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Staff:	J.Manna - SF
Staff Report:	5/23/2013
Hearing Date:	6/14/2013

STAFF REPORT: CDP HEARING

Application No.:	2-11-038
Applicant:	Caltrans
Project Location:	Highway 1 at San Pedro Creek (at post mile 40.64-40.95) in the City of Pacifica, San Mateo County.
Project Description:	Replace the Highway 1 Bridge over San Pedro Creek and modify/restore the San Pedro Creek channel in the area extending from a point 175 feet inland of the bridge to the Pacific Ocean, in order both to provide flood control and to restore habitat.
Staff Recommendation:	Approval with Conditions.

SUMMARY OF STAFF RECOMMENDATION

The City of Pacifica and Caltrans propose to replace the State Route Highway 1 Bridge at San Pedro Creek (between post miles 40.64 and 40.95) and to modify the San Pedro Creek channel (from 175 feet upstream of the bridge out to the beach) in the City of Pacifica, San Mateo County. The current bridge does not meet current structural or seismic standards, and is below the 50-year flood elevation. The new bridge would be 63 feet wide, 140 feet long, and an average of 5 feet higher than the existing bridge, raising it out of the 100-year floodplain. In addition, the project would include significant restoration of the wetland and related habitats in and around San Pedro Creek and would increase the capacity of the creek to provide flood protection for the Linda Mar area of Pacifica.

The configuration of the creek within the project area, including in relation to the existing Highway 1 Bridge, currently restricts creek flows, contributing to flooding of the surrounding area during heavy storm conditions. The proposed bridge would be elevated above the reach of a 100-year storm event, and the proposed creek modifications have been designed to increase the creek flow capacity to alleviate flooding of the Linda Mar Shopping Center, residential properties, and parking lot, and San Pedro Avenue and Highway 1 bridges and roads, consistent with the hazards and flood control policies of the Coastal Act. The project has also been designed to prevent scour damage of the new road approaches and bridge abutments and piers, ensuring long term stability of the bridge and adjacent development consistent with Coastal Act hazard policies.

In addition, the project has been designed to increase the width of the creek channel to provide more space for the creek to exist, and includes significant restoration. The proposed creek modifications would improve fish and wildlife habitat in the area by creating a more diverse gradient of wetland and related habitats. The project would restore existing habitat and create new habitat, including resulting in a net gain of 3,004 square feet of wetland habitat in the creek corridor. The project has incorporated construction mitigation measures and best management practices in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, and developed a conceptual revegetation plan with monitoring. The project has also incorporated a new drainage system for the area with bio-filtration strips and swales. The new drainage system, expansion of wetlands and habitat areas, and incorporation of BMPs for construction would help maintain and improve San Pedro Creek water quality and wetland and related habitats. **Special conditions 1, 3,** and **4** will ensure the restoration is implemented consistent with the conceptual revegetation plan and best management practices are implemented during construction.

The open railing bridge design and use of revetment mats for the banks colored to match the surrounding environment and planted with native riparian and wetland vegetation would minimize visual impacts resulting from the project consistent with the visual resource policies of the Coastal Act. Finally, the new bridge design would improve public access to adjacent recreational areas by including a pedestrian access way and bike shoulder that will provide better continuity with the adjacent beach access ways and trail systems consistent with Coastal Act public access and recreation policies.

Therefore, as conditioned, the project would be consistent with the Coastal Act, including with regard to flood control, hazards, biological resources, public access and recreation, and visual resource policies. Staff recommends **approval** of the CDP application as conditioned. The motion is found on page 4 below.

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I. MOTION AND RESOLUTION

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development. To implement this recommendation, staff recommends a **YES** vote on the following motion. Passage of this motion will result in approval of the CDP as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission approve Coastal Development Permit Number 2-11-038 pursuant to the staff recommendation, and I recommend a yes vote.*

Resolution to Approve CDP: *The Commission hereby approves Coastal Development Permit Number 2-11-038 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. 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. STANDARD CONDITIONS

This permit is granted subject to the following 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 of 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.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Habitat Restoration Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of a Revised Habitat Restoration Plan to the Executive Director for review and approval. The plan shall be substantially consistent with the plan submitted to the Commission on April 29, 2013; shall be developed in consultation with the California Department of Fish & Wildlife, U.S. Fish & Wildlife Service, and the National Marine Fisheries Service; and shall at a minimum include:

   (a) **Site Plan.** A detailed site plan of the restoration area with habitat acreages identified.

   (b) **Baseline.** The baseline ecological assessment of the restoration area.

   (c) **Success Criteria.** The goals, objectives, and performance standards as set forth in the conceptual revegetation plan dated April 2013 modified to include explicit cover criteria for upland plantings and removal of blackberry from the upland plant palette.

   (d) **Restoration Methods.** The final design and construction methods that will be used to ensure the habitat restoration plan achieves the defined goals, objectives, and performance standards.

   (e) **Provisions for Submittal of Initial As Builts.** Provisions for submittal, within 30 days of completion of initial restoration work, of "as built" plans demonstrating that initial restoration area activities have been completed in accordance with the approved plan.

   (f) **Monitoring and Reporting.** A reporting schedule, including that the Permittee shall submit, for the review and approval of the Executive Director, a restoration monitoring report prepared by a qualified specialist that certifies the habitat restoration is in conformance with the approved plan, along with photographic documentation of plant species and plant coverage, beginning the first year after initiation of implementation of the plan, and annually for at least the first five years. Final monitoring for success will take place no sooner than 3 years following the end of all remediation and maintenance activities other than weeding. Monitoring and reporting can cease when the restoration meets the goals, objectives, and performance standards as determined by the Executive Director. If the final report indicates that the restoration project has been unsuccessful, in part or in whole, based on the approved success criteria, the Permittee shall within 120 days submit two sets of a revised or supplemental restoration program for the review and approval of the Executive Director. The program shall be prepared by a qualified specialist, and shall be designed to compensate for those portions of the original restoration that did not meet the approved plan's success criteria. The approved revised or supplemental restoration program shall be carried out under the direction of the Executive Director until the restoration activities are completed consistent with the goals, objectives, and performance standards specified in the approved plan and program.

All requirements above and all requirements of the approved habitat restoration plan shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the approved habitat restoration plan.

2. **Landscape Screening.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of a Landscape Screening Plan to the Executive Director for review and approval. The plan shall provide for landscaping (at maturity) capable of screening the approved articulated block revetment to the maximum extent practicable (i.e., so that it is not obvious from public viewing areas) for the life of the project. The plan shall identify all plant materials (size, species, quantity, etc.), all irrigation systems, and all proposed maintenance measures, including providing for replacement trees and shrubs as necessary to achieve required screening. All plant materials shall be native and non-invasive species selected to be complimentary with the mix of native species in the project vicinity, prevent the spread of exotic invasive plant species, and avoid contamination of the local native plant community gene pool. All landscaped areas shall be maintained by the Permittee; all plant material shall be maintained in a litter-free, weed-free, and healthy growing condition, and shall be replaced as necessary to maintain compliance with this CDP. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be so identified from time to time by the State of California, and no plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be planted or allowed to naturalize or persist. All requirements above and all requirements of the approved Landscape Screening Plan shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with the approved Landscape Screening Plan.

3. **Construction Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of a Construction Plan to the Executive Director for review and approval. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources. The Construction Plan shall, at a minimum, include the following:

   (a) **Construction Areas.** The Construction Plan shall identify the specific location of all construction areas, all staging areas, all storage areas, all construction access corridors (to the construction site and staging areas), and all public pedestrian access corridors. All such areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to minimize construction encroachment on sensitive habitats and public use areas and to have the least impact on coastal resources, including public access, overall.

   (b) **Construction Methods and Timing.** The Construction Plan shall specify the construction methods to be used, including all methods to be used to keep the construction areas separated from sensitive habitat and public recreational use areas. All erosion control/water quality best management practices to be implemented during construction and their location shall be noted. The timing/work seasons restrictions for the various construction components shall be consistent with those outlined in the project information submitted April 2013.

(c) **Construction Requirements.** The Construction Plan applies to initial construction as well as future maintenance. The Construction Plan shall include the following construction requirements specified by written notes on the Construction Plan.

1. Prior to the commencement of any development authorized under this CDP, the Permittee shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in this CDP and in the detailed project description included as part of the application submittal as revised by these conditions.

2. Prior to commencement of ground-disturbing activities, erosion, sediment, and runoff control measures shall be deployed in accordance with the final Storm Water Pollution Prevention Plan approved pursuant to **Special Condition 4**, and all measures shall be properly maintained throughout the duration of construction activities.

3. Prior to the commencement of construction, the limits of the work areas and staging areas shall be delineated in consultation with a qualified biologist, limiting the potential area affected by construction and ensuring that all wetlands and other habitats adjacent to construction areas are avoided during construction. All vehicles and equipment shall be restricted to pre-established work areas and haul routes and to established or designated staging areas.

4. All trash shall be properly contained, removed from the work site, and disposed of on a regular basis to avoid contamination of habitat during construction activities. Any debris inadvertently discharged into coastal waters shall be recovered immediately and disposed of consistent with the requirements of this CDP.

