

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA
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SAN DIEGO, CA 92108-4421
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Filed: August 8, 2008
49th Day: September 26, 2008
180th Day: February 4, 2009
Staff: Toni Ross-SD
Staff Report: September 25, 2008
Hearing Date: October 15-17, 2008

AMENDMENT REQUEST
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-06-070-A1

Applicant: California Department of Transportation Agent: Bruce April

Description: Conduct geotechnical studies (test borings) to evaluate subsoil conditions at Interstate 5 (I-5) bridge structures crossing Buena Vista Lagoon, Aqua Hedionda Lagoon and Batiquitos Lagoon. The data collected will be used to design the replacement bridges for the North Coast Interstate 5 Corridor Project.

Proposed Amendment: Conduct geotechnical studies (test borings) to evaluate subsoil conditions at the I-5 bridge structure crossing San Dieguito River/Lagoon. The data collected will be used to design the replacement bridges for the North Coast Interstate 5 Corridor Project.

Site: The Interstate 5 bridge that crosses San Dieguito River/Lagoon, City of San Diego, San Diego County.

Substantive File Documents: The Torrey Pines Community Plan and the North City Future Urbanizing Area Sub-Area II as incorporated into the City of San Diego certified LCP, CDP 6-06-070, Exemption #6-08-006-X.

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

Staff is recommending approval of the proposed amendment with two special conditions. The proposed amendment is to do additional test borings at Interstate 5 as it crosses the San Dieguito River. The same methodologies and precautionary measures included in the original Coastal Development Permit are proposed and/or required for the newly added sites proposed in this amendment. The first special condition modifies the language of Special Condition #3 in the original permit to include a requirement that Caltrans submit to the Coastal Commission any other agency permits/amendments they received or will receive for the newly proposed test borings at San Dieguito Lagoon.

Caltrans has already indicated that they are seeking an amendment to its Section 1602 Streambed Alteration Agreement, and as such, it will be required to submit the approved amendment request to the Coastal Commission for review. Special Condition #2 notifies the applicant that all conditions required by the original Coastal Development Permit, not modified by this action, remain in full force and effect. These original special conditions included that all project modifications (including unforeseen impacts to water quality) be reviewed and addressed by the Coastal Commission. A further special condition was included that prohibited the test boring during the typical shore bird breeding season or during daylight hours of the peak summer season to address potential impacts to sensitive bird species and to limit impacts to public access respectively. The combination of the original permit and the subject amendment's special conditions are adequate to address all potential impacts on coastal resources and to assure consistency of the development with Chapter 3 policies of the Coastal Act.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve the proposed amendment to Coastal Development Permit No. 6-06-070 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the amendment as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE A PERMIT AMENDMENT:

The Commission hereby approves the coastal development permit amendment on the ground that the development as amended and subject to conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit amendment complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment, or 2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.

II. Special Conditions.

The permit is subject to the following conditions:

1. Special Condition #3 of the CDP #6-06-070 shall be revised as follows:

3. Other Permits. **PRIOR TO THE COMMENCEMENT OF CONSTRUCTION**, the permittee shall provide to the Executive Director, copies of all other required state or federal discretionary permits (such as City Of Oceanside, U.S. Fish and Wildlife Service, Regional Water Quality Control Board and the California Department of Fish and Game) for the development authorized by CDP #6-06-070-A1. The applicant shall inform the Executive Director of any changes to the project required by other state or federal agencies. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this permit, unless the Executive Director determines that no amendment is legally required.

2. Prior Conditions of Approval. All prior conditions of approval of the permit 6-06-070, not specifically revised herein, shall remain in full force and effect.

III. Findings and Declarations.

The Commission finds and declares as follows:

1. Project History/Amendment Description. On December 12, 2006 the Coastal Commission approved Coastal Development Permit 6-06-070. This permit authorized California Department of Transportation (Caltrans) to conduct a series of test borings at bridge structures crossing Buena Vista Lagoon, Aqua Hedionda Lagoon and Batiquitos Lagoon. Associated with this application were additional test borings located in upland portions of San Elijo and San Dieguito Lagoons. The test borings at these upland locations were exempted by the Coastal Commission also in December of 2006 (ref. Exemption 6-08-006-X). Caltrans is proposing an additional eight test borings, six of which will be located in filled or upland areas and are exempt (ref. Exhibits #2,3, bore hole #'s 2, 3, 4, 5, 6, 8); the remaining two are within the lagoon waters and will be reviewed by this amendment request (ref. Exhibits #2,3, bore hole #'s 1, 7).

