratio e	a	b	Max Shear Modulus G_{max} (psf)	R_d	Av Cyclic Shear Stress τ_{av} (psf)	Cyclic Shear Strain γ	Volumetric Strain M = 7.5 γ_{15} 15 Cycles	No. of Cycles M = 6.8 N_c	Volumetric Strain M = 6.8 γ_{Nc} 11 Cycles	Settlement ΔS (feet)
2.0	243.2	162.9	0	13	0.546	0.127	28812	600007	0.995	70.8	1.294E-04	2.170E-04	11.00	1.887E-04	0.0008
4.0	483.6	324.0	0	12	0.755	0.130	19075	823816	0.991	140.1	1.985E-04	3.665E-04	11.00	3.187E-04	0.0025
6.0	724.0	485.1	0	10	0.755	0.133	14973	948555	0.986	208.8	2.587E-04	5.943E-04	11.00	5.169E-04	0.0062
8.0	964.4	646.1	0	9	0.755	0.137	12607	1056986	0.981	276.8	3.089E-04	8.052E-04	11.00	7.003E-04	0.0112
10.0	1204.8	807.2	0	11	0.755	0.140	11031	1263131	0.977	344.2	3.149E-04	6.452E-04	11.00	5.612E-04	0.0112
12.0	1437.4	963.1	0	10	0.802	0.143	9922	1336540	0.972	408.7	3.605E-04	8.282E-04	11.00	7.203E-04	0.0173
14.0	1670.0	1118.9	7	17	0.802	0.146	9068	1611613	0.967	472.5	3.354E-04	5.146E-04	11.00	N/A	N/A
16.0	1889.4	1265.9	6	13	1.127	0.149	8421	1581804	0.963	532.0	4.318E-04	8.847E-04	11.00	N/A	N/A
18.0	2108.8	1412.9	8	24	1.127	0.151	7884	2039644	0.958	590.9	3.497E-04	3.497E-04	11.00	N/A	N/A
20.0	2356.0	1578.5	0	16	0.802	0.155	7376	2001340	0.953	657.0	3.597E-04	4.832E-04	11.00	N/A	N/A
22.0	2603.2	1744.1	0	17	0.802	0.158	6948	2146660	0.949	722.4	3.766E-04	4.570E-04	11.00	N/A	N/A
24.0	2850.4	1909.8	0	16	0.802	0.161	6580	2201335	0.944	787.1	4.015E-04	5.246E-04	11.00	N/A	N/A
26.0	3097.6	2075.4	6	9	0.802	0.164	6259	1742095	0.939	851.1	5.887E-04	2.075E-03	11.00	N/A	N/A
28.0	3344.8	2241.0	6	9	0.802	0.168	5978	1810274	0.935	914.4	6.082E-04	2.144E-03	11.00	N/A	N/A
30.0	3592.0	2406.6	8	24	0.802	0.171	5727	2661980	0.930	977.1	4.038E-04	4.038E-04	11.00	N/A	N/A
32.0	3839.2	2572.3	8	24	0.802	0.174	5503	2752054	0.913	1025.7	4.083E-04	4.083E-04	11.00	N/A	N/A
34.0	4087.4	2725.2	7	15	0.806	0.177	5316	2389161	0.897	1067.3	5.081E-04	9.379E-04	11.00	N/A	N/A
36.0	4295.6	2878.1	7	15	0.806	0.180	5144	2455268	0.881	1106.7	5.105E-04	9.423E-04	11.00	N/A	N/A
38.0	4523.8	3030.9	7	15	0.806	0.183	4987	2519641	0.865	1144.0	5.119E-04	9.450E-04	11.00	N/A	N/A
40.0	4752.0	3183.8	5	38	0.806	0.186	4842	3654190	0.848	1179.0	3.358E-04	1.776E-04	11.00	N/A	N/A
42.0	4980.2	3336.7	5	38	0.806	0.189	4708	3740902	0.832	1211.9	3.358E-04	1.776E-04	11.00	N/A	N/A
44.0	5200.4	3489.0	5	37	0.806	0.192	4583	3787768	0.816	1242.7	3.392E-04	1.860E-04	11.00	N/A	N/A
46.0	5455.8	3655.4	5	34	0.671	0.195	4457	3755458	0.799	1275.7	3.406E-04	2.094E-04	11.00	N/A	N/A
48.0	5703.2	3821.1	1	30	0.671	0.198	4340	3839662	0.783	1306.4	3.397E-04	2.089E-04	11.00	N/A	N/A
50.0	5950.6	3986.9	2	33	0.671	0.202	4231	4007347	0.767	1334.7	3.301E-04	1.878E-04	11.00	N/A	N/A

Total Settlement In Dry Sandy Soil	0.049	feet
	0.591	inches
Estimated Differential Settlement	0.025	feet
	0.295	inches

Settlement Analysis Per *Procedure to Evaluate Earthquake Induced Settlements in Dry Sandy Soils*, by Daniel Pradel, Journal of Geotechnical and Geoenvironmental Engineering, April 1998.

$$G_{max} = 447 p_a (N_1)^{1/3} (p/p_a)^{1/2}$$

$$\gamma_{av} = 0.65 (a_{max}/g) \sigma_o R_d$$

$$\gamma = \frac{(1 + a\varepsilon (b \tau_{av}/G_{max}))}{(1 + a)} (\tau_{av}/G_{max})$$

$$a = 0.0389 (p/p_a) + 0.124 \quad \text{where } p_a = 2000 \text{ psf}$$

$$b = 6400 (p/p_a)^{0.6}$$

$$\gamma_{15} = \gamma (N_1/20)^{1.2}$$

$$N_c = (M - 4)^{2.17}$$

$$\gamma_{Nc} = \gamma_{15} (N_c / 15)^{0.45}$$

$$\Delta S = 2 (2 h \gamma_{Nc})$$

TOTAL MAXIMUM SEISMIC SETTLEMENT INCLUDING SATURATED AND DRY SOILS	0.465	feet
	5.583	inches
TOTAL DIFFERENTIAL SEISMIC SETTLEMENT INCLUDING SATURATED AND DRY SOILS	0.233	feet
	2.791	inches

SURFACE MANIFESTATIONS (Per Ishihara, 1985)

Thickness of Surface Layer: 15 feet
Thickness of Liquefiable Layer: 10 feet
Maximum Acceleration 0.45 g

From Chart Potential Surface Manifestations at Min. Acceleration of 0.30 g

Therefore, There is a Potential for Surface Manifestations Occurring

LIQUEFACTION ANALYSIS

Project: Dana Point Hotel
Client: Beverly Hills Hospitality

Project No. 0480-CR3
Date: 12/19/2009

BORING: HAS-1

Fault Distance: 5.4 km
Groundwater Depth: 5 feet

A_{max}: 0.45 g
M_s: 6.00

Sampler: S = SPT without Liner; 1.375" Dia. C_S = 1.20
R = Split Spoon/California w/ Rings, 3.5" Dia. C_S = 0.63
SL = SPT with Liner; 1.375" Dia. C_S = 1.00

Boring: Drilled Diameter = 8 inches
Sampled Diameter = 4 inches
Hammer: 140 lb w/ 30 inch Drop

Depth h (ft)	Dry Density (pcf) γ_d	Wet Density (pcf) γ_w	Total Stress (psf) σ	Effective Stress (psf) σ'	Sampler Type	Fines (%)	Field N (B/Ft)	Corrections to Field N-Value (From Table 5.2) C_N	C_E	C_B	C_R	C_S	Additive Correction Factor * C_{Fines}	Corrected N_1 (B/ft)	Magnitude Scaling Factor (From Fig 7.2)	CRR Cyclic Resistance Ratio (From Fig 7.1) M = 7.5	M = 6.9	r_d ** (From Fig 7.3)	Induced Cyclic Stress Ratio	Safety Factor
2.0	109	121.6	243	243	R	3	12	2.00	1.00	1.15	0.75	0.63	0	13	1.300	0.142	0.185	0.995	0.291	NL-G
4.0	96	120.2	484	484	R	3	11	2.00	1.00	1.15	0.75	0.63	0	12	1.300	0.131	0.170	0.991	0.290	NL-G
6.0	96	120.2	724	662	R	3	11	1.74	1.00	1.15	0.75	0.63	0	10	1.300	0.108	0.140	0.988	0.316	0.44
8.0	96	120.2	964	777	R	3	11	1.60	1.00	1.15	0.75	0.63	0	10	1.300	0.108	0.140	0.981	0.356	0.39
10.0	96	120.2	1205	893	R	3	15	1.50	1.00	1.15	0.75	0.63	0	12	1.300	0.131	0.170	0.977	0.386	0.44
12.0	93.5	116.3	1437	1001	R	53	15	1.41	1.00	1.15	0.75	0.63	7	19	1.300	1.000	1.300	0.972	0.408	3.18
14.0	93.5	116.3	1670	1108	R	53	15	1.34	1.00	1.15	0.85	0.63	7	19	1.300	1.000	1.300	0.967	0.426	3.05
16.0	79.2	109.7	1889	1203	R	53	10	1.29	1.00	1.15	0.85	0.63	7	15	1.300	0.275	0.358	0.963	0.442	0.81
18.0	79.2	109.7	2109	1298	S	53	13	1.24	1.00	1.15	0.85	1.20	9	28	1.300	1.000	1.300	0.958	0.455	2.86
20.0	93.5	123.6	2356	1420	S	5	13	1.19	1.00	1.15	0.85	1.20	0	18	1.300	0.199	0.259	0.953	0.469	0.56
22.0	93.5	123.6	2603	1542	S	5	13	1.14	1.00	1.15	0.95	1.20	0	19	1.300	0.211	0.274	0.949	0.468	0.59
24.0	93.5	123.6	2850	1665	S	5	13	1.10	1.00	1.15	0.95	1.20	0	19	1.300	0.211	0.274	0.944	0.473	0.58
26.0	93.5	123.6	3098	1787	R	53	5	1.06	1.00	1.15	0.95	0.63	6	10	1.300	0.192	0.250	0.939	0.476	0.52
28.0	93.5	123.6	3345	1910	R	53	5	1.02	1.00	1.15	0.95	0.63	6	10	1.300	0.192	0.250	0.935	0.479	0.52
30.0	93.5	123.6	3592	2032	S	53	14	0.99	1.00	1.15	0.95	1.20	9	27	1.300	1.000	1.300	0.930	0.481	2.70
32.0	93.5	123.6	3839	2154	S	53	14	0.96	1.00	1.15	0.95	1.20	9	27	1.300	1.000	1.300	0.913	0.476	2.73
34.0	93.3	114.1	4067	2258	R	53	13	0.94	1.00	1.15	1.00	0.63	7	16	1.300	0.295	0.384	0.897	0.473	0.81
36.0	93.3	114.1	4296	2361	R	53	13	0.92	1.00	1.15	1.00	0.63	7	16	1.300	0.295	0.384	0.881	0.469	0.82
38.0	93.3	114.1	4524	2465	R	53	13	0.90	1.00	1.15	1.00	0.63	7	15	1.300	0.275	0.358	0.865	0.464	0.77
40.0	93.3	114.1	4752	2568	S	17	30	0.88	1.00	1.15	1.00	1.20	5	42	1.300	1.000	1.300	0.848	0.459	2.83
42.0	93.3	114.1	4980	2671	S	17	30	0.87	1.00	1.15	1.00	1.20	5	41	1.300	1.000	1.300	0.832	0.454	2.87
44.0	93.3	114.1	5208	2775	S	17	30	0.85	1.00	1.15	1.00	1.20	5	40	1.300	1.000	1.300	0.816	0.448	2.90
46.0	100.8	123.7	5456	2897	R	17	53	0.83	1.00	1.15	1.00	0.63	5	37	1.300	1.000	1.300	0.799	0.440	2.95
48.0	100.8	123.7	5703	3020	R	10	53	0.81	1.00	1.15	1.00	0.63	2	33	1.300	1.000	1.300	0.783	0.433	3.01
50.0	100.8	123.7	5951	3143	S	10	30	0.80	1.00	1.15	1.00	1.20	2	35	1.300	1.000	1.300	0.767	0.425	3.06

Liquefaction Analysis Per

1. *Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction in California*, March 1999, Organized Through the Southern California Earthquake Center, University of Southern California
2. Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, December 31, 1997, National Center for Earthquake Engineering Research.

* Additive Fines Content Correction for SPT

$C_{Fines} = [\alpha + \beta (N_1)_{60}] - (N_1)_{60}$ (From NCEER)

FC	α	β
For FC ≤ 5%	0.0	1.0
For 5% < FC < 35%	exp (1.76 - (190 / FC^2)	0.99 + ($FC^{1.5}$ / 1000)
For FC ≥ 35%	5.0	1.2

** r_d

Depth (ft)	r_d (From NCEER)
For h ≤ 30':	r_d = 1.0 - 0.00765(0.305)h
For 30' < h ≤ 75':	r_d = 1.174 - 0.0267(0.305)h
For 75' < h ≤ 100':	r_d = 0.744 - 0.008(0.305)h
For h < 100':	r_d = 0.50

LEGEND:

C_N: Depth Correction Factor [0.4 ≤ (2000 / σ')$^{0.5}$ ≤ 2.0]
C_E: Energy Ratio Correction Factor
C_B: Borehole Diameter Correction Factor
C_R: Rod Length Correction Factor
C_S: Sampling Method Correction Factor
C_{SPT}: Large Diameter Sampler to SPT Correction Factor
C_{Fines}: Fines Correction Factor

Induced Cyclic Stress Ratio = 0.65 (A_{max}/g) (σ / σ') r_d

NL-F: No Liquefaction due to Clay and Fines Content
NL-G: No Liquefaction due to Soil Layer Being Above Ground Water

LIQUEFACTION SETTLEMENT - SUBMERGED SOILS

Project: Dana Point Hotel
Client Beverly Hills Hospitality

Project No. 0480-CR3
Date: 12/19/2009
1/0/1900

BORING: HAS-1

Depth h (feet)	Fines (%)	Additive Corr Factor to N_1 From Table 7.2	Corrected N_1 (Bft)	Cyclic Resistance Ratio M = 6.9	Induced Cyclic Stress Ratio	Safety Factor	Volumetric Strain (From Fig 7.11) (%)	Settlement (feet)
2.0	3	0	13	0.165	0.291	NL-G	N/A-G	N/A-G
4.0	3	0	12	0.170	0.290	NL-G	N/A-G	N/A-G
6.0	3	0	10	0.140	0.316	0.44	2.60%	0.052
8.0	3	0	10	0.140	0.356	0.39	2.60%	0.052
10.0	3	0	12	0.170	0.386	0.44	2.30%	0.046
12.0	53	4	16	1.300	0.408	3.18	N/A- SF > 1.1	N/A-SF
14.0	53	4	16	1.300	0.426	3.05	N/A- SF > 1.1	N/A-SF
16.0	53	4	12	0.358	0.442	0.81	2.30%	0.046
18.0	53	4	23	1.300	0.455	2.85	N/A- SF > 1.1	N/A-SF
20.0	5	0	18	0.259	0.463	0.56	1.70%	0.034
22.0	5	0	19	0.274	0.468	0.59	1.60%	0.032
24.0	5	0	19	0.274	0.473	0.58	1.60%	0.032
26.0	53	4	8	0.250	0.476	0.52	2.90%	0.058
28.0	53	4	8	0.250	0.479	0.52	2.90%	0.058
30.0	53	4	22	1.300	0.481	2.70	N/A- SF > 1.1	N/A-SF
32.0	53	4	22	1.300	0.476	2.73	N/A- SF > 1.1	N/A-SF
34.0	53	4	13	0.384	0.473	0.81	2.30%	0.046
36.0	53	4	13	0.384	0.469	0.82	2.30%	0.046
38.0	53	4	12	0.358	0.464	0.77	2.30%	0.046
40.0	17	1	38	1.300	0.459	2.83	N/A- SF > 1.1	N/A-SF
42.0	17	1	37	1.300	0.454	2.87	N/A- SF > 1.1	N/A-SF
44.0	17	1	36	1.300	0.448	2.90	N/A- SF > 1.1	N/A-SF
46.0	17	1	33	1.300	0.440	2.95	N/A- SF > 1.1	N/A-SF
48.0	10	1	32	1.300	0.433	3.01	N/A- SF > 1.1	N/A-SF
50.0	10	1	34	1.300	0.425	3.06	N/A- SF > 1.1	N/A-SF
							Total Liquefaction Settlement	0.548 feet 6.576 inches
							Estimated Differential Settlement	0.274 feet 3.288 inches

Liquefaction Settlement Analysis Per Takimatsu, K. and Seed,H.B., 1987.
Evaluation of Settlements in Sands Due to Earthquake Shaking,
Journal of the Geotechnical Engineering Division, ASCE, Volume 113, No. 8, August

N/A-G : Not Applicable due to soil layer being above ground water
N/A SF : Not applicable due to Safety Factor ≥ 1.1

EARTHQUAKE INDUCED SETTLEMENT IN DRY SANDY SOIL

Project: Dana Point Hotel
Client: Beverly Hills Hospitality

Project No. 0480-CR3
Date: 12/19/2009
1/0/1900

BORING: HAS-1

Depth h (feet)	Total Stress σ_o (psf)	Avg Stress p (psf)	Addition to N1 for Percent Fines	Corrected N_1 (B/ft)	Void Ratio e	a	b	Max Shear Modulus G_{max} (psf)	R_d	Av Cyclic Shear Stress τ_{av} (psf)	Cyclic Shear Strain γ	Volumetric Strain M = 7.5 γ_{15} 15 Cycles	No. of Cycles M = 6.9 N_c	Volumetric Strain M = 6.9 γ_{Nc} 11 Cycles	Settlement DIS (feet)
2.0	243.2	162.9	0	13	0.546	0.127	28812	600007	0.995	70.8	1.294E-04	2.170E-04	11.00	1.887E-04	0.0008
4.0	483.6	324.0	0	12	0.755	0.130	19075	823816	0.991	140.1	1.985E-04	3.665E-04	11.00	3.187E-04	0.0025
6.0	724.0	485.1	0	10	0.755	0.133	14973	948555	0.986	208.8	2.587E-04	5.943E-04	11.00	N/A	N/A
8.0	964.4	646.1	0	10	0.755	0.137	12607	1094767	0.981	276.8	2.956E-04	8.791E-04	11.00	N/A	N/A
10.0	1204.8	807.2	0	12	0.755	0.140	11031	1300303	0.977	344.2	3.038E-04	5.607E-04	11.00	N/A	N/A
12.0	1437.4	963.1	7	19	0.802	0.143	9922	1563227	0.972	408.7	2.987E-04	3.878E-04	11.00	N/A	N/A
14.0	1670.0	1118.9	7	19	0.802	0.146	9068	1684967	0.967	472.5	3.175E-04	4.150E-04	11.00	N/A	N/A
16.0	1889.4	1265.9	7	15	1.127	0.149	8421	1628355	0.963	532.0	4.156E-04	7.871E-04	11.00	N/A	N/A
18.0	2108.8	1412.9	9	28	1.127	0.151	7884	2136913	0.958	590.9	3.296E-04	2.787E-04	11.00	N/A	N/A
20.0	2356.0	1578.5	0	18	0.802	0.155	7376	2061478	0.953	657.0	3.523E-04	3.998E-04	11.00	N/A	N/A
22.0	2603.2	1744.1	0	19	0.802	0.158	6948	2227742	0.949	722.4	3.599E-04	3.828E-04	11.00	N/A	N/A
24.0	2850.4	1909.8	0	19	0.802	0.161	6580	2331117	0.944	787.1	3.742E-04	3.980E-04	11.00	N/A	N/A
26.0	3097.6	2075.4	6	10	0.802	0.164	6259	1821388	0.939	851.1	5.560E-04	1.670E-03	11.00	N/A	N/A
28.0	3344.8	2241.0	6	10	0.802	0.166	5978	1892670	0.935	914.4	5.744E-04	1.726E-03	11.00	N/A	N/A
30.0	3592.0	2406.6	9	27	0.802	0.171	5727	2747909	0.930	977.1	3.864E-04	3.465E-04	11.00	N/A	N/A
32.0	3839.2	2572.3	9	27	0.802	0.174	5503	2840891	0.913	1025.7	3.928E-04	3.504E-04	11.00	N/A	N/A
34.0	4067.4	2725.2	7	16	0.806	0.177	5316	2453764	0.897	1067.3	4.914E-04	8.241E-04	11.00	N/A	N/A
36.0	4295.6	2878.1	7	16	0.806	0.180	5144	2521659	0.881	1106.7	4.937E-04	8.278E-04	11.00	N/A	N/A
38.0	4523.8	3030.9	7	15	0.806	0.183	4987	2519641	0.865	1144.0	5.119E-04	9.450E-04	11.00	N/A	N/A
40.0	4752.0	3183.8	5	42	0.806	0.186	4842	3792213	0.848	1179.0	3.213E-04	1.487E-04	11.00	N/A	N/A
42.0	4980.2	3336.7	5	41	0.806	0.189	4708	3847842	0.832	1211.9	3.247E-04	1.552E-04	11.00	N/A	N/A
44.0	5208.4	3489.6	5	40	0.806	0.192	4583	3899237	0.816	1242.7	3.278E-04	1.619E-04	11.00	N/A	N/A
46.0	5455.8	3655.4	5	37	0.671	0.195	4457	3876684	0.799	1275.7	3.283E-04	1.800E-04	11.00	N/A	N/A
48.0	5703.2	3821.1	2	33	0.671	0.198	4340	3923159	0.783	1306.4	3.314E-04	1.885E-04	11.00	N/A	N/A
50.0	5950.6	3986.9	2	35	0.671	0.202	4231	4089152	0.767	1334.7	3.224E-04	1.706E-04	11.00	N/A	N/A

Total Settlement	0.003	feet
In Dry Sandy Soil	0.040	inches
Estimated Differential Settlement	0.002	feet
	0.020	inches

Settlement Analysis Per *Procedure to Evaluate Earthquake Induced Settlements in Dry Sandy Soils*, by Daniel Pradel
Journal of Geotechnical and Geoenvironmental Engineering, April 1998

$$G_{max} = 447 p_a (N_1)^{1/3} (p/p_a)^{1/2}$$

$$\tau_{av} = 0.65 (a_{max}/g) \sigma_o R_d$$

$$\gamma = c \frac{(1 + ae(b \tau_{av}/G_{max}))}{(1 + a)} (\tau_{av}/G_{max})$$

$$a = 0.0389 (p/p_a) + 0.124 \quad \text{where } p_a = 2000 \text{ psf}$$

$$b = 6400 (p/p_a)^{-0.8}$$

$$\gamma_{15} = \gamma (N_1/20)^{-1.2}$$

$$N_C = (M - 4)^{2.17}$$

$$\gamma_{Nc} = \gamma_{15} (N_c / 15)^{0.45}$$

$$DIS = 2 (0)h \gamma_{Nc}$$

TOTAL MAXIMUM SEISMIC SETTLEMENT	0.551	feet
INCLUDING SATURATED AND DRY SOILS	6.616	inches
TOTAL DIFFERENTIAL SEISMIC SETTLEMENT	0.276	feet
INCLUDING SATURATED AND DRY SOILS	3.308	inches

SURFACE MANIFESTATIONS (Per Ishihara, 1985)

Thickness of Surface Layer: 15 feet
Thickness of Liquefiable Layer: 0 feet
Maximum Acceleration: 0.45 g

From Chart, Potential Surface Manifestations at Min. Acceleration of 0.30 g

Therefore, There Is a Potential for Surface Manifestations Occurring

APPENDIX E

GENERAL EARTHWORK AND GRADING GUIDELINES

Dana Point Hotel Project
City of Dana Point, Orange County, California
Project No. 0480-CR3

GEOTEK

GENERAL GRADING GUIDELINES

Guidelines presented herein are intended to address general construction procedures for earthwork construction. Specific situations and conditions often arise which cannot reasonably be discussed in general guidelines, when anticipated these are discussed in the text of the report. Often unanticipated conditions are encountered which may necessitate modification or changes to these guidelines. It is our hope that these will assist the contractor to more efficiently complete the project by providing a reasonable understanding of the procedures that would be expected during earthwork and the testing and observation used to evaluate those procedures.

General

Grading should be performed to at least the minimum requirements of governing agencies, Chapters 18 and 33 of the Uniform Building Code, CBC (2007) and the guidelines presented below.

Preconstruction Meeting

A preconstruction meeting should be held prior to site earthwork. Any questions the contractor has regarding our recommendations, general site conditions, apparent discrepancies between reported and actual conditions and/or differences in procedures the contractor intends to use should be brought up at that meeting. The contractor (including the main onsite representative) should review our report and these guidelines in advance of the meeting. Any comments the contractor may have regarding these guidelines should be brought up at that meeting.

Grading Observation and Testing

1. Observation of the fill placement should be provided by our representative during grading. Verbal communication during the course of each day will be used to inform the contractor of test results. The contractor should receive a copy of the "Daily Field Report" indicating results of field density tests that day. If our representative does not provide the contractor with these reports, our office should be notified.
2. Testing and observation procedures are, by their nature, specific to the work or area observed and location of the tests taken, variability may occur in other locations. The contractor is responsible for the uniformity of the grading operations; our observations and test results are intended to evaluate the contractor's overall level of efforts during grading. The contractor's personnel are the only individuals participating in all aspect of site work. Compaction testing and observation should not be considered as relieving the contractor's responsibility to properly compact the fill.
3. Cleanouts, processed ground to receive fill, key excavations, and subdrains should be observed by our representative prior to placing any fill. It will be the contractor's responsibility to notify our representative or office when such areas are ready for observation.
4. Density tests may be made on the surface material to receive fill, as considered warranted by this firm.

5. In general, density tests would be made at maximum intervals of two feet of fill height or every 1,000 cubic yards of fill placed. Criteria will vary depending on soil conditions and size of the fill. More frequent testing may be performed. In any case, an adequate number of field density tests should be made to evaluate the required compaction and moisture content is generally being obtained.

6. Laboratory testing to support field test procedures will be performed, as considered warranted, based on conditions encountered (e.g. change of material sources, types, etc.) Every effort will be made to process samples in the laboratory as quickly as possible and in progress construction projects are our first priority. However, laboratory workloads may cause in delays and some soils may require a **minimum of 48 to 72 hours to complete test procedures.** Whenever possible, our representative(s) should be informed in advance of operational changes that might result in different source areas for materials.

7. Procedures for testing of fill slopes are as follows:

   a) Density tests should be taken periodically during grading on the flat surface of the fill, three to five feet horizontally from the face of the slope.

   b) If a method other than over building and cutting back to the compacted core is to be employed, slope compaction testing during construction should include testing the outer six inches to three feet in the slope face to determine if the required compaction is being achieved.

8. Finish grade testing of slopes and pad surfaces should be performed after construction is complete.

Site Clearing

1. All vegetation, and other deleterious materials, should be removed from the site. If material is not immediately removed from the site it should be stockpiled in a designated area(s) well outside of all current work areas and delineated with flagging or other means. Site clearing should be performed in advance of any grading in a specific area.

2. Efforts should be made by the contractor to remove all organic or other deleterious material from the fill, as even the most diligent efforts may result in the incorporation of some materials. This is especially important when grading is occurring near the natural grade. All equipment operators should be aware of these efforts. Laborers may be required as root pickers.

3. Nonorganic debris or concrete may be placed in deeper fill areas provided the procedures used are observed and found acceptable by our representative. Typical procedures are similar to those indicated on Plate G-4.

Treatment of Existing Ground

1. Following site clearing, all surficial deposits of alluvium and colluvium as well as weathered or creep effected bedrock, should be removed (see Plates G-1, G-2 and G-3) unless otherwise specifically indicated in the text of this report.

2. In some cases, removal may be recommended to a specified depth (e.g. flat sites where partial alluvial removals may be sufficient). The contractor should not exceed these depths unless directed otherwise by our representative.
3. Groundwater existing in alluvial areas may make excavation difficult. Deeper removals than indicated in the text of the report may be necessary due to saturation during winter months.
4. Subsequent to removals, the natural ground should be processed to a depth of six inches, moistened to near optimum moisture conditions and compacted to fill standards.
5. Exploratory back hoe or dozer trenches still remaining after site removal should be excavated and filled with compacted fill if they can be located.

Subdrainage

1. Subdrainage systems should be provided in canyon bottoms prior to placing fill, and behind buttress and stabilization fills and in other areas indicated in the report. Subdrains should conform to schematic diagrams G-1 and G-5, and be acceptable to our representative.
2. For canyon subdrains, runs less than 500 feet may use six-inch pipe. Typically, runs in excess of 500 feet should have the lower end as eight-inch minimum.
3. Filter material should be clean, 1/2 to 1-inch gravel wrapped in a suitable filter fabric. Class 2 permeable filter material per California Department of Transportation Standards tested by this office to verify its suitability, may be used without filter fabric. A sample of the material should be provided to the Soils Engineer by the contractor at least two working days before it is delivered to the site. The filter should be clean with a wide range of sizes.
4. Approximate delineation of anticipated subdrain locations may be offered at 40-scale plan review stage. During grading, this office would evaluate the necessity of placing additional drains.
5. All subdrainage systems should be observed by our representative during construction and prior to covering with compacted fill.
6. Subdrains should outlet into storm drains where possible. Outlets should be located and protected. The need for backflow preventers should be assessed during construction.
7. Consideration should be given to having subdrains located by the project surveyors.

Fill Placement

1. Unless otherwise indicated, all site soil and bedrock may be reused for compacted fill; however, some special processing or handling may be required (see text of report).
2. Material used in the compacting process should be evenly spread, moisture conditioned, processed, and compacted in thin lifts six (6) to eight (8) inches in compacted thickness to obtain a uniformly dense layer. The fill should be placed and compacted on a nearly horizontal plane, unless otherwise found acceptable by our representative.
3. If the moisture content or relative density varies from that recommended by this firm, the contractor should rework the fill until it is in accordance with the following:

a) Moisture content of the fill should be at or above optimum moisture. Moisture should be evenly distributed without wet and dry pockets. Pre-watering of cut or removal areas should be considered in addition to watering during fill placement, particularly in clay or dry surficial soils. The ability of the contractor to obtain the proper moisture content will control production rates.

b) Each six-inch layer should be compacted to at least 90 percent of the maximum dry density in compliance with the testing method specified by the controlling governmental agency. In most cases, the testing method is ASTM Test Designation D-1557.

4. Rock fragments less than eight inches in diameter may be utilized in the fill, provided:

   a) They are not placed in concentrated pockets;

   b) There is a sufficient percentage of fine-grained material to surround the rocks;

   c) The distribution of the rocks is observed by, and acceptable to, our representative.

5. Rocks exceeding eight (8) inches in diameter should be taken off site, broken into smaller fragments, or placed in accordance with recommendations of this firm in areas designated suitable for rock disposal (see Plate G-4). On projects where significant large quantities of oversized materials are anticipated, alternate guidelines for placement may be included. If significant oversize materials are encountered during construction, these guidelines should be requested.

6. In clay soil, dry or large chunks or blocks are common. If in excess of eight (8) inches minimum dimension, then they are considered as oversized. Sheepsfoot compactors or other suitable methods should be used to break up blocks. When dry, they should be moisture conditioned to provide a uniform condition with the surrounding fill.

Slope Construction

1. The contractor should obtain a minimum relative compaction of 90 percent out to the finished slope face of fill slopes. This may be achieved by either overbuilding the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment.

2. Slopes trimmed to the compacted core should be overbuilt by at least three (3) feet with compaction efforts out to the edge of the false slope. Failure to properly compact the outer edge results in trimming not exposing the compacted core and additional compaction after trimming may be necessary.

3. If fill slopes are built "at grade" using direct compaction methods, then the slope construction should be performed so that a constant gradient is maintained throughout construction. Soil should not be "spilled" over the slope face nor should slopes be "pushed out" to obtain grades. Compaction equipment should compact each lift along the immediate top of slope. Slopes should be back rolled or otherwise compacted at approximately every 4 feet vertically as the slope is built.

4. Corners and bends in slopes should have special attention during construction as these are the most difficult areas to obtain proper compaction.

5. Cut slopes should be cut to the finished surface. Excessive undercutting and smoothing of the face with fill may necessitate stabilization.

Keyways, Buttress and Stabilization Fills

Keyways are needed to provide support for fill slope and various corrective procedures.

1. Side-hill fills should have an equipment-width key at their toe excavated through all surficial soil and into competent material and tilted back into the hill (Plates G-2, G-3). As the fill is elevated, it should be benched through surficial soil and slopewash, and into competent bedrock or other material deemed suitable by our representatives (See Plates G-1, G-2, and G-3).
2. Fill over cut slopes should be constructed in the following manner:
   a) All surficial soils and weathered rock materials should be removed at the cut-fill interface.
   b) A key at least one and one-half (1.5) equipment width wide (or as needed for compaction), and tipped at least one (1) foot into slope, should be excavated into competent materials and observed by our representative.
   c) The cut portion of the slope should be excavated prior to fill placement to evaluate if stabilization is necessary. The contractor should be responsible for any additional earthwork created by placing fill prior to cut excavation. (see Plate G-3 for schematic details.)
3. Daylight cut lots above descending natural slopes may require removal and replacement of the outer portion of the lot. A schematic diagram for this condition is presented on Plate G-2.
4. A basal key is needed for fill slopes extending over natural slopes. A schematic diagram for this condition is presented on Plate G-2.
5. All fill slopes should be provided with a key unless within the body of a larger overall fill mass. Please refer to Plate G-3 for specific guidelines.

Anticipated buttress and stabilization fills are discussed in the text of the report. The need to stabilize other proposed cut slopes will be evaluated during construction. Plate G-5 shows a schematic of buttress construction.

1. All backcuts should be excavated at gradients of 1:1 or flatter. The backcut configuration should be determined based on the design, exposed conditions, and need to maintain a minimum fill width and provide working room for the equipment.
2. On longer slopes, backcuts and keyways should be excavated in maximum 250 feet long segments. The specific configurations will be determined during construction.
3. All keys should be a minimum of two (2) feet deep at the toe and slope toward the heel at least one foot or two (2%) percent, whichever is greater.
4. Subdrains are to be placed for all stabilization slopes exceeding 10 feet in height. Lower slopes are subject to review. Drains may be required. Guidelines for subdrains are presented on Plate G-5.

5. Benching of backcuts during fill placement is required.

Lot Capping

1. When practical, the upper three (3) feet of material placed below finish grade should be comprised of the least expansive material available. Preferably, highly and very highly expansive materials should not be used. We will attempt to offer advise based on visual evaluations of the materials during grading, but it must be realized that laboratory testing is needed to evaluate the expansive potential of soil. Minimally, this testing takes two (2) to four (4) days to complete.
2. Transition lots (cut and fill) both per plan and those created by remedial grading (e.g. lots above stabilization fills, along daylight lines, above natural slopes, etc.) should be capped with a minimum three foot thick compacted fill blanket.
3. Cut pads should be observed by our representative(s) to evaluate the need for overexcavation and replacement with fill. This may be necessary to reduce water infiltration into highly fractured bedrock or other permeable zones, and/or due to differing expansive potential of materials beneath a structure. The overexcavation should be at least three feet. Deeper overexcavation may be recommended in some cases.

ROCK PLACEMENT AND ROCK FILL GUIDELINES

It is anticipated that large quantities of oversize material would be generated during grading. It's likely that such materials may require special handling for burial. Although alternatives may be developed in the field, the following methods of rock disposal are recommended on a preliminary basis.

