CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
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W23b

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Staff:	Jacqueline Blaugrund
Staff Report:	April 23, 2012
Hearing Date:	May 9, 2012

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-11-026

APPLICANT: California Department of Transportation

PROJECT LOCATION: Pacific Coast Highway between Postmile 22.54 and 22.9, Ventura County

PROJECT DESCRIPTION: Demolish approximately 1,800 linear ft. of existing seawall and replace with a new seawall of the same length and height in a further landward location; remove approximately 1,800 linear ft., 12 ft. wide existing rock revetment located immediately seaward of the existing seawall to be demolished; construct a new public access stairway and a new public access ramp to the beach; install three new public access signs and two new ADA-compliant parking spaces and signs; and repair and pave existing adjacent road shoulder and bicycle lane areas.

MOTION & RESOLUTION: Page 5

SUMMARY OF STAFF RECOMMENDATION: Staff recommends **approval** of the proposed development with **seven (7) special conditions** regarding (1) removal of rock revetment and construction of public access improvements, (2) revised plans/documentation, (3) biological monitoring during construction, (4) operations and maintenance responsibilities, (5) removal of excavated rock, (6) structural color, and (7) assumption of risk.

The California Department of Transportation is proposing to demolish approximately 1,800 linear ft. of existing seawall, located between Postmiles 22.54 and 22.9, and replace with a new seawall of the same length and height in a further landward location. This project also includes the removal of approximately 1,800 linear ft. of existing rock revetment that extends approximately 12 ft. seaward of the existing seawall to be demolished; construction of a new public access stairway and a new public access ramp to the beach; installation of three new public access signs and two new Americans with Disabilities Act (ADA) compliant parking spaces and signs; and reconstruction and pavement of existing adjacent road shoulder and bicycle lane areas.

The project site is located between Postmiles 22.54 and 22.9 along the Pacific Coast Highway near the community of Solimar in Ventura County. This area of Ventura County coastline provides recreational opportunities to the public and also supports existing residential communities. The location of the Pacific Coast Highway and existing residential communities has necessitated the placement of numerous shoreline protective devices both north and south of the proposed seawall demolition and replacement project.

As originally proposed project did not include the removal of any portions of the existing 1,800 linear ft. long rock revetment located seaward of the existing seawall. Moreover, the project also only included removal of the top 10 ft. of the existing seawall, leaving the lower portion visible above the typical elevation of beach sand. Through collaboration between Commission staff and the applicant, the proposed project has been modified to now include removal of the existing 1,800 linear ft. seawall down to two feet below the lowest expected beach sand profile and complete removal of the approximately 1,800 linear ft., 12 ft. wide existing rock revetment, thereby reducing potential visual impacts and increasing the area of useable beach. Thus, as now proposed to demolish all visible portions of the existing approximately 3 ft. wide seawall, reconstruct the new seawall in a further landward location, and remove all portions of the existing approximately 12 ft. wide rock revetment on site; this project will serve to reduce the footprint of shoreline armoring on site by approximately 15 ft. and will increase the area of sandy beach currently available for use by the public while continuing to ensure the geologic and engineering stability of Pacific Coast Highway. Moreover, the project has been designed to incorporate additional public access and recreational improvements including construction of a new public access stairway and a separate public access ramp to the sandy beach from the road shoulder parking area on site.

The existing seawall was originally constructed in 1934 and retrofitted in 1966. Construction of the proposed new seawall will include the landward placement of 605 “Cast-In-Drilled-Hole” piles, ranging from 2.6 ft. to 3 ft. in diameter. The piles will extend down to 54 ft. below the elevation of the adjacent road way and will maintain the same longitudinal footprint as the existing seawall to be demolished. The existing seawall will be removed to two feet below the lowest winter beach sand profile and all existing rock revetment will be removed. An eleven foot tall curved seawall fascia that has been designed to minimize tidal and wave overtopping will be added to the seaward side and top of the piles after the existing seawall is removed.

The top of the currently existing seawall on site extends to the elevation of Pacific Coast Highway roadbed and a concrete barrier extends 3.6 ft. in height above the seawall. As proposed, the new seawall and barrier will not be any greater in height than the existing seawall/barrier. Thus, the proposed project will not result in any new adverse impacts to public views of the ocean from the highway or from the beach.

This project will also include construction of one new public access stairway and one new public access ramp that will both be incorporated into the design of the new seawall and which will provide public pedestrian access from the road shoulder parking area to the sandy beach. In addition, the project also includes the installation of three new public access signs and two new disabled person parking spaces within the project reach. The road shoulder and bicycle lane areas adjacent to the location of the seawall to be demolished will be repaired and paved to further enhance public access.

Although replacement of the existing deteriorated seawall is necessary, shoreline armoring has a number of impacts on the coast, including but not limited to impacts from encroachment, fixing the back of the beach, and preventing the natural erosion of coastal bluffs that provide sandy material to the nearby beaches. As a result of these impacts, the Coastal Act is premised on both hazard and shoreline armoring avoidance. However, the presence of a seawall in this location is necessary to protect the continued use of adjacent Pacific Coast Highway as a means for access to public beaches, public campgrounds, and existing residences.

Although the Commission has previously certified a Local Coastal Program for Ventura County, portions of the proposed project will be located, at times, on state tidelands and is located within an area where the Commission has retained jurisdiction over the issuance of coastal development permits. Pursuant to Section 30601.3 of the Coastal Act, a consolidated permit was requested by California Department of Transportation and the County of Ventura and was approved by the Executive Director. Thus, the standard of review for this project is the Chapter Three policies of the Coastal Act, with the applicable policies of the Ventura County Local Coastal Program (LCP) as guidance. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

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LOCAL APPROVALS RECEIVED: California Regional Water Quality Control Board, Water Quality Certification No. 11-092, dated 10/14/11; California Department of Fish and Game Agreement No. 1600-2011-0148-R5, dated August 29, 2011; The County of Ventura Concurrence for a Consolidated Permit, dated February 1, 2011; California State Lands Commission Lease Application, dated June 23, 2011.

I. STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolution:

MOTION: ***I move that the Commission approve Coastal Development Permit No. 4-11-026 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit 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 THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter Three of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter Three. Approval of the permit 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 development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. SPECIAL CONDITIONS

1. Removal of Rock Revetment and Construction of Public Access Improvements

The applicant shall, by accepting this permit, agree and ensure that:

A. Where the new seawall is proposed, all portions of both the existing seawall and the rock revetment seaward of the existing seawall would be removed to a minimum depth of two feet below the lowest expected seasonal beach sand profile, which typically occurs during the late winter and early spring seasons.

B. Removal of all portions of the existing rock revetment within the project reach and construction of the new public access stairway, and the public access ramp shall be completed prior to, or concurrent with, the construction of the new seawall authorized by the approval of this permit. Striping for the ADA-compliant parking spaces and placement of public access signage shall be completed concurrent with, or immediately following completion of paving the road shoulder.

C. Improvement of a public access path from Pacific Coast Highway to the sandy beach, consistent with the provisions of Special Condition Two (2), shall be completed prior to, or

concurrent with, the construction of the new seawall authorized by the approval of this permit.

2. Revised Plans/Documentation

A. ***Prior to issuance of the Coastal Development Permit***, the applicant shall submit for the review and approval of the Executive Director, two sets of revised project plans. The final revised project plans and project description shall reflect the following:

(1) Improvement of an informal public pedestrian access path from Pacific Coast Highway to the sandy beach upcoast and within approximately 500 linear ft. of the upcoast terminus of the new seawall. The informal public access path shall be a minimum of 3 ft. in width to provide pedestrian access through and over a segment of the existing rock revetment and shall include reconfiguration of the rock within the revetment to: (a) create an opening and path through the revetment at street level and (b) reconfigure existing rock within the revetment to form "steps" to allow pedestrian access to the beach at lower beach sand elevations.

(2) All references to temporary installation of fencing and/or stockpile areas located on the sandy beach portion of the subject site shall be deleted in their entirety. Any temporary stockpile and staging areas on site shall be located landward of the existing seawall.

B. The Permittee shall undertake development in accordance with the final approved plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Coastal Commission approved amendment to the Coastal Development Permit, unless the Executive Director determines that no amendment is legally required.

3. Biological Monitoring During Construction

The applicant shall retain the services of a qualified biologist or environmental resources specialist (hereinafter, "environmental resources specialist") with appropriate qualifications acceptable to the Executive Director, to monitor the site during construction activities and conduct California Grunion pre-construction surveys. Prior to commencement of development, the applicant shall submit the contact information of all monitors with a description of their duties and their on-site schedule to the Executive Director for review and approval. The applicant shall ensure that the Environmental Specialist shall perform all of the following duties, and the applicant shall observe the following requirements:

A. If any construction activity occurs on the sandy beach including but not limited to, removal of the existing seawall and rock revetment, between March 1st and September 1st, then the applicant shall have the environmental resource specialist conduct a survey of the project site, to determine presence of California Grunion during the seasonally predicted run period and egg incubation period, as identified by the California Department of Fish and Game. If the environmental resources specialist determines that any grunion spawning activity is occurring and/or that grunion are present in or adjacent to the project site, then no

construction/demolition activities shall occur on the area of the beach where grunion have been observed to spawn until the next predicted run in which no grunion are observed. Surveys shall be conducted for all seasonally predicted run periods in which material is proposed to be placed or removed at any of the above sites. The applicant shall have the environmental resource specialist provide inspection reports after each grunion run observed and shall provide copies of such reports to the Executive Director and to the California Department of Fish and Game.