The borings will be accessed through the Interstate 5 (I-5) San Dieguito Lagoon bridge deck into open waters. The test borings will be carried-out by setting a 6-inch casing through the highway bridge deck and down into the below water substrate approximately 5 feet to generate a suitable seal. This steel casing will prevent any spilling from the drilling operations to reach the lagoon water. Once the casing is sealed into the subsurface, the drillers will advance the drill tools inside the casing. A wet rotary boring with a diameter of 4-inches will be extended to a maximum depth of 200-feet. Drilling fluid of Bentonite mixed with water will be used during the boring. The Bentonite mixed drilling fluid is pressure pumped through the inside of the drill rods and out from holes in the drill bit as drilling ensues. The drilling fluid captures the soil cuttings generated at

the bit as the fluid is circulated and the borehole is advanced downward. This circulation of the drilling fluid returns the cuttings through the annular space between the drill rods and the casing wall. A drilling fluid circulation tank will be set up on the bridge deck to contain and control the fluid. The boreholes will be backfilled with a Bentonite-cement slurry mix from the bottom of the borings to within approximately 10 feet of the existing ground surface. Borings will be flushed with clear water to dilute any drilling fluid residues. All drill cuttings and soils will be contained in 55-gallon secured drums and removed from the site each day. These soils will then be transported to Sacramento for proper treatment and disposal. Absorbent pads will be placed in drainage pathways to contain any spilling.

Because the boring holes will not be filled to water level, allowing the lagoon's natural soft bottom to fall in on itself, all proposed impacts will be temporary. Each open-water boring will incur approximately 0.19 square feet of temporary impacts for a total of .38 sq. ft. Further temporary impacts from Bentonite-cement slurry deposition after soil cuttings have been removed may affect up to 38.2 cubic feet per boring, for a total of 76.4 cubic feet.

Using a steel casing to create a seal, all drilling fluid and soil cuttings will be contained to the specific drilling site. By drilling through the bridge deck, access through the upland habitats would be eliminated. All work would be staged from the main lanes, thus no trampling of vegetation is anticipated. No further impacts are predicted.

A biological survey was conducted and analyzed for potential biological impacts associated with the initial permit (ref. CDP #6-06-070). This report determined the noise level created from drilling to be analogous to the ambient noise created by daily traffic. The vibrations created by the drilling process will not be detectable within the water column more than a few inches from the drill itself, and thus would not have any effects on fish and other wildlife species utilizing the lagoon.

An additional memo was submitted with the subject amendment. The memo concluded that the two test borings proposed within open water were located in areas shaded by the bridge deck and do not support eel grass or any other special aquatic sites. As included in the previous biological review, all access will be gained from the existing bridge and, therefore, there will be no impacts associated with access to the site. The memo further states that due to the presence of sensitive birds in habitats adjacent to the lagoon, all borings will be completed outside the breeding season (February 15 to September 1).

A spill contingency plan was developed for the initial project and includes methodology for eliminating any leakage or spillage of fuel, hydraulic fluid, drilling fluids, as well as emergency procedures, and reporting guidelines should a spill occur. Mitigation measures include refueling outside of sensitive areas, and absorbent pads placed to contain any spills from the bridge to the lagoon water below. The same spill contingency plan will be utilized for the work proposed at San Dieguito Lagoon as well.

Due to traffic control restrictions, the borings, as proposed, will be drilled during the night between the hours of 9 p.m. and 5 a.m. The project will require shutting down at least one lane of traffic. The test borings at this location will take approximately 6 weeks depending on equipment and personnel availability and traffic and weather conditions.

The City of San Diego has a certified LCP and issues coastal development permits within its jurisdiction. However, the subject site is located within an area of the Commission's original jurisdiction, and the standard for review for this development is the Chapter 3 policies of the Coastal Act. As conditioned, this project is found to be in conformance with all applicable Chapter 3 policies of the Coastal Act.