Limited Larger Rock

When materials encountered are principally soil with limited quantities of larger rock fragments or boulders, placement in windrows is recommended. The following procedures should be applied:

1. Oversize rock (greater than 8 inches) should be placed in windrows.
   a) Windrows are rows of single file rocks placed to avoid nesting or clusters of rock.
   b) Each adjacent rock should be approximately the same size (within ~one foot in diameter).
   c) The maximum rock size allowed in windrows is four feet
2. A minimum vertical distance of three feet between lifts should be maintained. Also, the windrows should be offset from lift to lift. Rock windrows should not be closer than 15 feet to the face of fill slopes and sufficient space must be maintained for proper slope construction (see Plate G-4).
3. Rocks greater than eight inches in diameter should not be placed within seven feet of the finished subgrade for a roadway or pads and should be held below the depth of the lowest utility. This will allow easier trenching for utility lines.

4. Rocks greater than four feet in diameter should be broken down, if possible, or they may be placed in a dozer trench. Each trench should be excavated into the compacted fill a minimum of one foot deeper than the largest diameter of rock.

   a) The rock should be placed in the trench and granular fill materials (SE>30) should be flooded into the trench to fill voids around the rock.

   b) The over size rock trenches should be no closer together than 15 feet from any slope face.

   c) Trenches at higher elevation should be staggered and there should be a minimum of four feet of compacted fill between the top of the one trench and the bottom of the next higher trench.

   d) It would be necessary to verify 90 percent relative compaction in these pits. A 24 to 72 hour delay to allow for water dissipation should be anticipated prior to additional fill placement.

Structural Rock Fills

If the materials generated for placement in structural fills contains a significant percentage of material more than six (6) inches in one dimension, then placement using conventional soil fill methods with isolated windrows would not be feasible. In such cases the following could be considered:

1. Mixes of large rock or boulders may be placed as rock fill. They should be below the depth of all utilities both on pads and in roadways and below any proposed swimming pools or other excavations. If these fills are placed within seven (7) feet of finished grade, they may effect foundation design.

2. Rock fills are required to be placed in horizontal layers that should not exceed two feet in thickness, or the maximum rock size present, which ever is less. All rocks exceeding two feet should be broken down to a smaller size, windrowed (see above), or disposed of in non-structural fill areas. Localized larger rock up to 3 feet in largest dimension may be placed in rock fill as follows:

   a) individual rocks are placed in a given lift so as to be roughly 50% exposed above the typical surface of the fill ,

   b) loaded rock trucks or alternate compactors are worked around the rock on all sides to the satisfaction of the soil engineer,

   c) the portion of the rock above grade is covered with a second lift.

3. Material placed in each lift should be well graded. No unfilled spaces (voids) should be permitted in the rock fill.

Compaction Procedures

Compaction of rock fills is largely procedural. The following procedures have been found to generally produce satisfactory compaction.

1. Provisions for routing of construction traffic over the fill should be implemented.

a) Placement should be by rock trucks crossing the lift being placed and dumping at its edge.

b) The trucks should be routed so that each pass across the fill is via a different path and that all areas are uniformly traversed.

c) The dumped piles should be knocked down and spread by a large dozer (D-8 or larger suggested). (Water should be applied before and during spreading.)

2. Rock fill should be generously watered (sluiced)

a) Water should be applied by water trucks to the:

i) dump piles,

ii) front face of the lift being placed and,

iii) surface of the fill prior to compaction.

b) No material should be placed without adequate water.

c) The number of water trucks and water supply should be sufficient to provide constant water.

d) Rock fill placement should be suspended when water trucks are unavailable:

i) for more than 5 minutes straight, or,

ii) for more than 10 minutes/hour.

3. In addition to the truck pattern and at the discretion of the soil engineer, large, rubber tired compactors may be required.

a) The need for this equipment will depend largely on the ability of the operators to provide complete and uniform coverage by wheel rolling with the trucks.

b) Other large compactors will also be considered by the soil engineer provided that required compaction is achieved.

4. Placement and compaction of the rock fill is largely procedural. Observation by trenching should be made to check:

a) the general segregation of rock size,

b) for any unfilled spaces between the large blocks, and

c) the matrix compaction and moisture content.

5. Test fills may be required to evaluate relative compaction of finer grained zones or as deemed appropriate by the soil engineer.

a) A lift should be constructed by the methods proposed, as proposed

6. Frequency of the test trenching is to be at the discretion of the soil engineer. Control areas may be used to evaluate the contractors procedures.

7. A minimum horizontal distance of 15 feet should be maintained from the face of the rock fill and any finish slope face. At least the outer 15 feet should be built of conventional fill materials.

Piping Potential and Filter Blankets

Where conventional fill is placed over rock fill, the potential for piping (migration) of the fine grained material from the conventional fill into rock fills will need to be addressed.

The potential for particle migration is related to the grain size comparisons of the materials present and in contact with each other. Provided that 15 percent of the finer soil is larger than the effective pore size of the coarse soil, then particle migration is substantially mitigated. This can be accomplished with a well-graded matrix material for the rock fill and a zone of fill similar to the matrix above it. The specific gradation of the fill materials placed during grading must be known to evaluate the need for any type of filter that may be necessary to cap the rock fills. This, unfortunately, can only be accurately determined during construction.

In the event that poorly graded matrix is used in the rock fills, properly graded filter blankets 2 to 3 feet thick separating rock fills and conventional fill may be needed. As an alternative, use of two layers of filter fabric (Mirafi 700 x or equivalent) could be employed on top of the rock fill. In order to mitigate excess puncturing, the surface of the rock fill should be well broken down and smoothed prior to placing the filter fabric. The first layer of the fabric may then be placed and covered with relatively permeable fill material (with respect to overlying material) 1 to 2 feet thick. The relative permeable material should be compacted to fill standards. The second layer of fabric should be placed and conventional fill placement continued.

Subdrainage

Rock fill areas should be tied to a subdrainage system. If conventional fill is placed that separates the rock from the main canyon subdrain, then a secondary system should be installed. A system consisting of an adequately graded base (3 to 4 percent to the lower side) with a collector system and outlets may suffice.

Additionally, at approximately every 25 foot vertical interval, a collector system with outlets should be placed at the interface of the rock fill and the conventional fill blanketing a fill slope

Monitoring

Depending upon the depth of the rock fill and other factors, monitoring for settlement of the fill areas may be needed following completion of grading. Typically, if rock fill depths exceed 40 feet, monitoring would be recommend prior to construction of any settlement sensitive improvements. Delays of 3 to 6 months or longer can be expected prior to the start of construction.

UTILITY TRENCH CONSTRUCTION AND BACKFILL

Utility trench excavation and backfill is the contractors responsibility. The geotechnical consultant typically provides periodic observation and testing of these operations. While efforts are made to make sufficient observations and tests to verify that the contractors' methods and procedures are adequate to achieve proper compaction, it is typically impractical to observe all backfill procedures. As such, it is critical that the contractor use consistent backfill procedures.

Compaction methods vary for trench compaction and experience indicates many methods can be successful. However, procedures that "worked" on previous projects may or may not prove effective on a given site. The contractor(s) should outline the procedures proposed, so that we may discuss them prior to construction. We will offer comments based on our knowledge of site conditions and experience.

1. Utility trench backfill in slopes, structural areas, in streets and beneath flat work or hardscape should be brought to at least optimum moisture and compacted to at least 90 percent of the laboratory standard. Soil should be moisture conditioned prior to placing in the trench.

2. Flooding and jetting are not typically recommended or acceptable for native soils. Flooding or jetting may be used with select sand having a Sand Equivalent (SE) of 30 or higher. This is typically limited to the following uses:

   a) shallow (12 + inches) under slab interior trenches and,

   b) as bedding in pipe zone.

   The water should be allowed to dissipate prior to pouring slabs or completing trench compaction.

3. Care should be taken not to place soils at high moisture content within the upper three feet of the trench backfill in street areas, as overly wet soils may impact subgrade preparation. Moisture may be reduced to 2% below optimum moisture in areas to be paved within the upper three feet below sub grade.

4. Sand backfill should not be allowed in exterior trenches adjacent to and within an area extending below a 1:1 projection from the outside bottom edge of a footing, unless it is similar to the surrounding soil.

5. Trench compaction testing is generally at the discretion of the geotechnical consultant. Testing frequency will be based on trench depth and the contractors procedures. A probing rod would be used to assess the consistency of compaction between tested areas and untested areas. If zones are found that are considered less compact than other areas, this would be brought to the contractors attention.

JOB SAFETY

General

Personnel safety is a primary concern on all job sites. The following summaries are safety considerations for use by all our employees on multi-employer construction sites. On ground personnel are at highest risk of injury and possible fatality on grading construction projects. The company recognizes that construction activities will vary on each site and that job site safety is the contractor's responsibility. However, it is, imperative that all personnel be safety conscious to avoid accidents and potential injury.

In an effort to minimize risks associated with geotechnical testing and observation, the following precautions are to be implemented for the safety of our field personnel on grading and construction projects.

1. Safety Meetings: Our field personnel are directed to attend the contractor's regularly scheduled safety meetings.
2. Safety Vests: Safety vests are provided for and are to be worn by our personnel while on the job site.
3. Safety Flags: Safety flags are provided to our field technicians; one is to be affixed to the vehicle when on site, the other is to be placed atop the spoil pile on all test pits.

In the event that the contractor's representative observes any of our personnel not following the above, we request that it be brought to the attention of our office.

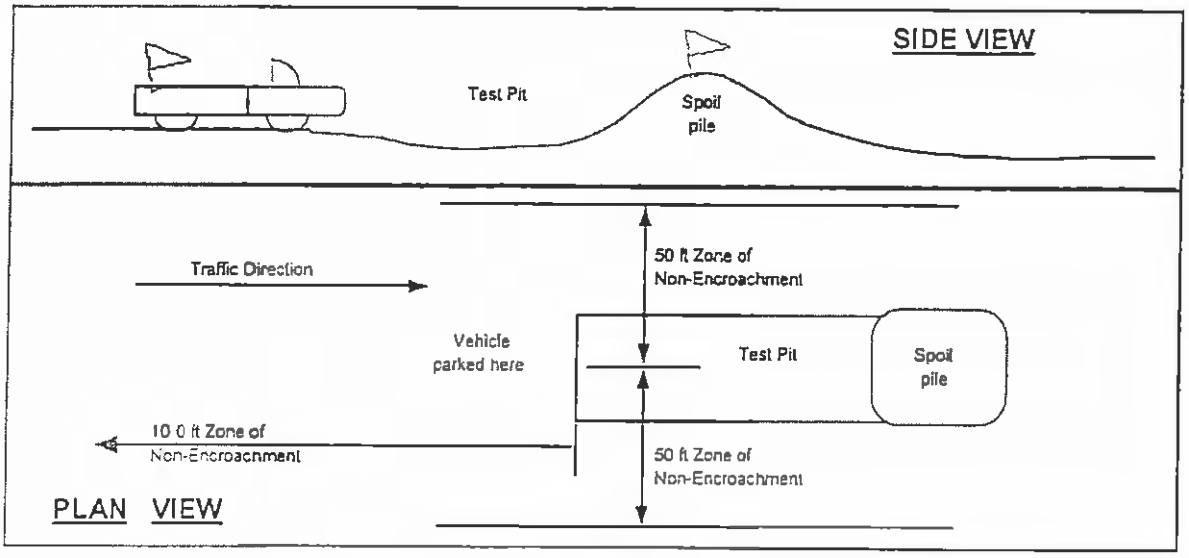
Test Pits Location, Orientation and Clearance

The technician is responsible for selecting test pit locations. The primary concern is the technician's safety. However, it is necessary to take sufficient tests at various locations to obtain a representative sampling of the fill. As such, efforts will be made to coordinate locations with the grading contractors authorized representatives (e.g. dump man, operator, supervisor, grade checker, etc.), and to select locations following or behind the established traffic pattern, preferably outside of current traffic. The contractors authorized representative should direct excavation of the pit and safety during the test period. Again, safety is the paramount concern.

Test pits should be excavated so that the spoil pile is placed away from oncoming traffic. The technician's vehicle is to be placed next to the test pit, opposite the spoil pile. This necessitates that the fill be maintained in a drivable condition. Alternatively, the contractor may opt to park a piece of equipment in front of test pits, particularly in small fill areas or those with limited access.

A zone of non-encroachment should be established for all test pits (see diagram below). No grading equipment should enter this zone during the test procedure. The zone should extend outward to the sides approximately 50 feet from the center of the test pit and 100 feet in the direction of traffic flow. This zone is established both for safety and to avoid excessive ground vibration, which typically decreases test results.

TEST PIT SAFETY PLAN



Slope Tests

When taking slope tests, the technician should park their vehicle directly above or below the test location on the slope. The contractor's representative should effectively keep all equipment at a safe operation distance (e g. 50 feet) away from the slope during testing.

The technician is directed to withdraw from the active portion of the fill as soon as possible following testing. The technician's vehicle should be parked at the perimeter of the fill in a highly visible location.

Trench Safety

It is the contractor's responsibility to provide safe access into trenches where compaction testing is needed. Trenches for all utilities should be excavated in accordance with CAL-OSHA and any other applicable safety standards. Safe conditions will be required to enable compaction testing of the trench backfill.

All utility trench excavations in excess of 5 feet deep, which a person enters, are to be shored or laid back. Trench access should be provided in accordance with OSHA standards. Our personnel are directed not to enter any trench by being lowered or "riding down" on the equipment.

Our personnel are directed not to enter any excavation which;

1. is 5 feet or deeper unless shored or laid back,
2. exit points or ladders are not provided,
3. displays any evidence of instability, has any loose rock or other debris which could fall into the trench, or
4. displays any other evidence of any unsafe conditions regardless of depth.

If the contractor fails to provide safe access to trenches for compaction testing, our company policy requires that the soil technician withdraws and notifies their supervisor. The contractors representative will then be contacted in an effort to effect a solution. All backfill not tested due to safety concerns or other reasons is subject to reprocessing and/or removal.

Procedures

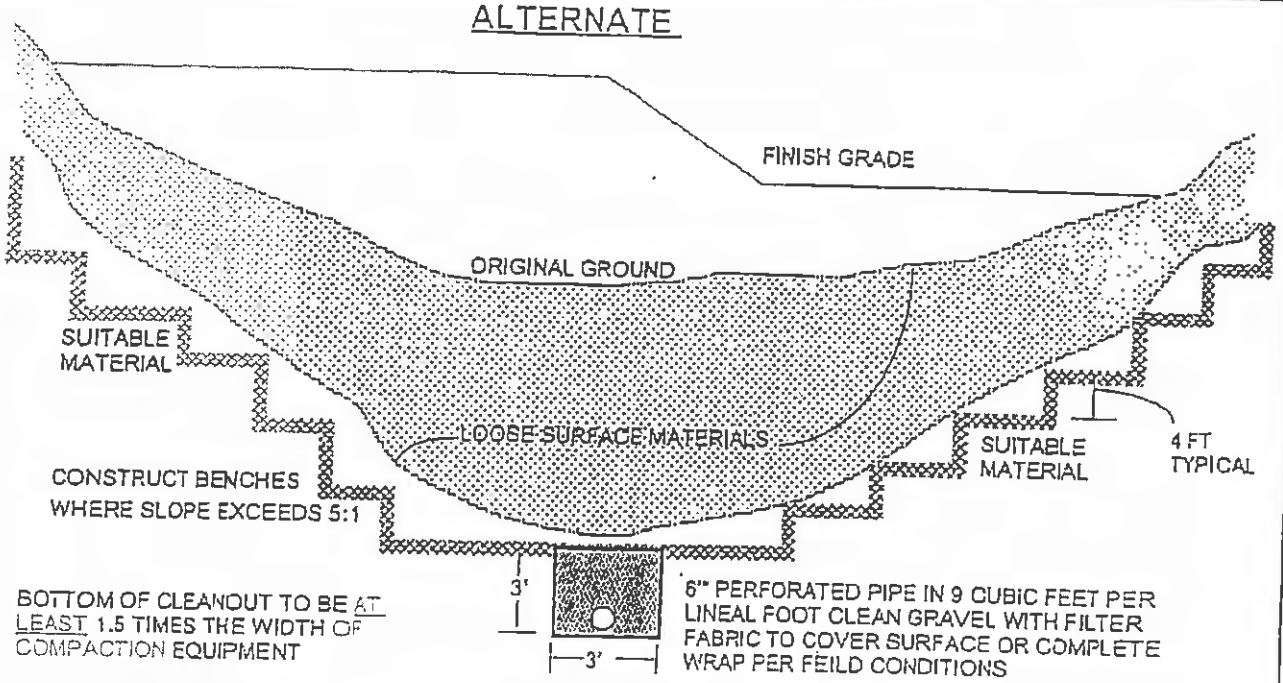
In the event that the technician's safety is jeopardized or compromised as a result of the contractor's failure to comply with any of the above, the technician is directed to inform both the developer's and contractor's representatives. If the condition is not rectified, the technician is required, by company policy, to immediately withdraw and notify their supervisor. The contractor's representative will then be contacted in an effort to effect a solution. No further testing will be performed until the situation is rectified. Any fill placed in the interim can be considered unacceptable and subject to reprocessing, recompaction or removal.

In the event that the soil technician does not comply with the above or other established safety guidelines, we request that the contractor bring this to technicians attention and notify our project manager or office. Effective communication and coordination between the contractors' representative and the field technician(s) is strongly encouraged in order to implement the above safety program and safety in general.

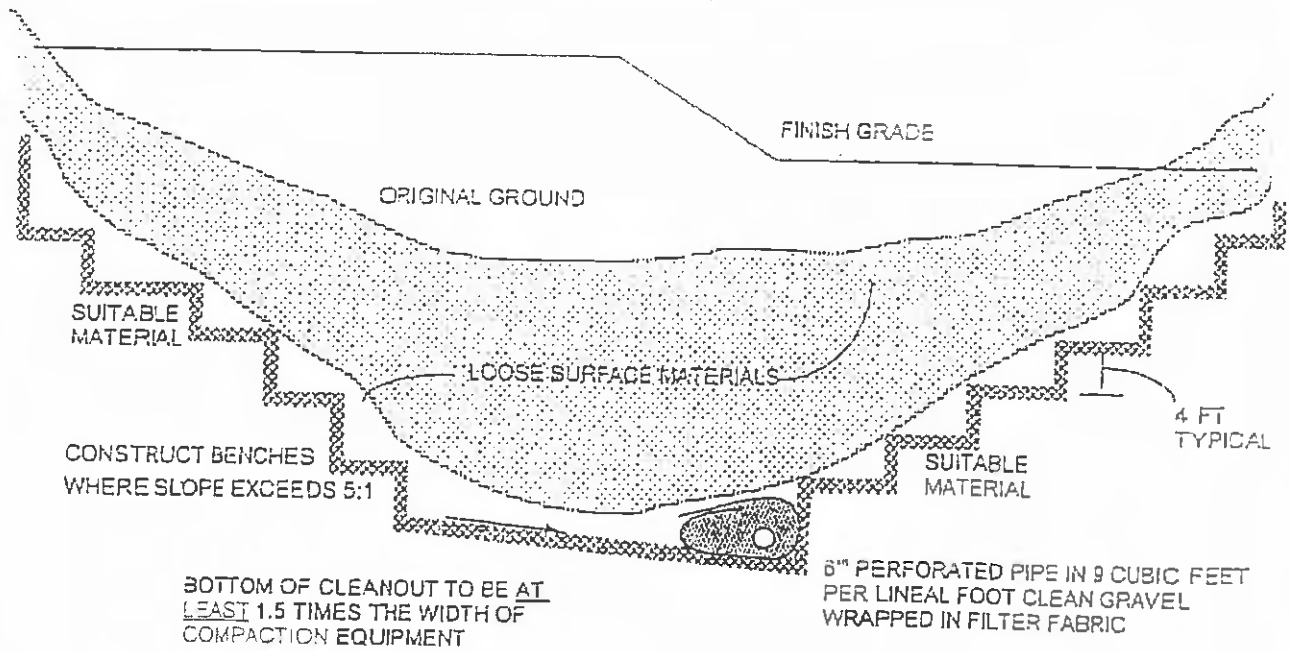
The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

ALTERNATE

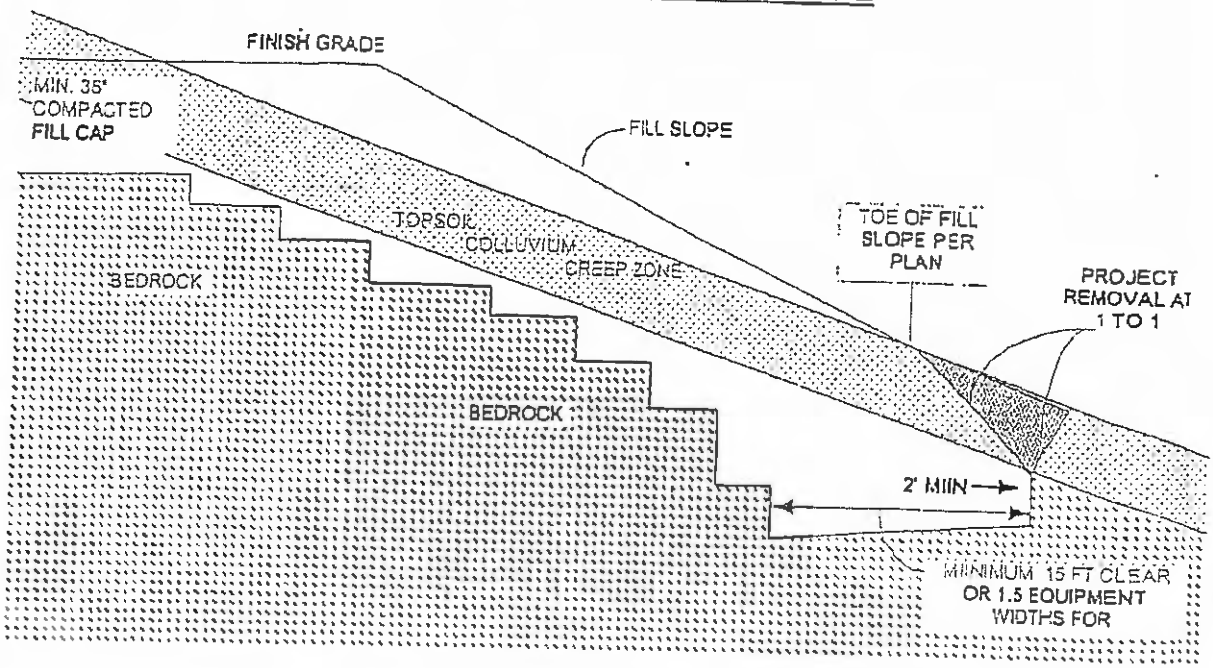


ALTERNATE

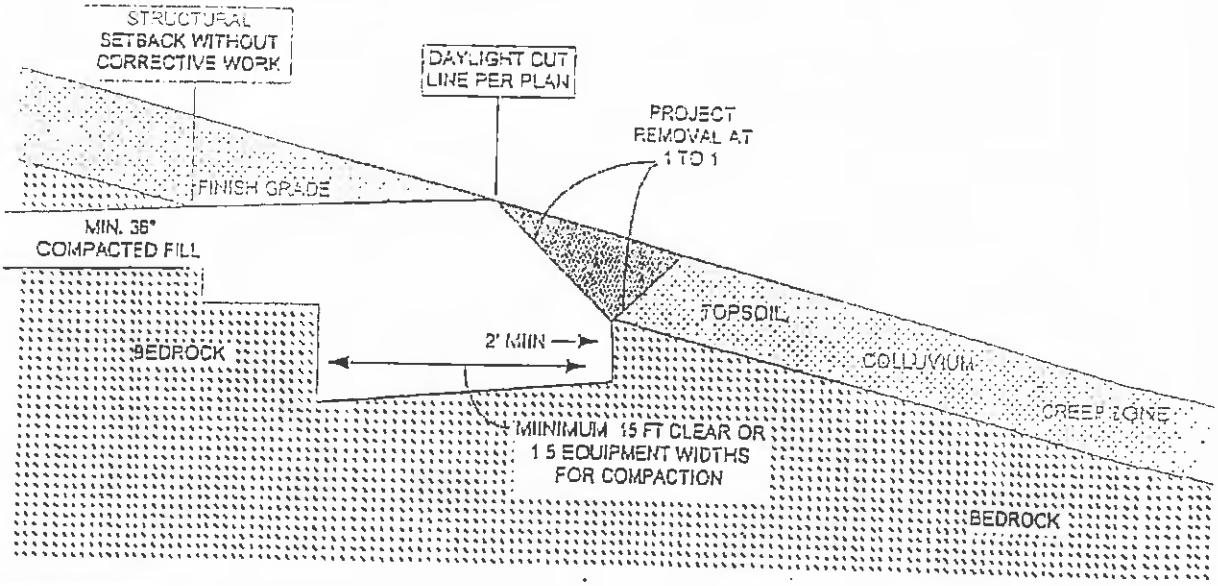


STANDARD GRADING GUIDELINES	TYPICAL CANYON CLEANOUT
GeoTek, Inc.	PLATE G-1

TYPICAL FILL SLOPE OVER NATURAL DESCENDING SLOPE

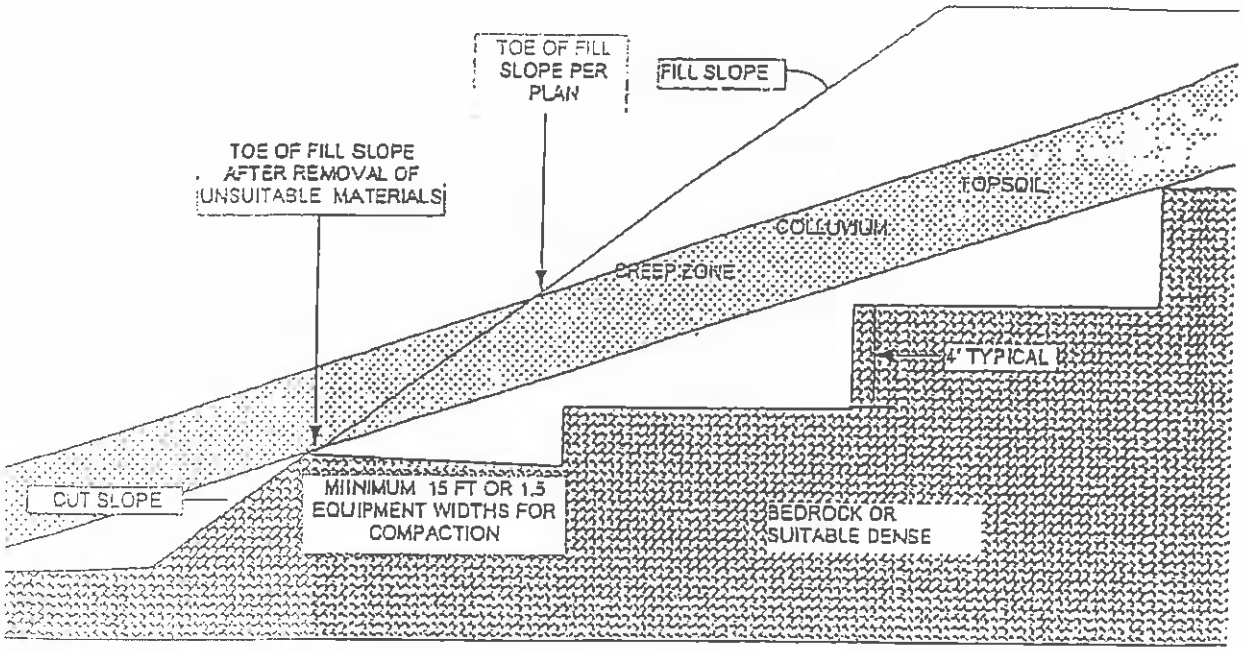


DAYLIGHT CUT AREA OVER NATURAL DESCENDING SLOPE

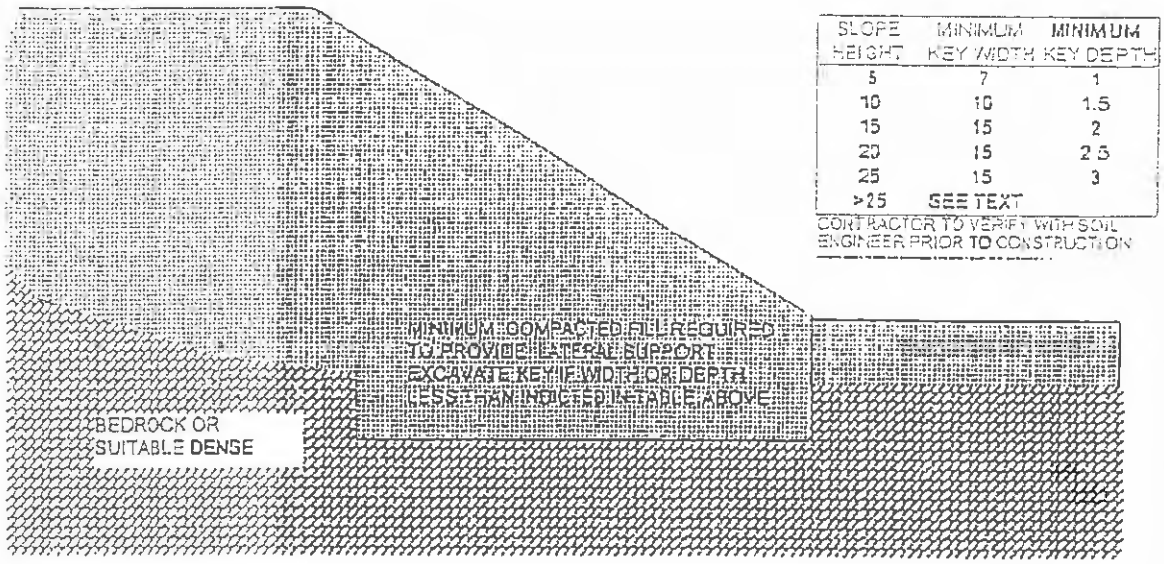


STANDARD GRADING GUIDELINES	TREATMENT ABOVE NATURAL SLOPES
GeoTek, Inc.	PLATE G - 2

TYPICAL FILL SLOPE OVER PROPOSED CUT SLOPE



TYPICAL FILL SLOPE

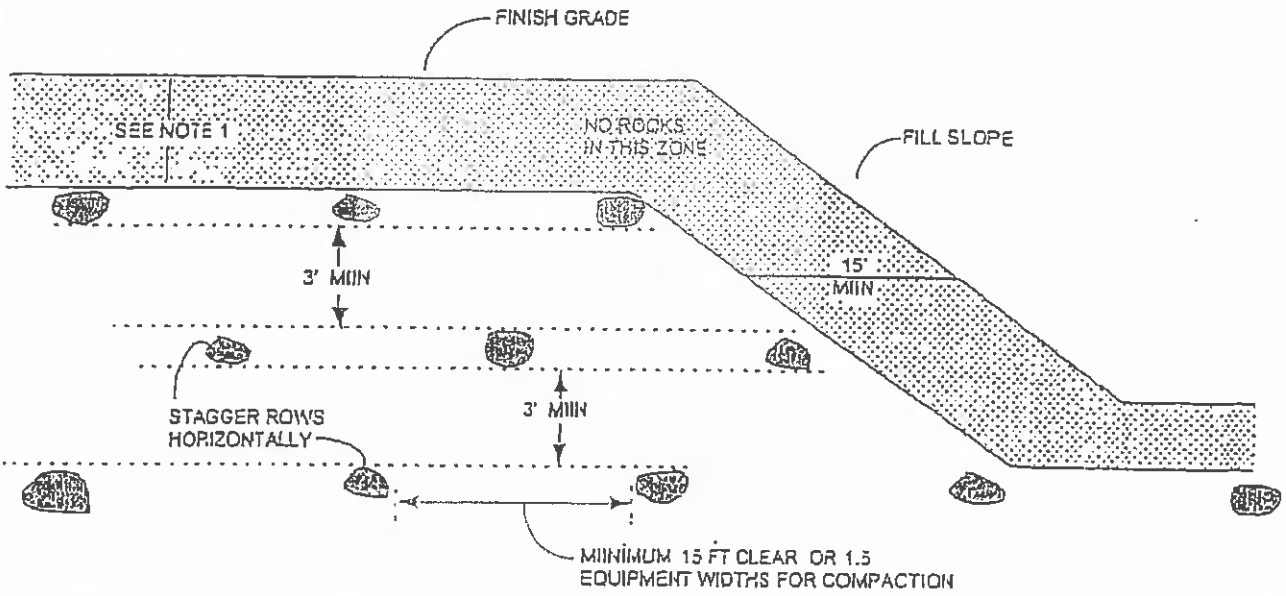


SLOPE HEIGHT	MINIMUM KEY WIDTH	MINIMUM KEY DEPTH
5	7	1
10	10	1.5
15	15	2
20	15	2.5
25	15	3
>25	SEE TEXT	

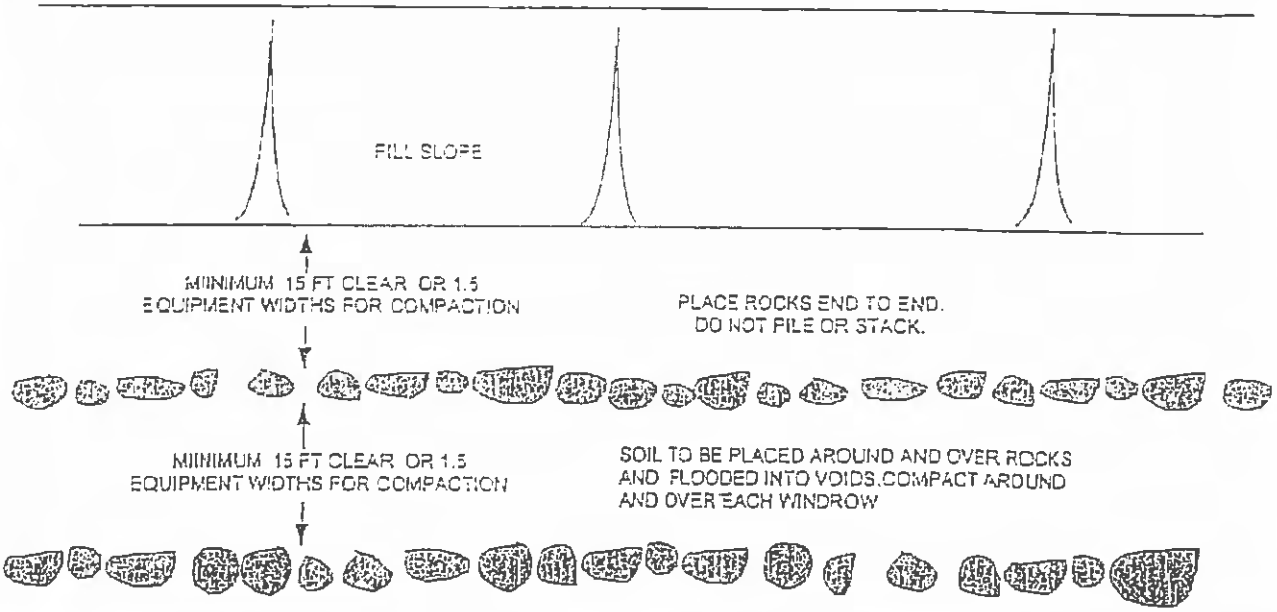
CONTRACTOR TO VERIFY WITH SOIL ENGINEER PRIOR TO CONSTRUCTION

STANDARD GRADING GUIDELINES	COMMON FILL SLOPE KEYS
GeoTek, Inc.	PLATE G-3

CROSS SECTIONAL VIEW



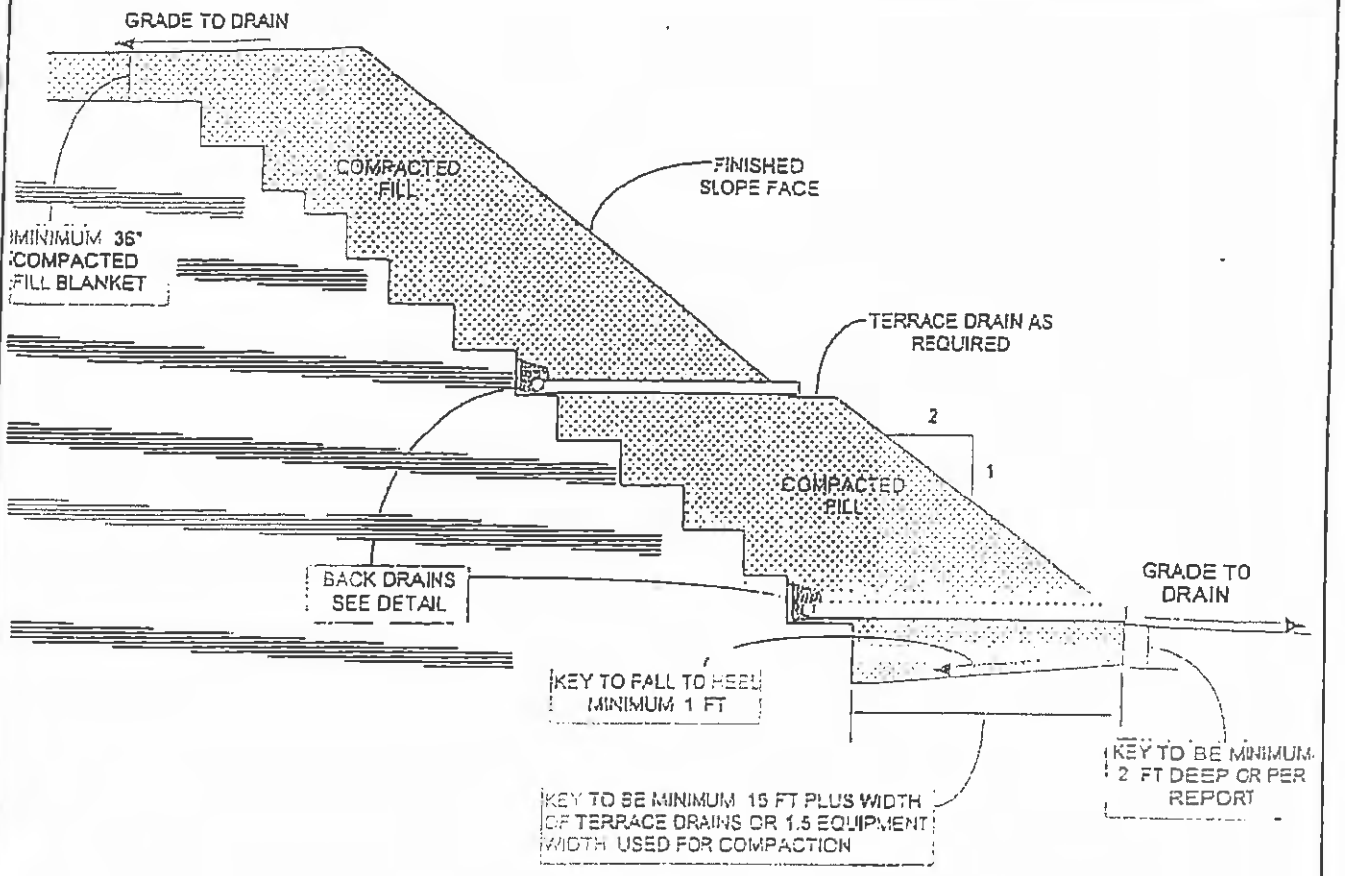
PLAN VEIW

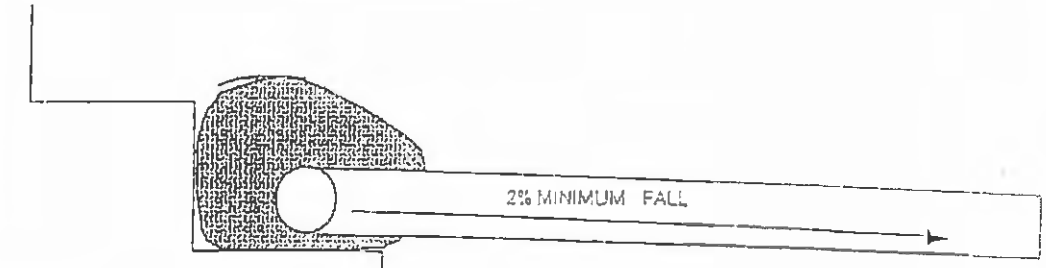


NOTES:

1) MINIMUM SOIL FILL OVER WINDROWS SHOULD BE 7 FEET AND SUFFICIENT FOR FUTURE EXCAVATIONS (e.g. SWIMMING POOLS) TO AVOID ROCKS.
2) MAXIMUM ROCK SIZE IN WINDROWS IS 4 FEET MINIMUM DIAMETER.
3) SOIL AROUND WINDROWS TO BE SANDY MATERIAL SUBJECT TO ACCEPTANCE BY SOIL ENGINEER.
4) ALL SPACING AND CLEARANCES MUST BE SUFFICIENT TO ALLOW FOR PROPER COMPACTION.