4. Operations and Maintenance Responsibilities

By accepting this permit, the applicant shall agree to comply with the following construction-related requirements:

A. The applicant shall not store or place any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be stored or placed in the intertidal zone at any time, except for that necessary to remove errant rocks from the beach seaward of the existing rock revetment.

B. Construction equipment shall not be cleaned on the beach or in the adjacent beach parking areas.

C. Construction debris and sediment shall be properly contained and secured on site with best management practices to prevent the unintended transport of sediment and other debris into coastal waters by wind, rain or tracking.

D. Construction debris and sediment shall be removed from construction areas as necessary to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.

E. During construction activities authorized pursuant to this permit, the applicant shall be responsible for removing all unsuitable material or debris within the area of placement should the material be found to be unsuitable for any reason, at any time, when the presence of such unsuitable material/debris can reasonably be attributed to the placement material. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.

F. The applicant shall ensure that if additional sand is necessary to import, only sand that is of the same grain size and coloration shall be utilized. This sand should be beach quality and free of contaminants.

5. Removal of Excavated Rock

Prior to issuance of the Coastal Development Permit, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all rock removed from the existing rock revetment on site. If the disposal site is located in the Coastal Zone, the disposal site must have a valid coastal development permit for the disposal of fill material. If the

disposal site does not have a coastal permit, such a permit will be required prior to the disposal of material.

6. Structural Color

Prior to the issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, a color sample for the surface of the seawall authorized by the approval of this permit. Acceptable colors shall be limited to those colors compatible with the surrounding environment, such as earth tones, including shades of tan and brown. The approved seawall shall be colored with only the color authorized pursuant to this special condition.

7. Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from tsunami, storm waves, surges, and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

Prior to issuance of the Coastal Development Permit, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

III. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION AND BACKGROUND

The California Department of Transportation is proposing to demolish approximately 1,800 linear ft. of existing seawall, located between Postmiles 22.54 and 22.9, and replace with a new seawall of the same length and height in a further landward location. This project also includes the removal of approximately 1,800 linear ft., 12 ft. wide existing rock revetment located immediately seaward of the existing seawall to be demolished; construction of a new public access stairway and a new public access ramp to the beach; installation of three new public access signs and two new Americans with Disabilities Act (ADA) compliant parking spaces and signs; and reconstruction and pavement of existing adjacent road shoulder and bicycle lane areas. The project site is located long the Pacific Coast Highway, between Postmiles 22.54 and 22.9, in Ventura County. This portion of the Pacific Coast Highway is 85 ft. wide with an approximately 40 ft. wide shoulder area and bicycle lane directly adjacent to the southbound direction. The community of Solimar is located directly north of the project site. Public parking along the dirt shoulder of the highway is available along the entire length of the project area. The existing

seawall on site was originally constructed prior to the effective date of the Coastal Act and the applicant has indicated that the structure has reached the end of its expected life and is no longer adequate to ensure the protection of the subject reach of Pacific Coast Highway from wave action. The applicant's engineers have further found that due to the deteriorated and damaged state of the existing seawall, it is necessary to demolish and replace the existing seawall on site in order to ensure the continued use of the adjacent public highway.

As originally proposed project did not include the removal of any portions of the existing 1,800 linear ft. long rock revetment located seaward of the existing seawall. Moreover, the project also only included removal of the top 10 ft. of the existing seawall, leaving the lower portion visible above the typical elevation of beach sand. Through collaboration between Commission staff and the applicant, the proposed project has been modified to now include removal of the existing seawall down to two feet below the lowest expected beach sand profile and complete removal of existing rock revetment, thereby reducing potential visual impacts and enhancing the area of useable beach. Thus, as now proposed to demolish all visible portions of the previously existing seawall, reconstruct the new seawall in a further landward location, and remove all portions of the existing rock revetment on site; this project will serve to reduce the footprint of shoreline armoring on site and will increase the area of sandy beach currently available for use by the public while continuing to ensure the geologic and engineering stability of Pacific Coast Highway. Moreover, the project has been designed to incorporate additional public access and recreational improvements including construction of a new public access stairway and a separate public access ramp to the sandy beach from the road shoulder parking area on site.

The proposed project includes construction of new public access improvements on site including a new public access stairway and a new public access ramp (adequate to provide access consistent with the ADA requirements) which have been incorporated into the design of the new sea wall to provide public access from Pacific Coast Highway to the sandy beach. In addition, the project also includes the provision of two new ADA-compliant designated parking spaces within the existing road shoulder parking area on site. The road shoulder and bicycle lane areas adjacent to the location of the existing seawall to be demolished will be repaired and paved to further enhance public access. Construction equipment will be operated from the landward side of the existing seawall to construct the new seawall although some operation of heavy equipment on the beach will be necessary in order to remove the existing rock revetment on site. Staging of the construction materials will be within the adjacent shoulder area. This area will be identified by the placement of temporary construction signs and temporary railing.

The sequencing of construction would be implemented as follows: 1) installation of 605 "Cast-In-Drilled-Hole piles," ranging in diameter from 2.6 ft. to 3 ft., landward of the existing seawall to be demolished; 2) removal of all existing rock revetment; 3) removal of the existing seawall to a minimum of two feet below the lowest beach sand profile; 4) removal of the remaining earthen material behind the existing seawall and between the new seawall piles; 5) addition of an eleven foot tall seawall fascia to the seaward side and top of the piles through tying of rebars and pouring of concrete; 6) completion of the public access stairway and ramp; and 7) recompaction and pavement of the earthen material on the landward side of the proposed seawall.

The top of the currently existing seawall on site extends to the elevation of Pacific Coast Highway roadbed and a concrete barrier extends 3.6 ft. in height above the seawall. As proposed, the new seawall and barrier will not be any greater in height than the existing

seawall/barrier. In addition, although the project includes the installation of a new 3.6 foot high concrete barrier located on top of the seawall, this barrier will not be any greater in height than the previously existing barrier and will not result in any new adverse impacts to public views on or across the project site.

Although the Commission has previously certified a Local Coastal Program for Ventura County, portions of the proposed project will be located, at times, on state tidelands and is located within an area where the Commission has retained jurisdiction over the issuance of coastal development permits. Pursuant to Section 30601.3 of the Coastal Act, a consolidated permit was requested by California Department of Transportation and the County of Ventura and was approved by the Executive Director. Thus, the standard of review for this project is the Chapter Three policies of the Coastal Act, with the applicable policies of the Ventura County LCP as guidance. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

B. HAZARDS AND SHORELINE PROCESSES

Section **30235** of the Coastal Act, which has been incorporated in the certified Ventura County LCP, states:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.*

Section **30253** of the Coastal Act, which has been incorporated in the certified Ventura County LCP, states in part that new development shall:

> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Coastal Act Section 30235 specifically provides that shoreline protective devices must be permitted only when both of the following two criteria are met: (1) the device is required to serve coastal-dependent uses or to protect existing structures or public beaches provided that these areas/structures are in danger from erosion and (2) the device is designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Additionally, Section 30253 of the Coastal Act mandates that new development shall minimize risks to life and property in areas of high geologic and flood hazard.

The Ventura coastal area, where the subject site is located, has historically been subject to flooding and damage resulting from wave action during storm conditions. Past occurrences have resulted in public costs for public service (including low-interest loans) in the millions of dollars in the Ventura County area. Specifically, the subject site has been susceptible to previous damage from flooding and/or wave damage from storm waves and storm surge conditions which, prior to the effective date of the Coastal Act, resulted in the need for the original construction of the existing 1,800 linear ft. seawall with rock revetment toe protection to protect Pacific Coast Highway.

In this case, the applicant has indicated that the existing shoreline protection on site has reached the end of its expected life and is no longer adequate to ensure the protection of the subject reach of Pacific Coast Highway from wave action. The applicant's engineers have further found that due to the deteriorated and damaged state of the existing seawall, it is necessary to demolish and replace the existing seawall on site in order to ensure the continued use of the adjacent public highway. The new seawall will be located entirely landward of the previously existing seawall and will not result in any seaward encroachment by new development on the sandy beach. Moreover, as originally proposed, the project included the retention of the 1,800 linear ft., approximately 12 ft. wide, rock revetment located seaward of the existing seawall; however, at the direction of Commission staff, the applicant has since revised the proposed project to remove all portions of the rock revetment within the project reach.

1. Impacts from Shoreline Armoring

Coastal Act Section 30235 acknowledges that seawalls, revetments, and other types of shoreline protective devices designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, Section 30235 limits the construction of shoreline protective works to those required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations because shoreline structures can have a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach.

Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. The impact of a shoreline protective device on public access is most evident on a beach where wave run-up and the mean high tide line are frequently observed in an extreme landward position during storm events and the winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and private land also retreats landward. Construction of rock revetments and seawalls to protect private property fixes a boundary on the beach and prevents any current or future migration of the shoreline and mean high tide line landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark becomes obsolete the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tideline is inundated. The ultimate result of a fixed tideline boundary (which would otherwise normally migrate and retreat landward, while maintaining a passable distance between the high water mark and low water mark overtime) is a reduction or elimination of the area of sandy beach available for public access and recreation.

Interference by shoreline protective devices can result in a number of adverse effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile which results from a reduced beach berm width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area in which the public can pass on their own property. The second effect on access is through a progressive loss of sand as shore material is not available to nourish the nearshore sand bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. This affects public access again through a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect shoreline sand supply and public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline and they reach a public beach. In addition, if a seasonal eroded beach condition occurs with greater frequency due to the placement of a shoreline protective device on the subject site, then the subject beach would also accrete at a slower rate. Fourth, if not sited landward in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave's energy.