2. Public Access. The following policies are most pertinent to the proposed development, and state, in part:

Section 30604(c)

Every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter.

Section 30211

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

The applicant has proposed to conduct the geotechnical borings from the bridge overpass; therefore public access to the surrounding lagoon trails shall not be interrupted. However, the staging of the boring equipment and personnel does limit the existing lanes of traffic on the Interstate 5 freeway. This freeway is the main coastal access freeway for San Diego County, and is heavily congested during summer months with local community and visiting tourists. The design of the project has allowed for a predicted one lane traffic blockage during the boring activity, and has further stated that the surveys will be concentrated to the hours of 9 p.m. to 5 a.m. where feasible. However, there remains a concern that when this timing is not feasible, traffic congestion may result in serious public access issues. As originally conditioned, the applicant will not be allowed to conduct the geotechnical survey during the daylight hours of the summer season to assure safe access during an already highly congested period, or will be required to demonstrate the measures have been taken to minimize the amount of congestion. This condition remains in full force and effect with respect to the newly proposed borings, thus the project is consistent with all applicable Chapter 3 policies of the Coastal Act cited above.

3. Water Quality & Marine Resources. Sections 30230, 30231, 30232 and 30233 of the Coastal Act apply to the proposal.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30232

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Drilling Fluids Leakage

The leakage of hydraulic fluids through old hoses or machinery can occur when equipment is poorly maintained. The introduction of any fuels, oils, hydraulic fluids, etc. could be potentially harmful to the inhabitants of the lagoon if not properly managed during field work. This is further exacerbated by the lower mixing rates found in lagoon habitats. Any fluid introduced to the water will potentially require more time to dilute and can have greater possible impacts to flora and fauna. To prevent this, the applicant has proposed the use of absorbent booms or pads in the deck drains or drainage avenues that lead toward the lagoons.

Drilling fluids generated from drilling through the bridge deck will be contained in a mud-mixing tank. The drilling fluid will be brought to the surface using a conductor casing in a closed system. The mixing tank, built of steel, is rectangular in shape and open on top. It holds a maximum of 150 gallons of drilling fluid. Standard practice is to leave about 6 inches of freeboard in the tank during recirculation to prevent accidental spills. The applicant proposes to adhere to this standard, as well as, to have the tank visually monitored while filling and during drilling operations. Again, absorbent pads will be placed in drainage ways to prevent any spillage from reaching the lagoon.

During drilling operations, Bentonite drilling fluid will remain within the casing. Before the casing is pulled it will be flushed using clean water. If not properly managed during the geotechnical field work, some fluid could escape into the lagoon, and adversely affect the respiratory system of the various fish species that occupy these lagoons. Additionally a vertical fracture can be created during drilling and leak drilling fluids into the lagoon

soil. The applicant has proposed that if a vertical fracture or leakage through a permeable section occurs, the use of drilling fluid will be immediately replaced with clear water until the fracture is drilled through and sealed with steel casing.

In the case of a catastrophic spill, mitigation measures proposed by the applicant are sufficient to clean up any drilling fluid, Bentonite, or concrete slurry spill. Again while this situation is unlikely, the sensitivity of the region requires these measures to be prepared. The original permit (CDP 6-06-070), Special Condition #2 requires that any deviation from the original construction plan requires immediate notification to the San Diego District Coastal Commission Office, prior to changes to the project in the field. Therefore any catastrophic spill, access issues, would trigger additional review by the Coastal Commission. Special Condition #2 of this amendment proposal requires that all conditions of the original permit remain in full force and effect. As such, any necessary modifications/unforeseen impacts to the test boring at this location would also require notification and review by the Coastal Commission. Therefore; as conditioned, the proposed project is found to be consistent with the Chapter 3 policies regarding hazardous spills in the Coastal Act.

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Noise and Vibration

Beyond the potential for spillage, there are two main concerns regarding the protection of marine organisms during the proposed boring. The noise created from the equipment used during borings has been regarded as negligible. The ambient level of noise on Interstate 5 is averaged at 67dBA. The predicted noise levels during drilling, as defined by the original permit, are between 70-80 dBA, which is not much higher than typical ambient noise. However, the location of the bridge overpass is closely associated with the shorebird nesting grounds for the San Dieguito River/Lagoon. This concern was addressed by the original permit, Special Condition #2. Special Condition #2 limits the applicant from conducting any geotechnical borings between the dates of February 15th and August 31st, the characteristic breeding season for most shorebirds. Again, as previously stated, the conditions associated with this amendment request state that all special conditions of the original permit remain in full force and effect. Therefore, the test boring work at the San Dieguito Interstate 5 bridge overpass are also prohibited between February 15th and August 31st of any year.