STANDARD GRADING GUIDELINES	ROCK BURIAL DETAILS
GeoTek, Inc.	PLATE G - 4





4" DIAMETER PERFORATED DRAIN PIPE PVC SCH. 40 OR EQUIVALENT IN 6 CUBIC FT DRAIN ROCK WRAPPED IN FILTER FABRIC

4" DIAMETER SOLID OUTLET LATERALS TO SLOPE FACE OR STORM DRAIN SYSTEM AT MAXIMUM 100 FT INTERVALS

NOTE. ADDITIONAL BACKDRAINS MAY BE RECOMMENDED

STANDARD GRADING GUIDELINES	BUTTRESS AND STABILIZATION SLOPES
GeoTek, Inc.	PLATE G - 5

Appendix D

Treatment BMP Details, Supplemental Calculations
An Exhibit of the Project Area Tributary to Each Treatment BMP

Supplemental Calculations for Treatment Control BMPs Details

W.O. # 3506-2, DANA POINT HOTEL
Qbmp CALCULATIONS
DATE: 09/16/11

KATCHALL UNIT	C	I	A	Qbmp	KATCHALL SIZE
	(table A-1)	(in/hr)	(acre)	(cfs)	
1	0.90	0.2	0.78	0.140	8' x 4' PURESTREAM VAULTS
2	0.90	0.2	1.46	0.263	8' x 6' PURESTREAM VAULTS

GREEN ROOF	C	I	A	Qbmp
	(table A-1)	(in/hr)	(acre)	(cfs)
1	0.19	0.2	0.07	0.003
2	0.19	0.2	0.35	0.013

GREEN ROOF	C	I	A	Vbmp
	(table A-1)	(in/hr)	(acre)	(cft)
1	0.19	0.8	0.07	38.6
2	0.19	0.8	0.35	193.1

Details for Katchall's Purestream Biofiltration Unit and Trench Drain Filter

" A viable solution to all those bioretention-only systems; I'd like to see lots of these going in the ground, they'd sure solve a lot of problems for approving agencies."

PURESTREAM® BioFiltration Chambers (Patent Pending)

HOME PAGE

References—Approvals

FILTRATION MEDIAS

How to Contact Us

INFORMATION REQUEST

Drawing on the dismal failures of some of the stand-alone bioretention "tree box" systems, Katchall recently designed a single-vault system that includes ALL of the following features:

1. **A *properly* designed BioFiltration System,**
2. **Filtered high-flow bypass chamber, (*eliminates the need for secondary inlet structures*),**
3. **Pre-entry trash net device across the entire throat opening,**

Hydraulic capacities have been substanually *increased*, (from as little as .126 Cfs to 35.0 Cfs),

Draw-times have been substanually *decreased*, (from 24-48 hours) to as little as 4-hours.

Katchall Bio-Filtration Chambers can be as small as 6' x 4' to as large as 20' x 8'. All units are cast-in-place, insuring proper fitment with surrounding sidewalks, curb and gutters using monolithic pours.

A large selection of tree grate covers are available in several different materials and finishes, along with several selections of tree guards, (Refer to Grate Covers—Tree Guards).

Simply click one of the links below for more information about which specific series will best fit your application. Data Sheets include dimensions, flow-rates, pipe sizes, etc.

36 different vault sizes are currently manufactured — custom sizes / grate openings available

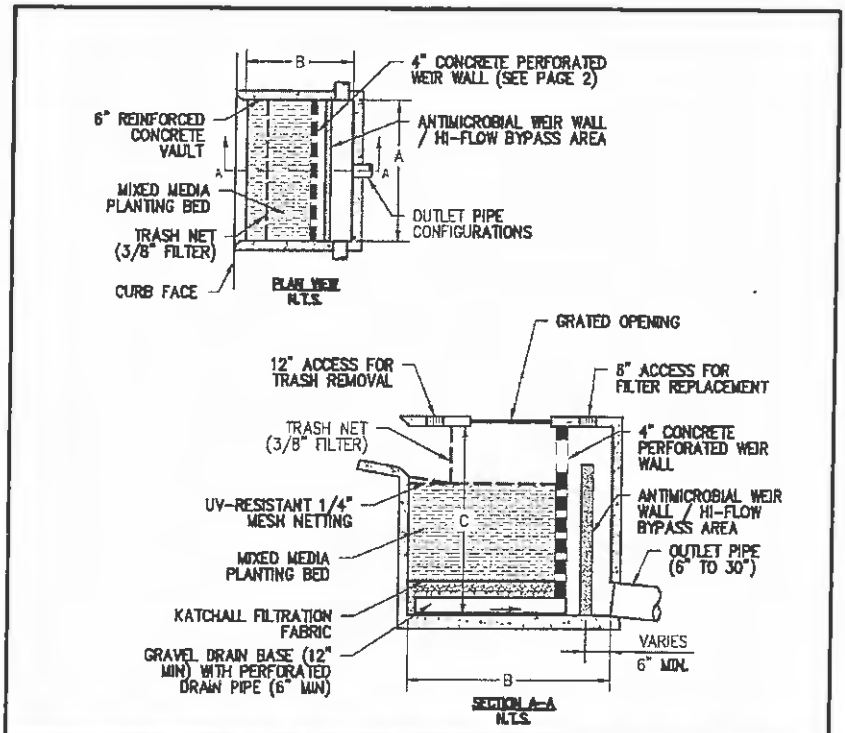
600 Series	6-foot Lengths	Filtered flow-rates from 7.5 Cfs--10.2 Cfs
800 Series	8-foot Lengths	Filtered flow-rates from 10.0 Cfs--13.7 Cfs
1000 Series	10-foot Lengths	Filtered flow-rates from 12.5 Cfs--17.1 Cfs
1200 Series	12-foot Lengths	Filtered flow-rates from 14.9 Cfs--20.6 Cfs
1400 Series	14-foot Lengths	Filtered flow-rates from 17.4 Cfs —24.0 Cfs
1600 Series	16-foot Lengths	Filtered flow-rates from 19.9 Cfs--27.4 Cfs
1800 Series	18-foot Lengths	Filtered flow-rates from 22.4 Cfs--30.8 Cfs
2000 Series	20-foot Lengths	Filtered flow-rates from 25.0 Cfs—34.2 Cfs

Available Grate Configurations Single, Dual, Triple

PURESTREAM 800 Series

Back to PURESTREAM Home Page

HOME PAGE
References–Approvals
FILTRATION MEDIAS
How to Contact Us
INFORMATION REQUEST



USE →

MODEL NUMBER	DIM A (FT)	DIM B (FT)	DIM C (IN)	TRASH (CU FT)	DISCHARGE PIPES (IN)	MIXED MEDIA (CU FT)	MIXED MEDIA (GPM / CFS)	FILTER WEIR (SF)	FILTERED FLOW (CFS) BYPASS	FILTERED FLOW (CFS) TOTAL
8436	8	4	36	8.0	4–24	80	160 / 0.36	24	9.6	10.0
8442	8	4	42	8.0	4–30	96	192 / 0.43	32	12.8	13.2
8636	8	6	36	8.0	4–24	120	240 / 0.53	24	9.6	10.1
8642	8	6	42	8.0	4–30	144	288 / 0.64	32	12.8	13.4
8836	8	8	36	8.0	4–24	160	320 / 0.71	24	9.6	10.3
8842	8	8	42	8.0	4–30	192	384 / 0.86	32	12.8	13.7

KATCHALL FILTRATION SYSTEMS, LLC	PURESTREAM™ BIO-FILTRATION SYSTEM 800-SERIES		
1-866-KATCHALL WWW.KATCHALL.NET	REVISION: A	DWG NUM: PURE800	SHEET: 1 OF 2

Trench Grate Filtration Devices

Trench Grate Filtration is primarily used in areas where large quantities of water discharges are anticipated and need to be collected, filtered, and directed to out-flow drainage systems, i.e. parking lots, commercial and industrial sites and freeways.

Katchall Trench Grate Filters can be produced using (1) the "standard" fabric, (2) antimicrobial fabrics, or (3) with a heavy-metals removal media included.

1. **STANDARD FILTRATION FABRICS - SFF**
   (Used in locations where bacteria and virus removals are not a concern)

   Operational characteristics of the "standard" fabric:

- Unobstructed flow-rates, per square foot, > 180 GPM
- Filtration to 50-microns (when used in a pillow-cased configuration)
- Removes silt, sediment, debris, vegetative waste, oils and greases
- Absorbs up to 20 times it's own weight in hydrocarbons and hydrocarbon byproducts.

2. **ANTIMICROBIAL FILTRATION FABRICS - AMFF**
   (Used in locations where bacteria and viruses need to be reduced / eliminated)

Operational characteristics of the antimicrobial treated fabrics

- Unobstructed flow-rates, per square foot, > 180 GPM
- Filtration to 50-microns (when used in a pillow-cased configuration)
- Same filtration removal features as the "standard" fabrics
- Kills 99.4% of all bacteria, viruses, algae, mold, mildew and yeast colonies upon contact
- Eliminates odors produced by bacterial colonies, viruses, etc.

3. **HEAVY METALS REMOVAL MEDIA - HMRFF**
   (Used in areas where heavy metal discharges need to be reduced / eliminated)

   Operational characteristics of the HMR impregnated fabrics

- Unobstructed flow-rates, per square foot, > 180 GPM
- Filtration to 50-microns (when used in a pillow-cased configuration)
- Same filtration removal features as the "standard" fabrics
- Kills 99.4% of all bacteria, viruses, algae, mold, mildew and yeast colonies upon contact
- Eliminates odors produced by bacterial colonies, viruses, etc.
- Removes > 22 toxic heavy metals from discharges

Filtration medias can be combined to enhance the filtration – pollutant removal properties of each fabric, i.e.

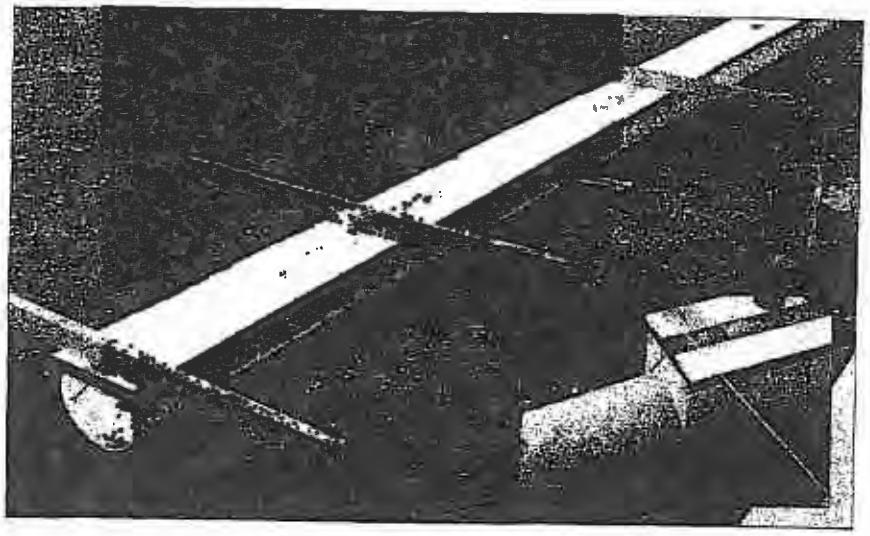
Standard Fabric impregnated with HMR Media – **S/HMRFF**

Antimicrobial Fabric impregnated with HMR Media - **AM/HMRFF**

GENERAL INFORMATION

- Katchall Trench Grate Filtration Devices come standard in 8-foot (length) sections, although custom-sizes can be manufactured at the project site.
- Katchall Trench Grates feature a unique U-shaped bottom channel, providing higher flow-rates than the standard "poured-in-place" square trenches.
- Sections can either be flat (no specific drainage direction) or with a "built-in" 1.04% slope degradation and can be placed to direct water discharges other than the direction of sheet flows entering the system.
- Sections can be placed end-to-end, forming a single drainage conveyance system up to 165-feet in length before a catch basin or other type of drainage device is needed.
- End-of-line catch basins are either sized:
    - 2-foot (L) x 2-foot (W) x 3-foot (D),
      (Accommodates up to a 18-inch drainage pipe)
    - 3-foot (L) x 3-foot (W) x 3-foot (D),
      (Accommodates up to a 24-inch drainage pipe)

20-FOOT KATCHALL TRENCH GRATE FILTER / VICTORVILLE, CA



Trench Former®

Trench Former by ABT, Inc., manufacturer of Polycrete, is a pre-engineered, cast-in-place concrete forming system for forming drainage trenches, catch basins, utility chases and voids in concrete placements. Consisting of expanded polystyrene (EPS) form sections, embedded steel inlay rails with our patented no-float legs, and grates. The system eliminates the need for heavy forming materials, keyways and waterstops normally required with trench drains and utility chases.

Standard Design

TF-14 former shapes are made from lightweight expanded polystyrene (EPS) to provide the most widely used trench size, 12" wide with a 1.04% built-in slope and radius bottom.

Custom Design

Trench Former is available in various widths, depths, slopes, and trench bottom configurations. For custom Trench Former needs contact our technical sales support team at 1-800-438-6057.

Precision Engineering

Precision is engineered into the product, eliminating the need for highly skilled and expensive labor. Accurate to within 1.5 mm ($\frac{1}{16}$ in.), the former shapes have longitudinal grooves for alignment, and integral deforming grooves for easy removal.

Low Cost

The Trench Former System requires no heavy machinery (except for excavation) and is in place in a fraction of the time of previous methods, reducing installed costs by 33% or higher.

Easy Installation

A non-structural anchoring slab placed over the no-float legs holds the formwork firmly in place without elaborate anchoring. Concrete can then be placed monolithically, eliminating cold joints, keyways, and waterstop material between the trench floor and walls. Forms can be removed in 24 hours or can be left in place indefinitely, preventing unsafe open pits on the job site. There are no piping alignment problems because piping is buried in the formwork and cast-in-place.

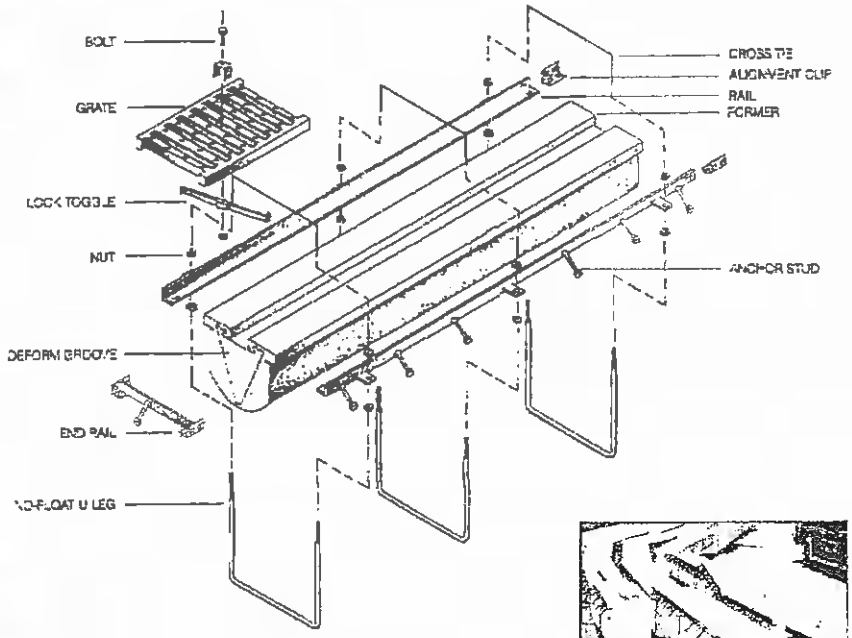
Environmentally Sound

The EPS forms are manufactured without CFCs and can be disposed of safely and easily. It's also recyclable and makes a high quality fuel for commercial incinerators as well as being land fillable.

Low Maintenance

The permanent system components are designed to be maintenance friendly. Quarterly inspections are recommended, but the built-in slope, radius bottom, and low roughness co-efficient help to eliminate debris buildup.

U.S. Patents #5,348,421; #5,393,171; #5,281,051, #5,478,169; #5,573,350 and #5,702,204. Other patents pending.
Trench Former is a registered trademark of ABT, Inc.



TF-14 is the standard stock Trench Former system. Its components are made in the most commonly constructed size. TF-14 consists of 2.4 m (8 ft.) pre-sloped form segments. The 21 stock segments can be used together to create a continuously sloped 51 m (168 ft.) trench.

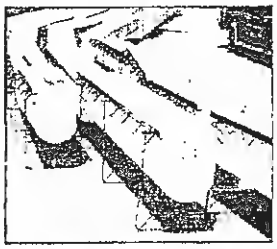
Each segment is engineered to a 10.4 mm per meter (⅛ in. per ft.) slope (1.04%). The EPS forms create 305 mm (12 in.) wide trenches with a 165 mm (6½ in.) radius bottom and a 356 mm (14 in.) grate seat area.

They have integral deforming grooves for easy removal and full length longitudinal grooves for coplanar rail spacing and alignment. Six non-sloping, 1.2 m (4 ft.) or 2.4 m (8 ft.) long forms are available throughout the system to create longer continuous runs.

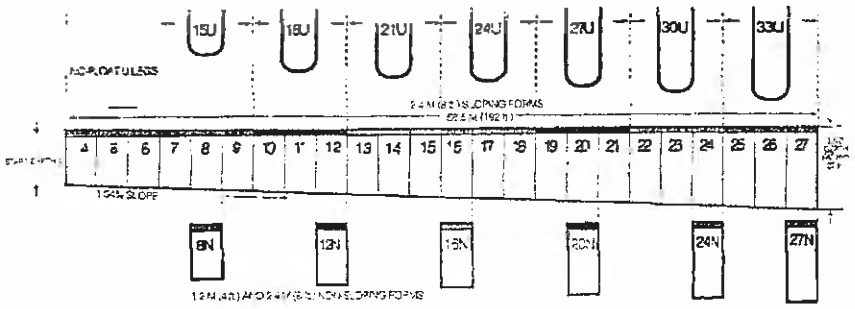
The steel angle rails include anchoring studs welded on 280 mm (11 in.) centers to the outside corners. 12 mm (½ in.) threaded U-shaped no-float legs attach to horizontal tabs on each rail. Each rail end is designed to accept a rail alignment clip which connects adjacent rail segments.

Prefabricated L-rail and T-rail assemblies allow for field installation of 90° turns anywhere in the pre-sloped layout.

Outlet piping is butted to an annular groove made in the EPS form prior to concreting. For trench junctions or for large outlet sizes, four catch basins are provided. A wide selection of retainable grates and solid covers is available for various loadings.



Schematic



The colors shown correspond to the actual colors on the parts you will receive and are designed to simplify identification of complementary parts

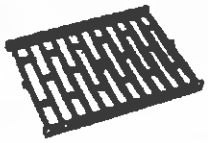
Technical Data

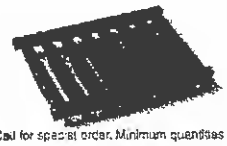
Color Code	Part Number	No. Rect Leg #	Form Length m (ft)	Form Depth Min cm (in)	Form Depth Max cm (in)	Flow X-Section m sq (ft sq.)	Maximum Rate of Flow lpm (gal/m)	Maximum Rate of Flow cms (cfs)	Assemb. Weight w/o Grates kg (lbs)	Storage Capacity liters (gal)
	4	12	2.44 (8)	7.6 (3)	10.2 (4)	0.007 (0.07)	238 (63)	.00 (0.1)	21.6 (47.6)	15 (4)
	5	12	2.44 (8)	10.2 (4)	12.7 (5)	0.014 (0.15)	781 (206)	0.01 (0.5)	21.9 (48.2)	34 (9)
	6	12	2.44 (8)	12.7 (5)	15.2 (6)	0.022 (0.24)	1466 (387)	0.02 (0.9)	22.2 (48.9)	53 (14)
	7	15	2.44 (8)	15.2 (6)	17.8 (7)	0.030 (0.32)	2297 (591)	0.04 (1.3)	22.5 (48.6)	72 (19)
	8	15	2.44 (8)	17.8 (7)	20.3 (8)	0.037 (0.40)	3063 (809)	0.05 (1.8)	22.9 (49.3)	91 (24)
	8N	15	1.22 (4)	20.3 (8)	20.3 (8)	0.037 (0.40)	N	N	12.3 (27.0)	49 (13)
	9	15	2.44 (8)	20.3 (8)	22.8 (9)	0.045 (0.48)	3929 (1038)	0.07 (2.3)	23.1 (50.9)	109 (29)
	10	18	2.44 (8)	22.8 (9)	25.4 (10)	0.053 (0.57)	4823 (1274)	0.09 (2.8)	23.5 (51.5)	128 (34)
	11	18	2.44 (8)	25.4 (10)	27.9 (11)	0.060 (0.65)	5739 (1516)	0.10 (3.4)	23.7 (52.2)	147 (39)
	12	18	2.44 (8)	27.9 (11)	30.5 (12)	0.068 (0.73)	6671 (1762)	0.11 (3.9)	24.0 (52.9)	165 (44)
	12N	18	1.22 (4)	30.5 (12)	30.5 (12)	0.068 (0.73)	N	N	12.9 (28.3)	87 (23)
	13	21	2.44 (8)	30.5 (12)	33.0 (13)	0.076 (0.81)	7617 (2012)	0.13 (4.5)	24.8 (54.6)	184 (49)
	14	21	2.44 (8)	33.0 (13)	35.6 (14)	0.083 (0.90)	8572 (2264)	0.14 (5.0)	25.1 (55.2)	203 (54)
	15	21	2.44 (8)	35.6 (14)	38.1 (15)	0.092 (0.98)	9537 (2519)	0.15 (5.6)	25.4 (55.9)	221 (59)
	16	24	2.44 (8)	38.1 (15)	40.6 (16)	0.098 (1.06)	10509 (2775)	0.18 (6.2)	26.1 (57.5)	240 (63)
	16N	24	1.22 (4)	40.6 (16)	40.6 (16)	0.099 (1.06)	N	N	14.1 (31.1)	125 (33)
	17	24	2.44 (8)	40.6 (16)	43.2 (17)	0.106 (1.14)	11483 (3034)	0.19 (6.8)	26.5 (58.2)	259 (68)
	18	24	2.44 (8)	43.2 (17)	45.7 (18)	0.114 (1.23)	12468 (3293)	0.21 (7.3)	26.8 (58.9)	277 (73)
	19	27	2.44 (8)	45.7 (18)	48.3 (19)	0.122 (1.31)	13454 (3553)	0.22 (7.9)	27.5 (60.5)	296 (78)
	20	27	2.44 (8)	48.3 (19)	50.8 (20)	0.129 (1.39)	14444 (3815)	0.24 (8.6)	27.8 (61.2)	315 (83)
	20N	27	1.22 (4)	50.8 (20)	50.8 (20)	0.129 (1.39)	N	N	15.0 (33.0)	163 (43)
	21	27	2.44 (8)	50.8 (20)	53.3 (21)	0.137 (1.47)	15438 (4077)	0.26 (9.1)	28.1 (61.8)	334 (88)
	22	30	2.44 (8)	53.3 (21)	55.9 (22)	0.144 (1.56)	16434 (4340)	0.27 (9.7)	28.9 (63.5)	352 (93)
	23	30	2.44 (8)	55.9 (22)	58.4 (23)	0.152 (1.64)	17432 (4604)	0.29 (10.3)	29.2 (64.2)	371 (98)
	24	30	2.44 (8)	58.4 (23)	61.0 (24)	0.160 (1.72)	18433 (4868)	0.31 (10.8)	29.5 (64.8)	390 (103)
	24N	30	1.22 (4)	61.0 (24)	61.0 (24)	0.160 (1.72)	N	N	15.9 (35.0)	201 (53)
	25	33	2.44 (8)	61.0 (24)	63.5 (25)	0.167 (1.80)	19485 (5133)	0.32 (11.4)	30.2 (66.5)	408 (108)
	26	33	2.44 (8)	63.5 (25)	66.0 (26)	0.175 (1.89)	20439 (5388)	0.34 (12.0)	30.5 (67.1)	427 (113)
	27	33	2.44 (8)	66.0 (26)	68.6 (27)	0.183 (1.97)	21444 (5664)	0.36 (12.6)	30.9 (67.6)	446 (118)
	27N	33	1.22 (4)	68.6 (27)	68.6 (27)	0.183 (1.97)	N	N	16.8 (36.8)	227 (60)

= non-sloping forms. Also available in 2.44 m (8 ft) length.

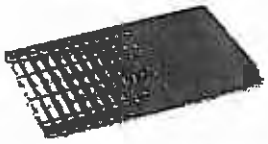
NOTE: Roughness used factor: (n) = 0.013

For max. rate of flow on sloped sites, use the following conversion equation: $Q = \frac{Flow}{0.22} S$ Where S = Grade Slope = 0.0134





Call for special order. Minimum quantities only.



Slotted Grate (NEW)

Part #	1522.24
Load Class	31.2
AASHTO H-25 Rated	Yes
Material	Ductile Iron
Open Area	69%
Dim (LxWxT)	18 x 13.78 x 1.5
Weight	26.0 lbs.

Slotted Grate (Heavy Duty)

Part #	1503.24
Load Class	90.0
AASHTO H-20 Rated	Yes
Airport Rated*	Yes
Material	Ductile Iron
Open Area	41%
Dim (LxWxT)	18 x 13.75 x 1.5
Weight	62.0 lbs.

Pedestrian (ADA) Grate

Part #	1304.24
Load Class	9.4
AASHTO H-20 Rated	Yes
Material	Cast Iron
Open Area	22%
Dim (LxWxT)	18 x 13.75 x 1.5
Weight	50.9 lbs

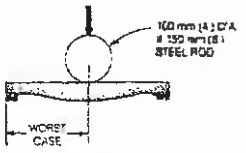
Trim Banded Bar Grate

Part #	1458.24
Load Class	3.7
Fed. RR-F-624E Ped.	Yes
AASHTO H-20 Rated	No
Material	Galvanized Steel
Open Area	68%
Dim (LxWxT)	24 x 13.75 x 1.5
Weight	18.6 lbs.

Solid Cover

Part #	1500.24
Load Class	16.5
AASHTO H-20 Rated	Yes
Material	Cast Iron
Open Area	0%
Dim (LxWxT)	18 x 13.75 x 1.5
Weight	55.3 lbs

Grate Test Procedure



Test Procedure. Grate/cover is placed in service. Ensure in a load testing machine. A 100 mm (4 in.) diameter by 150 mm (6 in.) steel rod is located longitudinally at grate/covers weakest point (column, sheer or beam). Load is applied to steel rod until grate/cover fails (will not support load). Minimum failure load is used in the formula above. Load Class is based on the worst case service load carrying capacity per linear foot of grate/cover. Test assumes a line load with a minimum of contact area. Actual applications may involve a larger load contact patch, thereby increasing load carrying capacity.

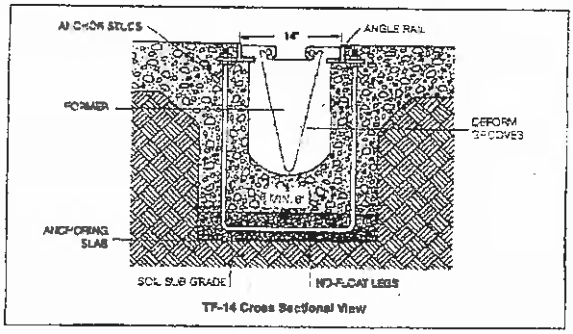
*Aircraft — A load of 200,000 pounds is applied for 1 minute through a 9" x 9" load plate centered on the test grate supported by its side rails in a load test machine. No breakage or permanent deformation is allowed.

Locate maximum design load for grate in the service application column and trace right to find minimum required load class

SERVICE APPLICATION	LOAD CLASS						
	1,000 lbs	2,000 lbs	4,000 lbs	8,000 lbs	16,000 lbs	32,000 lbs	64,000 lbs
Light Duty – Pedestrian, Golf Carts, Bicycles, etc.							
Medium Duty – 2,000 – 4,000 lbs. wheel load							
Heavy Duty – 4,000 – 8,000 lbs. wheel load							
Extra Heavy Duty – 8,000 – 16,000 lbs. wheel load							
Special Duty – 16,000 – 32,000 lbs. wheel load							
Extreme Duty – 32,000 – 64,000 lbs. wheel load							

SUITABLE APPLICATIONS

Suggested Specifications (short form)



TF-14 Cross Sectional View

TF–14 Pre-Manufactured Forming System

PRODUCT: Cast-in-place trench drains and catch basins, formed using the Trench Former TF-14 Pre-Manufactured Forming System, manufactured by ABT, Inc., PO Box 837, 259 Murdock Road, Troutman, NC 28166, (800) 438-6057.

TRENCH DRAIN FORMS: Fabricated of expanded polystyrene to provide dimensional accuracies within 1.5 mm (1/16 in.). Forms establish coplanar relationship between opposing trench rails for precise grate width dimension. Forms: 2.4 m and 1.2 m (8 and 4 ft.) forming 305 mm (12 in.) wide, radiused bottom trench with 350 mm (14 in.) wide grate seat, with integral slope of 1.04% (⅛ in. per ft.), or non-sloping as indicated with full length deforming grooves to assist in easy form removal, and top groove for 50 x 100 mm (2 x 4 in.) alignment members.

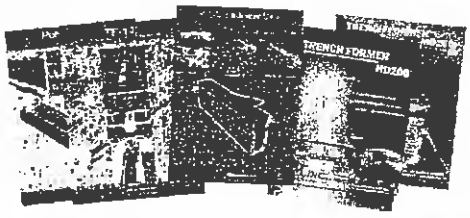
TRENCH RAILS: Structural steel angle 125 x 45 x 4.5 mm (1¾ x 1¾ x 3/16 in.) including concrete anchors at 250 mm (10 in.) centers. Provide all rail ends with means for precision alignment with adjacent rail ends. Provide U shaped anchoring legs allowing for formwork assembly to be anchored to earth without penetrating subgrade and to assure that formwork will not float during concrete placement. Provide tie wires that assure consistent rail spacing and grate seat dimension.

GRATES: TF-14 part # ____ fabricated of _____, meeting minimum load class of _____. Grates locked down to steel angle rail with appropriate locking device assembly. Provide locks, offering security and safety while providing an obstruction-free trench.