As a result of the potential impacts arising from shoreline protective device projects, it is critical to have an alternatives analysis based upon the technical and resource data specific to the site. The Coastal Act requires such projects to be sited and designed to protect views to and along the ocean and scenic coastal areas; to eliminate or mitigate adverse impacts on local shoreline sand supply; to avoid impediments to public access; to be compatible with the continuance of sensitive habitat and recreation areas; and to prevent impacts which would degrade sensitive habitats, parks, and recreation areas.

2. Sea Level Rise

In addition, sea level has been rising slightly for many years. As an example, in the Santa Monica Bay area, the historic rate of sea level rise, based on tide gauge records, has been 1.8 mm/yr. or about 7 inches per century[1]. Recent satellite measurements have detected global sea level rise from 1993 to present of 3 mm/yr or a significant increase above the historic trend observed from tide gauges. Recent observations of sea level along parts of the California coast have shown some anomalous trends, however; there is a growing body of evidence that there has been a slight increase in global temperature and that an accelerated rate of sea level rise can be expected to accompany this increase in temperature. Sea level rise is expected to increase significantly throughout the 21st century and some coastal experts have indicated that sea level rise of 3 to 5 ft. or more could occur by the year 2100[2]. Mean water level affects shoreline

[1] Lyles, S.D., L.E. Hickman and H.A. Debaugh (1988) *Sea Level Variations for the United States 1855 – 1986*. Rockville, MD: National Ocean Service.
[2] Cayan, D.R., M. Tyree, M. Dettinger, H. Hidalgo, T. Das, E. Maurer, P. Bromirski, N. Graham, and R.E. Flick, 2009. *Climate Change Scenarios and Sea Level Estimates for the California 2008 Climate Change Scenarios Assessment*,

erosion in several ways and an increase in the average sea level will exacerbate all these conditions.

On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. On a relatively flat beach, with a slope of 40:1, a simple geometric model of the coast indicated that every centimeter of sea level rise will result in a 40 cm. landward movement of the ocean/beach interface. For fixed structures on the shoreline, such as a seawall, an increase in sea level will increase the inundation of the structure. More of the structure will be inundated or underwater than is inundated now and the portions of the structure that are now underwater part of the time will be underwater more frequently.

Accompanying this rise in sea level will be an increase in wave heights and wave energy. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage. Combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to increased wave action, and those areas that are already exposed to wave action will be exposed more frequently, with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

3. Shoreline Protection on the Subject Site

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, Section 30235 limits the construction of shoreline protective works to those required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations because shoreline structures can have a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach. Specifically, Section 30235 of the Coastal Act allows for the construction of a shoreline protective device only when necessary to protect existing development or to protect a coastal dependent use and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. In this case, the proposed seawall is necessary in order to protect the Pacific Coast Highway, an important regional and local roadway, as well as a well-used public parking area located along the seaward shoulder of the highway, and the Union Pacific railroad tracks located immediately landward of the highway itself. Although there is an existing seawall on site which currently protects the above referenced developments, the applicant's engineers have indicated that the existing seawall has reached the end of its expected life and must be replaced to ensure the geologic and engineering stability of the existing public highway.

Draft Paper, CEC-500-2009-014-D, 62 pp, http://www.energy.ca.gov/2009publications/CEC-500-2009-014/CEC-500-2009-014-D.pdf.

Thus, the Commission finds that in this case, a shoreline protective device is necessary in order to protect existing development consistent with Section 30235.

However, Section 30235 of the Coastal Act also requires that, when new shoreline protective devices are allowed, such devices shall be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Thus, when read in tandem with other applicable Coastal Act policies protecting coastal resources as cited in these findings, this 30235 evaluation is often conceptualized as a search for the least environmentally damaging feasible alternative that can serve to achieve the stated project goal of protecting the threatened structure, coastal-dependent use, or public beach.

In this case, the applicant has submitted an engineering and alternatives analysis which found that the "No Project" alternative, or failure to replace the existing seawall, is not a feasible alternative because the existing seawall on site has deteriorated to the point where it is eventually expected to fail. Failure of the existing seawall would result in damage or loss of portions of Pacific Coast Highway within the subject area due to wave caused erosion. Realignment of Pacific Coast Highway further landward was also analyzed and found to be not a feasible alternative to the proposed project due to the location of the subject site on a narrow coastal terrace backed by steep cliffs to the north. As it currently exists, both the location and orientation of the highway are constrained by the location of the adjacent railroad tracks, the further landward Highway 101, and steep coastal hillsides which preclude landward relocation of any of these existing facilities.

Moreover, in past permit actions, the Commission has found that adverse impact to shoreline processes from shoreline protective devices are greater the more frequently that they are subject to wave action. As such, in past permit actions, the Commission has required that all new development on a beach, including shoreline protection devices, be located as landward as possible in order to reduce adverse impacts to the sand supply and public access resulting from the development.

In this case, all portions of the new proposed seawall will be located immediately landward of the existing seawall on site. Thus, the new seawall will not result either in any seaward encroachment by new development on the sandy beach and will not result in any impacts to sand supply. Commission staff worked with the applicant to evaluate the alternative of relocating the new seawall even further landward; however, any further landward relocation would only serve to further reduce the area along the seaward shoulder of the highway currently available for public parking by beachgoers. Thus, in this case, the Commission finds that further landward relocation of the new seawall would result in additional adverse impacts to public access and recreational facilities and would not significantly reduce impacts to shoreline processes or sand supply.

However, staff notes that, as originally proposed by the applicant, this project failed to provide for the removal of any portions of the existing 1,800 linear ft. long, rock revetment which extended approximately 12 ft. seaward of the toe of the existing seawall. Further, the project also only included removal of only the top 10 ft. of the existing seawall, leaving the lower portion visible above the typical elevation of beach sand and subject to more frequent exposure during those times when the beach is subject lower sand elevations, including winter and early spring months. The applicant's engineers confirmed that the structural stability of the new proposed

seawall will not be dependent, in any way, on the existing revetment on site, nor would the revetment be necessary to ensure the stability of the highway after the new seawall is constructed. Failure to remove the 12 ft. wide revetment would result in continued adverse impacts to shoreline processes and sand supply and public access and recreation due to the large area of beach occupied by rock which would be frequently subject to wave uprush.

Therefore, Commission staff coordinated with the applicant to revise the proposed project to now include removal of the existing seawall down to two feet below the lowest expected beach sand profile and provide for complete removal of existing rock revetment on site, thereby reducing potential visual impacts and enhancing the area of useable beach. Thus, as now proposed to demolish all visible portions of the previously existing seawall, reconstruct the new seawall in a further landward location, and remove all portions of the existing rock revetment on site; this project will serve to reduce the footprint of shoreline armoring on site and will increase the area of sandy beach currently available for use by the public while continuing to ensure the geologic and engineering stability of Pacific Coast Highway.

Therefore, in order to ensure the applicant's proposal is implemented in a manner adequate to minimize adverse impacts to shoreline processes and public access on site, **Special Condition One (1)** requires the applicant to specifically remove all portions of both the existing seawall and the rock revetment within the project reach to a minimum depth of two feet below the lowest expected seasonal beach sand profile, which typically occurs during the late winter and early spring seasons. **Special Condition One (1)** also requires that removal of all portions of the existing rock revetment shall be completed prior to, or concurrent with, the construction of the new seawall authorized by the approval of this permit.

Further, since the existing seawall on site has reached the end of its expected life, the Commission finds that the proposed replacement of the existing seawall with a new seawall will serve to extend the period of time that shoreline armoring will be present along this portion of coastline. Moreover, extending the life of the shoreline protection on the subject site will also serve to extend the period of time that such shoreline armoring will result in adverse impacts to shoreline sand supply and public access.

Thus, in order to address these adverse impacts, the applicant, in consultation with Commission staff, has designed the proposed project to incorporate significant public access and recreational improvements including construction of new public access improvements on site including a new public access stairway and a new public access ramp (adequate to provide access consistent with the ADA requirements) which have been incorporated into the design of the new sea wall to provide public access from Pacific Coast Highway to the sandy beach. Further, the project also includes the provision of two new ADA-compliant designated parking spaces within the existing road shoulder parking area on site. The road shoulder and bicycle lane areas adjacent to the location of the existing seawall to be demolished will be repaired and paved to further enhance public access. Therefore, in order to ensure the applicant's proposal is implemented in a manner adequate to minimize adverse impacts to shoreline processes and public access on site, **Special Condition One (1)** requires the applicant to complete construction of the new public access stairway and the public access ramp, concurrent with the construction of the new seawall authorized by the approval of this permit. **Special Condition One (1)** further requires that striping for the ADA-compliant parking spaces and placement of public access signage shall be completed concurrent with, or immediately following completion of paving the road shoulder.

Further, Commission staff worked with the applicant's representatives to identify potential additional public access improvements which could be feasibly constructed within the nearby area of Ventura County which could be used to offset the unavoidable adverse impacts to shoreline sand supply and public access resulting from the proposed project, including new public access improvements at the nearby beach located immediately upcoast of the project area. Although road shoulder parking is available, and well-used by beachgoers, in this area, an existing rock revetment is located between the highway and sandy beach which makes pedestrian access to the beach from the road difficult.

Therefore, in order to mitigate the potential adverse impacts to public access resulting from the extension of the life of the revetment, **Special Condition Two (2)** requires that prior to issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, revised project plans/documentation which provide for the improvement of a new informal public pedestrian access path from Pacific Coast Highway to the sandy beach upcoast and within approximately 500 linear ft. of the upcoast terminus of the new seawall. The informal public access path shall be a minimum of 3 ft. in width to provide pedestrian access through and over a segment of the existing rock revetment and shall include reconfiguration of the rock within the revetment to: (a) create an opening and path through the revetment at street level and (b) reconfigure existing rock within the revetment to form "steps" to allow pedestrian access to the beach at lower beach sand elevations. In addition, **Special Condition One (1)** requires that construction of the public access path required by **Special Condition Two (2)**, shall be completed prior to, or concurrent with, the construction of the new seawall authorized by the approval of this permit.