A concern of the Fish and Wildlife Services is that of the effect of vibrations on the swim bladders of fish. A high level of vibration can cause the rupture of the swim bladder, a

buoyancy controlling organ, and subsequently the death of the fish. The Caltrans vibration manual only has numbers for Caisson drilling, not geotechnical drilling. Caisson drilling utilizes a 2-4 foot diameter drill as opposed to the 2-3 inch drill proposed by the applicant. The proposed vibration would result in vibrations orders of magnitude less than a boat motor. Therefore, the geotechnical drilling would not have an adverse effect on the fish in the lagoon. The conditions of the original permit apply with full force and effect to this permit amendment, thus, as conditioned, the proposed project amendment, is found to be consistent with all Chapter 3 policies regarding marine resources in the Coastal Act.

Section 30233(a) (5)

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

The geotechnical test borings are a permitted use in lagoons, and associated wetlands as they are incidental to the provision of a public service. While the survey is primarily to establish bridge locations for the Interstate 5 expansion, these borings will assess the safety of the current bridges and as such are incidental to the actual road service and are temporary. Thus, the project, as originally conditioned, which conditions apply equally to this amendment, is consistent with all applicable policies of the Coastal Act.

In summary, using the mitigation measures proposed by the applicant, in conjunction with the conditions imposed by the Commission in the original permit and suggested by staff in this amendment, this project will be designed to minimize any adverse impacts to coastal resources, and is thus found consistent with the chapter 3 policies of the Coastal Act.

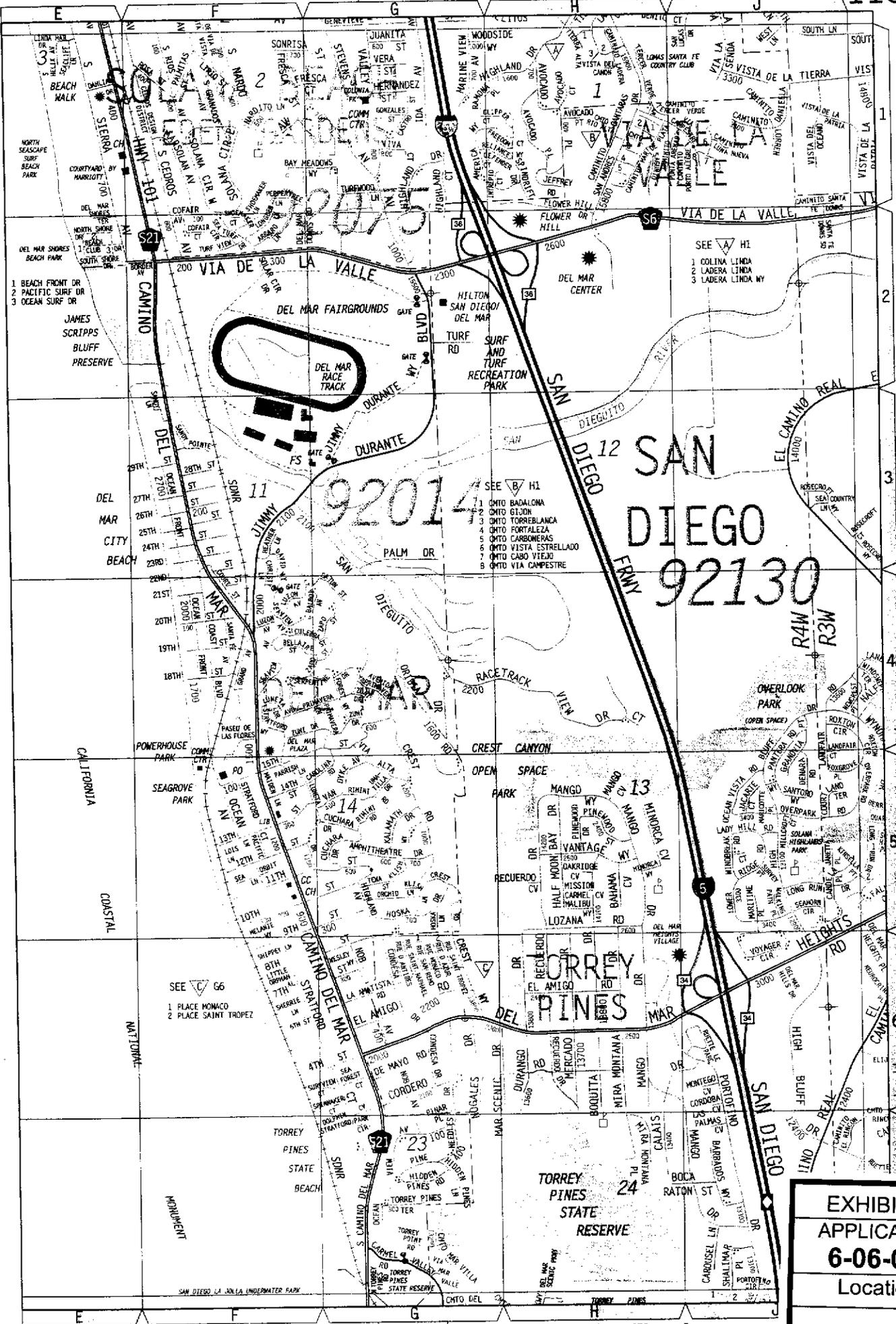
4. Local Coastal Planning. Previous findings have demonstrated that the project, as conditioned, is consistent with all cited Coastal Act policies. Therefore, the Commission finds that approval of the project will not prejudice the ability of the City of San Diego to continue to implement its fully certified LCP.