5. Topsoil removed by grading operations shall be stockpiled for reuse and shall be protected from compaction and wind or erosion during stockpiling.

6. Equipment staging, materials storage, and stockpiling areas shall be limited to the locations and sizes specified in the approved construction plans. Construction vehicles shall be restricted to designated haul routes. Construction equipment and materials shall be stored only in designated staging and stockpiling areas as depicted on the approved construction plans.

7. Any fueling and maintenance of construction equipment shall occur within upland areas outside of habitat areas or within designated staging areas. Mechanized heavy equipment and other vehicles used during the construction process shall not be refueled or washed within 100 feet of coastal waters.

8. Fuels, lubricants, and solvents shall not be allowed to enter the coastal waters or wetlands. Hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call. Any accidental spill shall be rapidly contained and cleaned up.

All requirements above and all requirements of the approved Construction Plan shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the approved Construction Plan.

4. **Final Storm Water Pollution Prevention Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of a final Storm Water Pollution Prevention Plan (SWPPP) to the Executive Director for review and approval. Minor adjustments to the following requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources. The final SWPPP shall include provisions for all of the following:

   (a) **Sedimentation Controlled.** Runoff from the project site shall not increase sedimentation in coastal waters or wetlands post-construction. During construction, runoff from the project site shall not increase sedimentation in coastal waters beyond what's allowable under the final Water Quality Certification approved for the project by the Regional Water Quality Control Board.

   (b) **Pollutants Controlled.** Runoff from the project site shall not result in other pollutants entering coastal waters or wetlands during construction or post-construction.

   (c) **BMPs.** Best Management Practices (BMPs) shall be used to prevent the entry of polluted stormwater runoff into coastal waters and wetlands during construction and post-construction, including use of relevant BMPs as detailed in the current California Storm Water Quality Best Management Handbooks (http://www.cabmphandbooks.com).

   (d) **Spill Measures.** An on-site spill prevention and control response program, consisting of BMPs for the storage of clean-up materials, training, designation of responsible individuals, and reporting protocols to the appropriate public and emergency services agencies in the event of a spill, shall be implemented at the project to capture and clean-up any accidental or other releases of oil, grease, fuels, lubricants, or other hazardous materials, including to avoid them entering coastal waters or wetlands.

   (e) **BMP Schedule.** A schedule for installation and maintenance of appropriate construction source-control BMPs to prevent entry of stormwater runoff into the construction site and the prevent excavated materials from entering runoff leaving the construction site.

   All requirements above and all requirements of the approved SWPPP shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the approved SWPPP.

5. **Other Agency Approval.** PRIOR TO COMMENCEMENT OF CONTRUCTION, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the approved project have been granted by the United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board. Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION AND LOCATION

Project Location and Background

The project site is located along State Route Highway 1 between post miles 40.64 and 40.95 where the existing Highway 1 Bridge crosses San Pedro Creek in the City of Pacifica, San Mateo County. The project site is surrounded by the natural areas of San Pedro Creek, as well as commercial and residential development to the north and south, and the San Pedro Avenue Bridge, and Pacifica State Beach to the west (**Exhibit 1**). The project area is part of the lower reach of the San Pedro Creek, contains a number of plant communities, including non-native grassland, forest (riparian) wetland, freshwater wetland, evergreen, and beach vegetation, and supports two federally listed species, California red-legged frog (*Rana draytonii*) and steelhead trout (*Oncorhychus mykiss*). The existing Highway 1 Bridge at the project site is 40 feet wide and 83 feet long, does not meet current structural or seismic standards, and is below the 50-year flood elevation. The bridge contains a narrow, wooden pedestrian walkway but the area on either side of the bridge does not provide formal access to the surrounding commercial or recreational amenities.

The flow of the San Pedro Creek at the project site is constricted by the area between the Highway 1 Bridge and the San Pedro Avenue Bridge, which is located just downstream (**Exhibit 1**). The area between the bridges restricts creek flows, contributing to flooding of the bridges and the surrounding commercial and residential areas during heavy storm conditions. The City of Pacifica and the US Army Corps of Engineers (USACE) have implemented previous flood control projects in the immediate vicinity of the project site including widening of the creek and restoration of forest riparian wetland upstream of the Highway 1 Bridge and downstream of the San Pedro Avenue Bridge. That prior project was part of a Coastal Commission Federal Consistency Determination (CD) in 1999 (CD-031-99). The work to widen the portion of the creek between the bridges was originally to be completed as a second phase of that prior project after the installation of the Highway 1 Bridge, and was approved as part of the 1999 CD. However, USACE did not have the funding capacity to complete that portion of the creek widening, and therefore, it remains an obstacle to creek flows.

Project Description

The proposed project would replace the Highway 1 Bridge at San Pedro Creek with a longer and higher bridge and modify the San Pedro Creek channel from a point 175 feet upstream of the new Highway 1 Bridge to the beach, which is about 700 feet downstream of the Highway 1 Bridge. The project would raise the Highway 1 Bridge out of the 100-year floodplain and increase the capacity of the San Pedro Creek alleviating flood risks to Highway 1 and the Linda Mar area of Pacifica. The new bridge would be 63 feet wide, 140 feet long, and an average of 5 feet higher than the existing bridge. It would have two 12-foot wide travel lanes, two 8-foot wide shoulders, and a 12-foot wide separated pedestrian/bicycle path (**Exhibit 2**). The new bridge would consist of a pre-cast concrete two-span structure, with two abutments and one central bent. Nine 30-inch diameter piles would be installed at each abutment and five 48-inch diameter piles would be installed at the bent within the creek channel.

The new bridge approaches would include a 990-foot long section at the southern end and a 570-foot long section at the northern end. A detour would be constructed to divert north and southbound traffic onto San Pedro Avenue during project construction and would include a temporary stoplight and pedestrian crossing. The project would also install articulated concrete block revetment mats along the banks of the creek under the San Pedro Creek and Highway 1 bridges. The mats would be installed along 282 feet of the north bank and 282 feet of the south bank (**Exhibit 4**).

Modifications to the creek would include localized channel deepening and restoration and revegetation activities. Some areas of the creek would be widened and the grading would be limited to areas within the low flow channel. A total of 1.79 acres would be affected by the creek modifications which includes 1.45 acres of existing creek bed, bank and channel, and 0.34 acres of upland and developed areas which would be converted to the stream channel. Much of the creek in the project area would be widened from 8 feet to 20 feet with 2:1 side slopes, and 6,500 cubic yards of bank and dredged material would be excavated to produce a variety of depths (5 feet, 7 feet and 10 feet) (**Exhibit 3**).

The project has incorporated mitigation measures to minimize impacts to sensitive species and habitats in the project area during construction including the use of wildlife exclusion fencing, the use of on-site biological monitors, removal of vegetation in wetland areas by hand, work season and hour restrictions, implementation of environmental awareness training for employees, and best management practices related to storm water pollution prevention, erosion control, construction site management, and reduction of invasive species spread. All work would be conducted in accordance with US Fish and Wildlife Service and National Marine Fisheries Service Biological Opinions (*Reinitiation of Consultation on the State Route 1 San Pedro Creek Bridge Replacement Project*, USFWS, April 2012, and *Biological Opinion on the Effects of the Proposed State Highway 1 San Pedro Creek Bridge Replacement Project*, NMFS, April 2013). After the creek modifications are completed, the creek channel, bank, and upland areas would be replanted with appropriate native species in order to expand the amount of existing emergent wetland habitat, restore riparian wetland habitat along the creek banks, and improve upland habitat values, including for special-status species, consistent with the conceptual revegetation plan developed by the Applicant (**Exhibit 5**). Additional details about the proposed project can be found in the *Highway 1 San Pedro Creek Bridge Replacement and Creek Widening Project Information, March 2013.*

B. STANDARD OF REVIEW

The proposed project is located within the Commission's retained CDP jurisdiction and thus the standard of review is the Coastal Act. As relevant, the City of Pacifica certified LCP can provide non-binding guidance. However, the LCP and Coastal Act policies are very similar in regards to allowing stream alterations and eliminating or mitigating for impacts. Thus, the LCP policies do not provide significantly different policy direction in this case.

C. STREAM ALTERATION, HAZARDS AND BIOLOGICAL RESOURCES

Coastal Act Section 30236 requires that any alterations of streams or rivers incorporate the best mitigation measures feasible and be limited to projects that are necessary for water supply, flood control for protection of existing development and public safety when no other options are

feasible, or when the primary function is the improvement of fish and wildlife habitat. Coastal Act Section 30236 states:

> *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Coastal Act Section 30253 also addresses the risk of flooding and requires new development to minimize risks to life and property in areas of flood. Coastal Act Section 30253 states:

> *New development shall do all of the following:*
>
> *(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(b) 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.*
>
> *(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.*
>
> *(d) Minimize energy consumption and vehicle miles traveled.*
>
> *(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.*

Further, Coastal Act Section 30230 requires the maintenance and enhancement of marine resources stating:

> *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 requires that the quality of coastal waters and streams be maintained, stating:

> *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.