To ensure that the potential for construction activities to adversely effect the marine environment are minimized, **Special Condition No. Four (4)** requires the applicants to ensure that no construction materials, debris or waste shall be placed or stored where it may be subject to wave erosion and dispersion, that all debris resulting from construction activities shall be removed from the beach prior to the end of each work day; no machinery or mechanized equipment shall be allowed in the intertidal zone, except for that necessary to remove the errant rocks from the beach seaward of the revetment; and all excavated beach sand shall be redeposited on the beach.

In addition, in order to ensure that all rock removed from the revetment to be demolished will not be stockpiled on site and that impacts to shoreline processes are minimized, **Special Condition Five (5)** requires that the applicant shall provide evidence to the Executive Director of the location of the disposal site for all rock removed from the existing rock revetment on site. If the disposal site is located in the Coastal Zone, the disposal site must have a valid coastal development permit for the disposal of fill material.

In addition, although the applicant has indicated that no stockpiling of materials or materials resulting from demolition of either the seawall or revetment, the project plans submitted as part of this application show stockpiling and construction fencing on the sandy beach seaward of the existing rock revetment to be removed. Therefore, **Special Condition Two (2)** has been required to clarify and ensure that no stockpiling on the beach will occur and that no temporary fencing will be utilized by requiring the applicant to submit revised plans, for the review and approval of the Executive Director, which show that all stockpiles and fencing located on the sandy beach have been deleted.

However, the Commission further notes that the proposed development is located along the shoreline in Ventura County. The Ventura County coast has historically been subject to substantial damage as the result of storm and flood occurrences, most recently, and perhaps most dramatically, during the past 1998 El Nino severe winter storm season.

The subject site is clearly susceptible to flooding and/or wave damage from storm waves, storm surges and high tides. The El Nino storms recorded in 1982-1983 caused high tides of over 7 feet, which were combined with storm waves of up to 15 ft. These storms caused substantial damage to structures in Ventura County. The severity of the 1982-1983 El Nino storm events are often used to illustrate the extreme storm event potential of the California, and in particular, Ventura County's coast.

Thus, ample evidence exists that all beachfront areas in the Ventura County area are subject to an unusually high degree of risk due to storm waves and surges, high surf conditions, erosion, and flooding. The subject site, even after the completion of the proposed project, will continue to be subject to the high degree of risk posed by the hazards of oceanfront development in the future. The Coastal Act recognizes that development, such as the seawall replacement project, even as designed and constructed to incorporate the recommendations of the applicant's coastal engineer, may still involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use the subject property.

Thus, in this case, the Commission finds that due to the possibility of tsunami, storm waves, surges, and erosion the applicant shall assume these risks as conditions of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's Assumption of Risk, Waiver of Liability and Indemnity, as required by **Special Condition No. Seven (7),** will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the development it protects, and will effectuate the necessary assumption of those risks by the applicant.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Sections 30235 and 50253.

C. PUBLIC ACCESS AND RECREATION

Coastal Act Section **30210**, which has been incorporated in the certified Ventura County LCP, states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section **30211**, which has been incorporated in the certified Ventura County LCP, states:

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.

Coastal Act Section **30212(a)**, which has been incorporated in the certified Ventura County LCP, states:

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Coastal Act Section **30221**, which has been incorporated in the certified Ventura County LCP, states:

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Coastal Act Section 30210 and Coastal Act Section 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Section 30212(a) of the Coastal Act provides that adequate public access to the sea be provided in new development projects. Additionally, Section 30221 of the Coastal Act protects oceanfront land for recreational uses.

In past permit actions, the Commission has often required that public access to and along the shoreline be provided in conjunction with beachfront development projects and has required design changes in other projects to reduce interference with access to and along the shoreline. The principal access impacts associated with such projects that have provided the nexus for these requirements in permits involving shoreline protection are the occupation of sand area by a structure and/or the potential for adverse effects from a shoreline protective device on shoreline sand supply and public access and recreation, in contradiction of Coastal Act policies 30210, 30212, 30220, and 30221.

Past Commission review of shoreline armoring projects in Ventura County has shown that individual and cumulative adverse effects to public access from such projects can include encroachment on lands subject to the public trust (or, in a case such as this, otherwise subject to public access rights), thus physically excluding the public; interference with the natural shoreline processes necessary to maintain publicly-owned tidelands and other public beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the public's access to and the ability to use public tideland areas. Similarly, the substantial repair or replacement of an existing shoreline protective device serves to extend the life of the device and in doing so extends the period of time that the shoreline protective device will result in adverse impacts to shoreline sand supply and public access.

The proposed project must be judged against the public access and recreation policies of the State Constitution and Sections 30210 and 30212 of the Coastal Act. Although in private residential projects, the Commission may not know the exact boundary between private and public land on this site because the landward boundary of State Lands' public trust lands is "a shifting boundary, going landward with erosion and waterward with accretion"[3], it appears that at least part of the project site that would be covered by rock is public land located, at times, seaward of the ambulatory mean high tide line. In addition, as indicated above, even if the entire area to be covered by rock were private land, the rock will nevertheless have impacts on the adjacent public sandy beach that may affect the maintenance of that beach area, and thus, public access. Finally, even if it were all private property, this gives rise to issues involving implied dedication and the protection of public rights acquired through use, rather than ownership[4]. Coastal Act Section 30211, as incorporated into the LCP, requires the Commission to ensure that development not interfere with such rights. In this case, the proposed seawall will be located within the public Caltrans Right-of-Way for Pacific Coast Highway, thus, all development will be located on public land.

Regardless, the Commission has also routinely found in past permit actions that shoreline protective devices, even when located above the mean high tide line, may still involve adverse effects on shoreline processes as wave energy reflected by those structures contributes to erosion and steepening of the shore profile, and ultimately, to the extent and availability of tidelands. For these reasons, the Commission must also consider whether a project will have indirect effects on public use of these shorelands.

The interference by a shoreline protective device, such as a seawall, has a number of adverse effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile, which result from reduced beach width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area of public property available for public use. The second effect on access is through a progressive loss of sand, as shore material is no longer available to nourish the bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. The effect that this has on the public is a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline, eventually affecting the profile of a public beach. Fourth, if not sited as far landward as possible, in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate wave energy. Finally, revetments and bulkheads interfere directly with public access by their

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[3] **Lechuza Villas West v. California Coastal Comm'n (1997) 60 Cal. App. 4th 218, 238-39, quoting City of Oakland v. Buteau (1919) 180 Cal. 83.**

[4] **Gion v. City of Santa Cruz (1970) 2 Cal. 3d 29, 39.**

occupation of beach area that will not only be unavailable during high tide and severe storm events but also potentially throughout the winter season.

In this case, the applicant has indicated that the existing shoreline protection on site has reached the end of its expected life and is no longer adequate to ensure the protection of the subject reach of Pacific Coast Highway from wave action. The applicant's engineers have further found that due to the deteriorated and damaged state of the existing seawall, it is necessary to demolish and replace the existing seawall on site in order to ensure the continued use of the adjacent public highway. The new seawall will be located entirely landward of the previously existing seawall and will not result in any seaward encroachment by new development on the sandy beach. Moreover, as originally proposed, the project included the retention of the 1,800 linear ft., approximately 12 ft. wide, rock revetment located seaward of the existing seawall; however, at the direction of Commission staff, the applicant has since revised the proposed project to remove all portions of the rock revetment within the project reach.

Moreover, in past permit actions, the Commission has found that adverse impact to shoreline processes from shoreline protective devices are greater the more frequently that they are subject to wave action. As such, in past permit actions, the Commission has required that all new development on a beach, including shoreline protection devices, be located as landward as possible in order to reduce adverse impacts to the sand supply and public access resulting from the development.

In this case, all portions of the new proposed seawall will be located immediately landward of the existing seawall on site. Thus, the new seawall will not result either in any seaward encroachment by new development on the sandy beach and will not result in any impacts to sand supply. Commission staff worked with the applicant to evaluate the alternative of relocating the new seawall even further landward; however, any further landward relocation would only serve to further reduce the area along the seaward shoulder of the highway currently available for public parking by beachgoers. Thus, in this case, the Commission finds that further landward relocation of the new seawall would result in additional adverse impacts to public access and recreational facilities and would not significantly reduce impacts to shoreline processes or sand supply.

However, staff notes that, as originally proposed by the applicant, this project failed to provide for the removal of any portions of the existing 1,800 linear ft. long, rock revetment which extended approximately 12 ft. seaward of the toe of the existing seawall. Further, the project also only included removal of only the top 10 ft. of the existing seawall, leaving the lower portion visible above the typical elevation of beach sand and subject to more frequent exposure during those times when the beach is subject lower sand elevations, including winter and early spring months. The applicant's engineers confirmed that the structural stability of the new proposed seawall will not be dependent, in any way, on the existing revetment on site, nor would the revetment be necessary to ensure the stability of the highway after the new seawall is constructed. Failure to remove the 12 ft. wide revetment would result in continued adverse impacts to shoreline processes and sand supply and public access and recreation due to the large area of beach occupied by rock which would be frequently subject to wave uprush. Therefore, Commission staff coordinated with the applicant to revise the proposed project to now include removal of the existing seawall down to two feet below the lowest expected beach sand

profile and provide for complete removal of existing rock revetment on site, thereby reducing potential visual impacts and enhancing the area of useable beach. Thus, as now proposed to demolish all visible portions of the previously existing seawall, reconstruct the new seawall in a further landward location, and remove all portions of the existing rock revetment on site; this project will serve to reduce the footprint of shoreline armoring on site and will increase the area of sandy beach currently available for use by the public while continuing to ensure the geologic and engineering stability of Pacific Coast Highway.