5. Consistency with the California Environmental Quality Act (CEQA). Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible

mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. Mitigation measures, including conditions addressing their Spill Contingency Plan and work during the breeding season will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

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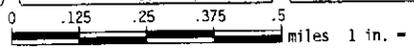


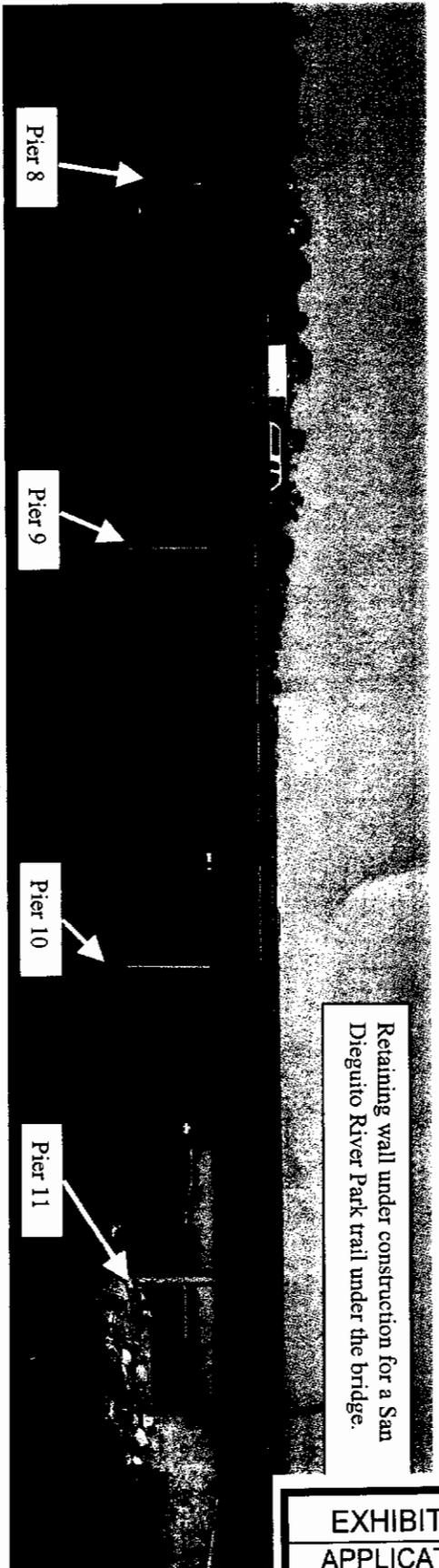
SAN DIEGO CO.