Oil Water Separator

PRODUCT: Oil Water Separator formed of cast-in-place concrete using pre-manufactured forming system manufactured by ABT, Inc. PO Box 837, 259 Murdock Road, Troutman, NC 28166, (800) 438-6057.

OIL WATER SEPARATOR: Size 600 (600) (1200) liter (150, 300, 320 Gal) holding capacity with maximum depth of 1200 mm (48 in.). Provide with full width overflow weir for laminar fluid flow at maximum separation efficiency. Provide unit with oil level inspection tube, all internal piping, and optional geomembrane liner for secondary containment of contaminates. Provide steel rails with integral anchoring legs for securing formwork assembly to earth without penetrating subgrade. Provide steel plate covers for: pedestrian or AASHTO H-20 loading as required. Provide covers which lock down to rails for security and safety.



Other quality drainage products by ABT, Inc.

ABT, INC.

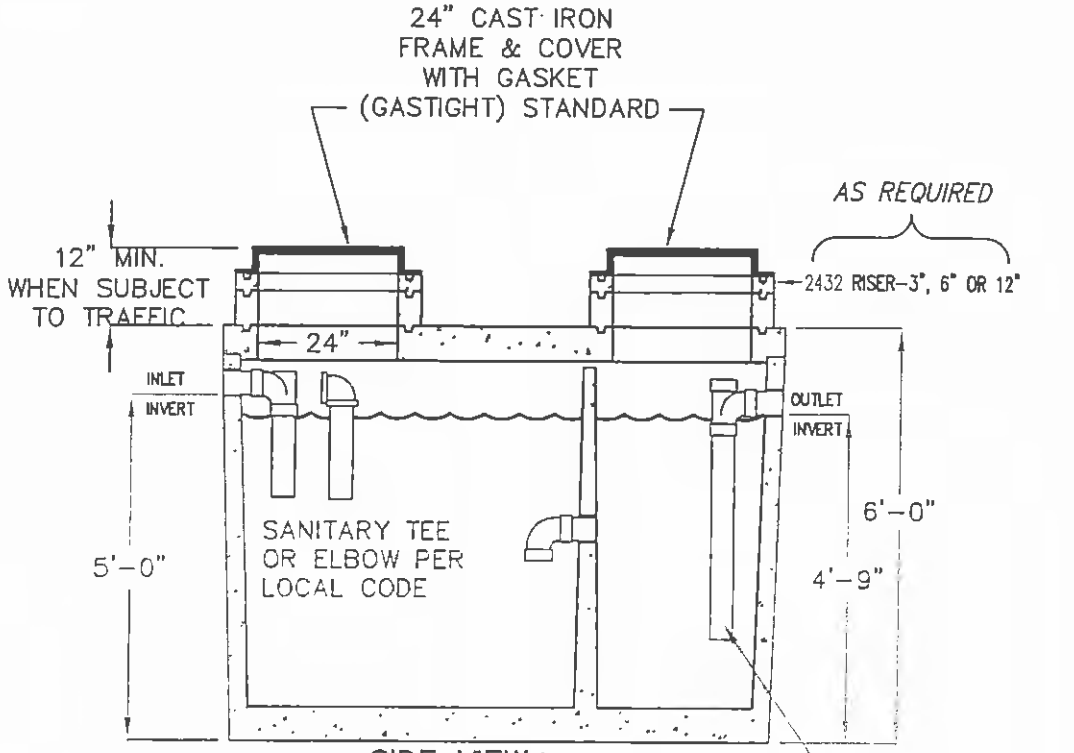
PO Box 837 • 259 Murdock Road • Troutman, NC 28166 • TEL 704-528-9806 • FAX 704-528-5478
Toll Free 800-438-6057 • Email sales@abtdrains.com • www.abtdrains.com

Sand-Oil Separator Details

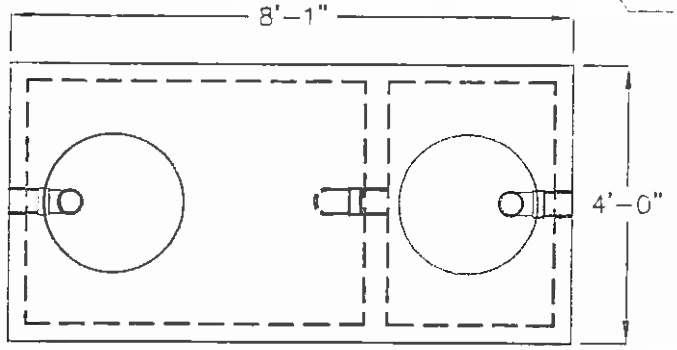
750 GALLON
SAND-OIL INTERCEPTOR

MODEL JP750SO

TRAFFIC RATED ACCEPTED BY UPC.



SIDE VIEW (CUT AWAY)



TOP VIEW
(COVERS & RISERS REMOVED)

- LIQUID CAPACITY: 750 GALLONS.
- TANK DESIGNED FOR H-20 TRAFFIC WHEEL LOAD WITH DRY SOIL CONDITIONS (WATER TABLE BELOW TANK) EARTH COVER OVER TANK NOT TO EXCEED 6 FT.

MINIMUM EXCAVATION SIZE:
5'-0" X 9'-1" X DEPTH REQ'D.

- SUITABLE NATIVE OR SUB-BASE SHALL BE PREPARED TO HANDLE ANTICIPATED LOADS. THE EXCAVATION SHALL BE BEDDED WITH SUITABLE GRANULAR MATERIAL AND SHALL BE COMPACTED TO 90% MAXIMUM DRY DENSITY, OR TO REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER.
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

10-01-03
750SO_JP-W.dwg

JENSEN PRECAST

SAND / OIL INTERCEPTOR
INSTALLATION POLICY AND PROCEDURE

GENERAL INSTALLATION POLICY INFORMATION

The policy contained herein describes specific policy information and purchaser requirements for sand / oil interceptors. Other Jensen Precast company policies, including shipping, terms and conditions, ordering instructions, and others also apply. Contact Jensen Precast for complete information.

In general, Jensen Precast provides delivery and setting of the interceptor and sealing of the tank components in accordance with the provisions of this policy. In a situation where our truck cranes cannot set the tank(s) for whatever reason, we will provide a representative to supervise in the proper setting of the interceptor and then seal the components as specified herein.

Jensen Precast accepts responsibility for proper setting, assembly, and sealing of the tank when installed or supervised by Jensen Precast or an authorized representative. A sand/oil interceptor handled, moved, or installed without Jensen Precast supervision, nullifies the responsibility of Jensen Precast.

NOTE: Failure to follow proper installation procedures may result in structural damage to the system or compromise its functional design.

EXCAVATION AND SITE PREPARATION

The sand / oil interceptor must be set on a properly prepared base to insure against movement of either the tank or the inlet and outlet lines. The excavation shall be the proper width and length to accept the model selected and shall have enough extra width and length to allow for safe installation and sealing of thecomponents. Suitable native soil or sub-base shall be prepared to handle anticipated loads.The excavation shall be bedded with suitable granular material and shall be compacted to 90% maximum dry density, or to the requirements of the project geotechnical engineer. The bottom of the excavation shall be graded level.

On battery tank systems with capacities in excess of 5,000 gallons, redwood grade boards shall be used to insure a level and stable tank joint. A minimum of two 2" x 6" grade boards, laid flat, running the full length of the main tank directly under the outside walls shall be used. The top of compacted fill material shall match top of redwood grade boards prior to setting the tank(s).

The owner, customer, contractor, or others shall be responsible for the following:

1. Providing a properly prepared, sized, and graded excavation.

2. Providing job site safety, shoring, water and or flotation control.

3. Providing base preparation, compaction and grading.

4. Supplying and installing redwood grade boards under battery interceptors.

5. Completing the entire installation and all other site work not specified herein.

SETTING AND INSTALLATION

Jensen Precast requires assistance from the customer or contractor in setting, sealing, and placing the tank (generally one or two laborers). Access and setting location for our boom truck or other equipment must be acceptable to our driver or representative. Tanks 4000 gallons and larger require extreme caution due to the weight of the product. There may be situations where an outside crane may be needed to set the product. Contact Jensen Precast for details.

Since site conditions, products, and delivery equipment vary tremendously, the logistics must be carefully considered to determine the best possible approach for setting. including but not limited to:

1. The capacity of the Jensen Precast boom truck (truck crane) to be used.

2. The maximum product weight relative to the setting distance from the center of the crane to the center of the excavation which cannot exceed our truck crane's rated capacity.

3. The type of terrain, site slope, and ground conditions for outrigger footing.

4. The access route for boom truck or other equipment.

5. The overhead restrictions and other physical constraints.

ANY of the above could prevent Jensen Precast from setting the interceptor.

NOTE: If for any reason Jensen Precast cannot set the interceptor, Jensen Precast will not be responsible or charged for setting by any other means.

The owner, customer, contractor, or others shall be responsible for the following:

1. Finished grading, leveling and positioning of interceptor, and access openings.

2. Grouting, sealing, setting and adjusting of grade rings, risers, frames, covers, and all other hardware and appurtenances.

3. Supplying and installing inlet and outlet pipes.

4. Sealing above the top of the tank.

Any and all permits, licenses, tests, or approvals from any administrative authority, etc. that are required for installation of the sand / oil interceptor.

VENTILATION

The interceptor is vented as prescribed by the *Uniform Plumbing Code* (UPC) unless local regulations supercede. The tank is provided with inlet & outlet tees which allow gases to escape the tank atmosphere into the building plumbing / ventilation system. Failure to provide proper ventilation for the tank could result in an odor problem or in extreme cases siphoning into the sewer. Please consult the *Uniform Plumbing Code* and local regualtions for additional information.

TANK SEALING (BATTERY TANKS)

Jensen Precast will seal the tank only. The interceptor must be dry in order for the sealant to bond properly to the concrete. Once applied, the sealant must cure for a period of 24 hours before water testing. Jensen Precast is not resonsible for grouting or sealing of grade rings, risers, frames, and covers.

WATERTIGHT TESTING POLICY AND PROCEDURE

The tank must be tested to insure that the system as a whole is watertight. Watertight testing must be completed and approved after installation, but before the tank is put into service. All tanks of 2000 gallon capacity or greater and all battery tanks must be backfilled to the outlet pipe when water testing to levels up to the underside of the top slab. Backfilling is required on the larger tanks to support sidewalls. **Warning: Water testing tanks with a liquid capacity of 2000 gallons or greater without backfilling could result in structural damage.** If water testing above the top of any tank is required, please contact Jensen Precast.

WATER TESTING

Jensen Precast's standard tanks are designed to be watertight below the liquid operational level (invert of outlet pipe). The tank shall be filled to the operational liquid level with water and allowed to stand to achieve complete concrete absorption, then refilled to the same level. Once refilled, there shall be no measurable liquid loss in the following hour. (Ref. ASYM C-1227-02b 9.2.2). For areas requiring prevention of *inflitration* above the operational level, a tank with a sealed lid is required. Contact Jensen Precast for more details.

The owner, customer, contractor, or others shall be solely responsible for the following:

1. Conducting and approval of the water test.

2. Providing water and means to pump or evacuate water for testing or any subsequent retesting.

3. Sealing or testing grade rings, risers, covers, other openings, etc.

4. Any required sealing and testing of inlet and outlet pipelines.

Warning: Water tests conducted above the lid of the tank may have structrual implications. Any water test conducted 2 feet above the top slab of the tank could exceed the structural design of the tank. Contact Jensen Precast for complete details.

VACUUM TESTING

As an alternative to water testing, the contractor or customer may conduct a vacuum test to insure water tightness.

Vacuum testing methods should be approved and supervised by Jensen Precast. A vacuum test must be performed before the tank is backfilled. Vacuum testing a tank that has been backfilled could have structural ramifications.

Seal the empty tank and apply a vacuum of 4 in. (100 mm) of mercury. Hold the vacuum for 2 minutes. There should be no more than a 10% loss in vacuum at the end of 2 minutes. (Ref ASTM C-1227-02b 9.2.1)

The owner, customer, contractor, or others shall be responsible for the following:

1. Conducting and approving the vaccum test.

2. Providing a vacuum pump for testing or any subsequent retesting.

3. Sealing or testing grade rings, risers, covers, other openings, etc.

4. Any required sealing and testing of inlet and outlet pipelines.

PRECAUTIONARY NOTE

Interceptors, utility vaults, manholes, septic tanks, and other similar type enclosures are confined spaces and entry is not recommended as the atmosphere may be hazardous. If entry is necessary, enter only with the proper equipment and follow O.S.H.A. confined space entry procedures.

Jensen Precast recommends that all applicable O.S.H.A. recommendations are read and followed, including the current section on confined spaces and "Permit Required Confined Space".

This warning is presented for precautionary safety advise only. Owners, users, installers, contractors, etc. are responsible for safety on the job and O.S.H.A. compliance.

ACCEPTANCE

Jensen Precast's reponsibility for the sand / oil interceptor installation and sealing shall be considered finished and accepted once *any* of the following occurs:

1. The owner, contractor, customer, or engineer accepts the system.

2. A water or vacuum water tightness test has been completed and satisfactorily passed.

3. The tank has been covered or backfilled.

4. Thesand / oil interceptor has been placed in service.

5. The safety conditions on the job site are not acceptable to Jensen Precast or its authorized representative.

6. Failure or gross neglect in following the instructions contained herein

BACKFILLING

Failure to comply with proper backfill procedures could result in structural damage or leakage from pipe connections, or tank, due to settling, point loading, inpacting, etc. Backfill shall be suitable material and shall be laid in lifts and adequately compacted from bottom to top to prevent movement or settling under the pipe or fittings.

JENSEN PRECAST SAND / OIL INTERCEPTOR OPERATION AND MAINTENANCE

There are no moving or mechanical parts in a sand / oil interceptor, so there is nothing that needs to be done operationally once the unit has been installed and hooked up. There is, however, a very important maintenance function that must be performed periodically to insure efficient operation of the interceptor.

Sand / oil intereptors must be cleaned regularly. The frequency waste removal is dependent upon the capacity of the Interceptor and the quanity of sand / oil in the waste water. The removal and disposal of this material should be done by a professional pumping contractor that is trained and licensed in this field of expertise.The frequency of cleaning is dependent on the loading. The higher the concentration of waste discharged to a sand / oil interceptor, the more frequently it needs cleaning. Sand / oil intercpetor cleaning will range somewhere from 30 days to every 12 months. On a new installation the first cleaning should be done at 90 days to help establish the cleaning frequency. If cleaning is needed more frequently than every 90 days, the sand / oil interceptor is probably too small. Oversizing the size of the interceptor can reduce the required cleaning frequency. The frequency of cleaning at any given installation can best be determined by experience based on observation. Generally, cleaning should be done when 50% of the sand / oil retention capacity has been reached. This level can be determined by removing the inlet side manhole cover, and using a probe, determing the depth of sand / oil build up.

Regular cleaning at prescriped intervals is necessary to maintain the efficiency of an interceptor. After the accumulated sand / oil and waste material have been removed, the interceptor should be checked thoroughly to make certain that the inlet, outlet and air relief ports are clear of obstructions. Backups prior to scheduled maintenace intervals indicate a clogged system, which could result in surcharge. Also, the performance of the interceptor becomes impaired as sand / oil and other materials accumulate because of reduced retention time, resulting from less interceptor volume. The maintenance frequency should be reevaluated on any system that has clogged. Changes in effluent input quanity and quality are not unusual in comercial and industrial installations. Consequently, reevaluations of maintenance frequencies are common practice for the pretreatment of oil-laden wastewater.

Disposal of Intercepted Materials: Sand / oil and other waste matter that has been removed from the interceptor should not be introduced into any drain, sewer, stormdrain or natural body of water. All material should be disposed of according to local regulations. Contact your city official for information.

Green Roof Construction Details with Letter Regarding Roof Structure

LIVING ROOF PROFILE OPTIONS

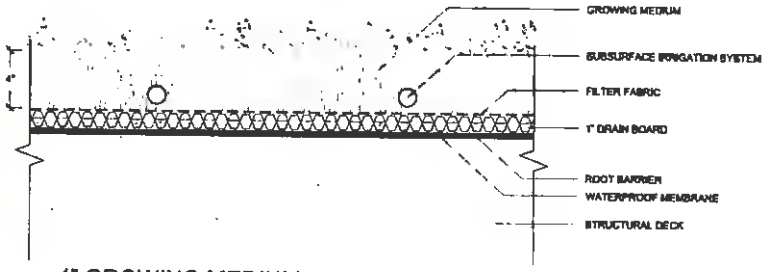
SUCCULENT LIVING ROOF

This minimal approach to a living roof, referred to as extensive, low-profile, or eco-roofs, contains 5 inches or less of lightweight growing medium which limits plant selection to low-growing, succulent vegetation. This profile is not intended to be designed for occupancy. The growing medium mix should contain a relatively low level of organic matter as required to support most succulents. Irrigation, fertilization, and weeding will be required for plant establishment, however a permanent irrigation system may not be necessary depending on location, plant selection, and the understanding that in dry summers the living roof plants will "brown-out", reviving once the rainy season begins. Preplanted trays are not recommended. Roof load range: 30 - 34 lbs./sq. ft.

Dudleya cymosa

29 Garden St, Harvard University, Cambridge, MA
10,000 SF

Metro Health Hospital, Wyoming, MI 48,500 SF



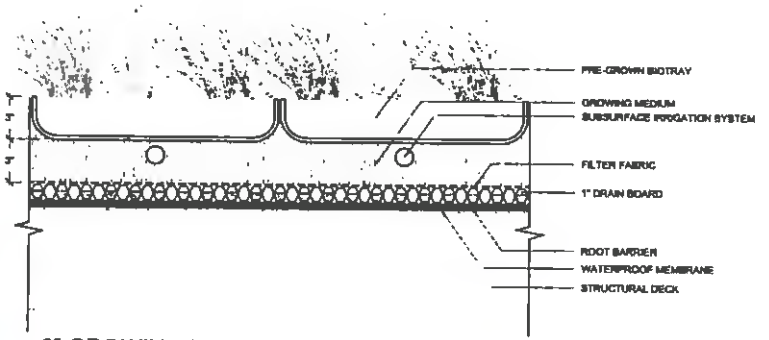
4" GROWING MEDIUM

SHORT GRASS & PERENNIAL LIVING ROOF

This 6 inch living roof profile is capable of supporting low-growing grasses and low-growing perennial vegetation. Lightweight growing medium mix and plant selection can vary to achieve aesthetic goals while meeting the available roof load. Irrigation, fertilization, and weeding will be required for plant establishment, however a permanent irrigation system may not be necessary depending on location, plant selection, and the understanding that in dry summers the living roof plants will "brown-out", reviving once the rainy season begins. In a non-irrigated senario, additonal re-seeding may be desired based on the intensity of the dry summer. Plants can be pre-grown in trays. The level of maintenance is dependent upon final design, with minimum efforts at two maintenance days per year. Roof load range: 43 - 48 lbs./sq. ft.

California Academy of Sciences, San Francisco, CA 197,000 SF, 6 inches

The Nueva School, Hillsborough, CA 10,075 SF, 6 inches



6" GROWING MEDIUM

rana creek
LIVING ARCHITECTURE

LIVING ROOF PROFILE OPTIONS

TALL GRASS & PERENNIAL LIVING ROOF

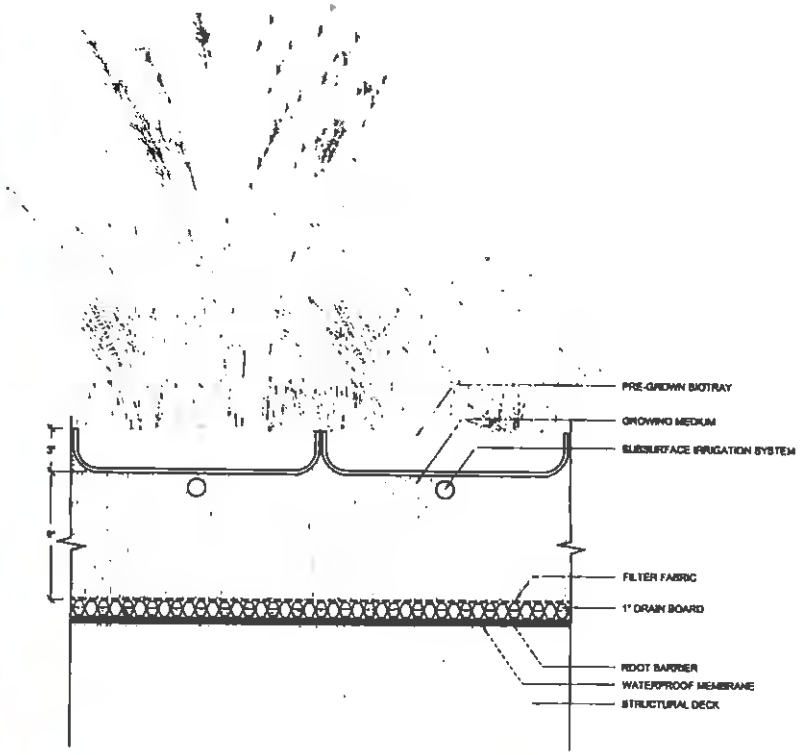
This living roof profile is referred to as intensive or high-profile since it contains a deeper soil depth, thus supporting a variety of plant species. It is about 12 inches deep and capable of supporting low-growing grasses, perennial vegetation, and semi-woody groundcovers. It also presents an opportunity to be designed and engineered as an accessible roof garden. Lightweight growing medium mix and plant selection can vary to achieve aesthetic goals and habitat potential, while meeting the available roof load. Irrigation, fertilization, and weeding will be required for plant establishment, however a permanent irrigation system may not be necessary depending on location, plant selection, and the understanding that in dry summers some living roof plants may "brown-out", reviving once the rainy season begins; re-seeding maybe desired based on the intensity of the dry summer. With a non-irrigated scenario, the living roof should experience less "brown-out" than with extensive living roof system, due to the deeper soil profile, thus increasing soil moisure, and the variety of plant species available that withstand dry summers. Plants can be pre-grown in trays. The level of maintenance is dependent upon final design, with minimum efforts at two maintenance days per year. Roof load range: 82 - 90 lbs./sq. ft.

The Gap Headquarters, San Bruno, CA 69,000 SF 8-10"

ASLA Headquarters, Washington DC 3000 SF, 6-24 inches

Washington Mutual Center, Seattle, WA 20,000 SF

Chicago City Hall, Chicago, IL 20,300 SF, 4-18 inches



12" GROWING MEDIUM

rana creek
LIVING ARCHITECTURE

LIVING ROOF PROFILE OPTIONS

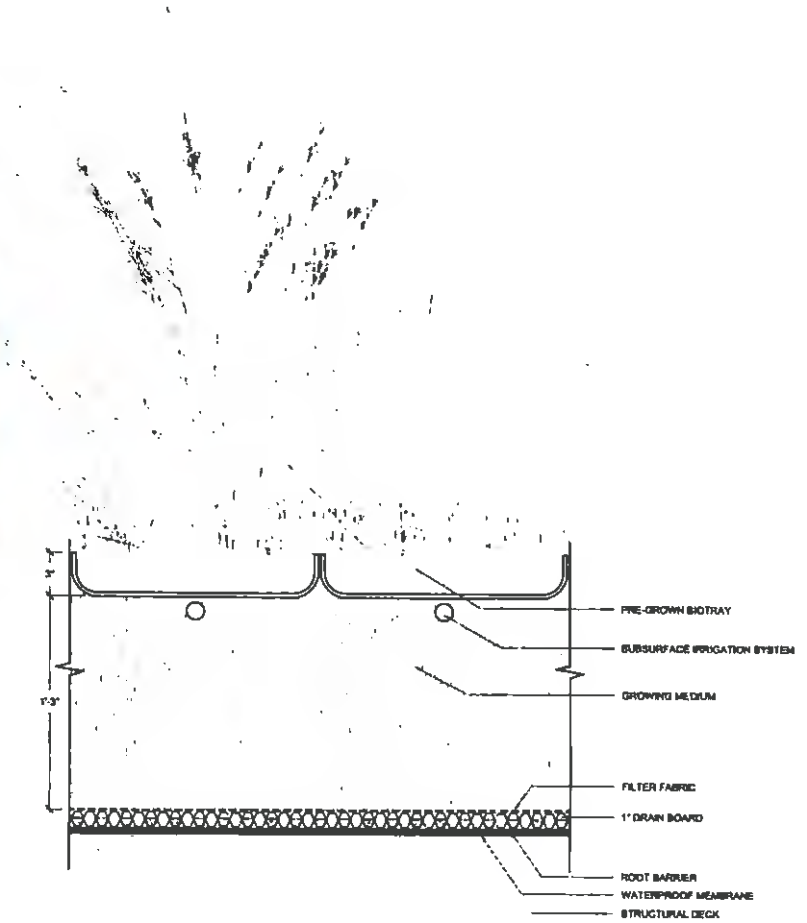
TALL GRASS, PERENNIAL, & SHRUB LIVING ROOF

This intensive or high-profile living roof profile is deeper, being 18 inches. It creates possibilities for small shrubs, perennials and grasses, minimal land forms, different soil types, and somewhat weight intensive design elements such as small rocks, small snags, and minor art installations. It also presents an opportunity to be designed and engineered as an accessible roof garden. Light-weight growing medium mix and plant selection can vary greatly to achieve aesthetic goals and habitat potential, while meeting the available roof load. Irrigation, fertilization, and weeding will be required for plant establishment, however a permanent irrigation system may not be necessary depending on location, plant selection, and the understanding that in dry summers that some living roof plants may "brown-out", reviving once the rainy season begins; re-seeding maybe desired based on the intensity of the dry summer. With a non-irrigated senerio, the living roof should experience less "brown-out" than with extensive living roof system, due to the deeper soil profile, this increasing soil moisture, and the variety of plant species available that withstand dry summers. Plants can be pre-grown in trays. The level of maintenance is dependent upon final design, with minimum efforts at two maintenance days per year. Roof load range: > 90 lbs./sq. ft.

The High Line, NYC 1.5 mile long

Augustenborg's Botanical Roof Garden, Malmö City, Sweden
102,300 SF

The Solaire, Battery Park, NY 9400 SF, 6-18 inches



18" GROWING MEDIUM

rana creek
LIVING ARCHITECTURE

LIVING ROOF PROFILE OPTIONS

TREE & SHRUB LIVING ROOF

This intensive or high-profile living roof profile is deeper, being over 24 inches. With a deeper profile along with a high roof load, shallow rooted trees, shrubs, perennials and grasses are possible vegetation choices. Along with integrating people, land forms, different soil types, and weight intensive design elements such as seat walls, trellis structures, rocks, snags, and art installations can be designed for the roof. Aesthetic and habitat goals are endless while meeting the available roof load. Irrigation, fertilization, and weeding will be required for plant establishment, similar to a landscape at grade situation. A permanent irrigation system is recommended, although some portions of the living roof may be suitable for a temporary irrigation system, used only for plant establishment. Groundcover and low growing plants can be pre-grown in biotrays. Trees and larger sized plant material will need to be planted and staked appropriately. The level of maintenance is dependent upon final design, with similar maintenance days efforts as a landscape at grade. Roof load range: > 100 lbs./sq. ft.

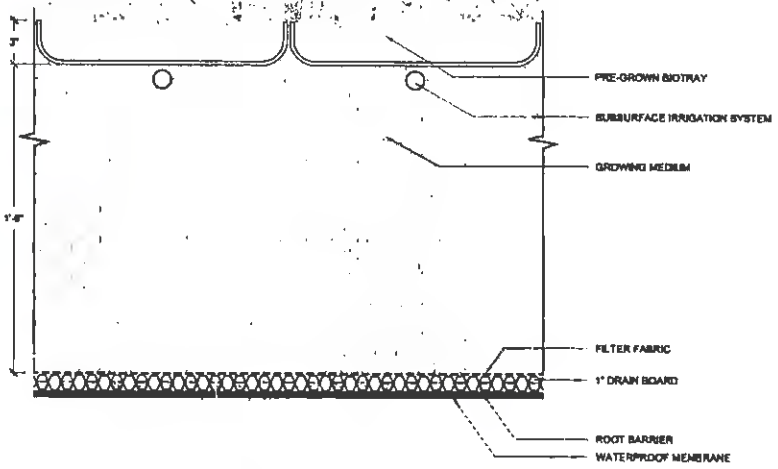
Augustenborg's Botanical Roof Garden, Malmö City, Sweden 102,300 SF

Macallen Building Condominiums, Boston, MA 31,000 SF, 6-60 inches

The High Line, NYC 1.5 mile long

Washington Mutual Center, Seattle, WA 20,000 SF

Transbay Transit Center, San Francisco, CA, 4.5 acre, 6-162 inches



> 24" GROWING MEDIUM

rana creek
LIVING ARCHITECTURE

Martin Parker

Subject: FW: Dana Point Hotel: Letter regarding roof structure

----- Forwarded Message ----
From: Bob Keeler <bkeeler@lw-oc.com>
To: ERICA DEMKOWICZ <EDEMKOWICZ@DanaPoint.org>
Cc: Simon Injev <simoninjev@yahoo.com>; michaeldraz@drazinvestments.com; BRAD FOWLER <bfowler@DanaPoint.org>
Sent: Mon, January 31, 2011 3:35:47 PM
Subject: RE: Dana Point Hotel: Letter regarding roof structure

Understood...

Robert D. Keeler, AIA, LEED™ AP BD+C
Senior Associate Partner
Langdon Wilson
Architecture•Planning•Interiors
18800 Von Karman Avenue, Suite 200
Irvine, CA 92612-1517
Tel:(949)833-9193
Fax:(949)833-3098
Cell:(949)378-3816
E-Mail: bkeeler@lw-oc.com


Please consider the environment before printing this e-mail

om: ERICA DEMKOWICZ [mailto:EDEMKOWICZ@DanaPoint.org]
Sent: Monday, January 31, 2011 3:33 PM
To: Bob Keeler
Cc: Simon Injev; michaeldraz@drazinvestments.com; BRAD FOWLER
Subject: RE: Dana Point Hotel: Letter regarding roof structure

Good Afternoon Bob,

The Director of Public Works has reviewed the letter relative to the green roof structure. The letter, as written, is acceptable. Please submit two (2) copies of a signed original to the City.

Thanks,
Erica

Erica H. Demkowicz, AICP
Senior Planner
City of Dana Point
(949) 248-3588
edemkowicz@danapoint.org

om: Bob Keeler [mailto:bkeeler@lw-oc.com]
nt: Thursday, January 27, 2011 5:28 PM
To: ERICA DEMKOWICZ

Cc: Simon Injev; michaeldraz@drazinvestments.com
Subject: Dana Point Hotel: Letter regarding roof structure

Erica,
Attached please find the letter you requested regarding the roof structure being designed to accommodate the Green Roof. Please confirm that this is what you are looking for. Also do I need to submit this letter with the re-submittal package or is this email all you need?
Thanks

Robert D. Keeler, AIA, LEED™ AP BD+C
Senior Associate Partner
Langdon Wilson
Architecture•Planning•Interiors
18800 Von Karman Avenue, Suite 200
Irvine, CA 92612-1517
Tel:(949)833-9193
Fax:(949)833-3098
Cell:(949)378-3816
E-Mail: bkeeler@lw-oc.com

Please consider the environment before printing this e-mail

LANGDON
WILSON
INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

Principals

J. Patrick Allen, AIA

Asad M. Khan

January 31, 2011

Kyle Butterwick
Director of Community Development
City of Dana Point
33282 Golden Lantern
Dana Point, CA 92629-1805

Reference: The Doheny Hotel
Dana Point, California
PA-09-0193 CDP-09-0011

Dear Kyle:

Per your request, we are writing you this letter regarding the structural design for the proposed hotel. At the appropriate time, as the project moves forward, the structure will be designed to accommodate the green roof gravity and lateral loads as well as those of the roof terrace, garden terrace and pool deck landscaping.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Robert D. Keeler, AIA LEED™AP
Senior Associate Partner
C-12940

Offices

Orange County

Los Angeles

Phoenix

Kuwait

18800 VonKarman
Avenue
Suite 200

Irvine, CA
92612

(949) 833-9193
FAX (949) 482-4654

J. Patrick Allen, AIA
Architect

Green Roofs BMP 18

Description

Green rooftops are veneers of living vegetation installed atop buildings, from small garages to large industrial structures. Green roofs help manage stormwater by mimicking a variety of hydrologic processes normally associated with open space. Plants capture rainwater on their foliage and absorb it in their root zone, encouraging evapotranspiration and preventing much stormwater from ever entering the runoff stream.

General Information

Green roofs provide an opportunity to mitigate the developmental impacts of construction practices by replicating the functions eliminated by the building footprint through the design of rooftops. Green roofs embody many environmental benefits, especially when applied to urban settings, where nature is at a premium. They can help restore the ecological value of open space to densely developed city centers

On-site stormwater retention and runoff control from expansive roof surface areas of buildings can be accomplished through green roofs. Green roofs reduce the volume of stormwater flowing into streams and drainage channels, resulting in the control of sediment transport and overall soil erosion.

Depending on rain intensity and green roof soil depths, between 15 to 90 % of the precipitation can be absorbed, thereby considerably reducing runoff and potential pollutants from traditional impervious roofing surfaces. Plants intercept and delay rainfall runoff and the peak flow rate, and eventually return water to the surrounding atmosphere by evaporation and transpiration. Average runoff absorption rates are between 50 and 60%.

The green roof concept is akin to the garden roofs found atop buildings worldwide, which are traditionally heavy and difficult to maintain,. Green roofs are the result of a complete underlying roof build-up system, providing continuous, uninterrupted layers of protection and drainage. Recent strides in technology have advanced the properties of green roofs, making them lighter, more durable and better able to withstand the extreme climatic conditions of the rooftop.

Green roofs are thoroughly engineered systems which address all the critical aspects of design, including: the saturated weight of the system and load bearing capacity of the underlying roof deck; moisture and root penetration resistance of the waterproofing membrane; resistance to wind shear; management of drainage; and the suitability of the proposed plant material.

All green rooftops include the following basic component layers, listed from the bottom up:

- Waterproofing and root barrier
- Insulation (optional)
- Drainage and filter layer

- Soil and plants

Green rooftops can be built in a variety of ways, but the simplest involves a relatively light system of drainage and filtering components and a thin layer of soil mix (2 to 4 inches), which is installed and planted with drought-tolerant herbaceous vegetation.

Vegetation is typically succulents, grass, herbs, and/or wildflowers adapted to harsh conditions (minimal soils, seasonal drought, high winds, and strong sun exposure – i.e., alpine conditions) prevalent on rooftops. Proven hardy green roof plants are the alpine types and those that can retain a certain amount of moisture within their leaves or bulbs. Other plants known to flourish in areas of high heat, drought, wind, direct sun, and temperature extremes should be particularly adaptable to the sometimes harsh conditions of a green roof. Some examples of species include: sempervivum, sedum, creeping thyme, allium, phloxes, and anntenaria. Most plants naturally occurring along county roads, expressways, abandoned sites, and similar sites, that do not receive irrigation would adapt well to the green roof environment.

Additional Resources

Environmental Building News, 2003. "A Garden Overhead: the benefits and challenges of green roofs", Vol. 10, No. 11, Special Reprint.

London Ecology, *Building Green: A Guide to Using Plants on Roofs, Walls and Pavements*

Peck, Steven W. *The Green Roof Infrastructure Monitor*. The Cardinal Group Inc. Available at Greenroofs website.