Project Purpose

The project site is located at the lower reach of the San Pedro Creek, within the 100-year floodplain. The San Pedro Creek drains a 4,885-acre basin consisting of 5 tributaries from seven subwatersheds. The creek is mainly a shallow, low flow channel in the summer with a floodplain that can carry higher flows in the winter. During a 100-year storm event, rainfall intensity for the San Pedro Creek valley is approximately 1.5-inches per hour, which results in a flow at the Highway 1 Bridge of about 3,550-cubic feet per second. The upper portion of the creek has a trapezoidal shaped creek bed with a gravel bottom 10-15 feet wide, with side slopes 1.5:1 to 2:1, and an average depth of 12 feet, while the lower reaches of the creek in the project area have a similar shaped creek bed but with a 4-foot deep and an 8-foot wide creek channel.

As mentioned above, the existing Highway 1 Bridge and the portion of the creek between the Highway 1 Bridge and the San Pedro Avenue Bridge restrict creek flows and contribute to flooding of the bridges and the surrounding areas during heavy storm conditions. The existing development currently at risk from flooding during large storms and a 100-year storm event include the Linda Mar Shopping Center, parking lot, and residential properties to the east, residential properties to the west along the coast, the San Pedro Avenue Bridge to the west, the existing Highway 1 Bridge itself which is below the 50-year storm elevation, and San Pedro Avenue Road and State Route Highway 1. A previous USACE report estimated the existing channel capacity at the Highway 1 Bridge to be 1,000-cubic feet per second. However, the capacity needed under the bridge for a 100-year storm is 3,500-cubic feet per second. The original consistency determination for the USACE Flood Control Project, which was intended to provide flood protection for this area, included creek modifications similar to those contained in the proposed project. While the USACE completed work to widen the creek and restore riparian wetlands within portions of the creek bed surrounding the project site, this project would complete the last component of the Flood Control Project by allowing the full capacity of the creek flow between the two bridges.

Raising the Highway 1 Bridge out of the 100-year flood plain and increasing the capacity of the creek to alleviate flooding of Highway 1 and the Linda Mar area of Pacifica would help to avoid and minimize hazards, as required by the Coastal Act. However, after widening occurs, during storm events, the creek will naturally tend to flow around the Highway 1 and San Pedro Bridge abutments, instead of through them, causing the creek banks to scour. There is currently a concrete sack wall revetment under the Highway 1 Bridge protecting the north bank and the road above it from scour and there is noticeable scour on the south bank, which is unprotected. The Final Hydraulic Report (FHR) (*Final Hydraulic Report Route 1- San Pedro Creek Bridge Replacement Project*, by RCE, October 2012) estimated bank scour for the proposed project to be 4.9-feet below the high water line for the 100-year storm event. Without protection of the bank, this scour would eventually undermine the road approaches, posing a risk to public safety. The Commission's coastal engineer reviewed the FHR and agrees that scour protection is important around the abutments of the bridge.

The revetment mats would be located along the banks of the newly widened creek channel under the San Pedro Avenue Bridge and the proposed Highway 1 Bridge. 11,038 square feet of revetment mats would be installed, a portion of which would be placed over existing armored banks, abutments and developed areas. The majority of the revetment mats would be under the bridges but the terminal ends would extend 30-40 feet outside of the bridges (**Exhibit 4**). The project would use articulated concrete block revetment mats which can be colored and planted to reduce visual impacts to the area (see further description in the visual resources section below). Therefore, the proposed project, including the hard armoring of the channel banks, is allowable under 30236 because it is required to protect existing development from flooding and includes best mitigation measures feasible.

The creek widening component of the project would result in a net increase of wetland habitat of 3,004 square feet. The project would convert some habitat types to another, restore temporarily impacted habitat, and create new habitat. For example, the creek widening would create a more diverse gradient of wetland habitats. As a result of the project, 15,519 square feet of upland and riparian habitat would be converted to emergent wetland and 9,205 square feet of upland and developed areas would be converted to riparian habitat. In addition, new aquatic habitat would be created through the project by the conversion of 4,112 square feet of developed areas to open water areas. Overall, the bridge replacement would result in permanent impacts to 105 square feet of emergent wetland and 1,620 square feet of riparian habitat from paving and grading activities, and 308 square feet of emergent wetland and 3,891 square feet of riparian habitat from the installation of the revetment (**Exhibit 5**).

The Applicant has developed a conceptual revegetation plan that includes goals, objectives and performance standards for the on-site habitat resulting from the creek modifications and revegetation activities. The revegetation plan has been designed to create or restore willow riparian and emergent wetland habitat, improve habitat conditions for special-status species, and assure wetland values and functions are maintained by planting appropriate vegetation in areas where it would be sustained by the future hydrologic conditions established by the creek modifications. The revegetation plan also proposes to replace any non-native grasslands removed by the project with native upland habitat that would provide better cover for California red-legged frog. To maintain the same functions and values of the existing habitat, the area would be revegetated with existing species, expanded to a larger area due to the creek widening. Alterations in hydrology would also allow riparian and wetland habitats to expand and persist. The revegetation plan would result in increased filtering of pollutants by the expansion of wetland habitat, while still providing habitat functions for species.

To ensure that the restoration and revegetation is successful, a monitoring and maintenance plan has also been developed and proposed as part of the project. The areas would be monitored monthly for the first three months after planting and then quarterly for five years. The monitoring includes performance standards for plant mortality, weed control and any necessary remediation activities that may need to be implemented. The Commission's Biologist has reviewed the proposed plan and determined that it is adequate to ensure the habitat is restored as intended by the project with a few minor changes including the addition of explicit success cover criteria for upland plantings and removal of blackberry from the upland plant palette. To ensure the project is carried out in compliance with the proposed plan and modifications, **Special Condition 1** requires that a habitat restoration plan be submitted which includes a detailed site plan of the

restoration area, a baseline assessment of the habitat, design and construction methods that would be used to restore the habitat, submission of as built plans, and a reporting schedule including annual reports submitted to the Commission.

As conditioned, the project would include the best mitigation measures feasible through the construction mitigation measures, conceptual revegetation plan, and the habitat mitigation and monitoring and would serve to improve fish and wildlife habitat, consistent with Coastal Act Section 30236.

Water Quality

Minimal formal drainage facilities currently exist within the project area to treat runoff from the existing bridge and adjacent roadways. Runoff from the roadway approaching the bridge from the south falls into a small ditch to the eastern edge of the road which eventually outfalls to the creek. The runoff north of the bridge draining to the eastern side flows to an existing curb which then flows north to a gutter at the intersection of Highway 1 and Linda Mar Boulevard. Runoff from the western side north of the bridge flows to an existing shallow swale and drainage inlet.

The proposed project includes best management practice (BMP) storm water quality devices to help clean runoff and meet State Water Board regulations. These devices include bio-filtration strips and swales and drainage inlets to remove grease and sediment before the runoff is discharged (**Exhibit 6**). A drainage report was prepared for the project (*Drainage Report: Route 1 San Pedro Creek Bridge Replacement Project*, Wilsey Ham, December 2011) to ensure that all drainage facilities were appropriately sized to provide treatment for the water quality flow and to convey the larger flows resulting from 25-year storm events. The proposed drainage system would reduce the amount of untreated runoff, improve the quality of the runoff being discharged from the site, and treat a portion of the runoff from the San Pedro Avenue that is not currently treated. In addition to treatment provided by these water quality devices, the maintenance and enhancement of the wetland areas would increase their capacity to filter pollutants from the runoff in the surrounding area. Therefore, as described in the previous section, the conceptual revegetation plan, as conditioned, would improve water quality in the area.

As discussed in the project description, in order to minimize impacts to water quality during work conducted in the creek channel, the creek would be diverted around the construction area using sandbag coffer dams placed up and down stream of the construction area and a pipe and pump system to convey the water. Biologists approved by the NMFS and the USFWS would oversee the installation of the creek diversion and monitor water quality of the adjacent wetlands throughout project construction.

The Applicant also plans on preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) and erosion control BMPs in compliance with requirements of the Regional Water Quality Control Board. To ensure that these measures are implemented consistent with Coastal Act water quality standards, **Special Conditions 3 and 4** have been included. These special conditions require construction responsibilities and standards be implemented and a SWPPP be submitted that would protect the water quality of the San Pedro Creek and surrounding area. **Special Conditions 3 and 4** also ensure that protective measures are included such that no pollutants are discharged into the storm drains or creek, and dust and erosion control measures are implemented.

The new drainage water quality devices, expansion of wetlands, and incorporation of BMPs for construction will ensure the maintenance and improvement of the San Pedro Creek water quality. Therefore, as proposed and conditioned, the project would maintain the biological productivity of coastal waters and streams consistent with Coastal Act Sections 30230 and 30231.

In summary, pursuant to Coastal Act Section 30236, the project is an allowed flood control and stream alteration project and it would avoid and minimize hazards as required by the Coastal Act, including Section 30253. As conditioned, the project would include the best mitigation measures feasible and would restore habitat and protect biological and marine resources, consistent with the Coastal Act, including Sections 30236, 30230 and 30231.