Therefore, in order to ensure the applicant's proposal is implemented in a manner adequate to minimize adverse impacts to shoreline processes and public access on site, **Special Condition One (1)** requires the applicant to specifically remove all portions of both the existing seawall and the rock revetment within the project reach to a minimum depth of two feet below the lowest expected seasonal beach sand profile, which typically occurs during the late winter and early spring seasons. **Special Condition One (1)** also requires that removal of all portions of the existing rock revetment shall be completed prior to, or concurrent with, the construction of the new seawall authorized by the approval of this permit.

Moreover, the substantial repair or replacement of an existing shoreline protective device, as proposed by this project, serves to extend the life of the device and in doing so extends the period of time that the shoreline protective device will result in adverse impacts to shoreline sand supply and public access.

Thus, in order to address these adverse impacts, the applicant, in consultation with Commission staff, has designed the proposed project to incorporate significant public access and recreational improvements including construction of new public access improvements on site including a new public access stairway and a new public access ramp (adequate to provide access consistent with the ADA requirements) which have been incorporated into the design of the new sea wall to provide public access from Pacific Coast Highway to the sandy beach. Further, the project also includes the provision of two new ADA-compliant designated parking spaces within the existing road shoulder parking area on site. The road shoulder and bicycle lane areas adjacent to the location of the existing seawall to be demolished will be repaired and paved to further enhance public access. Therefore, in order to ensure the applicant's proposal is implemented in a manner adequate to minimize adverse impacts to shoreline processes and public access on site, **Special Condition One (1)** requires the applicant to remove to complete construction of the new public access stairway, and the public access ramp concurrent with, the construction of the new seawall authorized by the approval of this permit. **Special Condition One (1)** further requires that striping for the ADA-compliant parking spaces and placement of public access signage shall be completed concurrent with, or immediately following completion of paving the road shoulder.

Further, Commission staff worked with the applicant's representatives to identify potential additional public access improvements which could be feasibly constructed within the nearby area of Ventura County which could be used to offset the unavoidable adverse impacts to shoreline sand supply and public access resulting from the proposed project, including new public access improvements at the nearby beach located immediately upcoast of the project area. Although road shoulder parking is available, and well-used by beachgoers, in this area, an existing rock revetment is located between the highway and sandy beach which makes pedestrian access to the beach from the road difficult.

Therefore, in order to mitigate the potential adverse impacts to public access resulting from the extension of the life of the revetment, **Special Condition Two (2)** requires that prior to issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, revised project plans/documentation which provide for the improvement of a new informal public pedestrian access path from Pacific Coast Highway to the sandy beach upcoast and within approximately 500 linear ft. of the upcoast terminus of the new seawall. The informal public access path shall be a minimum of 3 ft. in width to provide pedestrian access through and over a segment of the existing rock revetment and shall include reconfiguration of the rock within the revetment to: (a) create an opening and path through the revetment at street level and (b) reconfigure existing rock within the revetment to form "steps" to allow pedestrian access to the beach at lower beach sand elevations. In addition, **Special Condition One (1)** requires that construction of the public access path required by **Special Condition Two (2)**, shall be completed prior to, or concurrent with, the construction of the new seawall authorized by the approval of this permit.

In addition, the proposed project activities will result in the temporary disruption of the public's ability to use the subject site for beach access because the section of the adjacent shoulder public parking and beach area will have limited public access during construction activities to ensure public safety; however additional parking and accessible beach areas are available both upcoast (north) and downcoast (south) of the proposed project site adjacent to the Pacific Coast Highway. The existing bicycle path located adjacent to where the proposed construction activities will occur is to remain open for use throughout a majority of the proposed project; however access will be limited when the proposed paving begins. Proposed demolition of the existing seawall would also consist of removal of the existing deteriorated public access stairway, located near the southern portion of the existing seawall; however, as previously stated there are other beach access points both north and south of the proposed project site. Therefore, disruptions to public access due to construction impacts would be relatively minor and temporary in nature.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30210, 30211, 30212(a) and 30221 of the Coastal Act.

D. MARINE RESOURCES

Coastal Act Section **30230**, which has been incorporated in the certified Ventura County LCP, states:

> *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.*

Coastal Act Section **30231**, which has been incorporated in the certified Ventura County LCP, states:

> *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 waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Coastal Act Section **30240**, which has been incorporated in the certified Ventura County LCP, states:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Section 30230 requires that uses of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters for long-term commercial, recreational, scientific, and educational purposes. Section 30231 requires that the biological productivity and quality of coastal waters be maintained. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas shall be protected and that development within or adjacent to such areas must be designed to prevent impacts which could degrade those resources.

Construction activities related to the proposed seawall demolition and replacement have the potential to negatively impact the surrounding marine environment. Introduction of waste or construction debris into the marine environment could create deleterious impacts to coastal waters and could stem from activities such as stockpiling of materials or cleaning of construction equipment on or adjacent to the beach. In order to ensure that adverse impacts to the marine environment are minimized, the Commission finds it necessary to require the applicant to include construction best management practices in the project. **Special Condition Four (4)** requires that the project applicant comply with specific construction standards and best management practices. **Special Condition Four (4)** further requires that no construction materials, debris or waste shall be placed or stored where it may be subject to wave erosion and dispersion, that all debris resulting from construction activities shall be removed from the beach prior to the end of each work day; no machinery or mechanized equipment shall be allowed in the intertidal zone, except for that necessary to remove the errant rocks from the beach seaward of the revetment; and all excavated beach sand shall be redeposited on the beach.

In addition, although the applicant has indicated that no stockpiling of materials or materials resulting from demolition of either the seawall or revetment, the project plans submitted as part of this application show stockpiling and construction fencing on the sandy beach seaward of the existing rock revetment to be removed. Therefore, **Special Condition Two (2)** has been required to clarify and ensure that no stockpiling on the beach will occur and that no temporary fencing will be utilized by requiring the applicant to submit revised plans, for the review and approval of the Executive Director, which show that all stockpiles and fencing located on the sandy beach have been deleted. These special conditions will minimize impacts to marine resources by

considering and addressing the deleterious impacts that construction equipment, debris, and waste can create within the proposed project area.

In addition, the applicant's biologist has submitted a biological survey and analysis prepared for the site, which finds that no sensitive animal or bird species have been determined to reside within the project area. Thus, the proposed project is not expected to result in any adverse impacts to sensitive plant or animal species on site. However, the Commission finds that the project area is within the expected range of the California Grunion. To ensure that any potential adverse effects to the California Grunion are minimized, **Special Condition Three (3)** requires that a qualified biologist or environmental resource specialist shall conduct a survey of the project site each day prior to commencement of any construction activities that occur between March 1st and September 1st, to determine whether any California Grunion, or eggs, are present. In the event that the California Grunion are present on the project site, and exhibit reproductive behavior, the environmental specialist shall require the applicant to cease work, and shall immediately notify the Executive Director and local resource agencies. Project activities shall resume only upon written approval of the Executive Director. The monitor(s) shall require the applicant to cease work should any breach in permit compliance occur or if any unforeseen sensitive habitat issues arise. The monitor(s) shall immediately notify the Executive Director if activities outside of the scope of this coastal development permit. If significant impacts or damage occur to the California Grunion, the applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30230, 30231, and 30240.

E. VISUAL RESOURCES

Coastal Act Section **30251**, which has been incorporated in the certified Ventura County LCP, states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Coastal Act Section 30251 requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored.

The proposed project location is directly adjacent to the Pacific Coast Highway, immediately landward of the existing seawall to be demolished, and is therefore directly adjacent to a public beach. In such a location, it is necessary to assess any potential visual impacts that may result from the completion of the proposed project. In this case, bluewater views of the ocean from

Pacific Coast Highway are available along the entire reach of the project site; however, these views are partially obscured by the existing seawall and roadside barrier located on top of the seawall. The top of the currently existing seawall on site extends to the elevation of Pacific Coast Highway roadbed and a concrete barrier extends 3.6 ft. in height above the seawall. As proposed, the new seawall and barrier will not be any greater in height than the existing seawall/barrier. Thus, the proposed project will not result in any new adverse impacts to public views of the ocean from the highway.

In addition, as proposed, much of the vertical seawall will be located below the sand level, under normal seasonal conditions. Additionally, the proposed wall will be located further landward than the existing wall on the site and the existing rock revetment and scattered rock will be removed from the site, enhancing the visual qualities of the site from the existing condition. Additionally, the design of the proposed seawall will include an aesthetic feature that imitates wave and tidal water flow, as depicted in Exhibit 6.

Nonetheless, during times that the sand level is low or under extreme conditions, the wall will be visible from public tidelands. As detailed in **Special Condition Six (6)**, the Commission requires the applicant to ensure that the proposed seawall will minimize adverse impacts to visual resources by limiting its coloration to a shade which mimics the surrounding natural environment.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30251.

F. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, 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 that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, the proposed project, as conditioned, is consistent with the policies of the Coastal Act. Feasible mitigation measures which will minimize all adverse environmental impacts have been required as special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX 1

Substantive File Documents

Wave Climate and Toe Scour Study, prepared by WRECO, dated October 2008; Technical Specifications for Structures for Project No. 07-228201, dated April 30, 2010; Geotechnical Design Report for Seawall Restoration, dated January 29, 2010; Project Scope Summary Report, dated July 7, 2004; Sand Profile Survey, dated March 1, 2012; Natural Environmental Study, dated May 2010; Archaeological Review of the Solimar Seawall Project, dated August 30, 2010; Hazardous Waste Site Investigation Report, dated April 17, 2010; Categorical Exclusion Determination Form, dated June 23, 2004.