Additional information also available at Greenroofs website: www.greenroofs.com

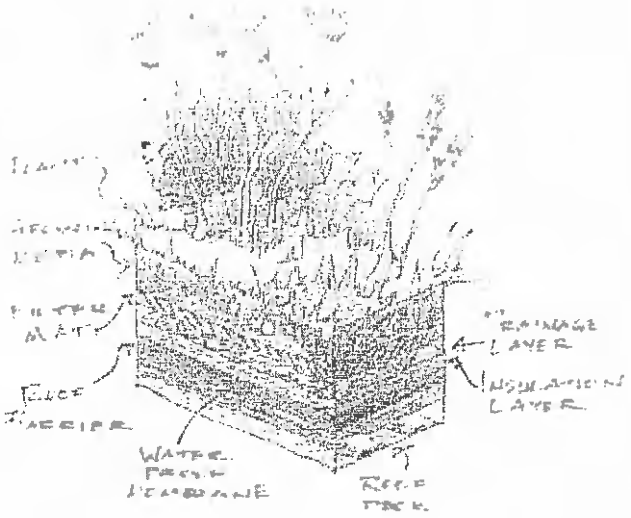
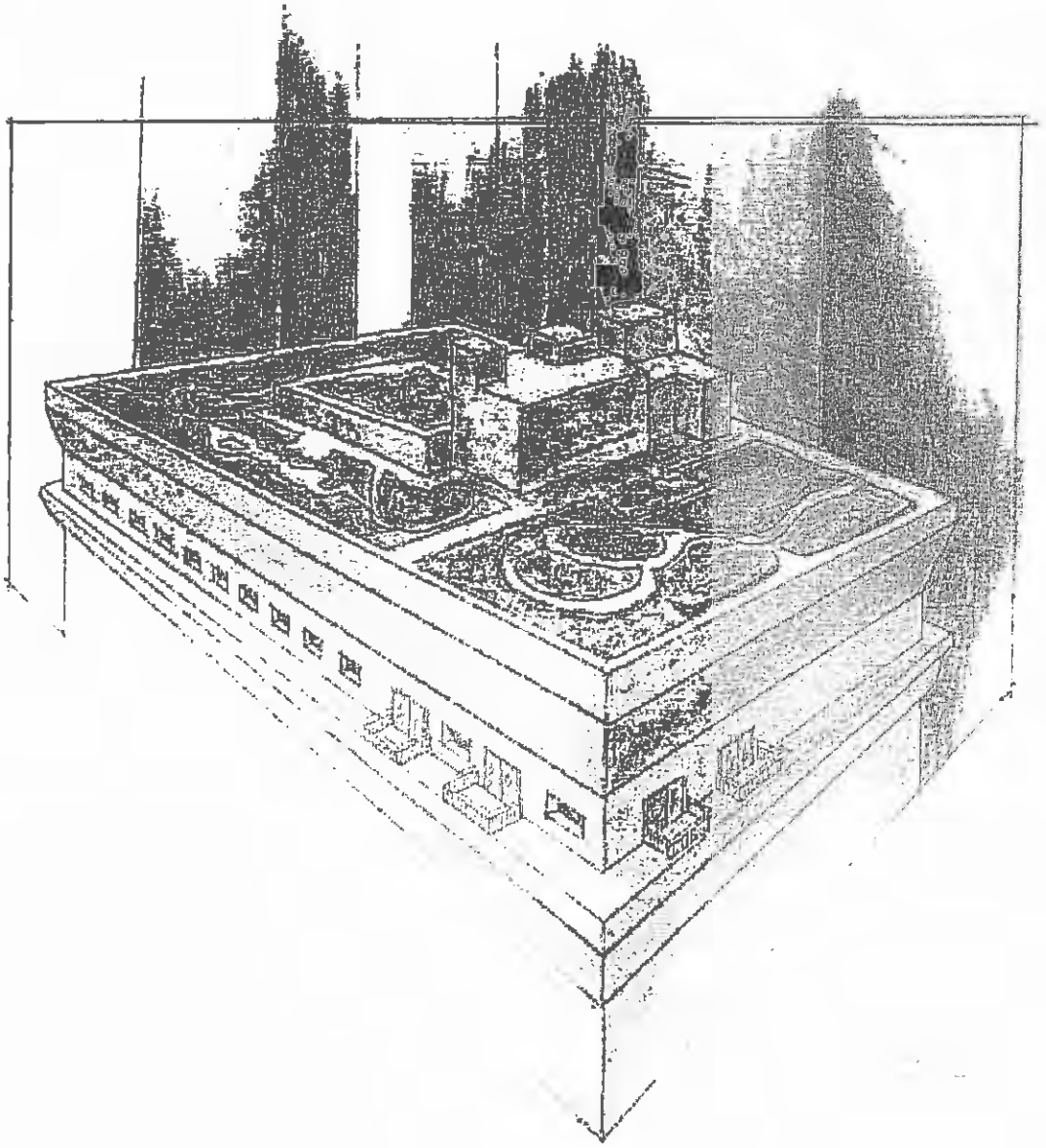


Figure 18-1. Green roofs

Figure 18-2. Green roofs



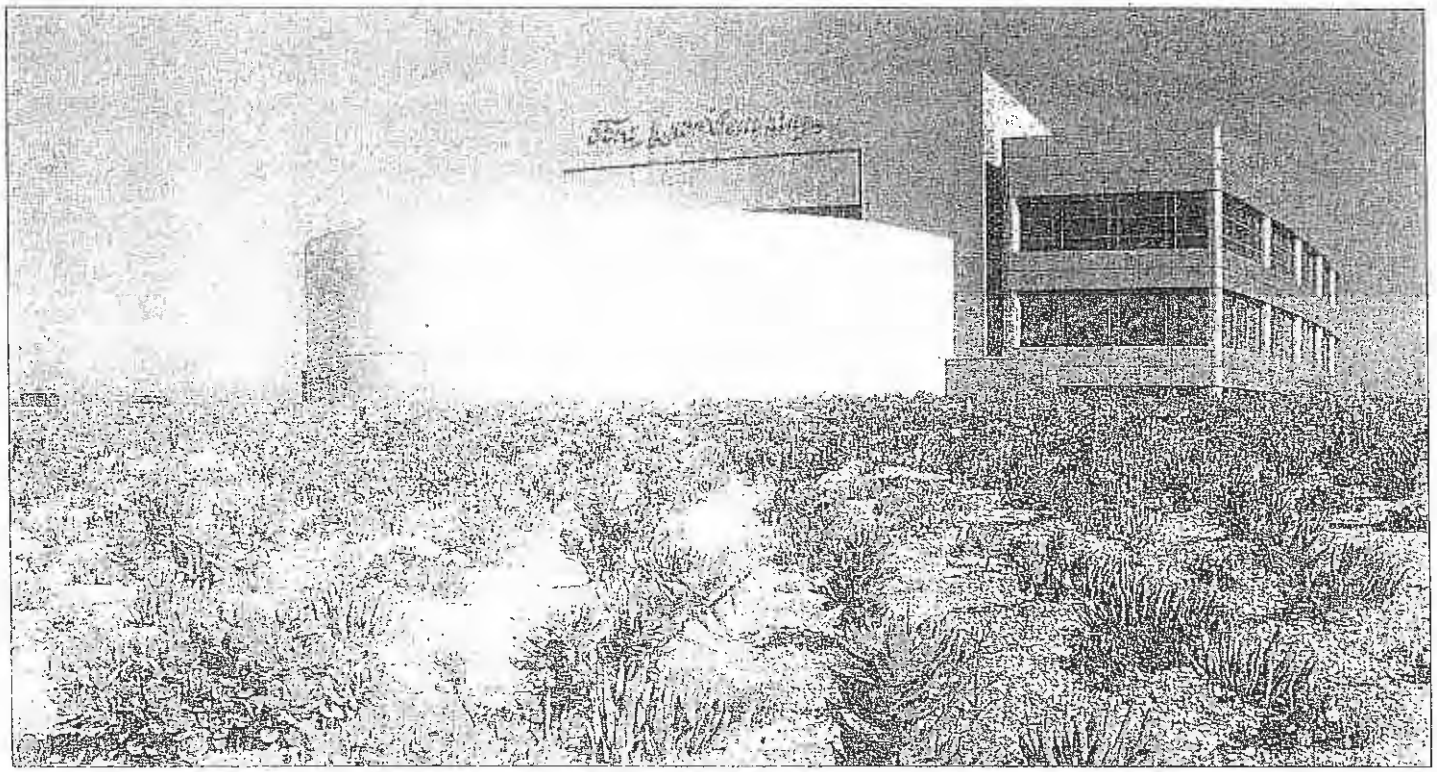


Photo courtesy of Ford Motor Co.

The roof of the Ford Motor Co. headquarters in Irvine is insulated with drought-tolerant vegetation.

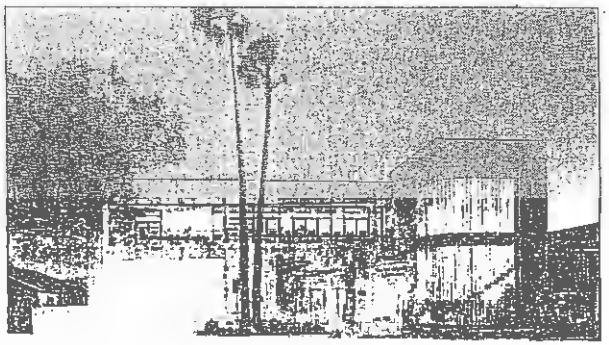
Green's Good for Bottom Line

Protecting the environment can boost profits, earn tax breaks

By DEBRA CANO RAMOS
Special Advertising Sections Writer

Commercial builders are catching on that "going green" is not just hip and good for the environment — it's good for business, too.

"I believe we are just at the beginning of the curve of going green in commercial as well as residential [projects] in Southern California," said Victor Borghese, property manager for Ford Land, which built Ford Motor Co.'s first building certified as green by the U.S. Green Building

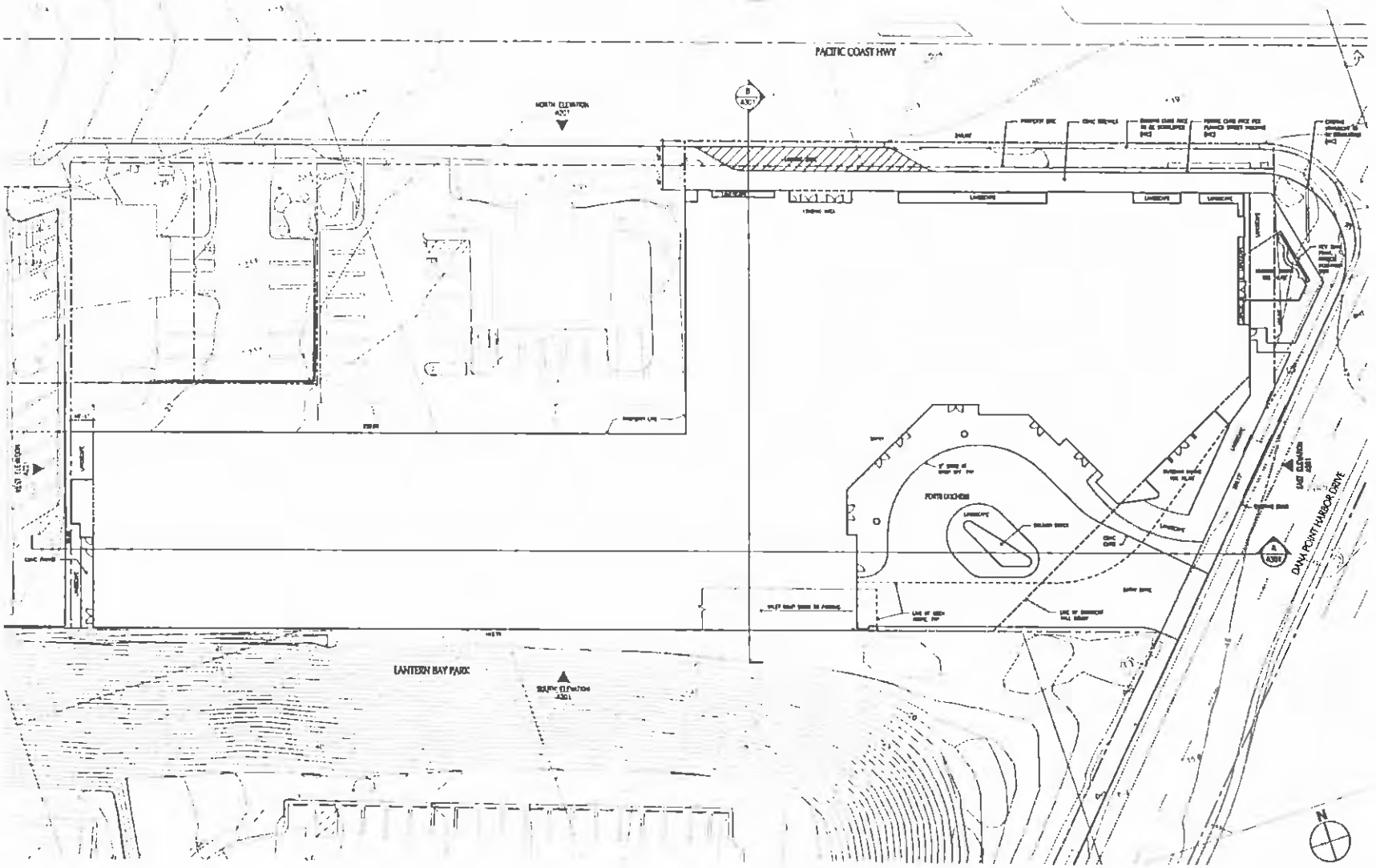


part of the company's corporate mission and that the sustainable building design made economic sense, too.

Another commercial green property is the 22,000-square-foot, two-story Tricom Building in Pasadena. Built by Yorkshire Development, which also occupies a portion of the building, the structure looks l conventional offices — but inside, employees can feel t difference.

Daylight pours through glass blocks, which also prev exterior heat from getting inside. Work areas offer exterior views and fresh air circulates throughout the

Preliminary Architectural Details and Cross-Sections of the Project Hotel Building



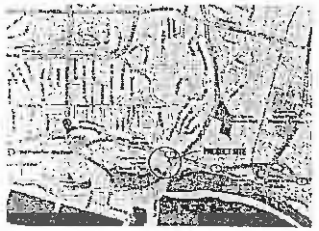
SITE PLAN

GROSS ENCLOSED AREA SUMMARY	
BASEMENT / PARKING	55 400 SF
1ST FLOOR	43 810 SF
2ND FLOOR	42 580 SF
3RD FLOOR	38 560 SF
4TH FLOOR	38 990 SF
5TH FLOOR	20 520 SF
TOTAL GROSS AREA	240 850 SF

GROSS DEVELOPMENT AREA	
POOL DECK (2ND FLR)	8,600 SF
CAFE/R TERRACE (3RD FLR)	1 750 SF
ROOF TERRACE (5TH FLR)	8,340 SF
GUEST ROOM MODULES	250
MEETING SPACE	10 750 SF
VALET PARKING	200 STALLS*

*NOTE: SEE PARKING SUMMARY ON SHEET A201

BUILDING AREA SUMMARY



VICINITY MAP

OWNER:	BEVERLY HILLS HOSPITALITY GROUP
PROJECT ADDRESS:	25325 DANA POINT HARBOR DRIVE DANA POINT, CALIFORNIA 92629
PLANNING ACTIVITY NUMBER:	PA-08-0133
COASTAL DEVELOPMENT PERMIT NUMBER:	CDP-08-0011

PROJECT INFO

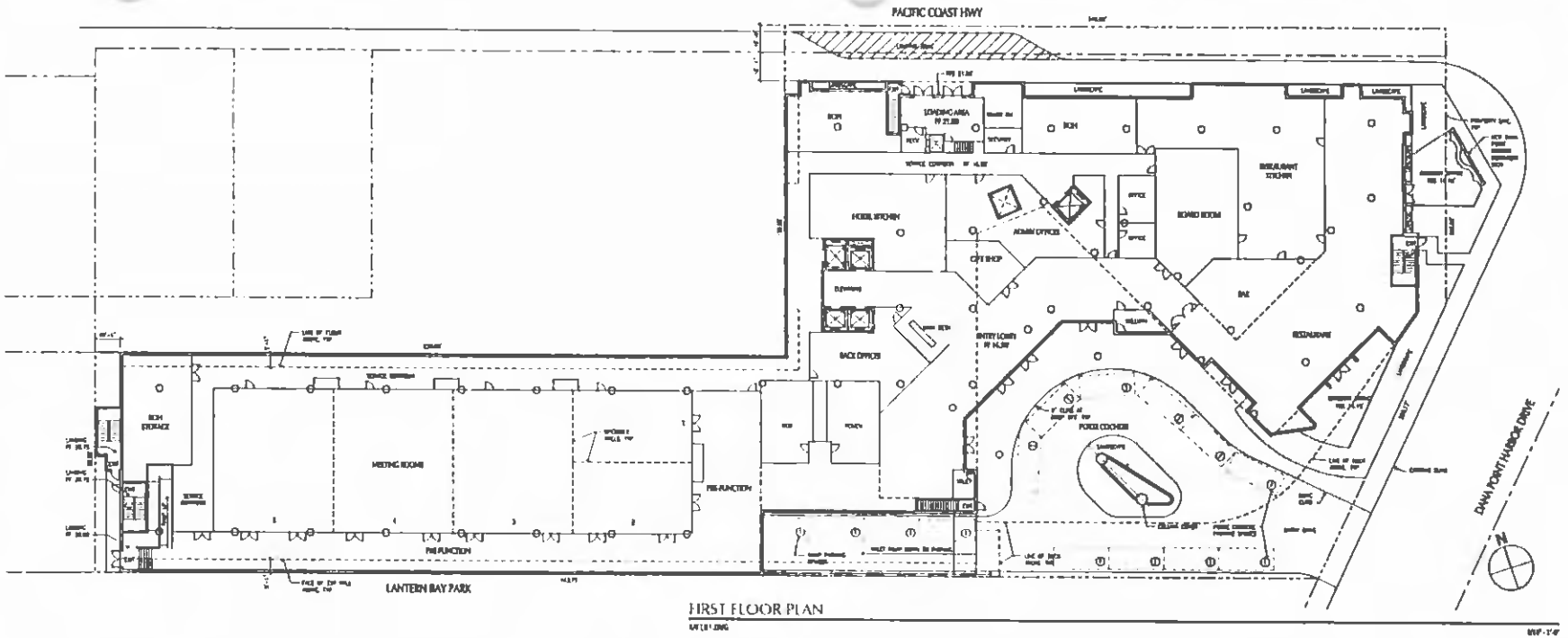
LANGDON WILSON INTERNATIONAL
ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

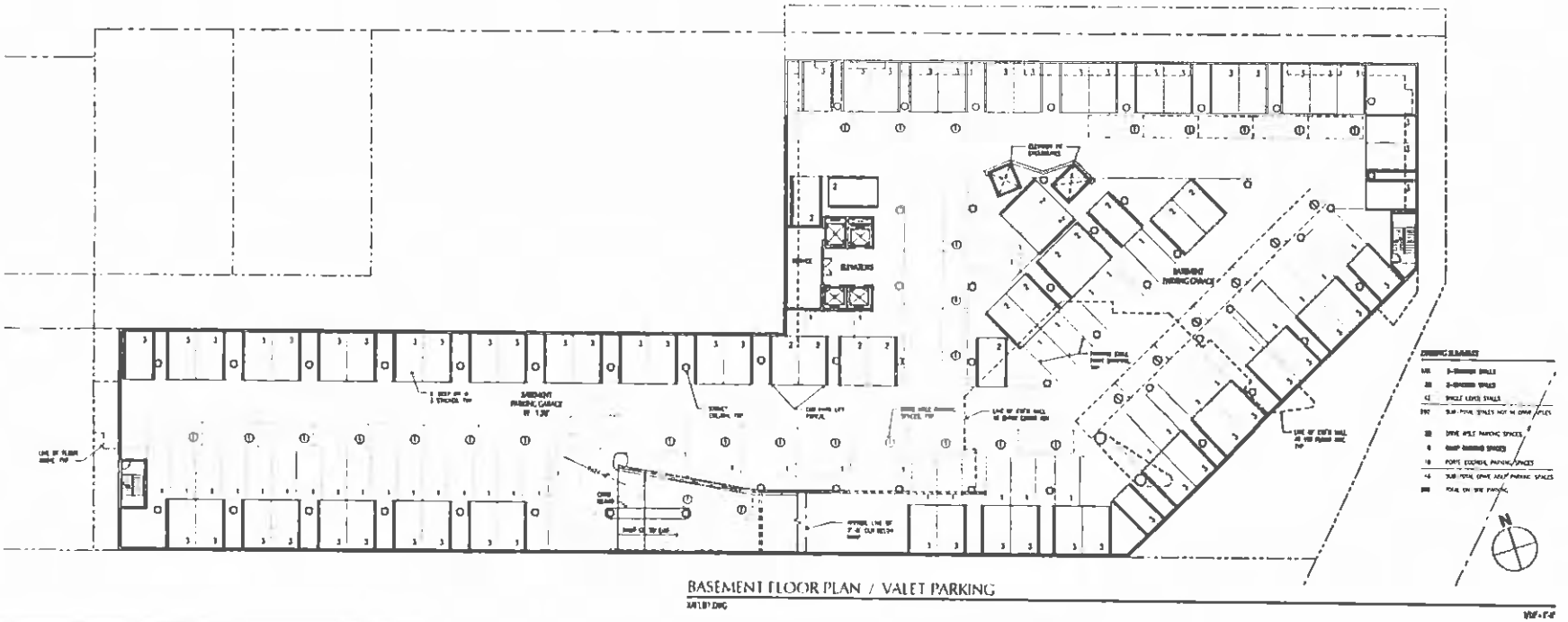
PRELIMINARY CONCEPT PLAN
THE DOHENY HOTEL
25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

SITE PLAN

A200



FIRST FLOOR PLAN



BASEMENT FLOOR PLAN / VALET PARKING

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

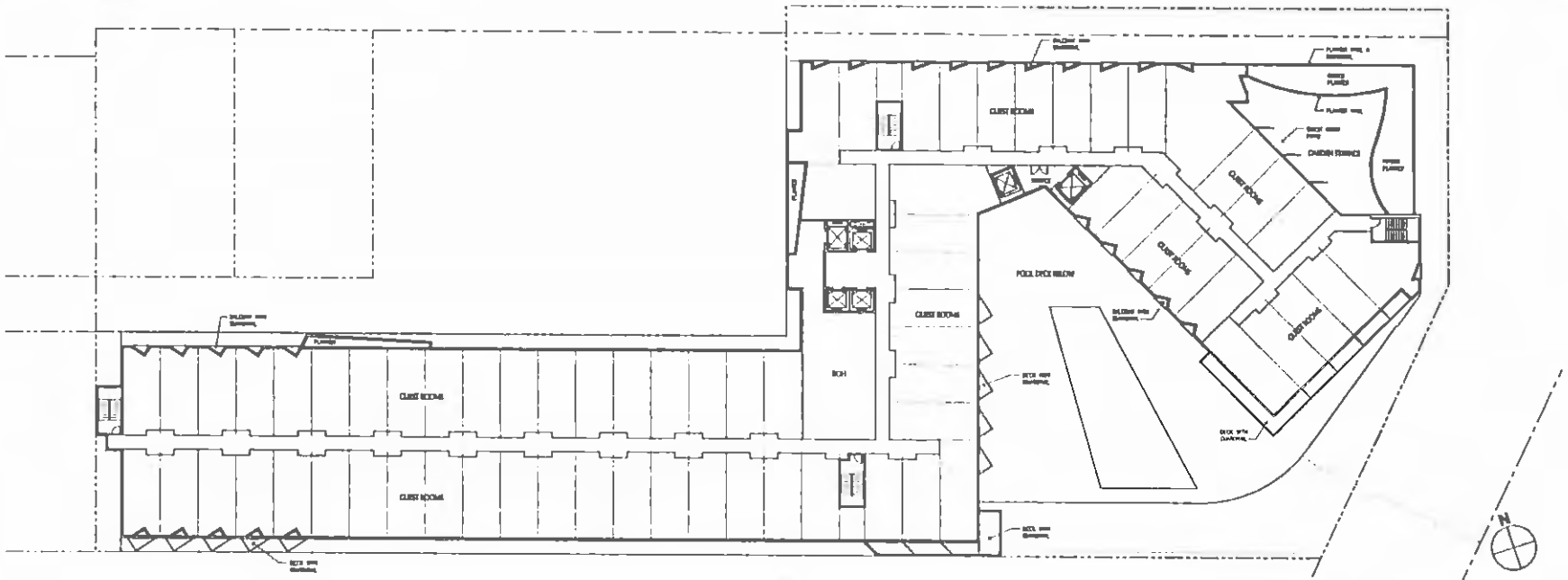
PRELIMINARY CONCEPT PLAN

THE DOHENY HOTEL

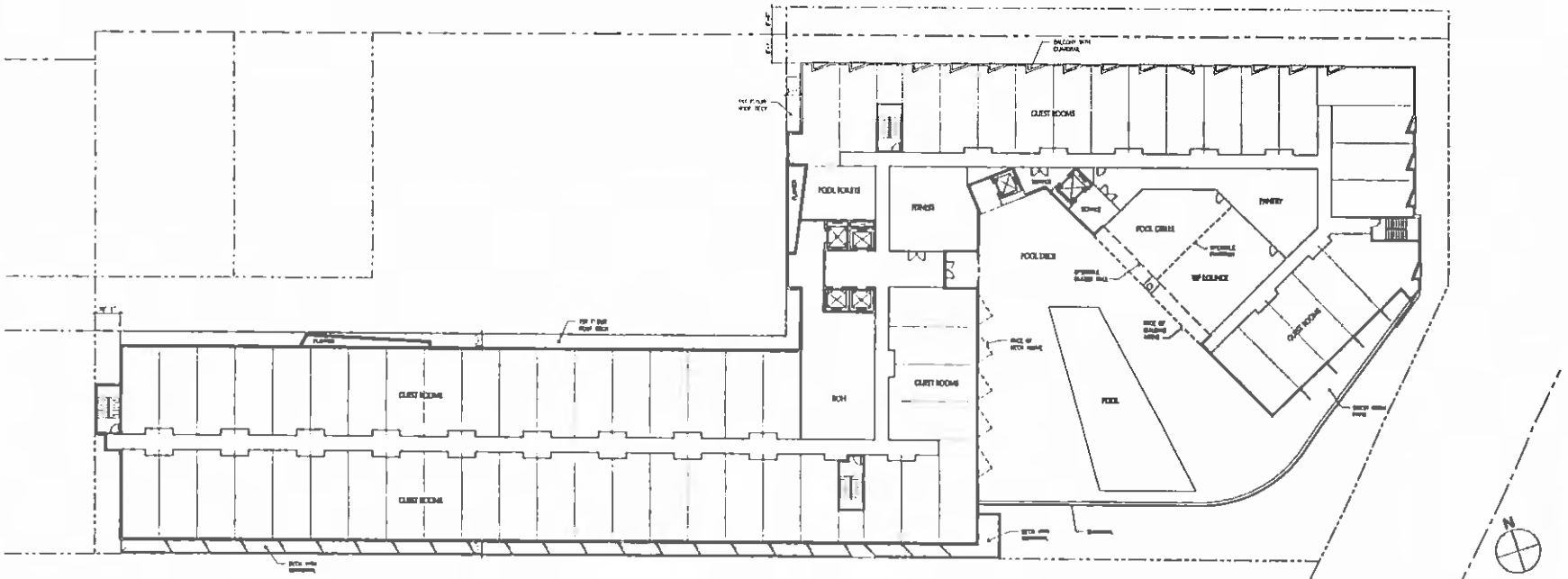
25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

BASEMENT & FIRST FLOOR PLANS

A201



THIRD FLOOR PLAN



SECOND FLOOR PLAN

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

PRELIMINARY CONCEPT PLAN

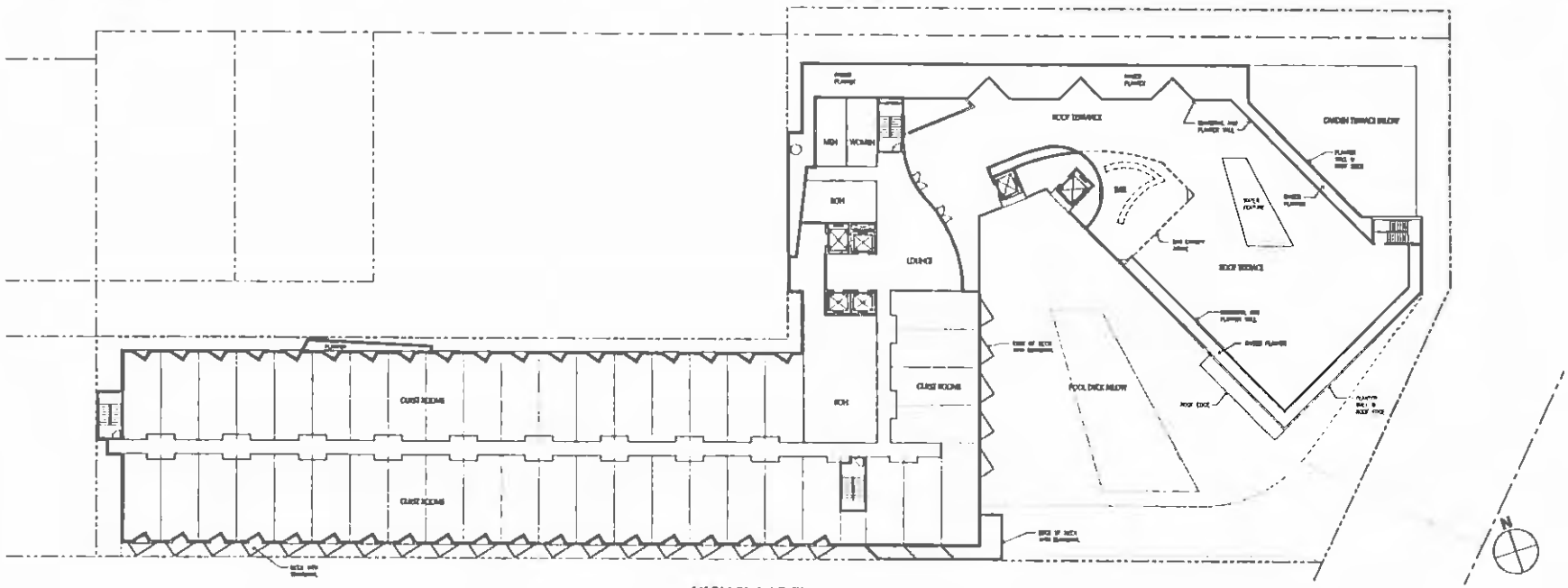
THE DOHENY HOTEL

25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

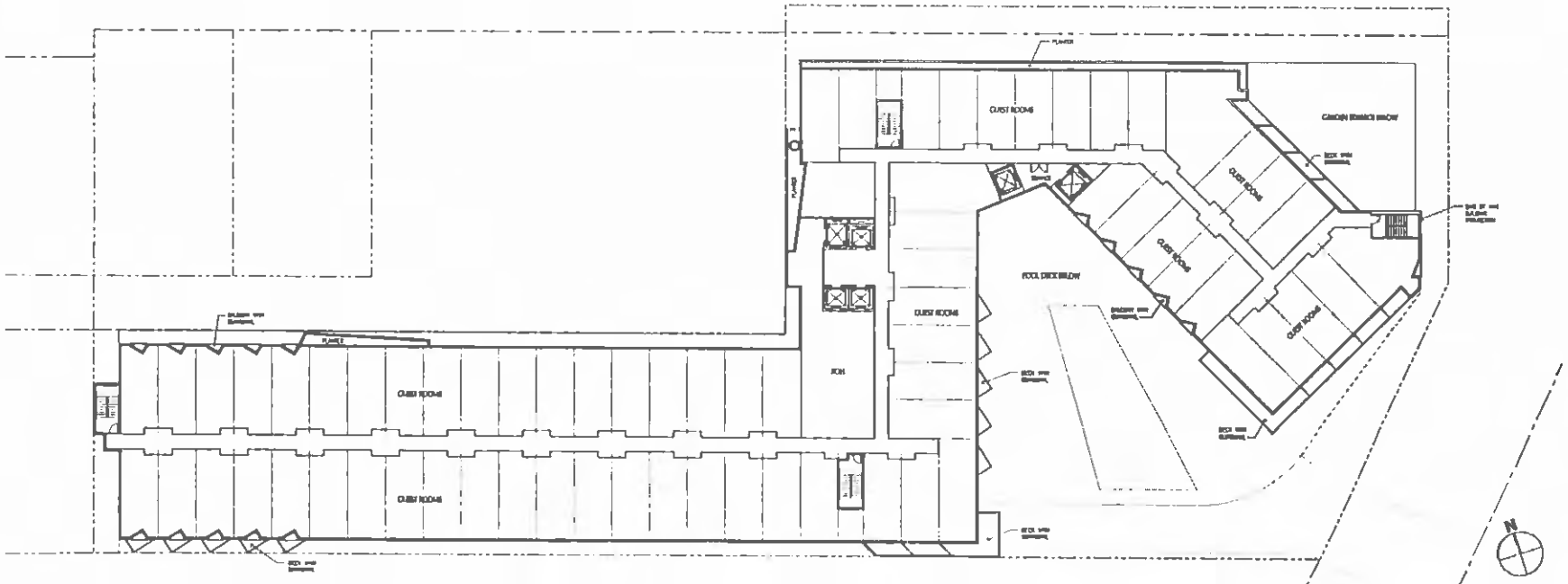
COASTAL DEVELOPMENT PERMIT APPLICATION

SECOND &THIRD FLOOR PLANS

A202



FIFTH FLOOR PLAN



FOURTH FLOOR PLAN

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

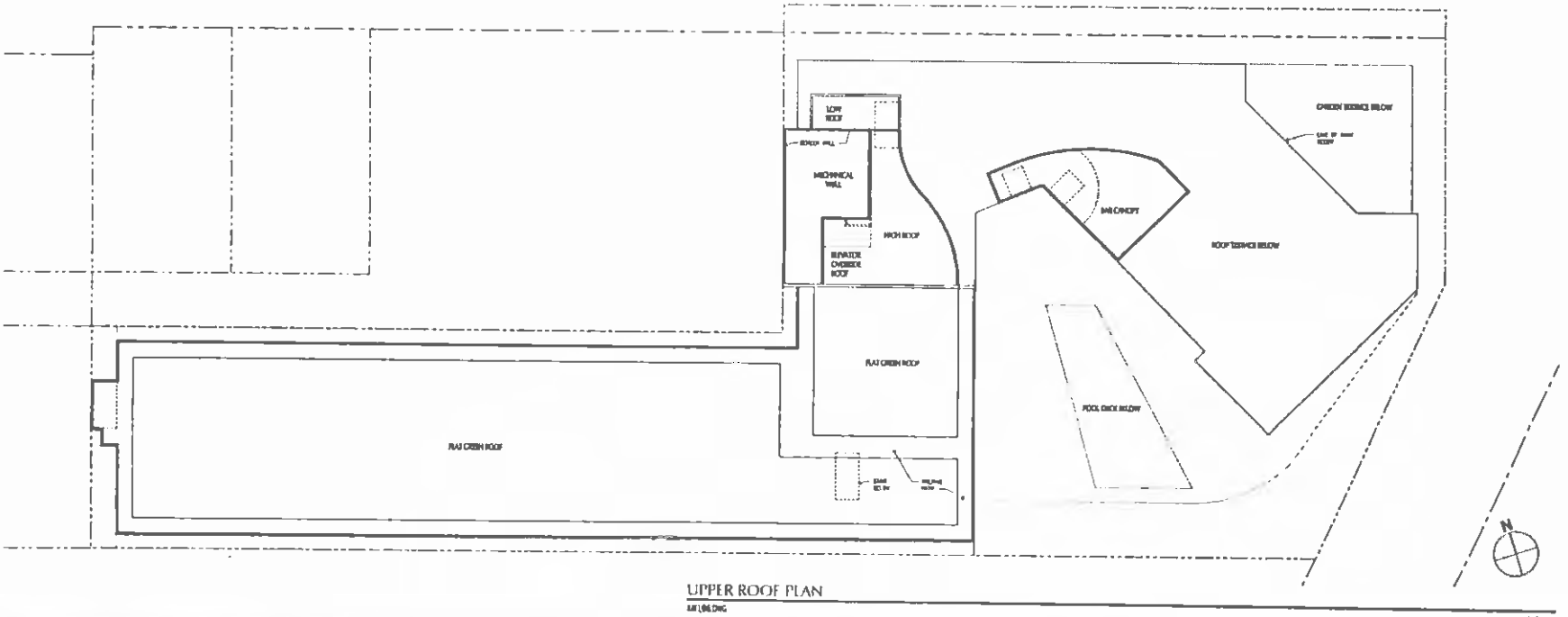
PRELIMINARY CONCEPT PLAN

THE DOHENY HOTEL

25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

FOURTH & FIFTH FLOOR PLANS

A203



UPPER ROOF PLAN

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

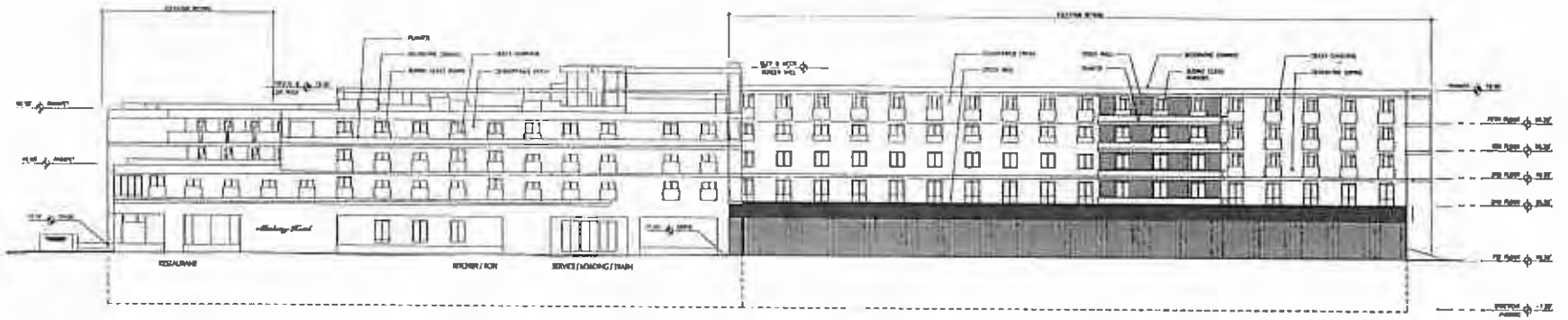
PRELIMINARY CONCEPT PLAN

THE DOHENY HOTEL

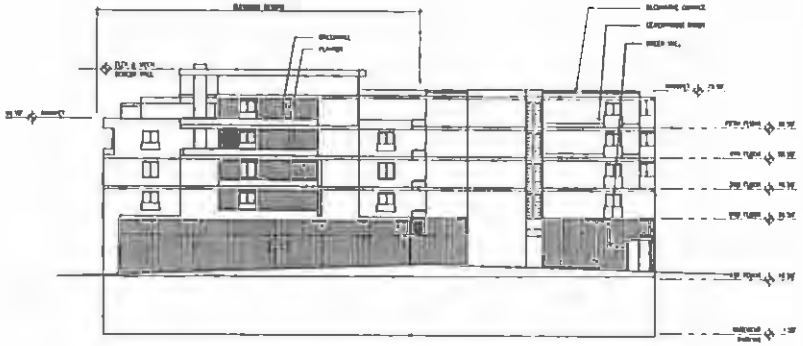
25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