D. PUBLIC ACCESS AND RECREATION

Coastal Act Section 30210 requires public recreational access is provided consistent with public safety needs and 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 requires that development not interfere with the public's ability to access the sea and 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.*

There are public access and recreation opportunities in close proximity to the project area. These include Pacifica State Beach to the northwest and the San Pedro Creek Trail (part of the California Coastal Trail) to the southeast. The existing Highway 1 Bridge does not provide a direct connection to the state beach nor to the trail system, although bicyclists and pedestrians use the bridge via the shoulder lane or a wooden walkway adjacent to the bridge to move through this area. On either side of the bridge is a dirt path, which is informal and does not provide safe access to the surrounding recreational opportunities at this time. Currently, Pacifica State Beach is primarily accessed from San Pedro Avenue which intersects Highway 1 north of the bridge.

The proposed bridge would improve public access in this area by including a pedestrian access way and bike shoulder on the bridge which would have better continuity with the adjacent Linda Mar Boulevard intersection on the north end and San Pedro Creek trail on the south end. The San Pedro Creek Trail is part of the California Coastal Trail which crosses the southern end of Pacifica where it eventually connects with San Pedro Valley County Park and McNee Ranch State Park. There is also a part of the California Coastal Trail north of the bridge at the San Pedro Avenue and Linda Mar Avenue intersection. This access way would provide an important connection point for the California Coastal Trail, extending it from the intersection to the San Pedro Creek Trail (**Exhibit 8**). The pedestrian access way crossing the bridge would be separated from the road by a safety barrier and handrails would also be provided for pedestrians between

the edge of the bridge and the surrounding area (**Exhibit 7**). This connectivity and access would increase public access and safety to these important recreation destinations consistent with Coastal Act Section 30210.

While construction activities are taking place there would be a temporary detour to San Pedro Avenue, which has pedestrian access and access to the coast via trails and paths on both sides of the bridge. The construction associated with the detour would include installation of a temporary traffic signal and pedestrian crossing. The need for a traffic signal at the detour was analyzed using procedures contained in Section 4 of the California Manual on Uniform Traffic Control Devices (MUTCD) (*San Pedro Creek Bridge Replacement Temporary Bypass Road Traffic Analysis,* RKH, March 2007, Revised April 2010). The analysis concluded that the temporary traffic signal would be needed to meet the peak hour, minimum vehicular volume, and interruption of continuous traffic requirements. Therefore, throughout the project construction period, there would be no significant adverse impacts to vehicle or pedestrian travel and as a result no significant adverse impacts to public access to and along the beach would occur during construction, consistent with Coastal Act Sections 30210 and 30211. Therefore, the completed project would enhance public access in the project area and is consistent with the public access and recreation policies of the Coastal Act.

E. VISUAL RESOURCES

Coastal Act Section 30251 protects the scenic and visual qualities of coastal areas, such as the views from Highway 1 in the project area. Section 30251 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.*

The proposed project site is part of scenic Highway 1. The views to the coast from the existing bridge are currently blocked by the adjacent San Pedro Avenue Bridge which is higher than the existing bridge, as well as dense riparian vegetation between the bridges. The proposed project would not significantly alter the viewshed but would improve views to the beach from Highway 1 as it would be raised to a higher elevation. To minimize any potential visual impacts of the bridge barriers and railings separating the road from the surrounding area, the project would use an open rail design. The barriers and hand rails would be no more than 3.5 feet high and would include spacing between the railings (**Exhibit 7**). As designed, the bridge railings would be transparent and open to allow views of the adjacent riparian vegetation to persist. The height of the railings would allow for unobstructed views to the coast by pedestrians, bicyclists and automobiles. This design is similar to the design used on the Devil's Slide Tunnel Bridge, 1.1 miles from the project site, maintaining continuity with the surrounding area. This open rail design was determined to be a favorable option when presented to the Coastal Commission's Roads' Edge Subcommittee in 2012.

As noted above, the majority of the articulated concrete block revetment mats would be located under the bridges, but some of the revetment mats would extend 30-40 feet beyond the bridges (**Exhibit 4**). The proposed project would minimize the visual impacts of this armoring by using open-celled articulated concrete blocks in the design. This type of revetment mat would be colored similar to the bank coloring and planted with vegetation to reduce visual impacts. To ensure that visual impacts of the revetment would be minimized consistent with Section 30251, **Special Condition 2** has been included requiring the submittal of a landscape screening plan that would ensure the revetment mats are screened throughout the life of the project. Therefore, the project as proposed and conditioned would maintain and enhance the scenic and visual qualities of coastal areas consistent with Coastal Act Section 30251.

F. OTHER AGENCY APPROVALS

Portions of the project may be located within the jurisdiction of United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board. Accordingly, this approval is conditioned to ensure that the project (as conditioned and approved by this CDP) has received all necessary authorizations (or evidence that none are necessary) from other agencies (see **Special Condition 5**).

G. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of 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 effects which the activity may have on the environment.

The City of Pacifica, as the lead CEQA agency, prepared a mitigated negative declaration for the project. The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This report has discussed the relevant coastal resource issues with the proposal, and has recommended special conditions to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

1. CD-31-99 (U.S. Army Corps of Engineers, Flood control project, consisting of widening stream channel, diversion pipeline, floodwall and berm, culvert and bridge replacement, and riparian and wetland restoration)

2. Reinitiation of Consultation on the State Route 1 San Pedro Creek Bridge Replacement Project, USFWS, April 2012

3. Biological Opinion on the Effects of the Proposed State Highway 1 San Pedro Creek Bridge Replacement Project, NMFS, April 2013

4. Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act, June 2000

5. Highway 1 San Pedro Creek Bridge Replacement and Creek Widening Project Information, March 2013.

6. Final Hydraulic Report Route 1- San Pedro Creek Bridge Replacement Project, by RCE, October 2012

7. Highway 1 Bridge Project at San Pedro Creek Pacifica, California Conceptual Revegetation Plan, by TRA Environmental Sciences, Inc., April 2013.

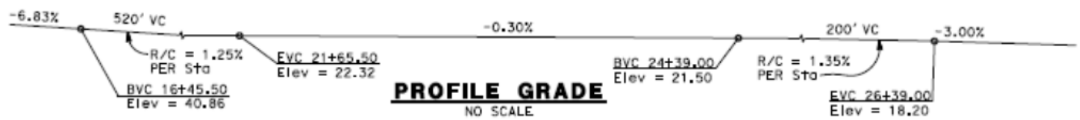
8. Drainage Report: Route 1 San Pedro Creek Bridge Replacement Project, Wilsey Ham, December 2011

9. San Pedro Creek Bridge Replacement Temporary Bypass Road Traffic Analysis, RKH, March 2007, Revised April 2010

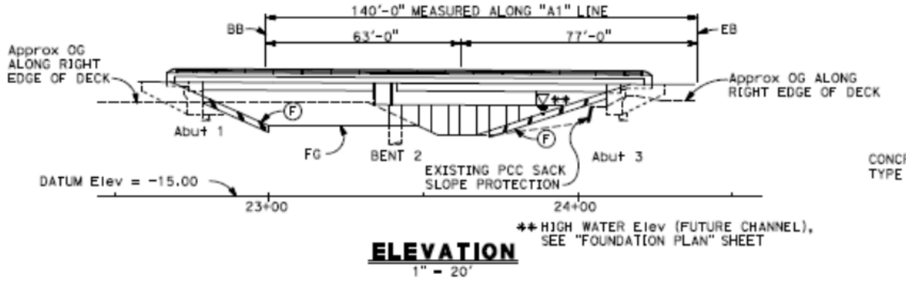

San Francisco
Oakland
Palo Alto
Pacifica
San Bruno
Mori Point
Rockaway Beach
Project Location
San Pedro Rock
Point San Pedro
Devils Slide
Montara Beach
Montara
Point Montara
Beach
SAN PEDRO VALLEY COUNTY PARK
Miles


San Pedro
Avenue Bridge
Existing
Route 1
Bridge

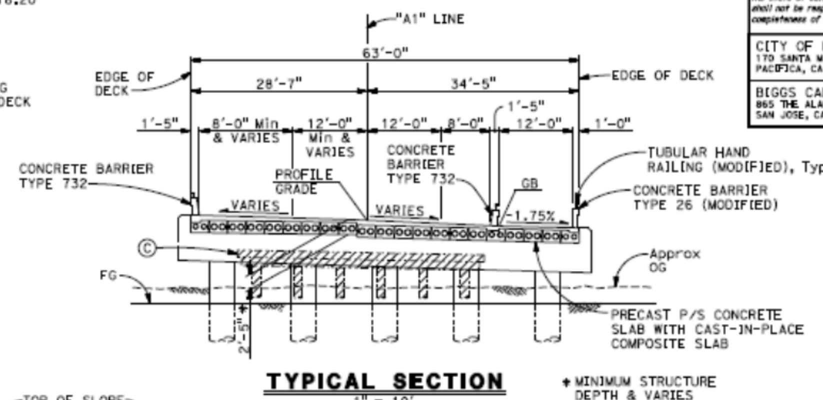
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE



PROFILE GRADE
NO SCALE

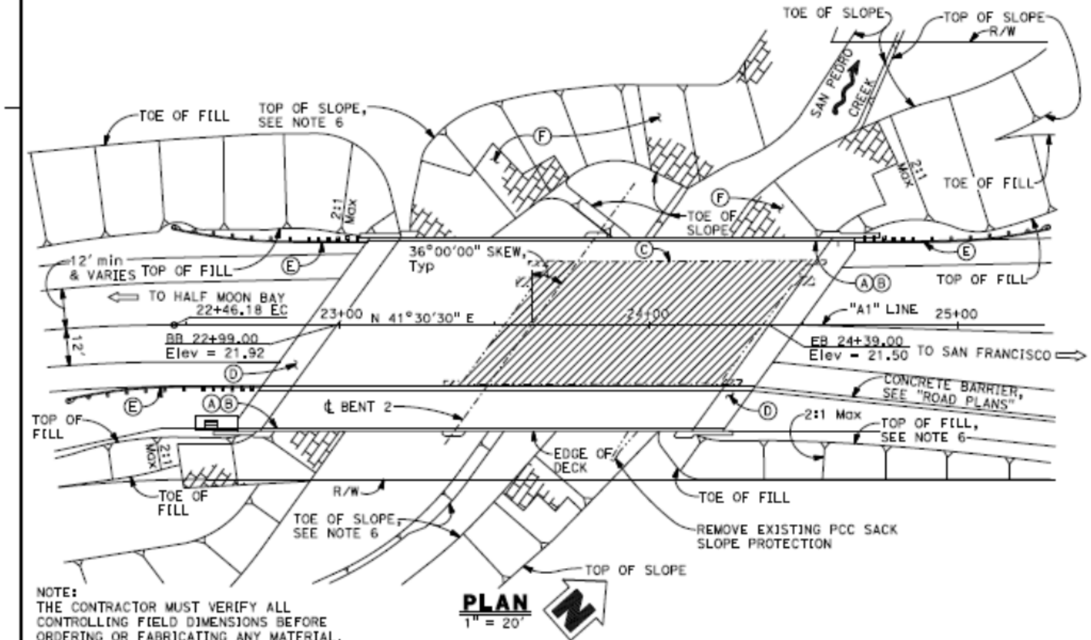


ELEVATION
1" = 20'



TYPICAL SECTION
1" = 10'

* MINIMUM STRUCTURE DEPTH & VARIES



PLAN
1" = 20'

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

NOTES:

- (A) Point Bridge Number
- (B) Point "San Pedro Creek Bridge"
- (C) Remove Exist San Pedro Creek Bridge Bridge No. 35-0053
- (D) Structure Approach Slab Type EQ(10)
- (E) MBGR, see "Road Plans"
- (F) Concrete Block Revetment, see "Road Plans"

1. For Hydrologic Summary, see "FOUNDATION PLAN" sheet.
2. For Pile Data Table, see "FOUNDATION PLAN" sheet.
3. For General Notes, see "DECK CONTOURS" sheet.
4. For List of Standard Plans, see "DECK CONTOURS" sheet
5. For Bench Mark and Datum & Quantities, see "FOUNDATION PLAN" sheet.
6. See "Road Plans" for Creek & Roadway Grading Plans
7. For ESA fencing limits see "Road Plans"
8. B0-13 — Indicates Standard Plan sheet No.; 13-1 — Indicates Detail No.

LEGEND:

- (solid line) Indicates new structure
- (dashed line) Indicates existing structure
- (arrow) Indicates direction of travel
- (hatched) Indicates Exist structure to be removed

INDEX TO BRIDGE PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	DECK CONTOURS
3	FOUNDATION PLAN
4	ABUTMENT 1 LAYOUT
5	ABUTMENT 3 LAYOUT
6	ABUTMENT DETAILS No. 1
7	ABUTMENT DETAILS No. 2
8	BENT DETAILS No 1
9	BENT DETAILS No 2
10	TYPICAL SECTION
11	SOFFIT ELEVATION SPAN 1
12	SOFFIT ELEVATION SPAN 2
13	COMPOSITE CONCRETE DECK REINFORCEMENT
14	PRECAST PRESTRESSED CONCRETE SLAB DETAILS No. 1
15	PRECAST PRESTRESSED CONCRETE SLAB DETAILS No. 2
16	PRECAST PRESTRESSED CONCRETE SLAB DETAILS No. 3
17	STRUCTURE APPROACH TYPE EQ(10)
18	LOG OF TEST BORINGS 1 OF 2
19	LOG OF TEST BORINGS 2 OF 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
04	SM	1	

REGISTERED STRUCTURAL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER MAHVASH ... No. 2639 Exp. 12/31/14 STRUCTURAL STATE OF CALIFORNIA

CITY OF PACIFICA
170 SANTA MARIA AVENUE
PACIFICA, CA 94044

BIGGS CARDOSA ASSOCIATES INC.
865 THE ALAMEDA
SAN JOSE, CALIFORNIA 95126

PLAN CHECK SET/NOT FOR CONSTRUCTION (2/6/13)

		BY	CHECKED		BY	
DESIGN OVERSIGHT	DESIGN	G. KENNING	D. DEVLIN	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY" PERMIT DESIGN VEHICLE	
	DETAILS	K. CRUZ	D. DEVLIN	LAYOUT	K. CRUZ	CHECKED G. KENNING
SIGN OFF DATE	QUANTITIES	K. CRUZ	J. GERLACH	SPECIFICATIONS	J. VISAYA	PLANS AND SPECS COMPARED D. DEVLIN

DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 7/16/10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MAHVASH M. HARMS
PROJECT ENGINEER

BRIDGE NO. 35-0350
POST MILES 40.83

SAN PEDRO CREEK BRIDGE (REPLACE)
GENERAL PLAN

UNIT: 0703
PROJECT NUMBER & PHASE: 04000007431
CONTRACT NO.: 04-265604

DISREGARD PRINTS BEARING EARLIER REVISION DATES

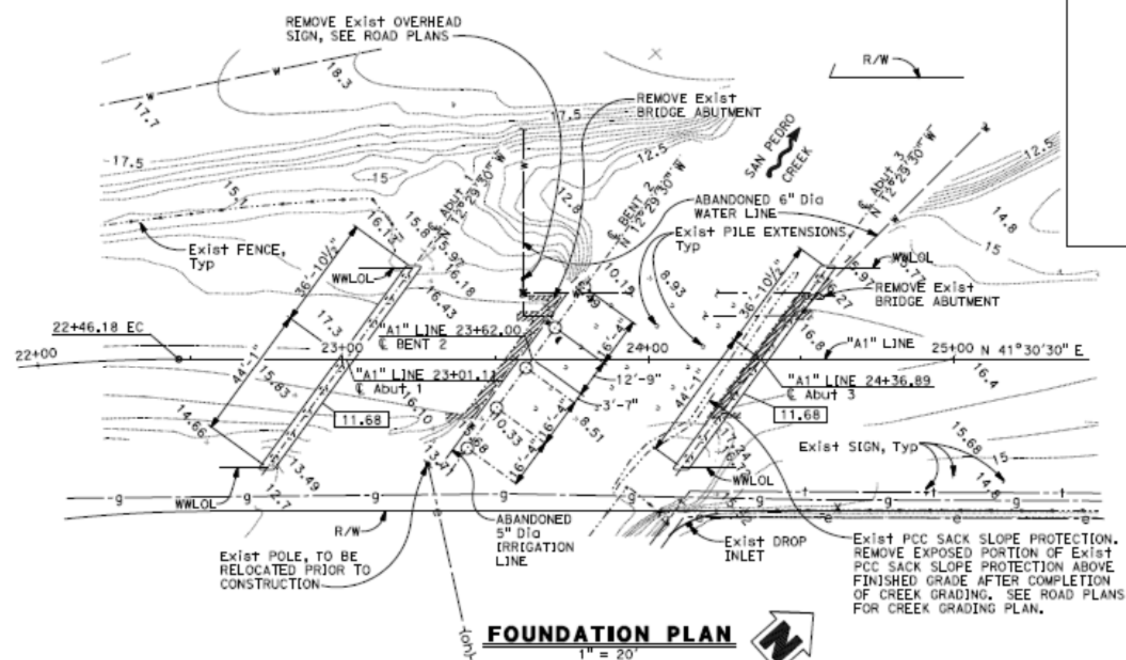
REVISION DATES: 5/30/11 9/5/12 12/4/12 2/6/13

SHEET 1 OF 19

USERNAME => JJD   DATE PLOTTED => 06-FEB-2013   TIME PLOTTED => 16143   2002096.2 (2002096251)

2-11-038
Exhibit 2
Page 1 of 2

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE



FOUNDATION PLAN
1" = 20'