- SEE B H1
- 1 ONTO BADALONA
 - 2 ONTO GIDON
 - 3 ONTO TORREBLANCA
 - 4 ONTO FORTALEZA
 - 5 ONTO CARBONERAS
 - 6 ONTO VISTA ESTRELLADO
 - 7 ONTO CABO VIEJO
 - 8 ONTO VIA CAMPESTRE

- SEE G6
- 1 PLACE MONACO
 - 2 PLACE SAINT TROPEZ

EXHIBIT NO. 1
APPLICATION NO.
6-06-070-A1
Location Map



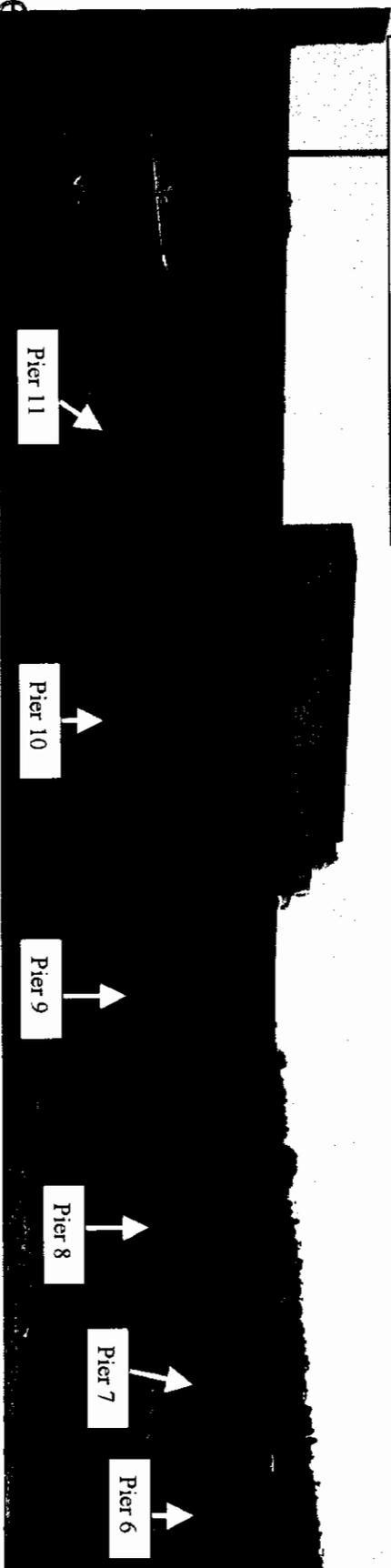


Retaining wall under construction for a San Diego River Park trail under the bridge.