UPPER ROOF PLAN

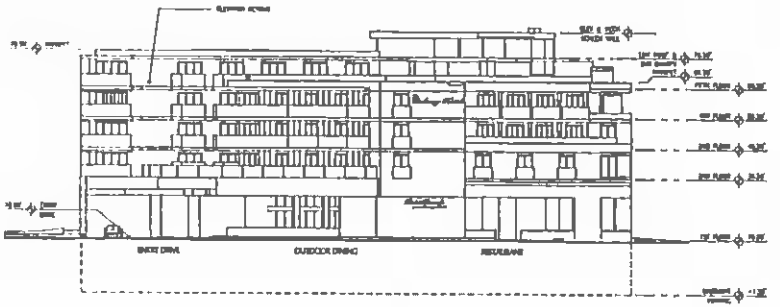
A204



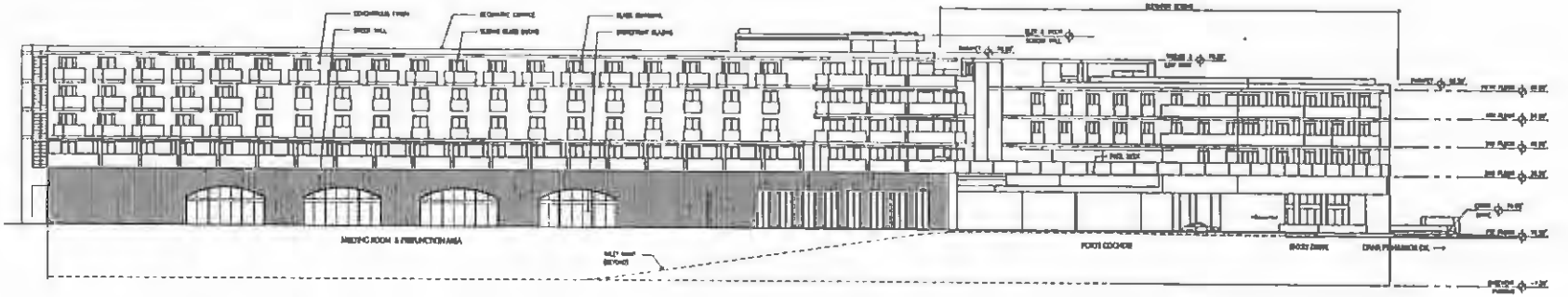
NORTH ELEVATION



WEST ELEVATION



EAST ELEVATION



SOUTH ELEVATION

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

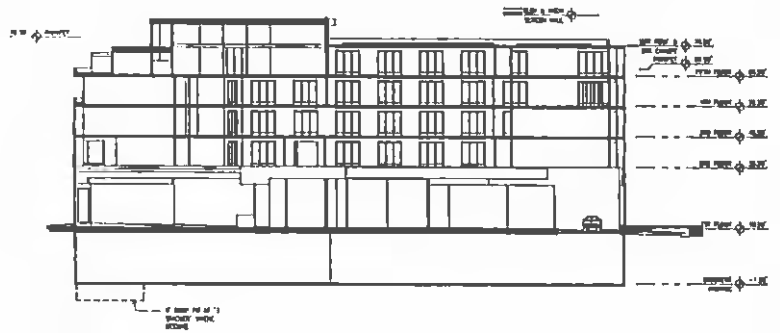
PRELIMINARY CONCEPT PLAN

THE DOHENY HOTEL

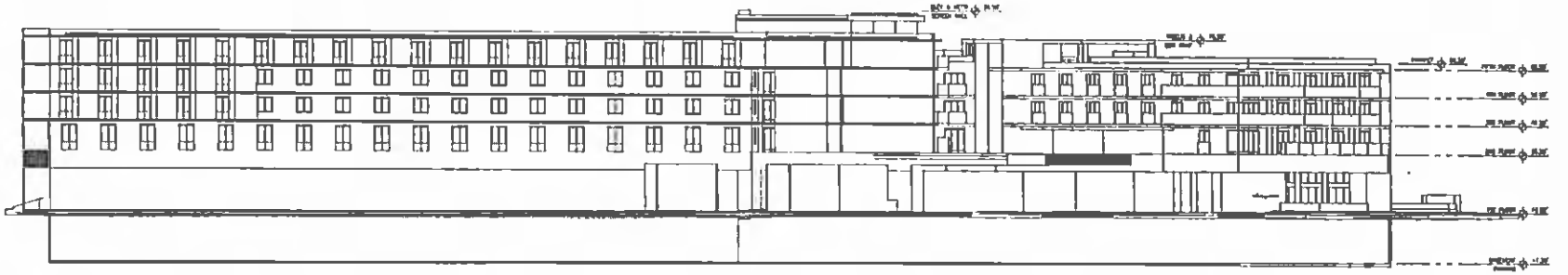
25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

EXTERIOR ELEVATIONS

A300



SECTION B



SECTION A

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

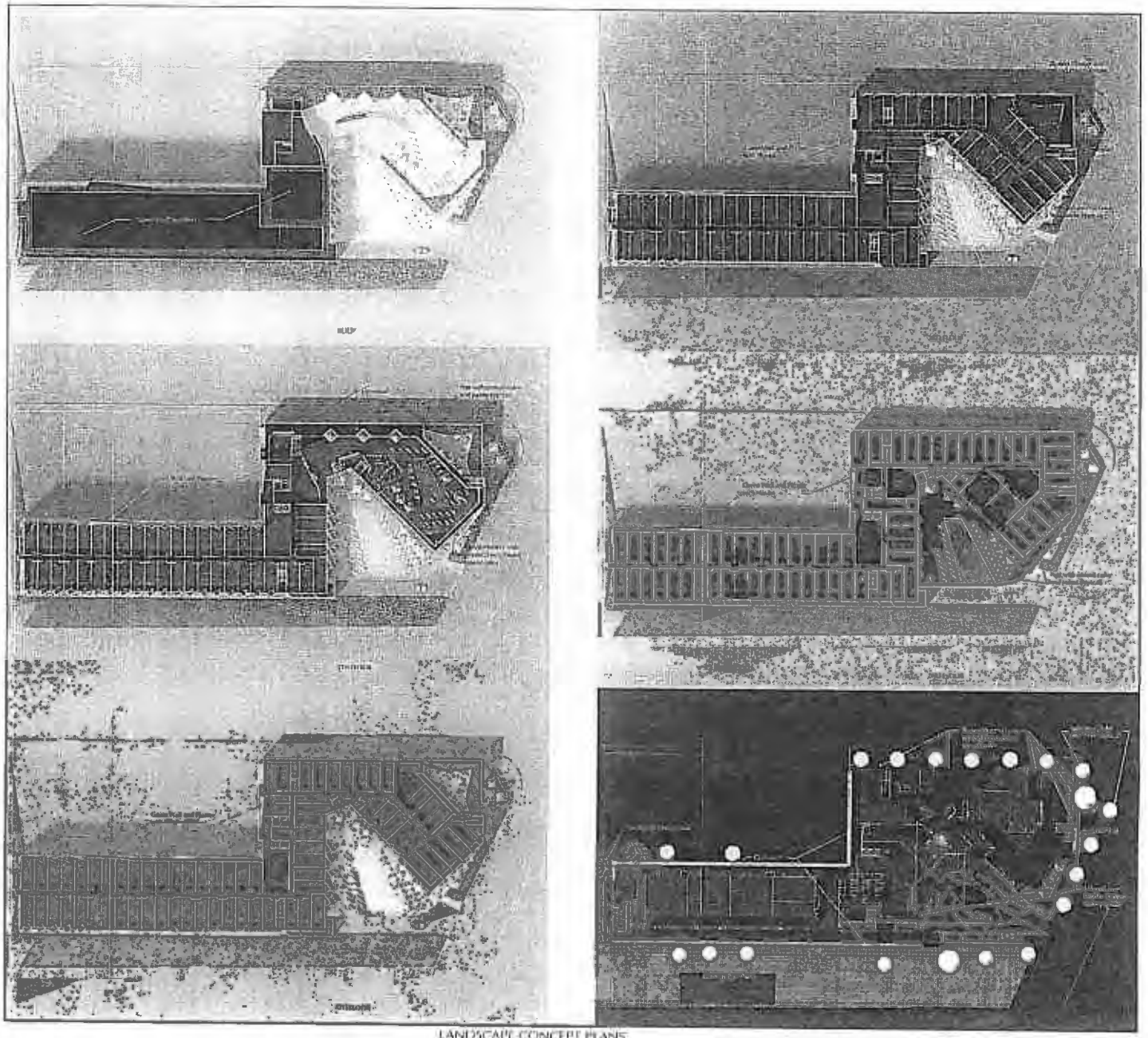
PRELIMINARY CONCEPT PLAN

THE DOHENY HOTEL

25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

BUILDING SECTIONS

A301



LANDSCAPE CONCEPT PLANS

LANGDON WILSON INTERNATIONAL

ARCHITECTURE
PLANNING
INTERIORS

BEVERLY HILLS HOSPITALITY GROUP

PRELIMINARY CONCEPT PLAN

THE DOHENY HOTEL

25325 DANA POINT HARBOR DRIVE
DANA POINT, CALIFORNIA 92629

LANDSCAPE CONCEPT FLOOR PLANS

L200

Appendix E

BMP OPERATION & MAINTENANCE AND TRAINING LOGS
CITY OF DANA POINT
WATER QUALITY MANAGEMENT PLAN (PWQMP) VERIFICATION SURVEY

NOTE: THIS APPENDIX WILL BE COMPLETED DURING FINAL WQMP DEVELOPMENT

BMP OPERATION & MAINTENANCE LOG
THE DANA POINT HOTEL

Today's Date: _____

Name of Person Performing Activity (Printed): _____

Company or Affiliation: _____

Signature: _____

BMP Name (As Shown in O&M Plan)	Brief Description of Implementation, Maintenance, and Inspection Activity Performed

EMPLOYEE/CONTRACTOR TRAINING LOG

Date of Training/Educational Activity: _____

Name of Person Performing Activity (Printed): _____

Company or Affiliation: _____

Signature: _____

Topic of Training/Educational Activity: _____

_____

Name of Participant	Signature of Participant

PROPERTY OWNER/TENNANT/OCCUPANT EDUCATION LOG

For newsletter or mailer educational activities, please include the following information:

- **Date of mailing:**
- **Number distributed:**
- **Method of distribution:**
- **Topics addressed/brochure distributed:**

If a newsletter article was distributed, please include a copy of it.

Appendix F

FIELD SURVEY ANALYSIS DATA AND REFERENCE MATERIAL

Ed Mandich

From: BRAD FOWLER [bfowler@DanaPoint.org]
Sent: Friday, February 18, 2011 3:41 PM
To: Simon Injev; Ed Mandich
Cc: LISA ZAWASKI; BRAD FOWLER; JOHN TILTON
Subject: FW: DANA POINT HOTEL Topo and Tidal data

Simon/Ed,

Here is the actual water elevation change measurement data for the 17th of February, 2011 which lends support to your survey elevation data. The North Creek concrete outlet water elevation was higher during high tide and lower during low tide. Therefore we can accept your evaluation that the outlet drains directly to an ocean tidally influenced water body.
Furthermore, as a practical aspect, the storm drain trash collection and trash separator unit vault immediately upstream from the outlet reduces any potential for storm drain water velocity to erode any material at the outlet. The existing drain outlet has functioned there for many years from an existing impervious watershed area and developed site with no signs of erosion. This leads the City to conclude no hydromodification will occur with the proposed redevelopment of the property beyond the pre-European period.

Brad Fowler, P.E.
Director of Public Works and Engineering Services City of Dana Point, CA bfowler@danapoint.org Phone (949) 248-3554 Fax (949) 248-7372

-----Original Message-----
From: WQ INTERN
Sent: Thursday, February 17, 2011 3:52 PM
To: BRAD FOWLER
Subject: RE: DANA POINT HOTEL Topo and Tidal data

Hello Brad,

I measured the water levels at both North Creek locations today and below is a summary of the data (measurements were the same at both locations, to the left and right of Doheny Park Dr):

Thurs 2/17:
High tide (7:45 AM, 6.36ft): 1.25"
Low tide (2:45 PM, -1.31ft): 0.75"

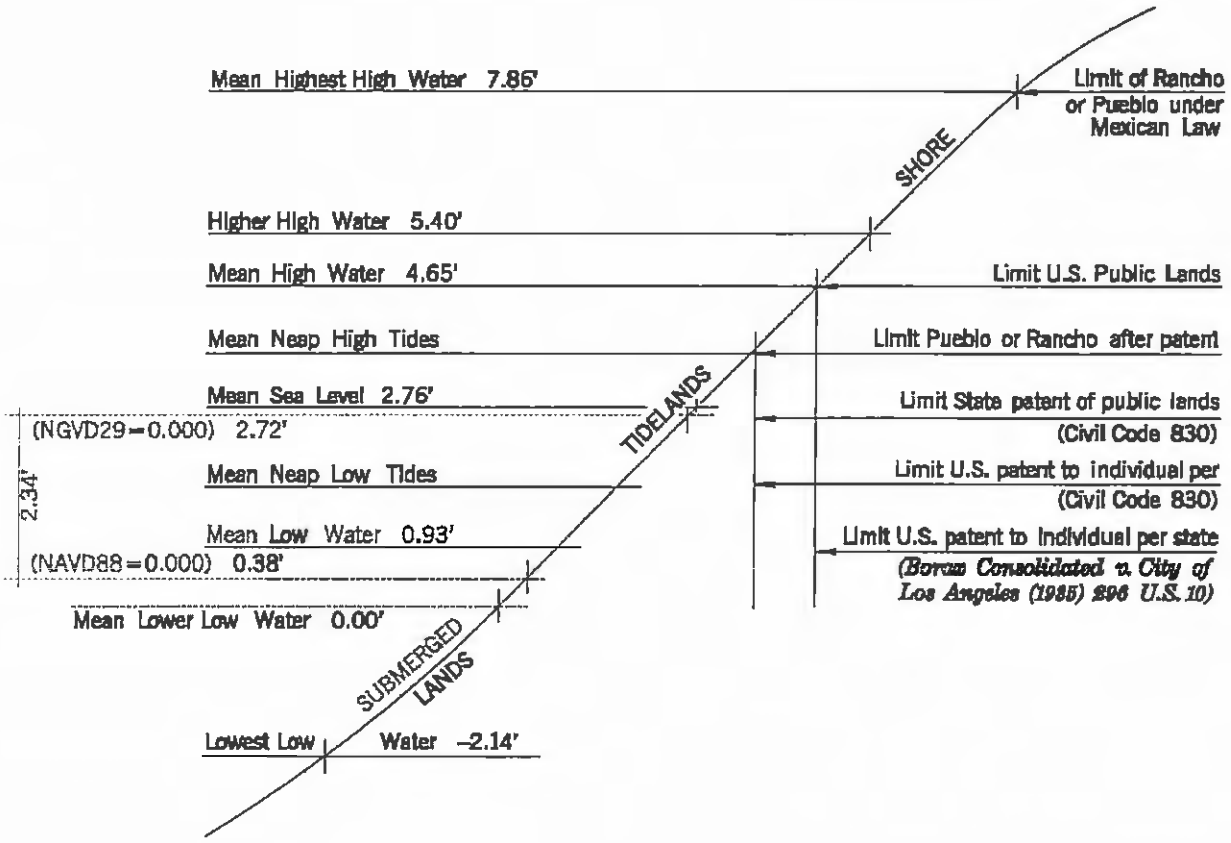
Reza

-----Original Message-----

Tide Planes and Tidal Datum Relationships
(U.S. Survey Foot)

The chart below displays tidal datums for benchmark TIDAL-1NP located at Newport Bay Entrance and are based on the following:

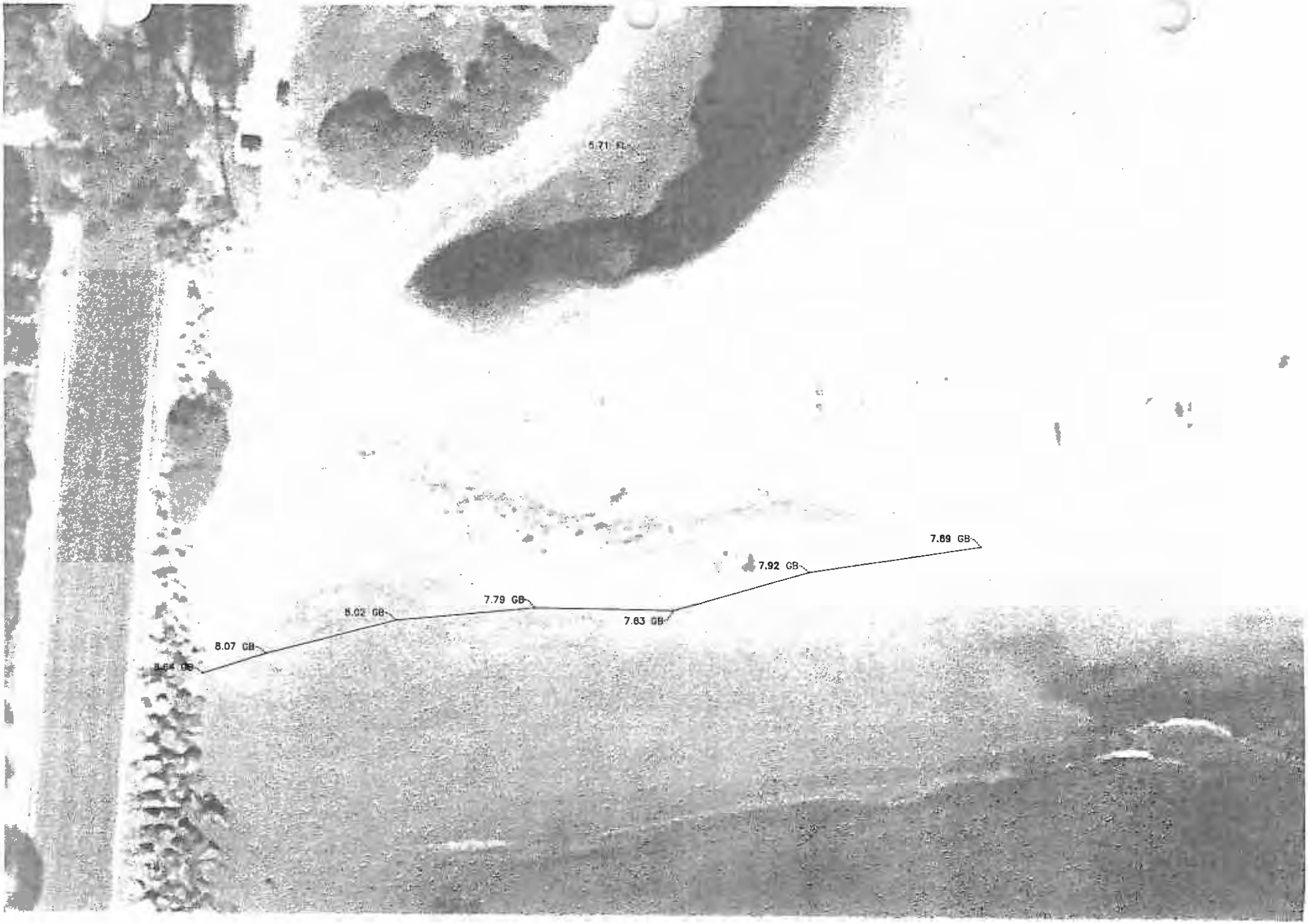
Length of Series	19 years
Time Period	1960-1978
Tidal Epoch	1960-1978
Control Tide Station	1st Reduction



Information was taken from National Ocean Service (NOS), Office of Ocean and Earth Science (OES), Tidal Datum Sheet – Publication Date 07/17/89

Desc:	TOPO	Prepared by:	BOB EPSTEIN	Project:	DANAPTHD
W.O. No:	3506-2	Path:	M:\DANAPTHD\TOPO\TOPO	Party Chief:	GLENN SHOWELL
Tracts:		Plot Date:	02-15-11	Survey Date:	2/15/11

Sheet 1 of 1


5.71 GB
7.89 GB
7.92 GB
7.79 GB
8.02 GB
7.83 GB
8.07 GB
8.64 GB


6.00 Conc
5.63 Dirt

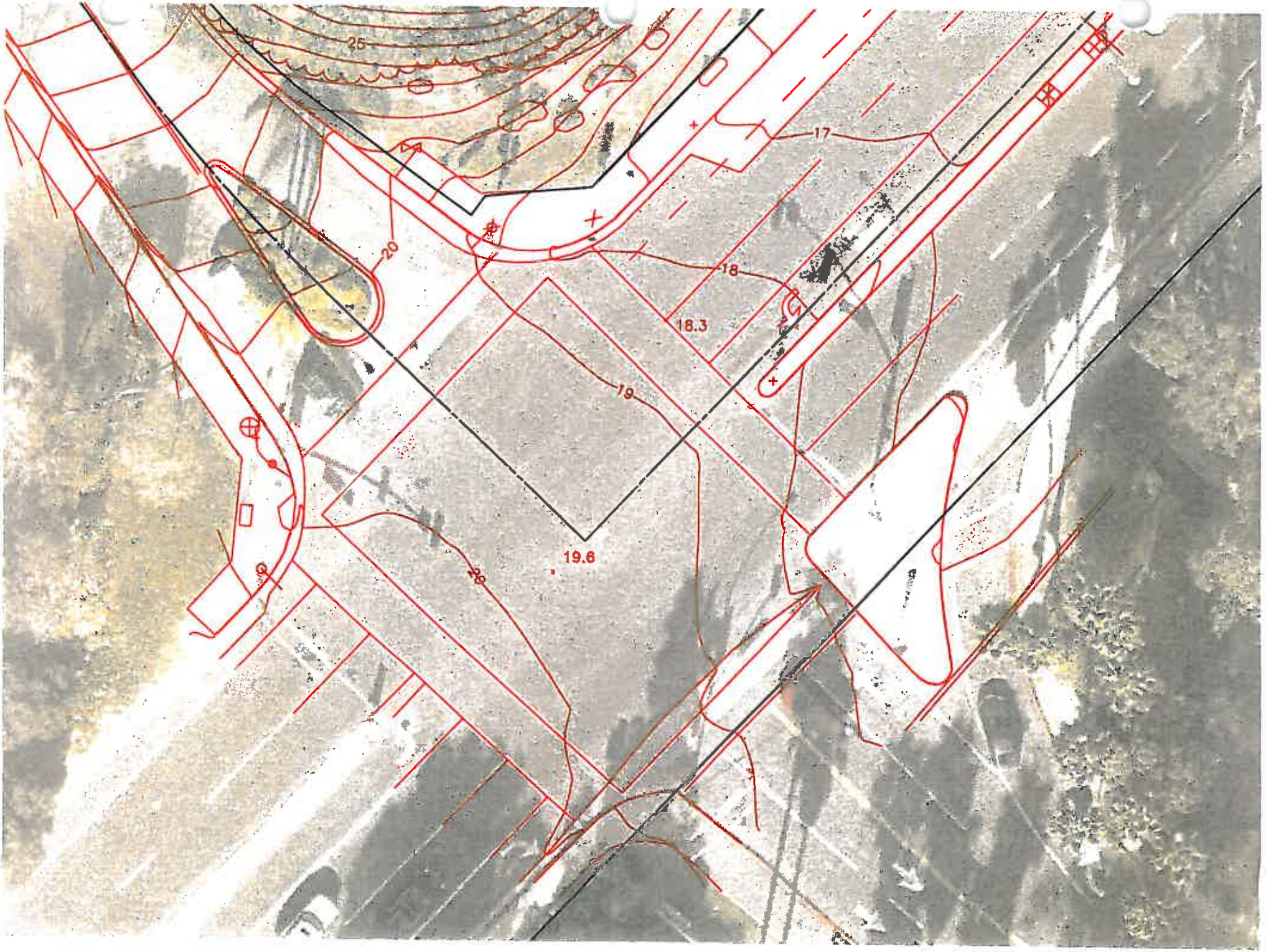

25
17
20
18
18.3
19
19.6
20

Table 7.3
Summary of the 2006 & 2008-10[1] 303(d) Listed Water Bodies and Associated Pollutants of Concern for Dana Point

Water Body	Watershed	Pollutant							
		Bacteria Indicators/ Pathogens	Metals	Nutrients	Pesticides	Toxicity	Trash	Salinity/TDS/ Chlorides	Turbidity
Dana Point Harbor	K	X	Cu, Zn			X			
Pacific Ocean Shoreline, Dana Point HSA	K	X							
Pacific Ocean Shoreline, Lower San Juan HSA	L	X							
San Juan Creek (Lower one Mile, including mouth)	L	X							

[1] The 2008-10 303(d) List of Impaired Water bodies will be confirmed upon approval by the EPA.

7.7.5 Hydro modification/Hydrologic Conditions of Concern

Hydro modification is the alteration of natural flow characteristics and sediment supply, which can result from new development and significant redevelopment projects without appropriate preventative controls. Common impacts to the hydrologic regime resulting from development include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; and faster time to reach peak flow. Under certain circumstances, new development and significant redevelopment could also result in the reduction in the amount of sediment supplied to the channel for transport. If the sediment supplied to the channel is reduced such that in-stream flows are transporting sediment faster than it can be replenished, then erosion of the channel's bed and bank may occur. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to a Priority Project site's hydrologic characteristics would be considered a condition of concern if the change would have a significant impact on downstream natural channels and habitat integrity. In determining whether an impact is significant, the cumulative effects on the watershed must be considered.

The first step to determine whether or not hydro modification requirements apply is based on the Proposed Project's location and point of discharge. All PDPs must meet the hydro modification requirements unless:

- The project site discharges into an underground storm drain system that discharges direct to a bay or ocean; or

- The project site discharges into a conveyance channel whose bed and bank are concrete lined all the way from the point of discharge to ocean waters, enclosed bays, estuaries or water storage reservoirs and lakes.

In the City of Dana Point, any priority project that discharges to San Juan Creek, Salt Creek, or North Creek are subject to the hydro modification requirements. There may be projects near the

coastline that may discharge into an underground storm drain system that discharges directly into the ocean where the hydro modification projects do not apply and those will be evaluated on a case by case basis.

Interim hydro modification criteria apply until a Hydro modification Management Plan is adopted by the SDRWQCB. PDPs must implement the following criteria by comparing the predevelopment (naturally occurring) and post-project flow rates and durations using a continuous simulation hydrologic model:

- For flow rates from ten percent of the two-year storm event to the five-year storm event, the post-project peak flows shall not exceed predevelopment (naturally occurring) peak flows.

- For flow rates from the five-year storm event to the ten-year storm event, the post-project peak flows may exceed predevelopment (naturally occurring) flows by up to ten percent for a one-year frequency interval.

Pre-development is defined as the naturally occurring (pre-human disturbance) conditions per the Order (i.e. pre-development, not pre-project). Although LID, treatment control, and hydro modification control requirements are stated independently in the Order, and PDPs must demonstrate compliance with each individually, these provisions overlap significantly and some management practices may fulfill or partially fulfill a portion of one or more of each of these requirements. LID and hydro modification control requirements are also interrelated as both are based on reduction of runoff volume as their first priority. Implementation of hydro modification requirements inherently results in compliance with treatment control requirements.

LID site design should be considered as the first priority in the hierarchy of LID implementation, beginning with the earliest phases of a project. The use of effective site design practices can result in smaller hydro modification and treatment control BMPs. Including space for BMPs in the site design at the earliest phases of the project planning process can allow projects to more easily satisfy numeric performance criteria.

The project proponent may use the South Orange County Hydro modification Control BMP Sizing Tool, **Exhibit 7.2**, also available on the City website at: www.danapoint.org/wqrequirements, to design and select the hydro modification BMPs, until a Hydro modification Management Plan (HMP) is approved by the San Diego Regional Water Quality Control Board. Upon approval, the Hydro modification Management Plan will be in effect and replace the Interim Hydro modification BMP Sizing Tool and be incorporated by reference into the City's LIP and WQMP Template.

7.7.6 Low Impact Development (LID) Best Management Practices (BMPs)

All PDPs are required to develop and implement a Preliminary and Final WQMP that includes LID BMPs, intended to collectively minimize directly connected impervious areas, limit loss of existing infiltration capacity, and protect areas that provide important water quality benefits

Appendix E

BMP OPERATION & MAINTENANCE AND TRAINING LOGS
CITY OF DANA POINT
WATER QUALITY MANAGEMENT PLAN (PWQMP) VERIFICATION SURVEY

NOTE: THIS APPENDIX WILL BE COMPLETED DURING FINAL WQMP DEVELOPMENT

BMP OPERATION & MAINTENANCE LOG
THE DANA POINT HOTEL

Today's Date: _____

Name of Person Performing Activity (Printed): _____

Company or Affiliation: _____

Signature: _____

BMP Name (As Shown in O&M Plan)	Brief Description of Implementation, Maintenance, and Inspection Activity Performed

EMPLOYEE/CONTRACTOR TRAINING LOG

Date of Training/Educational Activity: _____

Name of Person Performing Activity (Printed): _____

Company or Affiliation: _____

Signature: _____

Topic of Training/Educational Activity: _____

_____

Name of Participant	Signature of Participant

PROPERTY OWNER/TENNANT/OCCUPANT EDUCATION LOG

For newsletter or mailer educational activities, please include the following information:

- **Date of mailing:**
- **Number distributed:**
- **Method of distribution:**
- **Topics addressed/brochure distributed:**

If a newsletter article was distributed, please include a copy of it.

Appendix F

FIELD SURVEY ANALYSIS DATA AND REFERENCE MATERIAL

Ed Mandich

From: BRAD FOWLER [bfowler@DanaPoint.org]
Sent: Friday, February 18, 2011 3:41 PM
To: Simon Injev; Ed Mandich
Cc: LISA ZAWASKI; BRAD FOWLER; JOHN TILTON
Subject: FW: DANA POINT HOTEL Topo and Tidal data

Simon/Ed,

Here is the actual water elevation change measurement data for the 17th of February, 2011 which lends support to your survey elevation data. The North Creek concrete outlet water elevation was higher during high tide and lower during low tide. Therefore we can accept your evaluation that the outlet drains directly to an ocean tidally influenced water body.
Furthermore, as a practical aspect, the storm drain trash collection and trash separator unit vault immediately upstream from the outlet reduces any potential for storm drain water velocity to erode any material at the outlet. The existing drain outlet has functioned there for many years from an existing impervious watershed area and developed site with no signs of erosion. This leads the City to conclude no hydromodification will occur with the proposed redevelopment of the property beyond the pre-European period.