SPACE RESERVED FOR QUANTITIES

PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elev (ft)	Specified Tip Elev (ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abutment 1	CISS 30" x ⅝"	810	N/A	(a) -53.0' (b) -41.0'	-53.0'	915
Bent 2	CISS 48" x ⅞"	1360	N/A	(a) -60.0' (b) -52.0'	-60.0'	1384
Abutment 3	CISS 30" x ⅝"	810	N/A	(a) -63.0' (b) -41.0'	-63.0'	915

Note:
(i) Design Tip Elevation are controlled by: (a) Compression; (b) Lateral
(ii) For abutment piles, Nominal Driving Resistance = Nominal Resistance + Down Drag Load above Elev. -20 ft
For bent piles, Nominal Driving Resistance = Nominal Resistance + Resistance in Scour Zone

BENCH MARK AND DATUM

Monument	Coordinates North	Coordinates East	Elev	Description/location
109	2045236.04	5980814.68	16.55	NGS BM Disk #Y1240 (NAVD 88-Project Benchmark)
118	2044971.81	5980475.27	17.91	Set Mag Nail and Washer
125	2045179.18	5980708.95	16.6	Set Mag Nail and Washer

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

NOTES:
1. Survey, Topography, Utility and Right-of-Way data shown on the Foundation Plan were prepared in 2011 and were provided by Wilsey Ham. Data shown for illustrative purposes only. Verify with "Road Plans".
2. See "Road Plans" for locations of Environmental Sensitive Area (ESA) fencing (limit of construction operations).
3. WWLOL are parallel with "A1" Line.

HYDROLOGIC SUMMARY

(Provided by Wilsey Ham in Hydraulic Report, October 4, 2012)

Drainage Area: 7.63 square miles

	DESIGN FLOOD	BASE FLOOD	OVER TOPPING FLOOD
Frequency (years)	50	100	500
Discharge (cubic feet per second)	3150	3550	4320
Water surface (elevation at bridge)	15.37	15.88	16.79
Velocity (feet per second)	6.19	6.57	7.23

1. Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the state, and interested or affected parties should make their own investigation.
2. All hydrologic information is based on the widened creek configuration.

LEGEND:
-w- Exist water line
-+- Exist telephone line
-g- Exist gas line (PG&E)
-e- Exist electrical line (PG&E)
-e- -(oh) Exist overhead utility line (PG&E)
(hatched) Exist structure to be removed

NOTES:
1. [11.68] Indicates bottom of abutment diaphragm elevation
2. 15.6 Indicates spot elevation.
3. Utilities shown are for illustrative purposes only, verify with utility plans.

PLAN CHECK SET/NOT FOR CONSTRUCTION (2/6/13)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
04	SM	1	

REGISTERED STRUCTURAL ENGINEER DATE
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER MARVASH M. HARMS No. 2639 Exp. 12/31/14 STRUCTURAL STATE OF CALIFORNIA

CITY OF PACIFICA
170 SANTA MARIA AVENUE
PACIFICA, CA 94044

BIGGS CARDOSA ASSOCIATES INC.
865 THE ALAMEDA
SAN JOSE, CALIFORNIA 95126

SCALE: AS SHOWN | VERT.DATUM NAVD 88 | HORZ.DATUM NAD 83
PHOTOGRAMMETRY AS OF: | ALIGNMENT TIES
SURVEYED BY WILSEY HAM | DRAFTED BY
FIELD CHECKED BY | CHECKED BY
DESIGN OVERSIGHT
SIGN OFF DATE
DESIGN BY G. KENNING | CHECKED D. DEVLIN
DETAILS BY K. CRUZ | CHECKED D. DEVLIN
QUANTITIES BY K. CRUZ | CHECKED J. GERLACH

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MARVASH M. HARMS
PROJECT ENGINEER

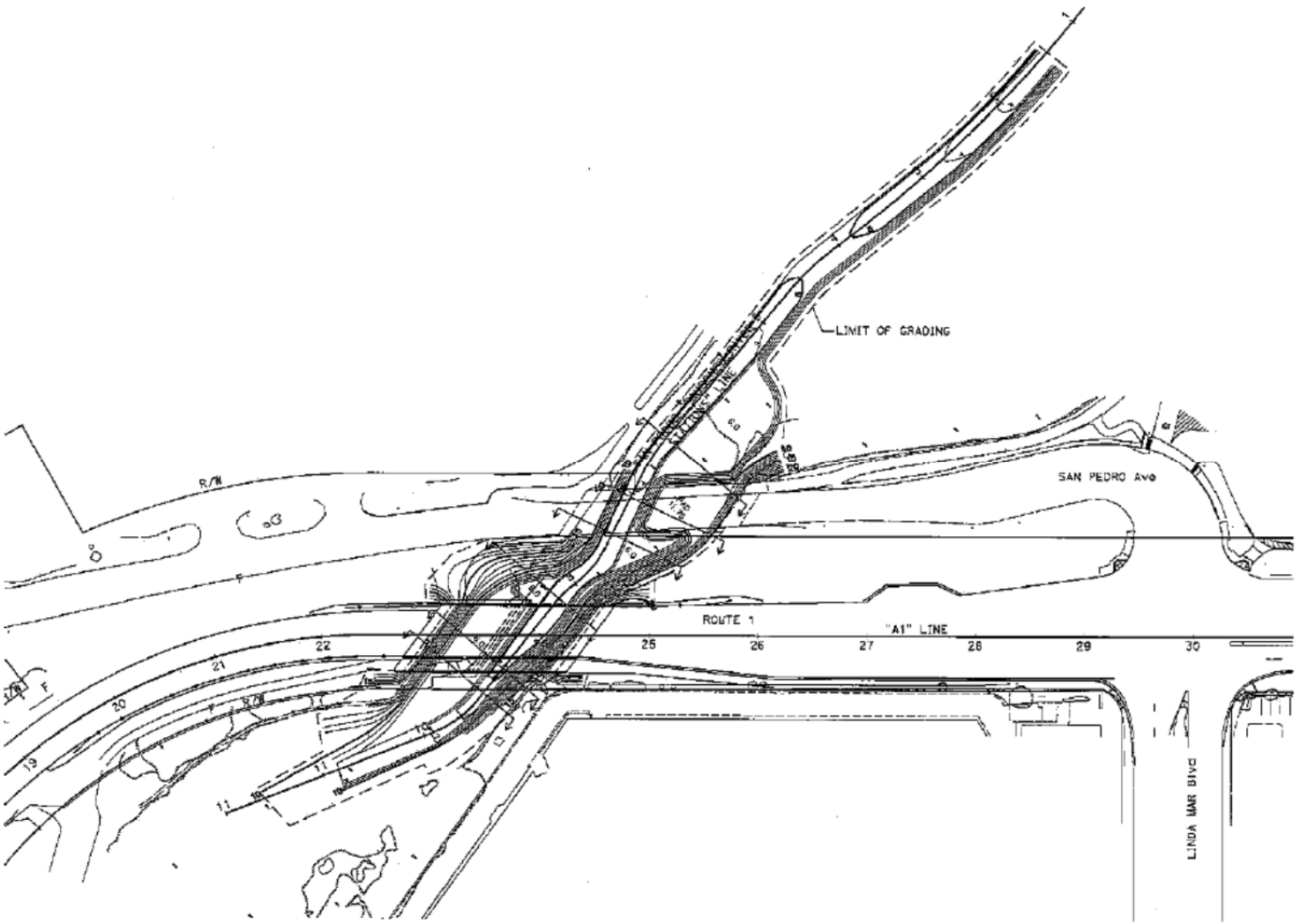
BRIDGE NO. 35-0350
POST MILES 40.83

SAN PEDRO CREEK BRIDGE (REPLACE)
FOUNDATION PLAN

FOUNDATION PLAN SHEET (ENGLISH) (REV. 7-16-10)
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3
UNIT: 0703
PROJECT NUMBER & PHASE: 04000007431
CONTRACT NO.: 04-265604
DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES 8/30/11 8/9/12 12/4/12 2/8/13
SHEET 3 OF 19

2-11-038
Exhibit 2
Page 2 of 2

Figure 15. Cross Sections



DIST	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
04	SM	1	40.8/40.9		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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Progress Print
Not for Construction

WILSEY HAM
3130 LA SELVA St, SUITE 100
SAN MATEO, CA 94403

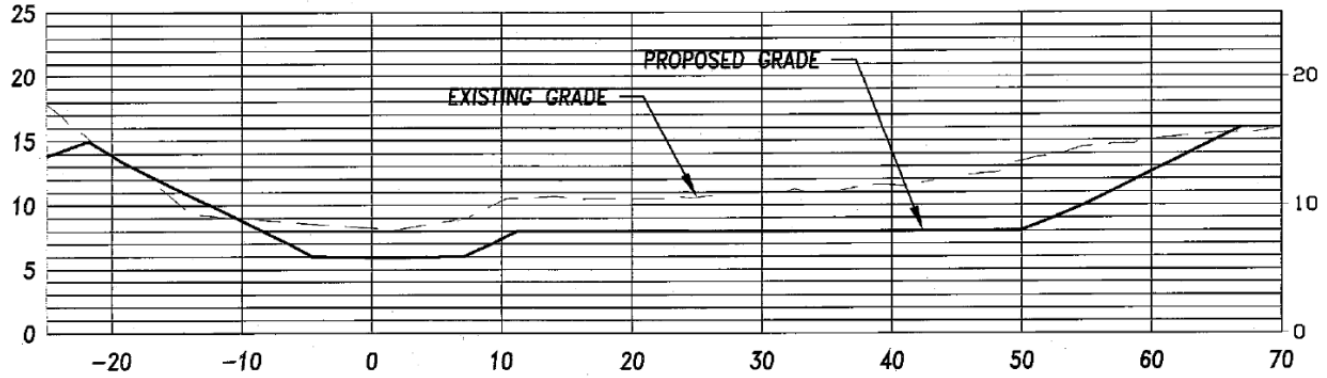
CITY OF PACIFICA
170 SANTA MARIA Ave
PACIFICA, CA 94044