APPENDIX 2

Standard Conditions

1. Notice of Receipt and Acknowledgment The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

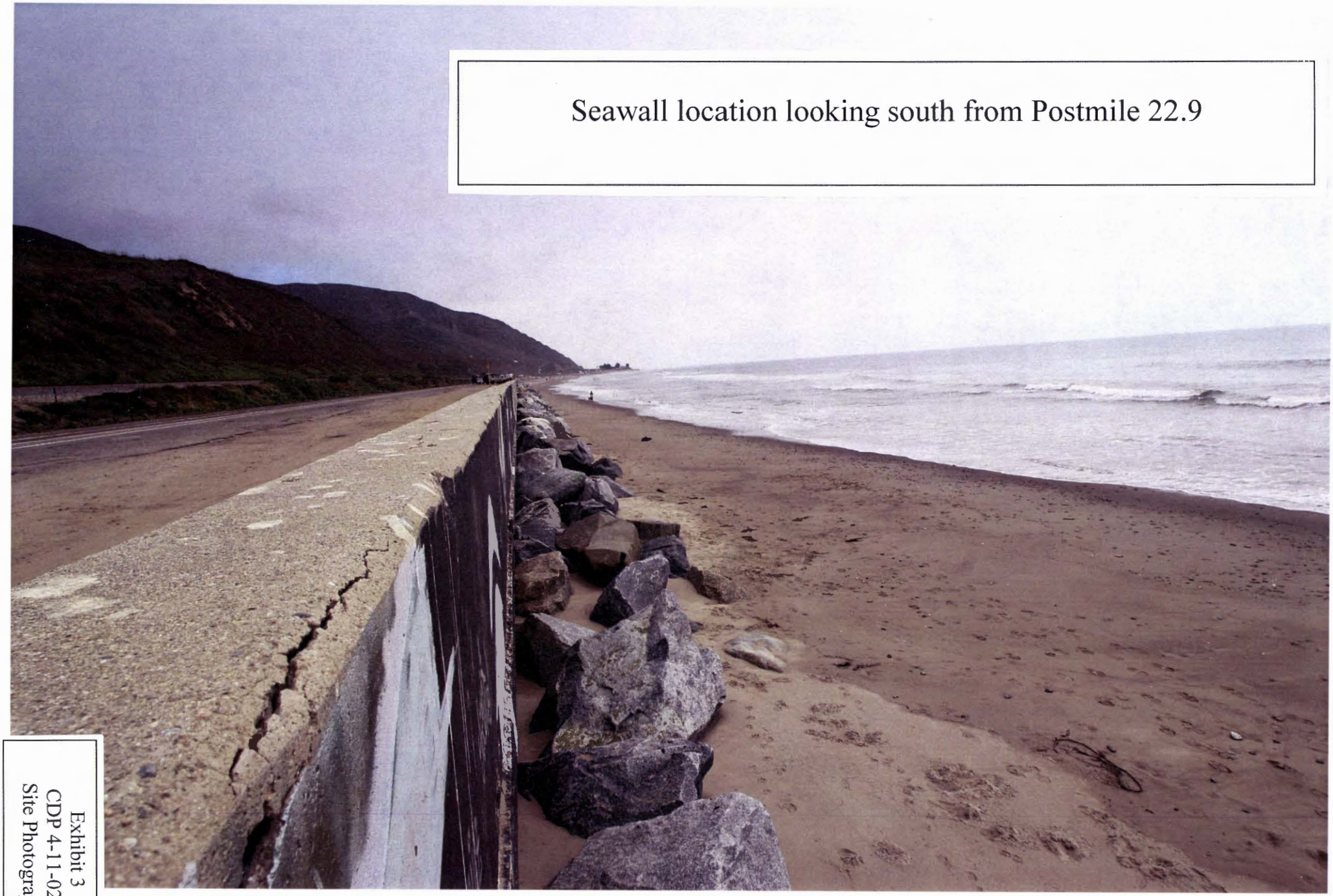
4. Assignment The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

Source: United States Geological Service (USGS)

Exhibit 1
CDP 4-11-026
Vicinity Map

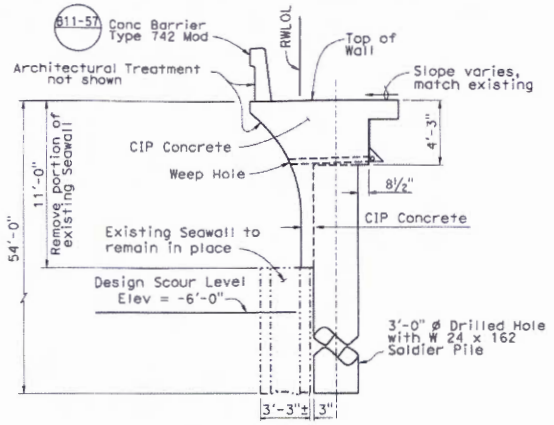
Exhibit 2
CDP 4-11-026
Aerial Photograph



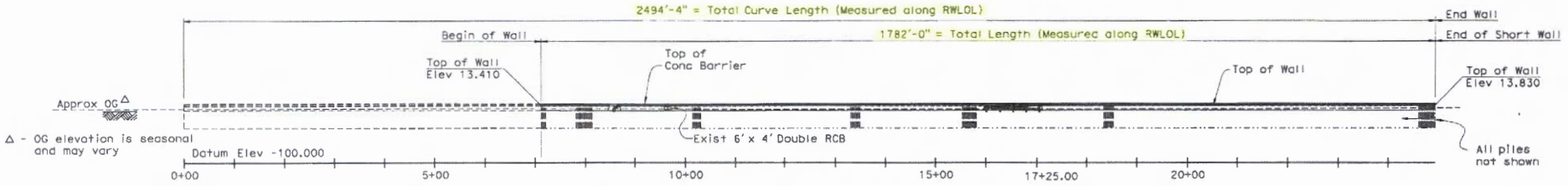
Seawall location looking south from Postmile 22.9

Exhibit 3
CDP 4-11-026
Site Photograph

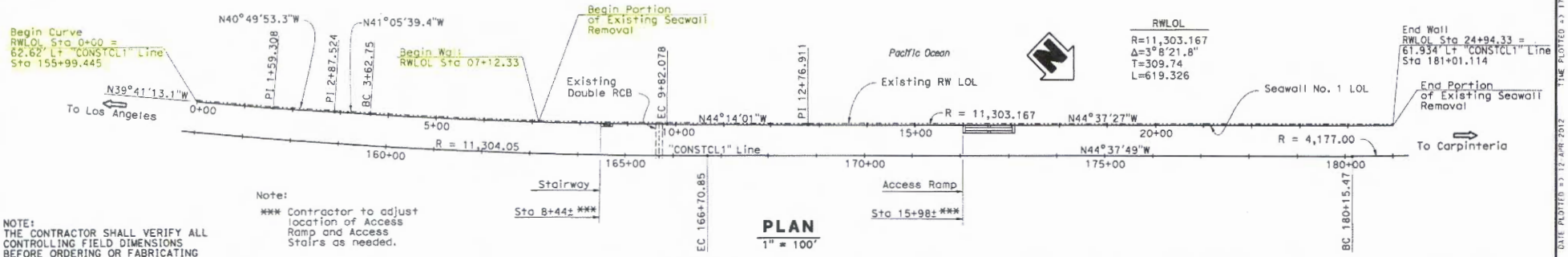
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
7	Ven	1	22.4/26.7		



TYPICAL SECTION
1/4" = 1'-0"



MIRRORED DEVELOPED ELEVATION
1" = 100'



Note:
*** Contractor to adjust location of Access Ramp and Access Stairs as needed.

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PLAN
1" = 100'

DESIGN	BY Daryoush Tavatli	CHECKED M. Okimura	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY" PERMIT DESIGN VEHICLE			
DETAILS	BY P. Tong/G. Dickerson	CHECKED M. Okimura	LAYOUT	BY Daryoush Tavatli	CHECKED M. Okimura		
QUANTITIES	BY Daryoush Tavatli	CHECKED A. Picazo	SPECIFICATIONS	BY Dave Klein	PLANS AND SPECS COMPARED Dave Klein		

GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 11

CU 07265
EA 228201

FILE => Copy 52-0139 cp.dgn

BRIDGE NO. 52-0139
POST MILE 22.4/26.7

DISREGARD PRINTS BEARING EARLIER REVISION DATES

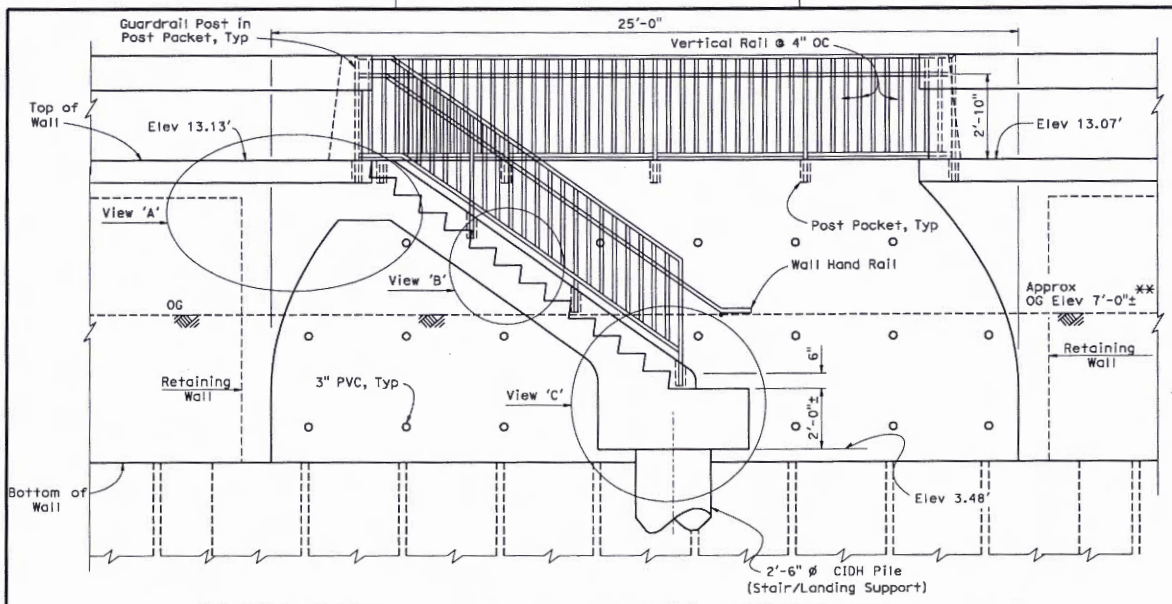
SEAWALL NO. 1
GENERAL PLAN

REVISION DATES								SHEET	OF
3-16-12								1	35

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 07-24-06)

USERNAME => 612611 DATE PLOTTED => 12 APR 2012 TIME PLOTTED => 17:35

Exhibit 4
CDP 4-11-026
Seawall Site Plan



ACCESS STAIRS ELEVATION (LOOKING TOWARD PARKING LOT)

½" = 1'-0"

Design Notes:

2007 CBC

1. Stair/Landing: LL: 100 psf
   Railing:
2. LL: 20 psf @ Top Rail
3. All Guardrail & Post are 1½" ø std pipe

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
7	Ven	1	22.4/26.7		

Daryoush Tavatli 3-17-11
REGISTERED CIVIL ENGINEER DATE

Daryoush Tavatli No. 56183 Exp. 12-31-12 CIVIL STATE OF CALIFORNIA — REGISTERED PROFESSIONAL ENGINEER

PLANS APPROVAL DATE

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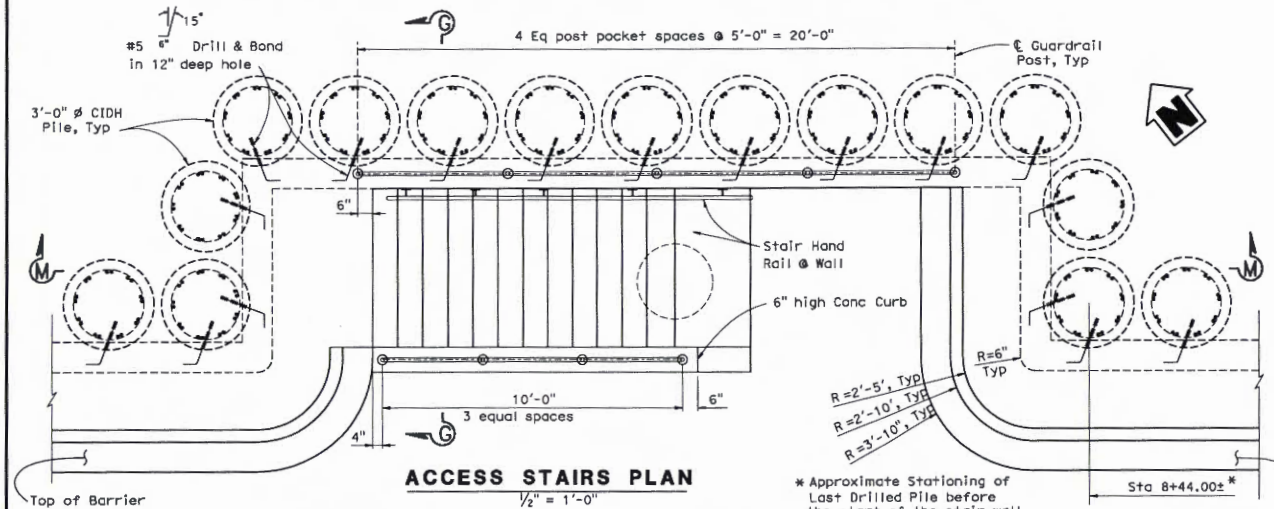
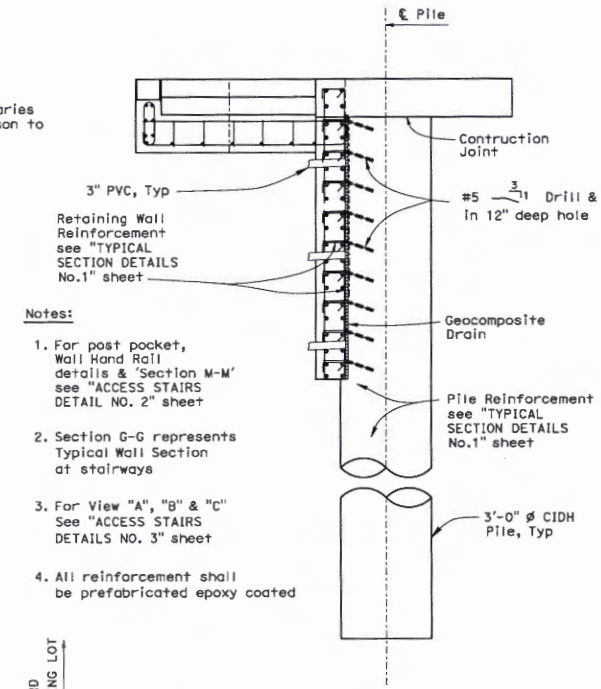
To get to the Caltrans web site, go to: http://www.dot.ca.gov

** OG Elev varies from season to season



ACCESS STAIRS PLAN

½" = 1'-0"



SECTION G-G

Scale: ½"=1'-0"

Notes:

1. For post pocket, Wall Hand Rail details & 'Section M-M' see "ACCESS STAIRS DETAIL NO. 2" sheet
2. Section G-G represents Typical Wall Section at stairways
3. For View "A", "B" & "C" See "ACCESS STAIRS DETAILS NO. 3" sheet
4. All reinforcement shall be prefabricated epoxy coated

	BY	CHECKED
DESIGN	Daryoush Tavatli	W. Okimura
DETAILS	L. Goldthwait	W. Okimura
QUANTITIES	Daryoush Tavatli	A. Picazo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 11

CU 07265
EA 228201

BRIDGE NO. 52-0139
POST MILE 22.7/26.6

SEAWALL NO. 1

ACCESS STAIRS DETAILS NO. 1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES									SHEET	OF
									25	36

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

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USERNAME => TOLITERM DATE PLOTTED => 29-MAR-2011 TIME PLOTTED => 09:23

Exhibit 5
CDP 4-11-026
Public Access
Stairway Site Plan

Notes:

1. For post pocket, Wall Handrail and Guardrail details see "ACCESS STAIRS DETAILS NO. 2" sheet
2. For Section N-N, see "ACCESS RAMP DETAILS NO. 2" sheet
3. For Section X-X, see "ACCESS RAMP DETAILS NO. 5" sheet
4. For View "D", see "ACCESS RAMP DETAILS NO. 3" sheet
5. For View "E", see "ACCESS RAMP DETAILS NO. 4" sheet
6. For View "F", see "ACCESS RAMP DETAILS NO. 5" sheet
7. All reinf shall be prefabricated epoxy coated
8. For View "G", see "ACCESS RAMP DETAILS NO. 6" sheet

Design Notes:

2007 CBC

1. Ramp/Landing: LL: 100 psf Railing:
2. LL: 20 psf @ Top Rail
3. All Guardrail & Post are 1½" ø std pipe

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
7	Ven	1	22.4/26.7		

REGISTERED CIVIL ENGINEER — DATE 3-17-11

PLANS APPROVAL DATE

Daryoush Tavatil No. 56183 Exp. 12-31-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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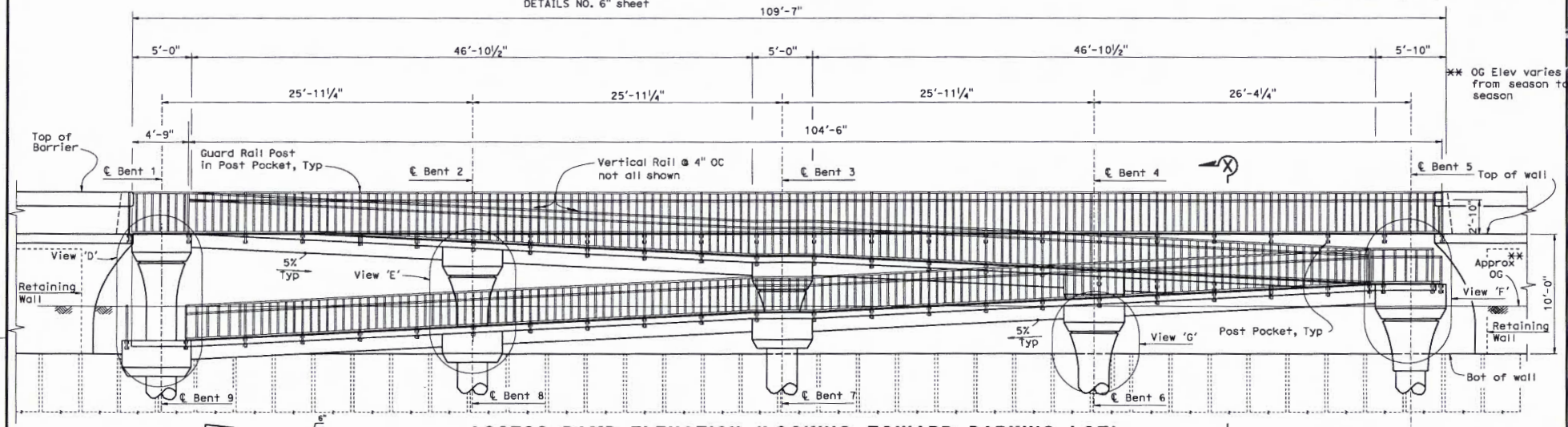
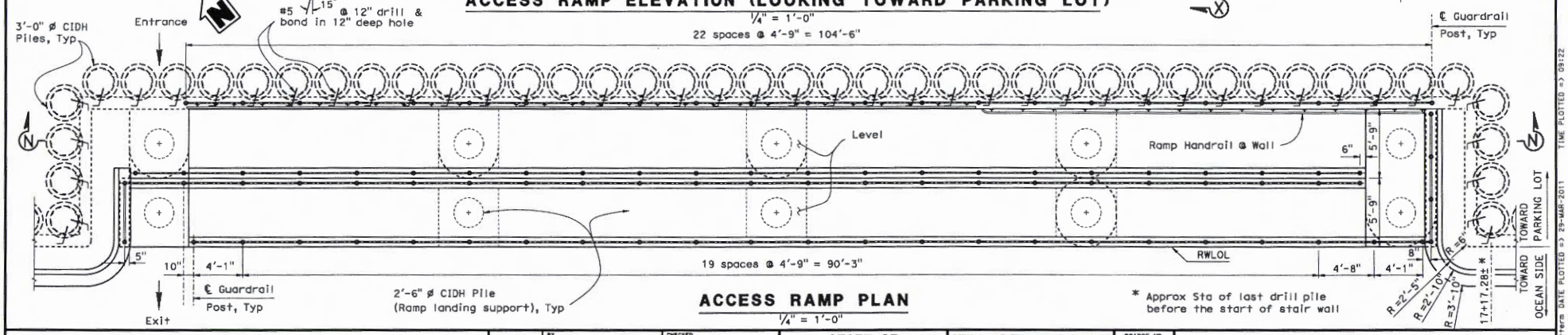


ACCESS RAMP ELEVATION (LOOKING TOWARD PARKING LOT)

¼" = 1'-0"



ACCESS RAMP PLAN

¼" = 1'-0"

* Approx Sta of last drill pile before the start of stair wall

	BY	CHECKED
DESIGN	Daryoush Tavatil	W. Okimura
DETAILS	L. Goldthwait	W. Okimura
QUANTITIES	Daryoush Tavatil	A. Picaza

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 11

BRIDGE NO. 52-0139
POST MILE 22.4/26.7

CU 07265
EA 228201

SEAWALL NO. 1

ACCESS RAMP DETAILS NO. 1

DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

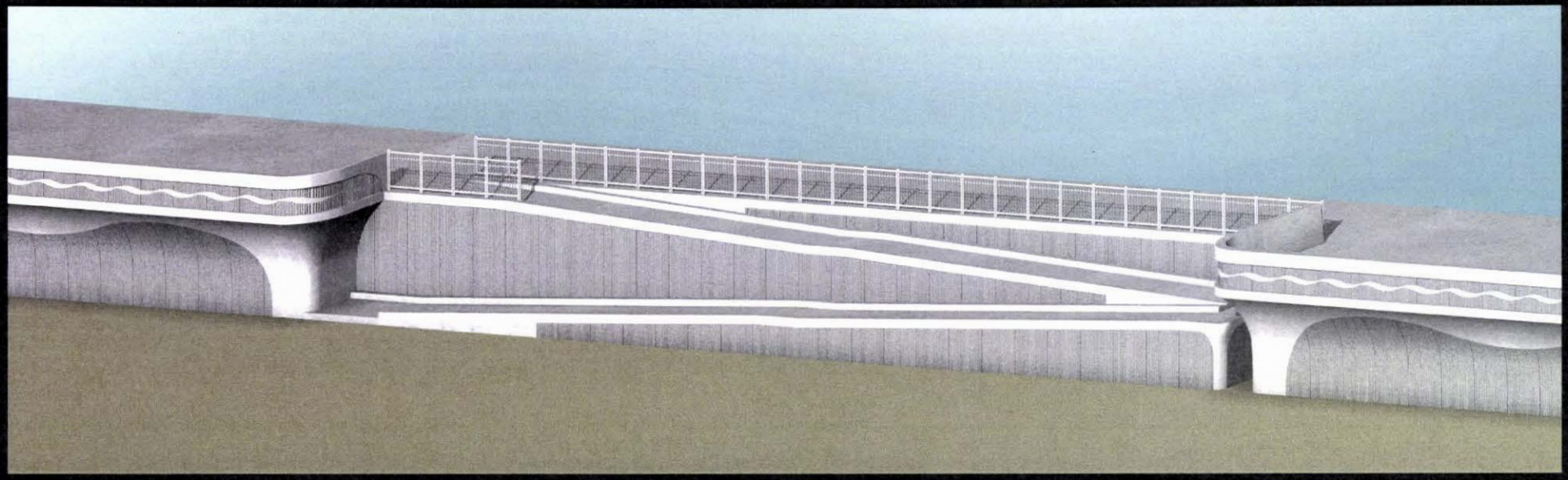
REVISION DATES

SHEET 19 OF 36

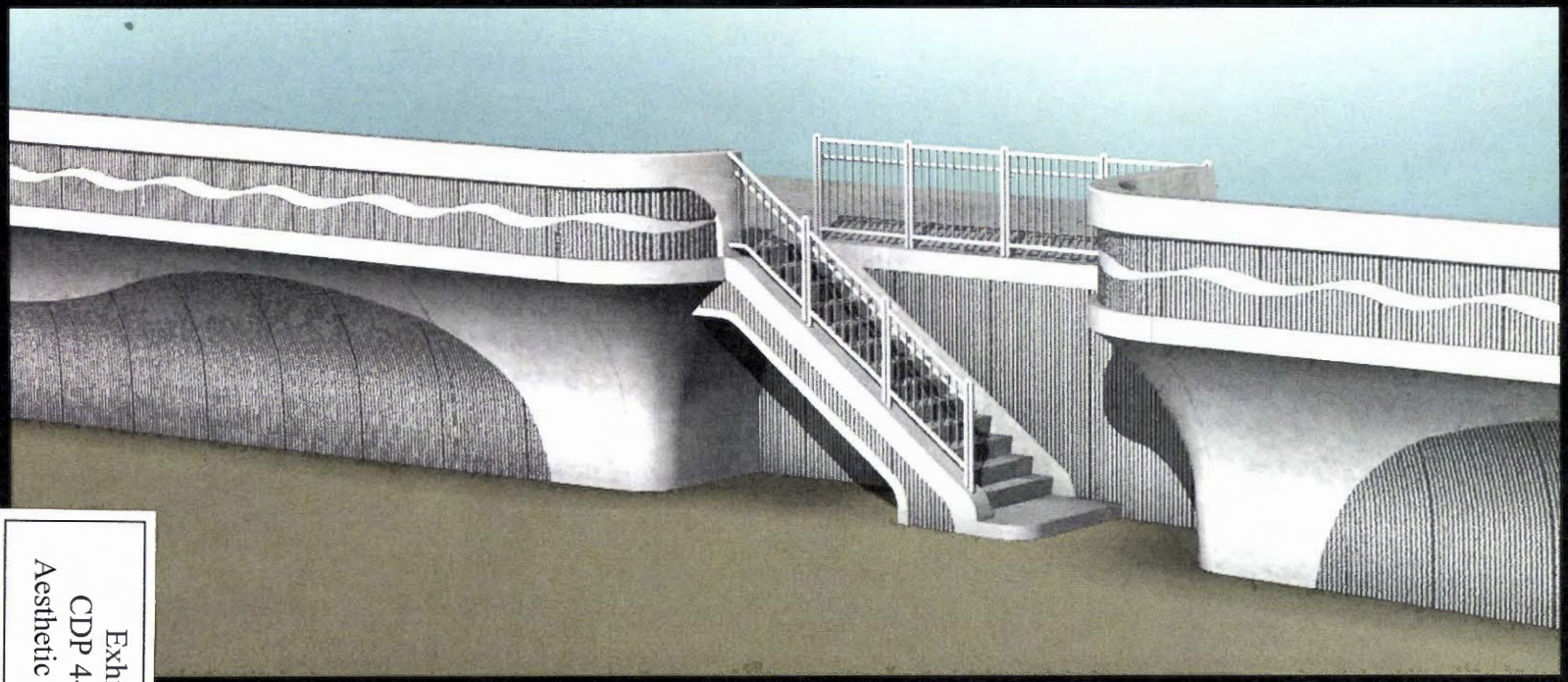
FILE => 52-0139-n-ardt01.dgn

USERNAME => tbl1term DATE PLOTTED => 29-MAR-2011 TIME PLOTTED => 08:22

Exhibit 6
CDP 4-11-026
Public Access
Ramp Site Plan



PERSPECTIVE - ACCESS RAMP



ACCESS STAIRS

SEAWALL RESTORATION PROJECT

DRAWN BY: D FOWKES
DATE: 4/22/10

PREPARED BY: URS BRIDGE ARCHITECTURE AND AESTHETICS

Exhibit 7
CDP 4-11-026
Aesthetic Treatment