Brad Fowler, P.E.
Director of Public Works and Engineering Services City of Dana Point, CA bfowler@danapoint.org Phone (949) 248-3554 Fax (949) 248-7372

-----Original Message-----
From: WQ INTERN
Sent: Thursday, February 17, 2011 3:52 PM
To: BRAD FOWLER
Subject: RE: DANA POINT HOTEL Topo and Tidal data

Hello Brad,

I measured the water levels at both North Creek locations today and below is a summary of the data (measurements were the same at both locations, to the left and right of Doheny Park Dr):

Thurs 2/17:
High tide (7:45 AM, 6.36ft): 1.25"
Low tide (2:45 PM, -1.31ft): 0.75"

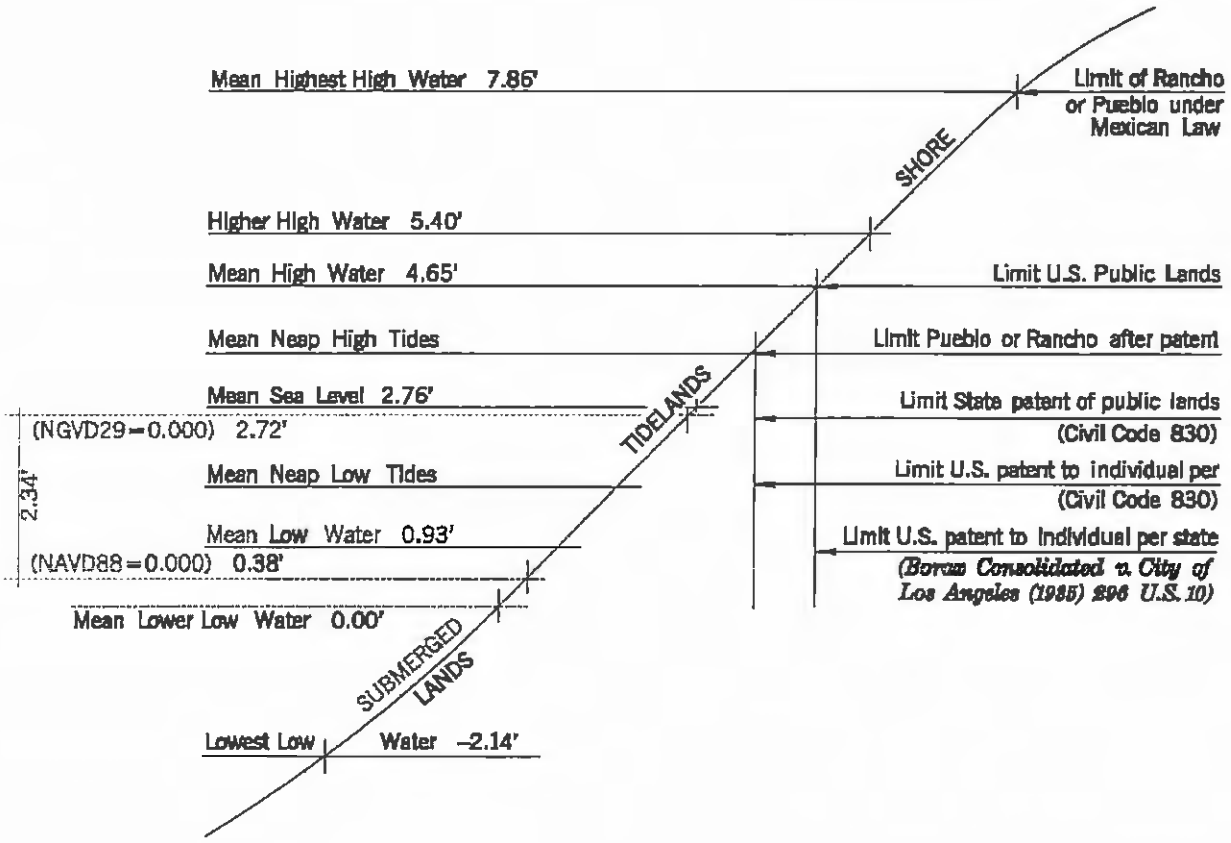
Reza

-----Original Message-----

Tide Planes and Tidal Datum Relationships
(U.S. Survey Foot)

The chart below displays tidal datums for benchmark TIDAL-1NP located at Newport Bay Entrance and are based on the following:

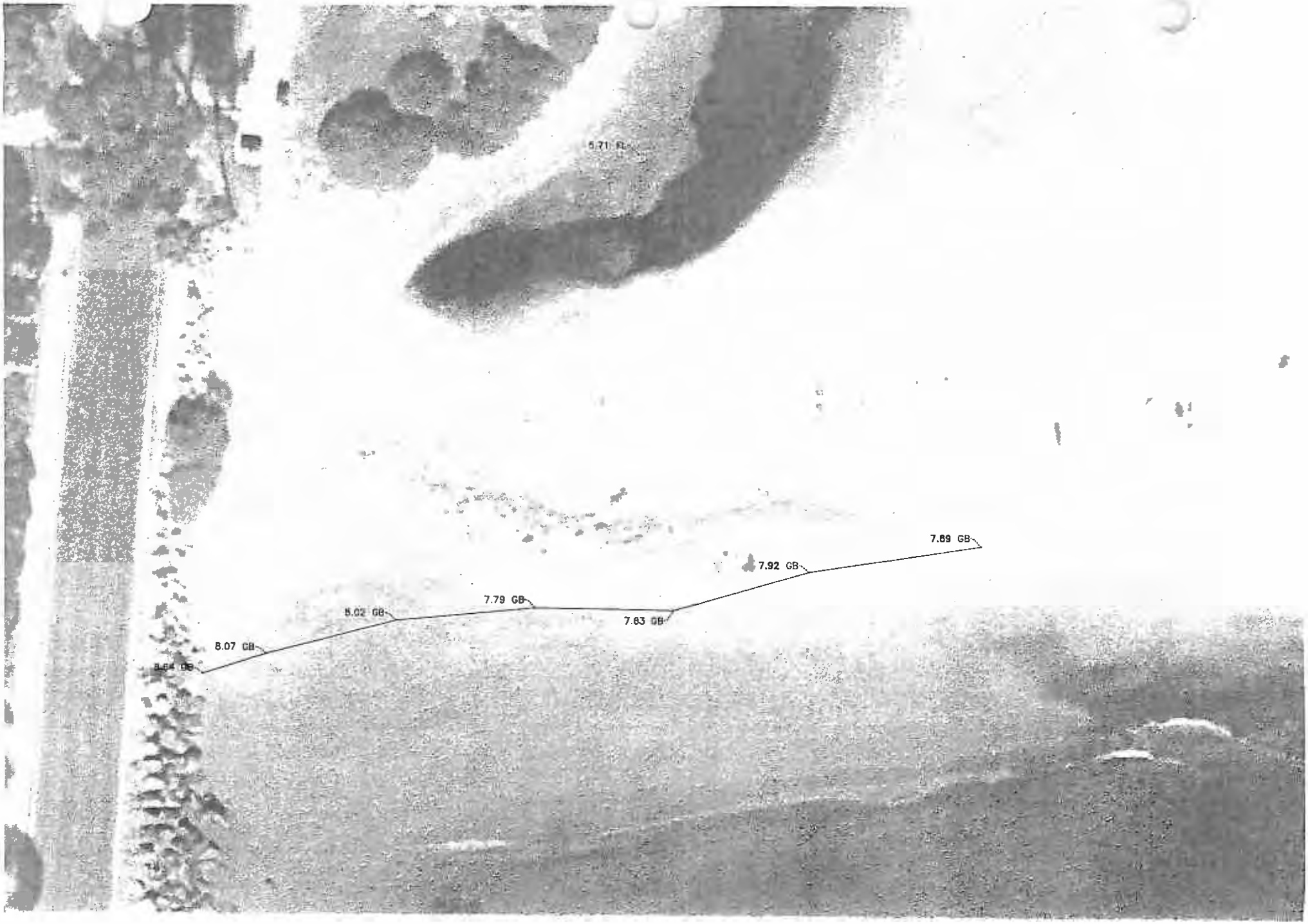
Length of Series	19 years
Time Period	1960-1978
Tidal Epoch	1960-1978
Control Tide Station	1st Reduction



Information was taken from National Ocean Service (NOS), Office of Ocean and Earth Science (OES), Tidal Datum Sheet – Publication Date 07/17/89

Desc:	TOPO	Prepared by:	BOB EPSTEIN	Project:	DANAPTHD
W.O. No:	3506-2	Path:	M:\DANAPTHD\TOPO\TOPO	Party Chief:	GLENN SHOWELL
Tracts:		Plot Date:	02-15-11	Survey Date:	2/15/11

Sheet 1 of 1


5.71 GB
7.89 GB
7.92 GB
7.79 GB
8.02 GB
7.83 GB
8.07 GB
8.64 GB


6.00 Conc
5.63 Dirt

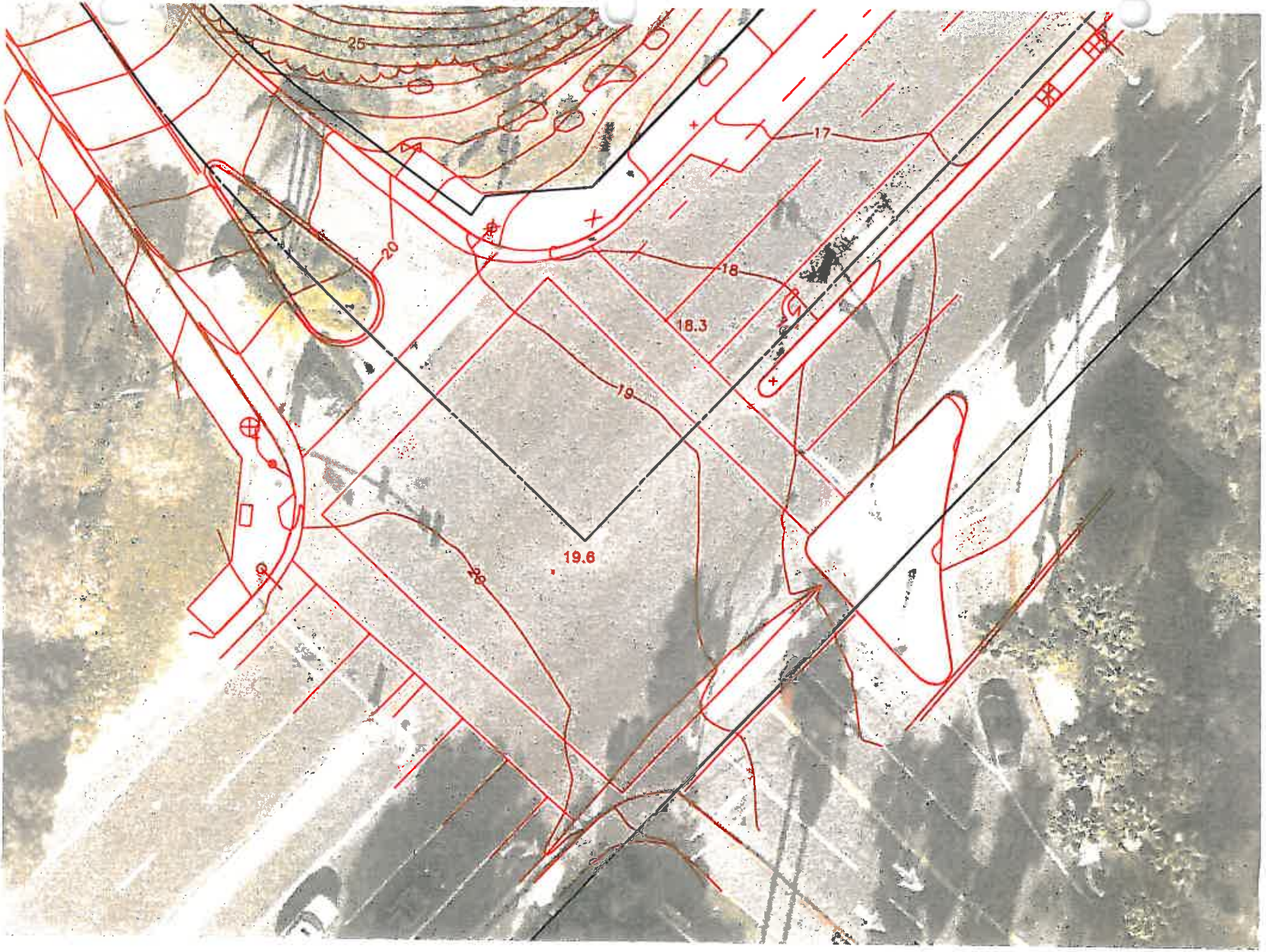

25
17
20
18
18.3
19
19.6
20

Table 7.3
Summary of the 2006 & 2008-10[1] 303(d) Listed Water Bodies and Associated Pollutants of Concern for Dana Point

Water Body	Watershed	Pollutant							
		Bacteria Indicators/ Pathogens	Metals	Nutrients	Pesticides	Toxicity	Trash	Salinity/TDS/ Chlorides	Turbidity
Dana Point Harbor	K	X	Cu, Zn			X			
Pacific Ocean Shoreline, Dana Point HSA	K	X							
Pacific Ocean Shoreline, Lower San Juan HSA	L	X							
San Juan Creek (Lower one Mile, including mouth)	L	X							

[1] The 2008-10 303(d) List of Impaired Water bodies will be confirmed upon approval by the EPA.

7.7.5 Hydro modification/Hydrologic Conditions of Concern

Hydro modification is the alteration of natural flow characteristics and sediment supply, which can result from new development and significant redevelopment projects without appropriate preventative controls. Common impacts to the hydrologic regime resulting from development include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; and faster time to reach peak flow. Under certain circumstances, new development and significant redevelopment could also result in the reduction in the amount of sediment supplied to the channel for transport. If the sediment supplied to the channel is reduced such that in-stream flows are transporting sediment faster than it can be replenished, then erosion of the channel's bed and bank may occur. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to a Priority Project site's hydrologic characteristics would be considered a condition of concern if the change would have a significant impact on downstream natural channels and habitat integrity. In determining whether an impact is significant, the cumulative effects on the watershed must be considered.

The first step to determine whether or not hydro modification requirements apply is based on the Proposed Project's location and point of discharge. All PDPs must meet the hydro modification requirements unless:

- The project site discharges into an underground storm drain system that discharges direct to a bay or ocean; or

- The project site discharges into a conveyance channel whose bed and bank are concrete lined all the way from the point of discharge to ocean waters, enclosed bays, estuaries or water storage reservoirs and lakes.

In the City of Dana Point, any priority project that discharges to San Juan Creek, Salt Creek, or North Creek are subject to the hydro modification requirements. There may be projects near the

coastline that may discharge into an underground storm drain system that discharges directly into the ocean where the hydro modification projects do not apply and those will be evaluated on a case by case basis.

Interim hydro modification criteria apply until a Hydro modification Management Plan is adopted by the SDRWQCB. PDPs must implement the following criteria by comparing the predevelopment (naturally occurring) and post-project flow rates and durations using a continuous simulation hydrologic model:

- For flow rates from ten percent of the two-year storm event to the five-year storm event, the post-project peak flows shall not exceed predevelopment (naturally occurring) peak flows.

- For flow rates from the five-year storm event to the ten-year storm event, the post-project peak flows may exceed predevelopment (naturally occurring) flows by up to ten percent for a one-year frequency interval.

Pre-development is defined as the naturally occurring (pre-human disturbance) conditions per the Order (i.e. pre-development, not pre-project). Although LID, treatment control, and hydro modification control requirements are stated independently in the Order, and PDPs must demonstrate compliance with each individually, these provisions overlap significantly and some management practices may fulfill or partially fulfill a portion of one or more of each of these requirements. LID and hydro modification control requirements are also interrelated as both are based on reduction of runoff volume as their first priority. Implementation of hydro modification requirements inherently results in compliance with treatment control requirements.

LID site design should be considered as the first priority in the hierarchy of LID implementation, beginning with the earliest phases of a project. The use of effective site design practices can result in smaller hydro modification and treatment control BMPs. Including space for BMPs in the site design at the earliest phases of the project planning process can allow projects to more easily satisfy numeric performance criteria.

The project proponent may use the South Orange County Hydro modification Control BMP Sizing Tool, **Exhibit 7.2**, also available on the City website at: www.danapoint.org/wqrequirements, to design and select the hydro modification BMPs, until a Hydro modification Management Plan (HMP) is approved by the San Diego Regional Water Quality Control Board. Upon approval, the Hydro modification Management Plan will be in effect and replace the Interim Hydro modification BMP Sizing Tool and be incorporated by reference into the City's LIP and WQMP Template.

7.7.6 Low Impact Development (LID) Best Management Practices (BMPs)

All PDPs are required to develop and implement a Preliminary and Final WQMP that includes LID BMPs, intended to collectively minimize directly connected impervious areas, limit loss of existing infiltration capacity, and protect areas that provide important water quality benefits

Appendix H

Draft Noise Report

DRAFT
NOISE ANALYSIS
FOR
DOHENY HOTEL
DANA POINT, CALIFORNIA

Prepared For:

CITY OF DANA POINT
COMMUNITY DEVELOPMENT DEPARTMENT
33282 Golden Lantern
Dana Point, California 92629-1805
Contact: Erica Demkowicz, AICP, Senior Planner
(949) 248-3588

Prepared By:

UltraSystems Environmental
16431 Scientific Way
Irvine, California 92618-4355

Project No. 5802

February 2012

This noise analysis was prepared in accordance with Section 15063(d)(3) and Appendix G of the *State CEQA Guidelines* to determine the potential significant noise effects on the physical environment that could result from the implementation of the proposed project.

Report Preparer:

Name & Title: BENJAMIN WONG, Air & Noise Scientist

Signature: _____ Date: _____

Reviewed by:

Name & Title: MICHAEL ROGOZEN, Senior Principal Engineer

Signature: _____ Date: _____

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

Beverly Hills Hospitality Group is proposing to develop a five-story hotel (Doheny Hotel) on a 1.5-acre site in the City of Dana Point, California. The Project site is located on the southwest corner of Pacific Coast Highway and Dana Point Harbor Drive. **Figure 1** (Regional Vicinity Map) shows the site in relation to the surrounding area. The immediate vicinity of the both the Doheny Hotel Site and the off-site parking location) is shown in **Figure 2** (Project Study Area). **Figure 3** (Doheny Hotel Project Study Area) and **Figure 4** (Off-Site Parking Project Study Area) show a closer view of each respective study area.

The objective of this report is to assess the construction and operational impacts of noise from and on the project. The following analysis provides a discussion of the fundamentals of sound; an examination of federal, state and local noise guidelines and policies; a review of existing conditions; an evaluation of potential noise impacts associated with the Proposed Project; and the mitigation for all identified significant or potentially significant impacts.

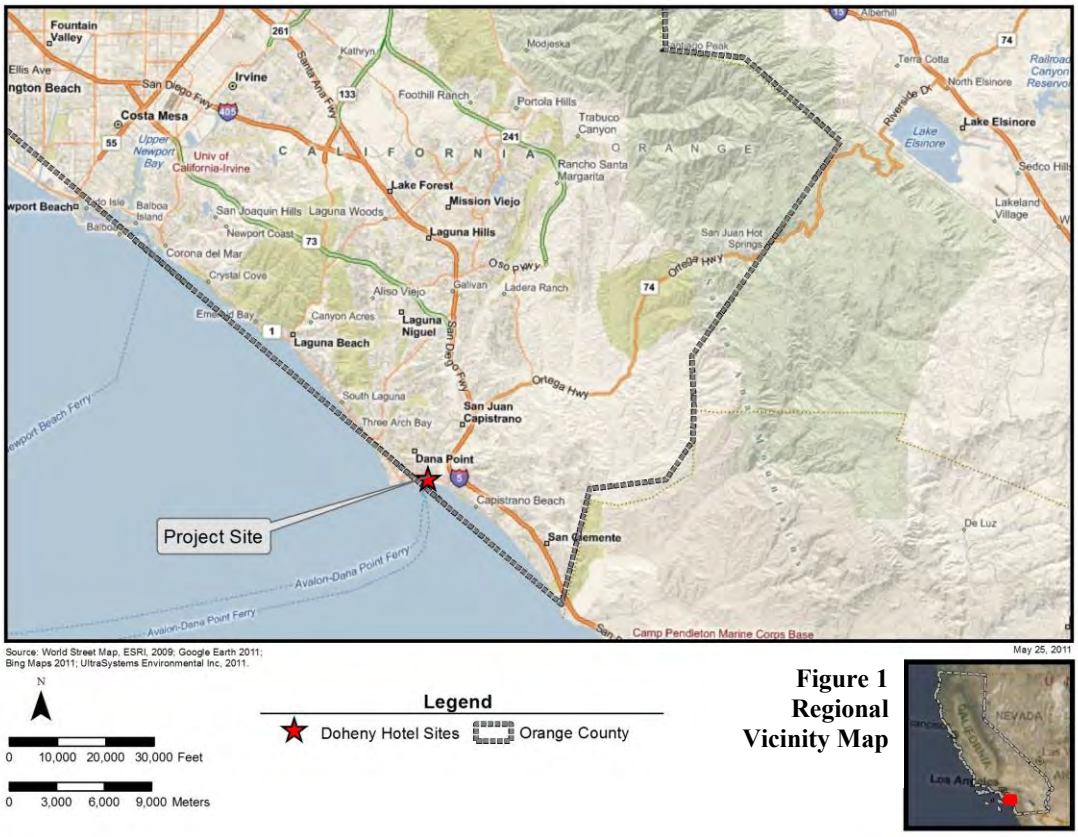


Figure 1
Regional Vicinity Map


Stonehill Dr
Selva Rd
Del Prado
Pacific Coast Hwy
Dana Point Harbor Dr
Lantern Bay Park
Doheny State Beach
Pacific Coast Hwy
Via Cañon
Pacific Ocean
Angeles National Forest
Glendale
East Los Angeles
Ontario
Pomona
Riverside
Anaheim
Fullerton
Santa Ana
Costa Mesa
Perris
Avalon
Source: Bing Maps, 2010; UltraSystems Environmental Inc, 2012
January 26, 2012
Map Scale: 1: 12,000
1 Inch = 1000 feet
Feet
0 400 800 1,200
Meters
0 100 200 300
N
Legend
Doheny Hotel Project Site
Off-Site Parking
County Boundary
Figure 2
Project Study Area
UltraSystems

Source: Bing Maps, 2010; UltraSystems Environmental Inc, 2011

December 9, 2011

Map Scale: 1: 4,800
1 Inch = 400 feet

Feet
0 200 400 600

Meters
0 50 100 150

N

Legend

Doheny Hotel Project Site

Doheny Hotel Project
Project Vicinity Map

UltraSystems

Figure 3
Doheny Hotel Project
Study Area

Figure 4
Off-Site Parking
Project Study Area

2.0 BACKGROUND INFORMATION

2.1 Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The decibel (dB) scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals (zero dBA). The scale ranges from zero (for the average least perceptible sound) to about 130 (for the average human pain level).

The normal range of conversation is between 34 and 66 dBA. Between 70 and 90 dBA, sound is distracting and presents an obstacle to conversation, thinking, or learning. Above 90 dBA, sound can cause permanent hearing loss. Examples of various sound levels in different environments are shown in **Table 1** (Typical Sound Levels).

Table 1 - Typical Sound Levels

Common Sounds	A-Weighted Sound Level in Decibels	Subjective Impression
Oxygen Torch	120	Pain Threshold
Rock Band	110	
Pile Driver at 50 feet	100	Very Loud
Ambulance Siren at 100 feet	90	
Garbage disposal	80	Moderately Loud
Vacuum Cleaner at 10 feet	70	
Air Conditioner at 100 feet	60	
Quiet Urban Daytime	50	Quiet
Quiet Urban Nighttime	40	
Bedroom at Night	30	
Recording Studio	20	Just Audible
	10	Threshold of Hearing
	0	

Sources: Aviation Planning Associates. 1978. Calculations of Maximum A-weighted Sound Levels (dBA) Resulting from Civil Aircraft Operations.

A noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

To the human ear, a sound 10 dBA higher than another is judged to be twice as loud; 20 dBA higher is four times as loud; and so forth. According to the U.S. Environmental Protection Agency (USEPA), a difference of more than 3 dBA is a perceptible change in environmental noise, while a 5 dBA difference typically causes a change in community reaction, and an increase of 10 dBA is perceived by people as doubling of loudness.[1]

2.2 Noise Measurement Scales

Several rating scales have been developed to analyze adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people depends largely upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq}, the equivalent noise level, is an average of sound level over a defined time period (such as 1 minute, 15 minutes, 1 hour or 24 hours). Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure.
- L_{90} is a noise level that is exceeded 90 percent of the time at a given location; it is often used as a measure of "background" noise.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 4.77-dBA "penalty" added to noise during the hours of 7:00 p.m. to 10:00 p.m., and a 10-dBA penalty added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime.[2] The logarithmic effect of these additions is that a 60-dBA 24-hour L_{eq} would result in a calculation of 66.7 dBA CNEL.
- L_{dn}, the day-night average noise, is a 24-hour average L_{eq} with an additional 10-dBA "penalty" added to noise that occurs between 10 p.m. and 7 a.m. The L_{dn} metric yields values within 1 dBA of the CNEL metric. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

1 *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. U.S. Environmental Protection Agency (USEPA). (March 1974).

2 *Technical Noise Supplement*. California Department of Transportation, Division of Environmental Analysis, Sacramento, California (November 2009), p. 2-57.

2.3 Noise Attenuation

The noise level from a particular source generally declines as the distance to the receiver increases. Other factors such as the weather and reflecting or shielding also intensify or reduce the noise level at any given location. Typically, a single row of buildings between the receiver and the noise source reduces the noise level by about 5 dBA. The U.S. Department of Housing and Urban Development (HUD) has stated that exterior noise levels can normally be reduced by 15 dBA inside buildings constructed with no special noise insulation.[3] The USEPA estimates that residences in "warm" climates provide at least 12 dBA of exterior-to-interior noise attenuation with windows open and 24 dBA with windows closed.[4]

Noise from traffic on roads depends on the volume and speed of traffic and the distance from the traffic. A commonly used rule of thumb for traffic noise is that for every doubling of distance from the road, atmospheric spreading over "hard" or "soft" sites reduces the noise level by about 3 or 4.5 dBA, respectively. For a stationary source, the noise is reduced by at least 6 dBA for each doubling of distance. Further, because of the logarithmic nature of the decibel scale, a doubling of traffic on any given roadway or doubling a stationary source would cause a noise increase of approximately 3 dBA.

3.0 PROJECT SETTING

3.1 Project Description

Proposed Project

The Proposed Project site is located on a 1.5-acre, commercially zoned site at the southwest corner of Pacific Coast Highway and Dana Point Harbor Drive in the City of Dana Point. Existing land uses on the site include a 46-room motel, a vacant commercial building, and a Jack in the Box restaurant. The land adjacent to the project site on the north is in commercial use. A fast food restaurant is located to the west, and Lantern Bay County Park is south of the project site.

Figure 5 (Site Plan) shows the planned elements of the Doheny Hotel. The Project includes both demolition of the existing facilities and construction of a new hotel. New on-site facilities will include a 76.5-foot tall five-story hotel with 258 rooms, a 7,087-square-foot dine-in restaurant, a 12,103-square-foot conference center/banquet/meeting area, and 275 on-site parking spaces (includes both above-ground and subterranean spaces). The proposed Project will also include 50 off-site parking spaces at a South Coast Water District-owned lot located between Stonehill Drive and Camino Capistrano, that will be dedicated to hotel employees for overflow parking during peak weekends.

[3] *Noise Guidebook.* U.S. Department of Housing and Urban Development (HUD) (1985).

[4] *Protective Noise Levels. Condensed Version of EPA Levels Document*. U.S. Environmental Protection Agency, Office of Noise Abatement and Control, Washington, DC, EPA-550/9-79-100 (November 1978).

The construction for the Project is scheduled to begin in early 2013[5], and to be completed by late 2014 (estimated 480 days).[6] Excavation and earthwork would amount to approximately 48,560 cubic yards exported over approximately one year, and the hotel is estimated to be operational in 2015.

Alternative #1

Alternative #1 is the no project alternative. No hotel will be constructed. The project site would remain in its current state, developed with a two-story hotel, a fast-food restaurant, a vacant commercial retail building and associated surface parking lots.

Alternative #2

Alternative #2 will be a three-story hotel project that conforms to the 35-foot maximum height allowed by the Dana Point Specific Plan. For discussion purposes, this alternative will not include the 4th and 5th floors (114 rooms) and will include a reduction in the overall ceiling height on the first floor by five feet. With these changes, Alternative #2 will result in a hotel project with 144 rooms, 35-foot overall height and a subsequent reduction[7] in on-site parking and trips generated (196 on-site subterranean and surface parking spaces).[8] Like the Proposed Project, Alternative #2 will include 50 off-site parking spaces dedicated to hotel employees for overflow parking during peak weekends. The construction for Alternative #2 is scheduled to take place early in 2013, and to be completed by 2014 (estimated 312 days)[9]. Excavation and earthwork for this alternative is assumed to be similar to that for the Proposed Project, and the hotel is estimated to be operational in 2015.

Alternative #3

Alternative #3 is located on the 1.5-acre, commercially zoned site at the southwest corner of the Pacific Coast Highway and Dana Point Harbor Drive in the City of Dana Point, in addition to 0.76 acres of Lantern Bay Park to be utilized as a retaining wall. The Doheny Hotel Project includes the construction and operation of a new 5-story hotel with 273 rooms and 369 on-site parking spaces (includes both above-ground and subterranean spaces), and 50 off-site hotel employee, or special events parking. The construction for the Project is scheduled to take place

[5] The proposed construction year has changed since the preparation of the noise analysis from 2013 to 2014. The change in starting year will have no effect on our conclusions regarding significance of construction noise exposures. Operational exposures will increase in proportion to the increase in traffic; since the latter will be quite small, there should be no change in our conclusions regarding significance of operational noise exposures.

[6] Letter from Ed Mandich, Project Manager, Hunsaker & Associates Irvine, Inc., Irvine, California to Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California. January 20, 2012.

[7] Email communication from Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California, to Ole Barre, Senior Project Manager, UltraSystems Environmental, Inc., Irvine, California. January 23, 2012.

[8] Estimated by UltraSystems using a ratio between rooms of the Proposed Project and Alternative #2: 144 / 258 = 0.558.

[9] UltraSystems assumed demolition, site preparation, and grading phases take the same amount of time to complete as for the Proposed Project. Building construction, paving, and architectural coating phases are estimated based on a ratio between rooms of the Proposed Project and Alternative #2: 144 / 258 = 0.558.

Formatted: Font: 10 pt

Formatted: Normal, Indent: Left: 0", Hanging: 0.25"

Formatted: Font: (Default) Times New Roman, 10 pt

Formatted: Font: 10 pt

early in 2013, and to be completed by late 2014 (estimated 480 days)[10]. Due to the additional earthwork for the retaining wall in Lantern Bay Park, the excavation and earthwork would amount to 58,560 cubic yards exported over approximately one year, and the hotel is estimated to be operational in 2015.

[10] Letter from Ed Mandich, Project Manager, Hunsaker & Associates Irvine, Inc., Irvine, California to Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California. February 3, 2012.

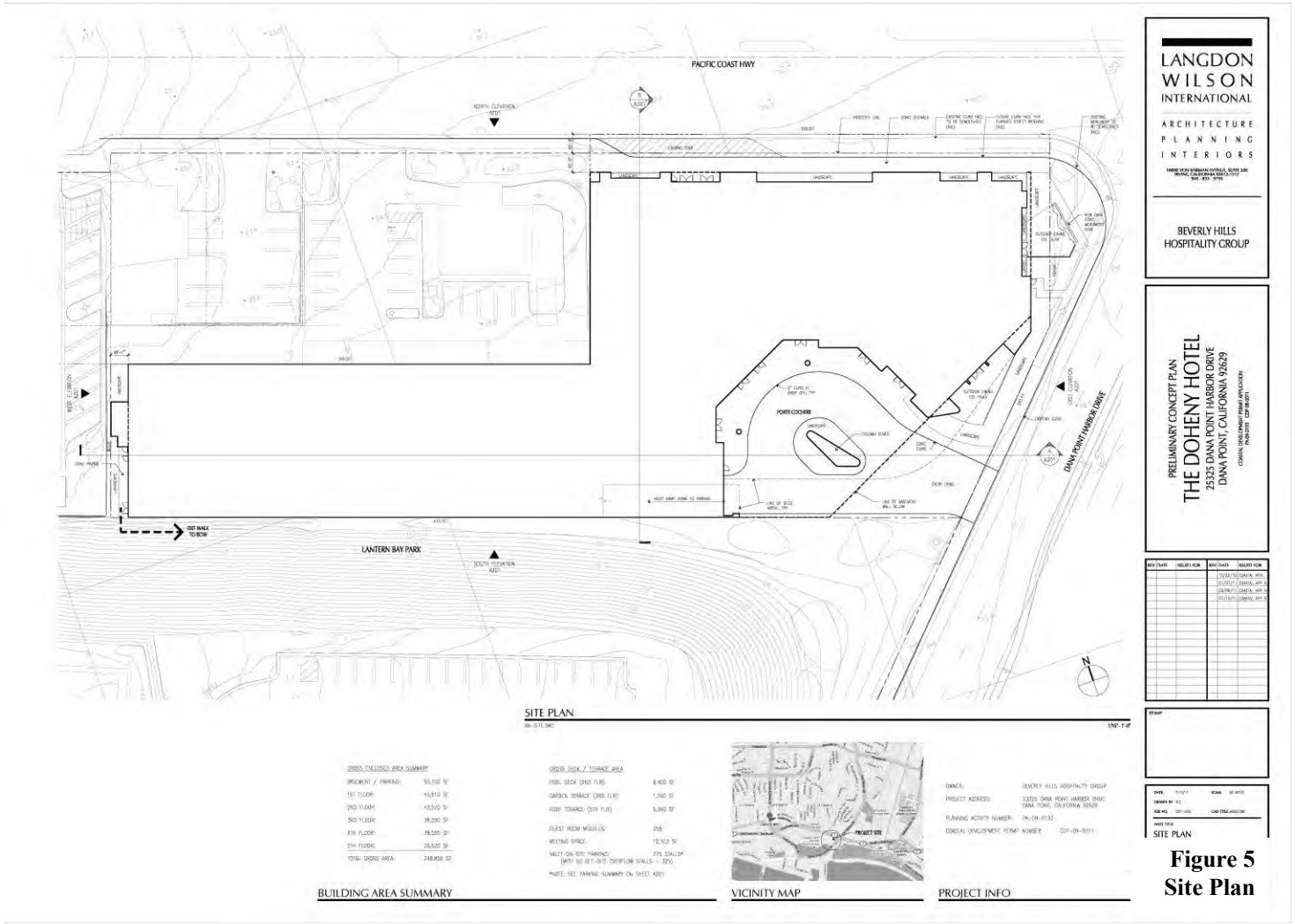


Figure 5
Site Plan

3.2 Sensitive Land Uses

Sensitive land uses, or sensitive receivers, are those for which quiet is an essential element in their intended purpose, such as indoor concert halls; places where people sleep; and institutions such as schools, libraries and places of worship. The nearest sensitive land use is an apartment complex on the north side of Pacific Coast Highway. This multi-family residence is approximately 152 feet from the hotel project site. **Table 2** (Sensitive Land Uses Near Project Site) describes each sensitive receiver further.

3.3 Existing Noise Environment

The main sources of noise on and near the Project site are automobile and truck traffic on surrounding roads. Pacific Coast Highway is classified as a major arterial in the City of Dana Point Circulation Element.[13] It is currently a six-lane divided highway, providing three travel lanes per direction (east and west). The posted speed limit is 35 miles per hour in the vicinity of the Project. Dana Point Harbor Drive is a four-lane divided primary arterial. The posted speed limit is 30 miles per hour.

Table 2
Sensitive Land Uses Near Project Site

Sensitive Land Use	Location	Distance from Doheny Hotel Boundary (Feet)
Holiday Inn Express Hotel Dana Point	34280 Pacific Coast Highway, Dana Point, CA 92629	150
Laguna Cliffs Marriott Resort & Spa	25135 Park Lantern, Dana Point, CA 92629	350
Single-family residential	25300 Terrace Lantern, Dana Point, CA 92629	360
Multiple-family residential	34300 Lantern Bay Drive, Dana Point, CA 92629	1,120
Multiple-family residential	34302 Pacific Coast Highway, Dana Point, CA 92629	152
Multiple-family residential	33831 Camino Capistrano, Capistrano Beach, CA 92624	220
Single-family residential	25198 Via Elevado, Dana Point, CA 92629	300

Source: UltraSystems with Google Earth. 2011.