GRADING PLAN

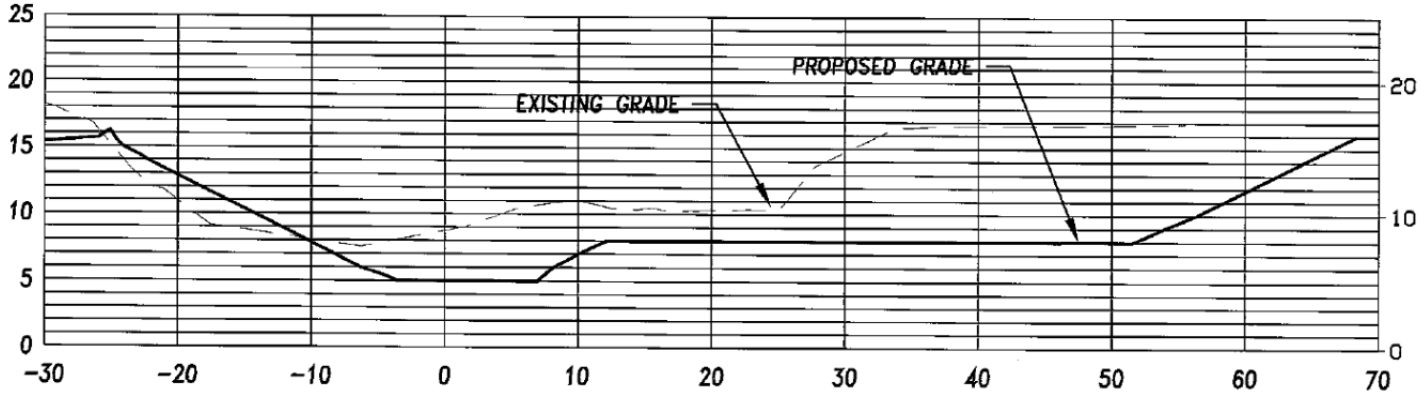
SCALE: 1"=50'

2-11-038
Exhibit 3
Page 1 of 3

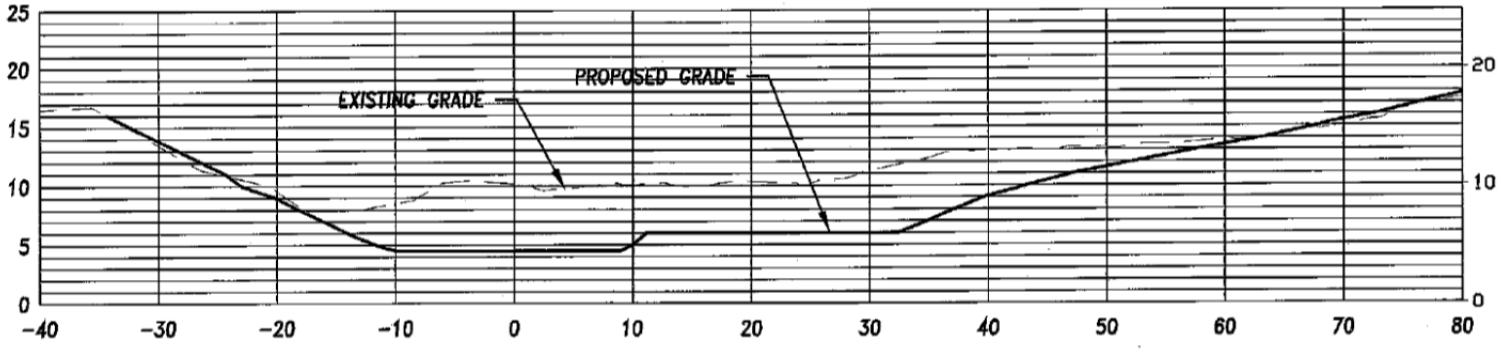
SAN PEDRO CREEK EXCAVATION
STA 9+43.63 – UPSTREAM ROUTE 1 BRIDGE



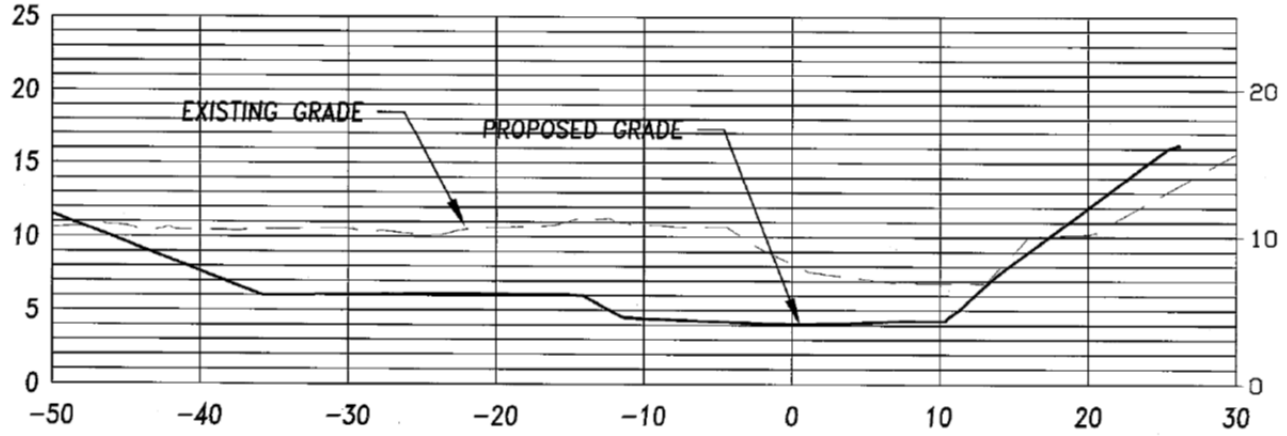
SAN PEDRO CREEK EXCAVATION
STA 9+05.00 – ROUTE 1 BRIDGE



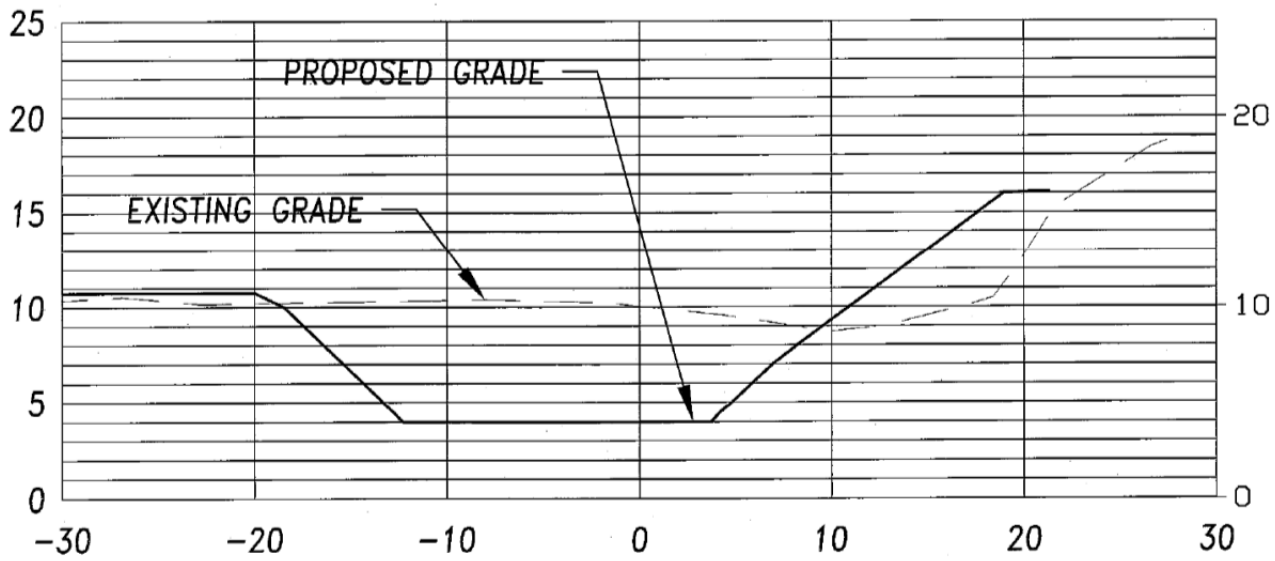
SAN PEDRO CREEK EXCAVATION
STA 8+27.96 – DOWNSTREAM ROUTE 1 BRIDGE



SAN PEDRO CREEK EXCAVATION
STA 7+49.01 – UPSTREAM SAN PEDRO BRIDGE



SAN PEDRO CREEK EXCAVATION
STA 7+03 – SAN PEDRO BRIDGE



NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET L-1.