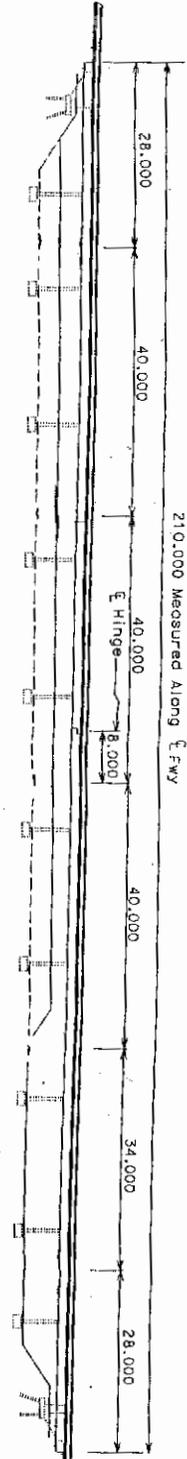
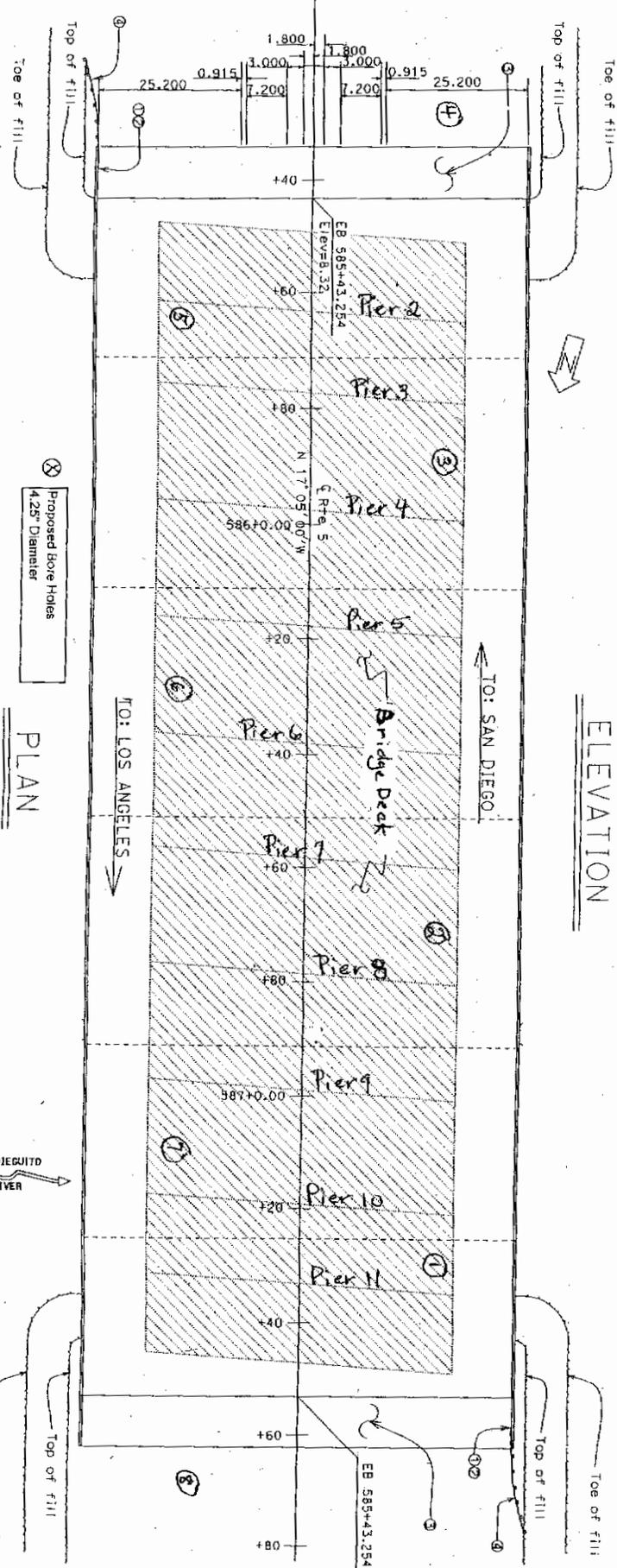
EXHIBIT NO. 2
 APPLICATION NO.
6-06-070-A1
 Bridge Overpass

North Coast Interstate 5 Corridor Project – Geotechnical Studies at San Diego River 07/03/08
 Looking west (above) at northbound traffic and east (below) at southbound traffic. Bore Hole #1 through the bridge deck would be between Piers 10 and 11 and Bore Hole #7 also through the bridge deck would be between Piers 9 and 10.

Retaining wall under construction for a San Diego River Park trail under the bridge.



Receiver
 SEP 19 2018
 California Coastal Commission
 San Diego District Office



LEGEND
 --- Denotes existing structure
 --- Denotes new construction

⊗ Proposed bore holes
 425" Diameter

PLAN

Date of Estimate: 12-28-04 P&A
 Structure Depth: 21600 M
 Length: 27000 M
 Width: 41870 M
 Area: 1018700 SQ M
 Cost/SM including 10% Mobilization & 25% Contingencies: \$34,524,402
 Total Cost: \$34,524,402

DESIGNED BY	GARY HIGHT	DATE	10/04
DRAWN BY	GARY HIGHT	DATE	10/04
CHECKED BY		DATE	
APPROVED		DATE	

STRUCTURE DESIGN SECTION 18

PLANNING STUDY
 SAN DIEGUITO RIVER BR. #118103
 PROJECT NO. 57-0488
 SCALE: NO SCALE @ 235800

(1 OF 2)

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

EXHIBIT NO. 3
 APPLICATION NO. 6-06-070-A1
 Site Plan for Borings