[13] *City of Dana Point General Plan, Circulation Element*, p. 24. June 27, 1995.

3.4 Ambient Noise Monitoring

In December, 2011 UltraSystems conducted ambient noise sampling at four locations in the general project area. **Table 3** (Characteristics of Ambient Noise Measurement Locations) lists the measurement sites, sampling dates and times, and why each site was chosen. These locations are shown in **Figure 6** (Ambient Noise Measurement Locations).

Table 3 – Characteristics of Ambient Noise Measurement Locations

Site	Sampling Location	Date	Time Interval	Purpose of Selection
1	Laguna Cliffs Marriott Resort and Spa 25135 Park Lantern Dana Point, 5 feet from building	12-08-11 Thursday	0736-0751 Day	Existing hotel near project site
2	34302 Pacific Coast Highway Dana Point, 3 feet from residence building	12-08-11 Thursday	0905-0920 Day	Residences near project site
3	25300 Terrace Lantern Dana Point, 3 feet from residence building	12-08-11 Thursday	0936-0951 Day	Residences near project site
4	33831 Camino Capistrano Capistrano Beach, 10 feet from residence building	12-08-11 Thursday	1035-1050 Day	Residences near project site

The sampling locations were chosen to provide an exposure baseline for evaluation of construction and operational impacts. Another selection criterion was that they be as close as practicable to the Proposed Project site or roadways where traffic is estimated to increase due to the Proposed Project. Measurements were taken as close to the sensitive receivers as possible; the site 4 measurement accounts for a preexisting wall between the shortest line of sight from the receiver to the Proposed Project. Three of the sampling sites were close to residences that are located near the Proposed Project, while the fourth sampling site was a nearby hotel.

A Quest SoundPro Model DL-1-1/3 sound level meter was used in the "slow" mode at each site to obtain a 15-minute average sound level (L_{eq}), as well as other metrics. The meter's microphone was maintained 5 feet above the ground. One sample was taken at each measurement site during morning rush hour on a weekday. Noise meter output records are in **Appendix A.**

Figure 6
Ambient Noise
Measurement Locations

Table 4 (Measured and Calculated Ambient Noise Levels) shows the results of the ambient noise sampling. The 15-minute L_{eq} values ranged from about 53 to 65 dBA, with maxima ranging from about 63 to 75 dBA. This relatively high maximum value occurred due to heavy traffic passing by on Pacific Coast Highway. The L_{90} values, which approximate the noise levels without major noise sources, such as individual trucks, airplanes or helicopters, were about 49 to 58 dBA. Site number 2 is closest to the proposed Project. Its 15-minute L_{eq} during the day was 65.1 dBA. CNEL values ranged from 65.1 dBA at Site 3 to 71.8 dBA at Site 2[12].

Table 4 – Measured and Calculated Ambient Noise Levels

Site	Measurement Results (dBA)			Average (dBA)
	15-Minute L_{eq}	L_{max}	L_{90}	CNEL
1	60.8	65.7	57.9	67.5
2	65.1	75.2	55.7	71.8
3	58.4	63.4	53.1	65.1
4	53.2	64.1	48.9	59.9

[12] The CNEL values are an overestimation because only one measurement, during morning rush hour, was taken per site.

4.0 APPLICABLE REGULATIONS

To limit population exposure to noise levels that are physically and/or psychologically damaging or intrusive, the federal government, the State of California, various county governments, and most municipalities in the state have established noise policies, standards and ordinances.

4.1 Federal

The U.S. Department of Housing and Urban Development has set a goal of 45 dBA L_{dn} as a desirable maximum interior standard for residential units developed under HUD funding (HUD, 1985). While HUD does not specify acceptable exterior noise levels, standard construction of residential dwellings constructed under Title 24 of the California Code of Regulations typically provides 20 dBA of acoustical attenuation with the windows closed and 10 dBA with the windows open. Based on this assumption, the exterior L_{dn} or CNEL should not exceed 65 dBA under normal conditions.

4.2 State of California

The California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels with effects on various land uses. (The Office of Noise Control no longer exists.) The most current guidelines prepared by the state noise officer are contained in the "General Plan Guidelines" issued by the Governor's Office of Planning and Research in 2003.[13] These guidelines establish four categories for judging the severity of noise intrusion on specified land uses:

- **Normally Acceptable**: Is generally acceptable, with no mitigation necessary.
- **Conditionally Acceptable**: May require some mitigation, as established through a noise study.
- **Normally Unacceptable**: Requires substantial mitigation.
- **Clearly unacceptable**: Probably cannot be mitigated to a less-than-significant level.

The types of land uses addressed by the state standards, and the acceptable noise categories for each, are presented in **Table 5** (Land Use Compatibility for Community Noise Sources). There is some overlap between categories, which indicates that some judgment is required in determining the applicability of the numbers in every situation.

Title 24 of the California Code of Regulations requires performing acoustical studies before constructing dwelling units in areas that exceed 60 dBA L_{dn}. In addition, the California Noise Insulation Standards identify an interior noise standard of 45 dBA CNEL for new multi-family residential units. (Local governments frequently extend this requirement to single-family housing.)

[13] State of California, *General Plan Guidelines*. Governor's Office of Planning and Research, Sacramento, California (2003).

Table 5 - Land Use Compatibility for Community Noise Sources

Field Code Changed

Land Use Category	Noise Exposure (dBA, CNEL)						
	55	60	65	70	75	80	
Residential – Low-Density Single-Family, Duplex, Mobile Homes							
Residential – Multiple Family							
Transient Lodging – Motel, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: State of California, 2003.

4.3 Local Standards

The primary regulatory documents that establish noise standards in the City of Dana Point are the City's *General Plan Noise Element* and the Municipal Code.

Sensitive Receptors

The City of Dana Point *General Plan Noise Element* defines "noise sensitive receptors" as predominantly residential; however, the city contains "a number of public and private educational facilities, churches, a hospital, a library, senior housing, and park and recreation facilities that are considered noise sensitive" as well.[14]

Construction Noise and Exemption

Based on Section 11.10.014 (Special Provisions) of the City of Dana Point Municipal Code (Municipal Code), construction noise associated with any real property[15] is exempt from Chapter 11.10 (Noise Control) of the Municipal Code provided construction does not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or any time on Sunday or a Federal holiday. Therefore, the following Municipal Code provisions for construction are exempt.

The Municipal Code prohibits noise-producing construction activity between 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or any time on Sunday or a Federal holiday.[16] More specifically, grading and equipment operations within a half mile of a "structure for human occupancy" is prohibited from 5:00 p.m. to 7:00 a.m. on weekdays, and is generally prohibited on Saturdays, Sundays, and holidays recognized by the City of Dana Point.[17]

Operational Noise

Table N-1[18] of the City of Dana Point *General Plan Noise Element* qualifies exterior noise levels as "clearly compatible," "normally compatible," "normally incompatible," and "clearly incompatible" based on land use designations and corresponding sound levels. Based on the table, the City recommends exterior noise exposures of no more than 65 dB CNEL for residential and open space (e.g. parks). Additionally, Visitor/Recreational Commercial (e.g. hotels) development that is exposed to sound levels of up to 70 dB CNEL is considered "normally compatible" and may be permitted if noise insulation features are included in the design.

The City's *General Plan Noise Element* also includes both interior and exterior noise standards for different designations and uses. Notably, residential exterior noise levels shall not exceed 65

---

14 *City of Dana Point General Plan, Noise Element*, p. 3. July 9, 1991.

15 According to Treasury Regulations, Subchapter A, Section 1.263A-8 (c)(1), real property includes, but is not limited to: unsevered natural products of land, buildings, and inherently permanent structures. Additionally, Section 1.263A-8 (d)(3)(ii), states that the demolition of a standing building generally constitutes an activity that is an improvement to real property.

16 *City of Dana Point Municipal Code, Title 11 (Peace, Morals and Safety), Chapter 10 (Noise Control),* §014 (e).

17 *City of Dana Point Municipal Code, Title 8 (Buildings and Construction), Chapter 1 (Grading and Excavation Control), Article 5 (Grading Permit Requirements),* §250.

18 *City of Dana Point General Plan, Noise Element*, p. 15.

dB CNEL with closed windows, while interior noise levels at hotels and transient lodging may not exceed 45 dB CNEL.[19]

The Municipal Code designates the entire City as "Noise Zone 1"[20] and the noise standards are as described in **Table 6** (Exterior and Interior Noise Standards).

Table 6 – Exterior and Interior Noise Standards

Exterior and Interior Noise Standards			
Noise Zone		Noise Level (dBA)	Time Period
1	Exterior[a]	55	7:00 a.m. - 10:00 p.m.
		50	10:00 p.m. - 7:00 a.m.
1	Interior[b]	55	7:00 a.m. - 10:00 p.m.
		45	10:00 p.m. - 7:00 a.m.

[a] For a cumulative period of time within an hour, it is unlawful for any person at any location within the City to create any noise, when measured on any residential property, to exceed the exterior noise standard:

- for more than 30 minutes;
- plus 5 dB(A) for more than 15 minutes;
- plus 10 dB(A) for more than 5 minutes;
- plus 15 dB(A) for more than 1 minute; or
- plus 20 dB(A) for any period of time.

[b] For a cumulative period of time within an hour, it is unlawful for any person at any location within the City to create any noise, when measured on any residential property, to exceed the interior noise standard:

- for more than 5 minutes;
- plus 5 dB(A) for more than 1 minute; or
- plus 10 dB(A) for any period of time.

With respect to noise associated with outdoor gatherings, or special events related with the proposed Doheny Hotel, the Municipal Code has a special provision stating that "Outdoor gatherings, public dances and shows; provided said events are conducted pursuant to a license or permit duly issued by the City" are exempt from the Municipal Code.[21]

4.4 Thresholds of Significance for this Analysis

There are two criteria for judging noise impacts. First, noise levels generated by the Proposed Project must comply with all relevant federal, state and local standards and regulations. Noise impacts on the surrounding community are limited by local noise ordinances, which are

[19] Ibid., p. 17.
[20] *City of Dana Point Municipal Code, Title 11 (Peace, Morals and Safety), Chapter 10 (Noise Control),* §008.
[21] *City of Dana Point Municipal Code, Title 11 (Peace, Morals and Safety), Chapter 10 (Noise Control),* §014 (b).

implemented through investigations in response to nuisance complaints. It is assumed that all existing regulations for the construction and operation of the Proposed Project would be enforced. In addition, the Proposed Project should not produce noise levels that are incompatible with adjacent noise sensitive land uses as defined in the City of Dana Point *General Plan Noise Element*.

The second measure of impact used in this analysis is the significant increase in noise levels above existing ambient noise levels as a result of the introduction of a new noise source. An increase in noise level due to a new noise source has a potential to adversely impact people.

Based on the applicable noise regulations stated above, the Proposed Project would have a significant noise impact if it would:

- Conflict with applicable noise restrictions or standards imposed by regulatory agencies.
- Cause the permanent ambient noise level at the property line of an affected land use to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" ranges for the affected land use (as shown in Table 5).
- Construction takes place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and any time on Sunday or a Federal holiday.
- Contribute to a significant cumulative noise impact.

5.0 PROJECT IMPACTS

Noise impacts associated with land use development projects include short-term and long-term impacts. Construction activities, especially heavy equipment operation, would create noise effects on and adjacent to the construction site. Long-term noise impacts include project-generated on-site and off-site operational noise sources. On-site (stationary) noise sources would include operation of mechanical equipment and other industrial processes, landscape and building maintenance, and other commercial and industrial activities. Off-site noise would be attributable to aircraft operations and project-induced traffic, which would cause an incremental increase in noise levels within and near the project vicinity.

This section also evaluates potential groundborne vibration that would be generated from the construction or operation of the Proposed Project.

5.1 Short-Term Noise Impacts

The construction of the Proposed Project could generate noise levels in excess of standards adopted in local ordinances. Noise impacts from construction activities are a function of the noise generated by the operation of construction equipment and on- road delivery and worker commuter vehicles, the location of equipment, and the timing and duration of the noise-generating activities. For the purpose of this analysis, it was estimated that the construction of the Proposed Project would begin early in 2013 and take 24 months to complete.[22] The types

[22] Letter from Ed Mandich, Project Manager, Hunsaker & Associates Irvine, Inc., Irvine, California to Erica

and numbers of pieces of equipment anticipated in each phase of construction and development were estimated based on equipment requirements of similar hotel construction projects, and modeling[23] defaults, which are based on a construction survey performed by the South Coast Air Quality Management District (SCAQMD)[24]. **Table 7** (Construction Equipment Noise Characteristics) lists the equipment expected to be used. For each equipment type, the table shows an average noise emission level (in dB at 50 feet, unless otherwise specified) and a "usage factor," which is an estimated percentage of operating time that the equipment would be producing noise at the stated level.[25] A construction schedule was developed, and includes six phases: demolition, site preparation, grading, building construction, paving, and architectural coating. Each phase includes a different mix of construction equipment defined by a construction survey performed by SCAQMD.[26]

Demkowicz, Senior Planner, City of Dana Point, Dana Point, California. January 20, 2012.

[23] California Emissions Estimator Model (CalEEMod)

[24] *California Emissions Estimator Model User's Guide Version 2011.1 Appendix D Default Data Tables*. Prepared by ENVIRON International Corporation, San Francisco, California for South Coast Air Quality Management District, Diamond Bar, California (February 2011). Table 3.2.

[25] Equipment noise emissions and usage factors are from Knauer, H. et al., 2006. *FHWA Highway Construction Noise Handbook.* U.S. Department of Transportation, Research and Innovative Technology, Administration, Cambridge, Massachusetts, FHWA-HEP-06-015 (August 2006), except where otherwise noted.

[26] *California Emissions Estimator Model User's Guide Version 2011.1 Appendix D Default Data Tables*. Prepared by ENVIRON International Corporation, San Francisco, California for South Coast Air Quality Management District, Diamond Bar, California (February 2011). Table 3.2.

Table 7 – Construction Equipment Noise Characteristics

Equipment Type	Maximum Sound Level (dBA @ 50 feet)	Usage Factor (%)
Cement and Mortar Mixer	79	40
Concrete/Industrial Saw	90	20
Forklift[27]	65	50
Generator Set	81	50
Grader[28]	85	40
Paver	85	50
Paving Equipment	77	50
Pile Driver (Impact)[29]	84	33
Roller	85	20
Tractor/Loader/Backhoe	79	40
Welding Machine	74	40

Proposed Project, Alternative #2 and Alternative #3

Using the construction equipment noise emission characteristics given in **Table 7** and methods suggested by the Federal Transit Administration (FTA),[30] UltraSystems estimated composite hourly L_{eq} values at the closest sensitive receiver points. **Table 8** (Maximum One-Hour Construction Noise Exposures at Nearest Sensitive Receivers) summarizes the maximum noise exposures that would be anticipated from Project construction. Please note that these estimated construction noise levels represent a conservative (worst-case) scenario, in which three of the loudest pieces of construction equipment would be operating on the same schedule and in the same area on the construction site (paver, paving equipment, and roller). These worst-case values would not be continuous, nor would they be typical of noise levels throughout the construction period. The maximum exposure, 76.1 dBA L_{eq}, would occur at the proposed hotel site in 2014, during the paving phase. Note that the three loudest pieces of construction equipment used for the Proposed Project are the same as those for Alternative #2 and for Alternative #3; thus the maximum noise exposures would be the same.

[27] *Construction Noise Threshold Criteria and Control Plan.* Prepared by Advanced Engineering Acoustics, Simi Valley, California for County of Ventura (November 2006), p. 4; usage factor is estimate by UltraSystems.

[28] City of Moreno Valley, *Moreno Valley General Plan, Final Program EIR* (July 2006) (http://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/5_4-noise.pdf), p. 5.4-8 is reference for sound level; usage factor is estimate by UltraSystems.

[29] Reference noise level at 25 feet. This value was calculated as a one-hour time-weighted average, accounting for the durations of peak sound levels from impacts and from pile driver exhaust, and of intervening silences. Data for this analysis were obtained from Zechmann, E. and C. Hayden. 2009. "Analysis of Pile Driver Exhaust and Impact Noise," *Journal of the Acoustical Society of America* 125(4): 2744-2744.

[30] *Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-06. U.S. Department of Transportation, Federal Transit Administration (May 2006).

Table 8 – Maximum One-Hour Construction Noise Exposures at Nearest Sensitive Receivers

Sensitive Receiver	Distance (Feet)	Maximum One-Hour L_{eq} (dBA)	Exceeds Exterior Noise Standard? (55 dBA)
Nearest Residence to Proposed Hotel Project Site	152	76.1	Yes[b]
Nearest Residence to Proposed Off-site Parking[a]	218	73	Yes[b]

[a] Does not account for brick wall obstructing line of site to proposed off-site parking.
[b] In accordance with Section 11.10.014 (Special Provisions) of the Municipal Code, construction activities are exempt from the noise standard given that construction does not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or any time Sunday or a Federal holiday.

Impact to Existing Sensitive Receivers

The existing sensitive receivers nearest the project site are residents located 152 feet north of the hotel project site and residents located 218 feet northeast of the proposed off-site parking. In accordance with Section 11.10.014 (Special Provisions) of the Municipal Code, the construction activities would be exempted from the noise limits **(Table 6)** provided that the associated construction activities do not occur between 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or any time on Sunday or a Federal holiday. Although the construction noise exposures would exceed the Municipal Code-established exterior noise standards, the impacts from construction are less than significant, and no mitigation is necessary because of the exemption described above.

5.2 Long-Term Noise Impacts

5.2.1 Noise from On-Site Sources

Proposed Project, Alternative #2 and Alternative #3

The commercial land uses on the project site (hotel, restaurant and a rooftop bar/lounge) would generate noises associated mainly with traffic entry and egress. These noise-generating activities are frequently sited adjacent to residential neighborhoods, and would not be considered significant noise sources. Additionally, special events, such as banquets, and air conditioning units may cause noise impacts. These sources are discussed below.

Banquets, shows, public dances, and other outdoor special events associated with the proposed hotel project are exempt from the Municipal Code pursuant to a license or permit duly issued by the City;[31] therefore, these sources would not be considered a significant noise source.

Typically air conditioning units associated with hotel operations are mounted in an enclosure, or are located in a housed shelter. With adherence to the 2010 California Building Code, which is adopted by the City of Dana Point,[32] long-term noise impacts associated with air conditioning units would not be considered a significant noise source.

5.2.2 Roadway Noise

Proposed Project

The principal noise source in the project area is traffic on local roadways. The project may contribute to a permanent increase in ambient noise levels in the project vicinity due to project-generated vehicle traffic on neighborhood roadways and at intersections. A noise impact would occur if the project contributes to a permanent increase in ambient noise levels affecting sensitive receivers along roadways that would carry project-generated traffic.

Table 9 (Proposed Project Average Daily Traffic Volumes) shows the average daily traffic (ADT) for existing conditions and for the project opening year. Note that Stonehill Drive and Camino Capistrano are not included because the off-site parking would not generate a significant amount of traffic; instead, the off-site parking would serve as special event and/or hotel employee parking. In the worst case, the increase in total traffic due to the Project is estimated to be 55% (65,000 ADT existing compared to 101,000 with the Project). Furthermore, the increase in total traffic from the project ranges from 17% (72,700 ADT existing compared to 85,000 with the Project) to 55%.

As discussed in **Section 2.1**, a difference of more than 3 dBA is a perceptible change in environmental noise, while a 5 dBA difference typically causes a change in community reaction. Given the logarithmic nature of the dBA metric, an increase of 3 dBA requires a doubling of the strength of the noise source. Therefore, traffic near the project site would have to double before sensitive receivers even perceived an increase. Because the total ADT near the project area will increase by at most 55%, and not double,[33] the increase in noise will not be perceptible, and the impact will be less than significant.

[31] *City of Dana Point Municipal Code, Title 11 (Peace, Morals and Safety), Chapter 10 (Noise Control),* §014 (b).
[32] Building & Safety. City of Dana Point. (December 2010). Internet URL: http://www.danapoint.org/index.aspx?page=218. Accessed February 28, 2012.
[33] *City of Dana Point Doheny Hotel Traffic Impact Analysis*. Kunzman Associates, Inc. April 21, 2011.

Table 9 – Proposed Project Average Daily Traffic Volumes

Roadway	Existing ADT	Opening Year ADT (without Project)	Opening Year ADT (with Project)[a]	Traffic Doubles?
Dana Point Harbor Drive	10,700 – 12,700	17,400 – 19,300	17,500 – 20,600	No
Pacific Coast Highway (SR-1)	42,500 – 45,300	50,400 – 57,100	50,900 – 57,700	No
Park Lantern	1,100 – 2,000	1,100 – 2,000	1,100 – 2,000	No
Del Obispo Street	10,700 – 12,700	15,300 – 19,400	15,600 – 20,700	No
Total Traffic	65,000 – 72,700	84,100 – 97,800	85,000 – 101,000	No

[a] Includes ADT from Dana Point Harbor Revitalization Project
Sources:
City of Dana Point Doheny Hotel Traffic Impact Analysis. Kunzman Associates, Inc. April 21, 2011
UltraSystems.
Note: Opening year (2015) ADT accounts for 0.25% area wide growth factor described in Traffic Impact Analysis

Alternative #2

The traffic study,[34] which does not analyze either Alternative #2 or Alternative #3, uses the Institute of Transportation Engineer's *Trip Generation*[35] rates to determine the daily vehicle trips from specific land uses. Based on these daily trips, the ADT is calculated. In the case of a hotel, the trip rate is based on the total number of rooms a hotel has available to book. Since Alternative #2 will have 114, or 44%, fewer, rooms than will of the Proposed Project, it will generate fewer trips and a lower ADT than the Proposed Project. Since the roadway impacts of the Proposed Project do not double the traffic, Alternative #2, with 44% fewer rooms, would not double the traffic; thus this alternative will have less than significant impacts as well.

Alternative #3

Alternative #3 will have 15, or 6%, more rooms than f the Proposed Project; thus, it will generate a minor amount of additional trips and a slightly higher ADT than the Proposed Project. Although this alternative will result in a higher ADT, the 6% increase in total hotel rooms is minor, and is unlikely to add the 29,000 ADT necessary to double the existing traffic volume. Because alternative #3 would not double the traffic volume, it will have a less than significant impact.

[34] *City of Dana Point Doheny Hotel Traffic Impact Analysis*. Kunzman Associates, Inc. April 21, 2011.

[35] Institute of Transportation Engineers. *Trip Generation*, 8th Edition. 2008.

5.3 Vibration Impacts

Vibration is sound radiated through the ground. Groundborne noise is the rumbling sound caused by the vibration of building interior surfaces. The ground motion caused by vibration is measured as peak particle velocity (PPV) in inches per second and is referenced as vibration decibels (VdB). Typical outdoor sources of perceptible groundborne vibration are construction equipment and traffic on rough roads.

The American National Standards Institute (ANSI) indicates that vibration levels in critical care areas, such as hospital surgical rooms and laboratories, should not exceed 0.2 inch per second of PPV.[36] The FTA also uses a PPV of 0.2 inch per second as a vibration damage threshold for fragile buildings and a PPV of 0.12 inch per second for extremely fragile historic buildings. The FTA criteria for infrequent groundborne vibration events (less than 30 events per day) that may cause annoyance are 80 VdB for residences and buildings where people normally sleep, and 83 VdB for institutional land uses with primarily daytime use.[37]

5.3.1 Construction Vibration

Proposed Project, Alternative #2 and Alternative #3

It is expected that groundborne vibration from project construction activities would cause only intermittent, localized intrusion. The Proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy, mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any sensitive receivers to cause vibration impact.

- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes almost always eliminates the problem.

The FTA has published standard vibration levels for construction equipment operations, at a distance of 25 feet.[38] The calculated vibration levels expressed in VdB and PPV for construction equipment at distances of 50, 100, and 152 feet are listed in **Table 10** (Vibration Levels of Construction Equipment).

---

[36] American National Standards Institute (ANSI). 1983. *"Guide to the Evaluation of Human Exposure to Vibration in Buildings"*, ANSI S.329-1983.

[37] *Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-06. U.S. Department of Transportation, Federal Transit Administration (May 2006).

[38] Ibid., p. 12-12.

Table 10 - Vibration Levels of Construction Equipment

Equipment	PPV at 50 ft (in/sec)	Vibration Decibels at 50 ft (VdB)	PPV at 100 ft (in/sec)	Vibration Decibels at 100 ft (VdB)	PPV at 152 ft (in/sec)[a]	Vibration Decibels at 152 ft (VdB)[a]
Large Bulldozer	0.0315	78	0.0111	69	0.0059	63
Loaded Truck	0.0269	77	0.0095	68	0.0051	62
Jackhammer	0.0124	70	0.0044	61	0.0023	55
Small Bulldozer	0.0011	49	0.0004	40	0.0002	34
Pile Driver (Impact Type)	0.2277	95	0.0805	86	0.0428	80
[a] 152 feet is representative of the nearest sensitive receiver to the proposed construction.						

Source: Calculated by UltraSystems from FTA data.

As shown in **Table 10**, the vibration level of construction equipment at the nearest sensitive receiver (152 feet) is at most 0.0428 inch per second, which is less than the FTA damage threshold of 0.12 inch per second PPV for fragile historic buildings and equal to the FTA threshold for human annoyance of 80 VdB. Since the vibration levels for pile driving meet the 80 VdB threshold for the nearest residential sensitive receiver, groundborne vibration or groundborne noise impacts from the project's construction activities are expected to be significant without mitigation. Mitigation measures N-2 to N-4 are presented in **Section 7.1** and would reduce the VdB below the FTA threshold of 80 VdB.

Alternative #1

The no project alternative would have no construction; thus, no groundborne construction impacts.

5.3.2 Operational Vibration

Proposed Project, Alternative #1, Alternative #2, and Alternative #3

Operation of the Proposed Project, and the alternatives would not involve significant sources of groundborne vibration or groundborne noise. Thus, operation of the Proposed Project would result in no impact.

5.4 Noise Exposure for Hotel Guests

Proposed Project

To estimate the impacts of future traffic noise on guests at the proposed Doheny Hotel, peak-hour L_{eq} levels at the hotel's exterior wall closest to Pacific Coast Highway were modeled using the Federal Highway Administration's Traffic Noise Model (TNM), Version 2.5. The L_{eq} values

were used to calculate 24-hour CNEL levels at every floor with a guest room facing Pacific Coast Highway (Floors 2, 3, and 4).

The following assumptions were made in the TNM analysis:

- A maximum vehicle speed of 50 miles per hour during peak hour.[39] Truck speeds are 5 miles per hour slower.[40]
- Accounts for traffic on PCH between Crystal Lantern Street and Dana Point Harbor Dr./Del Obispo Street
- A vehicle mix shown in **Table 11** (Vehicle Mix on Pacific Coast Highway)

Table 11 –Vehicle Mix on Pacific Coast Highway

Vehicle Type	Vehicle Mix (%)
LDA, LDT1, LDT2 (Light Automobiles)	83
MDV (Medium-Duty Trucks)	10
MHD, HHD (Heavy Duty Trucks)	6
OBUS, UBUS, SBUS (Buses)	0
MCY (Motorcycles)	1
Sources: CalEEMod 2011.1 UltraSystems Note: Vehicle mix is based on EMFAC 2007 region of San Diego County to match CalEEMod designated climate zones.	

Because the traffic study does not disclose a 24-hour traffic count, the results summarized in **Table 12** (Noise Exposure for Hotel Guests) are based on a 10% peak hour factor,[41] and the following equation[42]:

$$CNEL = L_{eq}(h)_{pk} + 10\log_{10}(4.17/P) + 10\log_{10}(D + 4.77E + 10N)$$

[39] Orange County Traffic Report. Westwood One. February 2012. Internet URL: http://www.sigalert.com/Map.asp?lat=33.45753&lon=-117.66131&z=1#lat=33.46312&lon=-117.67934&z=0 (February 28, 2012, 0836).
[40] California Department of Transportation (Caltrans). *Technical Noise Supplement*. November 2009. Page 3-18.
[41] *City of Dana Point Doheny Hotel Traffic Impact Analysis*. Kunzman Associates, Inc. April 21, 2011. pp. 7-8.
[42] California Department of Transportation, *Op. Cit.*, p. 2-61.

Where

$L_{eq}(h)_{pk}$ = Peak Hour L_{eq}

P = Peak Hour Volume % of ADT

D = Daytime Fraction of ADT

E = Evening Fraction of ADT

N = Nighttime Fraction of ADT

D + E + N = 1

D + E = 0.85[43]

Noise modeling output files are attached in **Appendix B**.

Table 12 – Noise Exposure for Hotel Guests

Floor	Projected Noise Level (dBA CNEL)		
	2011 (Existing)	2015 (No Project)	2015 (With Project)
Second	76.8	77.6	77.7
Third	76.4	77.2	77.3
Fourth	76.1	77.0	77.0
Sources: *Technical Noise Supplement*. Caltrans. November 2009 TNM 2.5 UltraSystems Note: A conservative Day/Evening ratio of 70%/15% was used to convert L_{eq} to CNEL.[44]			

As shown in **Table 12**, traffic noise exposure at the hotel exterior facing Pacific Coast Highway would be between 77 and 78 dBA CNEL. According to the State of California guidelines in **Table 5**, this level is "normally unacceptable," for hotels (between 70-80 dBA CNEL). A detailed analysis of the noise reduction requirements must be made, and needed noise insulation features must be included in the design. Project Design Features **PDF-1** through **PDF-6** are presented in **Section 7.2**.

[43] Ibid., Table 2-16. p. 2-62.
[44] Ibid., Table 2-17. p. 2-63.

Alternative #2 and Alternative #3

The traffic study[45] does not include an analysis of Alternative #2; however, **Table 9** provides a noteworthy comparison between the ADT with and without the proposed hotel project. Compared to the no project alternative, it is evident that the proposed hotel of 258 rooms will increase the ADT by a maximum of 3,200 vehicles. According to **Table 12**, this 3,200 vehicle difference accounts for at most 0.1 dBA CNEL. Therefore, with a difference of less than 258 rooms, both alternative #2 and alternative #3 will differ from the values in **Table 12** by no more than 0.1 dBA CNEL. Because both alternative #2 and alternative #3 are likely to be within the 70-80 dBA CNEL range, both alternatives will be "normally unacceptable" for hotels, and will be required to include a detailed analysis of the noise reduction requirements and include needed noise insulation design features. Project Design Features **PDF-1** through **PDF-6** are presented in **Section 7.2**.

Alternative #1

The no project alternative would consist of the existing conditions without the proposed hotel; thus, there would be no noise impacts to proposed hotel guests.

6.0 CUMULATIVE IMPACTS

The Dana Point Harbor Revitalization Project (Revitalization Project), which includes various construction, renovations, and improvements to the marina and the commercial area surrounding it, was approved in 2011; however, construction for has not been started.[46] The proposed timing of the Revitalization Project[47] would coincide with the early 2013 construction start date for the Proposed Project.

6.1 Construction Noise

Proposed Project, Alternative #2 and Alternative #3

Though the Revitalization Project is approximately 800 feet away, noise, as discussed in **Section 2.3,** attenuates as the distance increases. As the distance doubles from a point source[48], such as moving construction equipment, to a receiver, noise is reduced by 6 dBA.[49] With reference distances for typical construction equipment at 50 feet (see **Table 7**), noise from the Revitalization Project construction would be reduced by 24 dBA. Additionally, the attenuation

[45] *City of Dana Point Doheny Hotel Traffic Impact Analysis*. Kunzman Associates, Inc. April 21, 2011.

[46] Email communication from Erica Demkowicz, Senior Planner, City of Dana Point, Dana Point, California, to Ole Barre, Senior Project Manager, UltraSystems Environmental, Inc., Irvine, California. January 18, 2012.

[47] *Dana Point Harbor Revitalization Project Program EIR No. 591 Volume 1.* Prepared by RBF Consulting, Irvine, California for County of Orange, Dana Point Harbor Department. January 31, 2006.

[48] Construction equipment moves around in many directions, so for the purpose of these noise calculations, construction equipment is treated as a number of stationary point sources.

[49] Technical Noise Supplement. Prepared by ICF Jones & Stokes, Sacramento, California for California Department of Transportation Division of Environmental Analysis, Sacramento, California.(November 2009). p.2-29; 2-32.

over soft surfaces like dirt, grass, or trees would cause further attenuation; also walls, buildings, and other objects in the 800 foot path would cause additional noise reduction. Since the effects of construction noise are relatively local, the overlapping construction periods from the Revitalization Project and the Proposed Project would not be cumulative. With mitigation measure N-1, the Proposed Project would be exempt from the exterior noise standards established in the Municipal Code.

Alternative #1

The no project alternative would have no construction; thus, no cumulative construction impacts.

6.2 Operational Noise

Proposed Project, Alternative #2 and Alternative #3

The opening year ADT described in **Table 9** includes traffic from the Revitalization Project. Because the traffic does not double on any of the individual roads affected, nor does it double in overall ADT, the cumulative operational noise will not result in an increase of 3 dBA; thus, the impact will be less than significant.

Alternative #1

The no project alternative would have no new hotel; thus, no cumulative operational impacts.

6.3 Noise Exposure for Hotel Guests

Proposed Project, Alternative #2 and Alternative #3

Because **Table 9** includes traffic from the Revitalization Project, there will be no further cumulative impacts to discuss.

Alternative #1

The no project alternative would have no new hotel; thus, no cumulative impacts for hotel guests.

7.0 MITIGATION MEASURES AND PROJECT DESIGN FEATURES

7.1 Construction

The following measures will reduce noise impacts from construction of the Proposed Project:

N-1 All construction activities are to be limited to between 8~~7~~:00 a.m. and 6~~8~~:00 p.m. on weekdays, including Saturday. No construction activities shall take place at any time on Sunday or a Federal holiday.

N-2 Consider the alternative of vibratory pile emplacement

N-3 Pre-auger pile holes to reduce the duration of impact, when feasible

N-4 On pile drivers, use a resilient pad between the pile and the hammer head, when feasible. This will reduce vibration impacts by a factor of two.

7.2 Impacts on Hotel Guests

The final site design and design of the hotel must ensure that interior exposures in guest rooms are below 45 dBA CNEL. The following Project Design Features shall be considered in final project design.

PDF-1 Use acoustical (soundproof) glass for guest room windows and sliding doors (if applicable); the windows and door would each consist of two panes of glass, separated by at least 2 inches of air space.

PDF-2 Use dense building materials and/or increase exterior wall thickness on the highway side of the hotel.

PDF-3 Design an air gap between the exterior and interior panels so that sound is not transmitted directly from the exterior wall to the interior wall of the guest room.

PDF-4 Use sound-absorbing carpeting, furniture, and other room furnishings.

PDF-5 Design a central heating and cooling system instead of using wall-penetrating individual room units.

PDF-6 Use compressible neoprene weather-stripping rather than felt or other fibrous types for sound insulation.

8.0 IMPACTS AFTER MITIGATION

Mitigation measures **N-1** through **N-4** will ensure that noise and vibratory exposures during construction remain less than significant. Project Design Features **PDF-1** through **PDF-6** should be considered in the detailed design of the hotel to ensure that hotel guests are not exposed to significant noise levels.

(This page is intentionally left blank.)

APPENDICES

(This page is intentionally blank.)

APPENDIX A

NOISE MEASUREMENT OUTPUT FILES

(This page is intentionally blank)

APPENDIX B

NOISE MODEL OUTPUT FILES