CURVE DATA

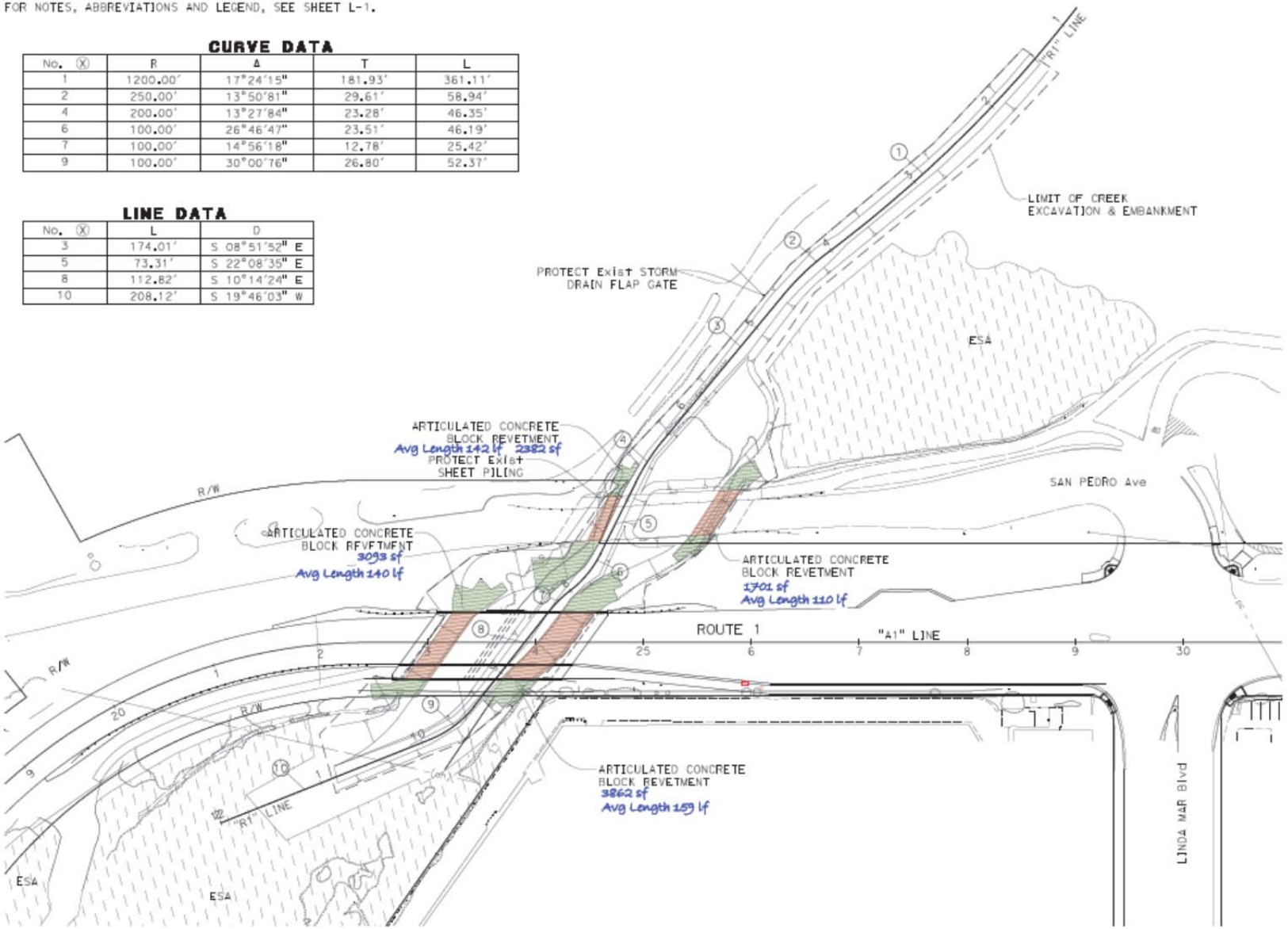
No. ⓧ	R	Δ	T	L
1	1200.00'	17°24'15"	181.93'	361.11'
2	250.00'	13°50'81"	29.61'	58.94'
4	200.00'	13°27'84"	23.28'	46.35'
6	100.00'	26°46'47"	23.51'	46.19'
7	100.00'	14°56'18"	12.78'	25.42'
9	100.00'	30°00'76"	26.80'	52.37'

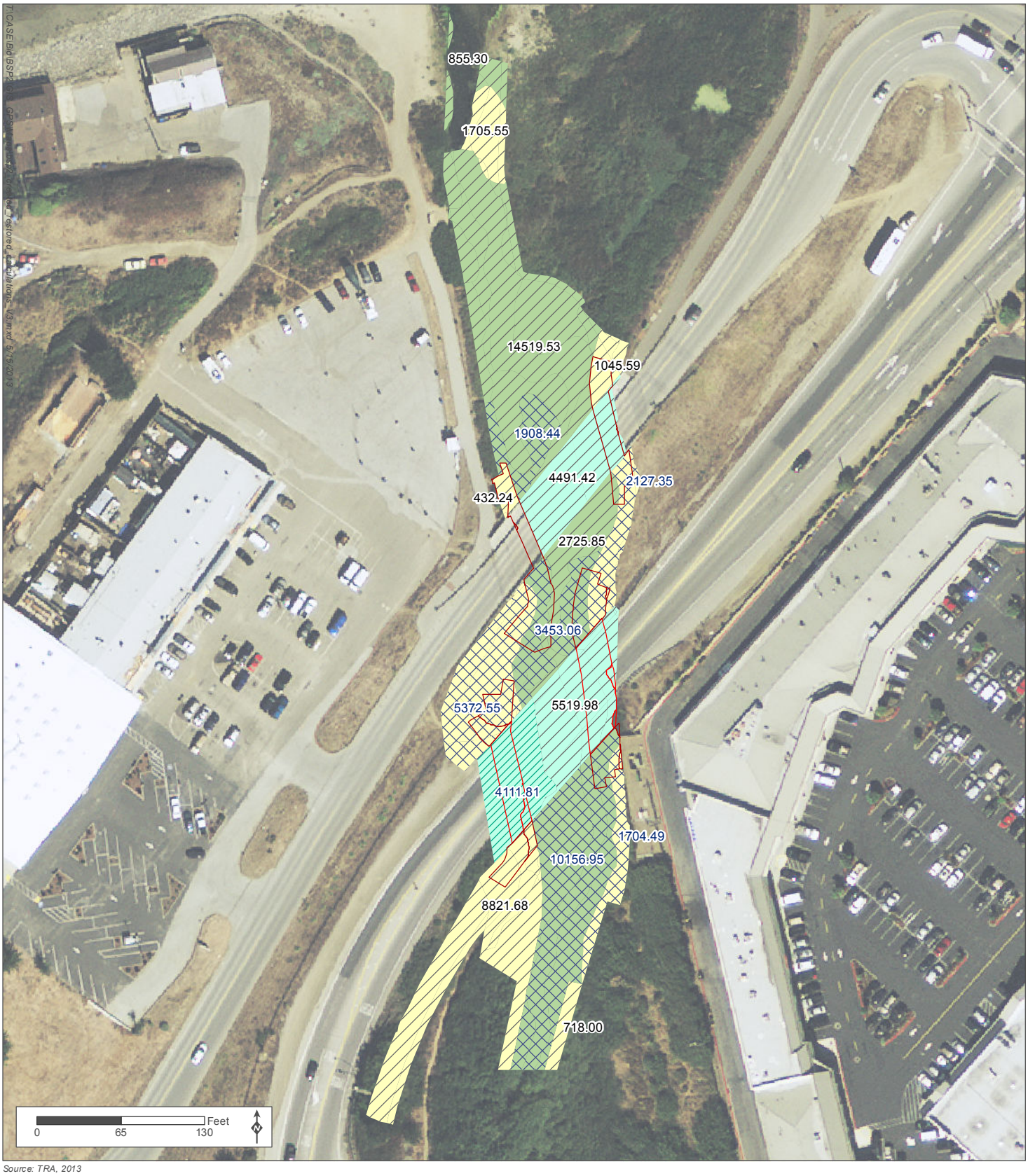
LINE DATA

No. ⓧ	L	D
3	174.01'	S 08°51'52" E
5	73.31'	S 22°08'35" E
8	112.82'	S 10°14'24" E
10	208.12'	S 19°46'03" W

LEGEND:

ARTICULATED CONCRETE BLOCK REVETMENT





Source: TRA, 2013

Revegetation Action

Action

- Converted
- Created
- Restored

New Bank Armor

- Bank Armor and Bridge
- Revegetated Bank Armor

Vegetation Type

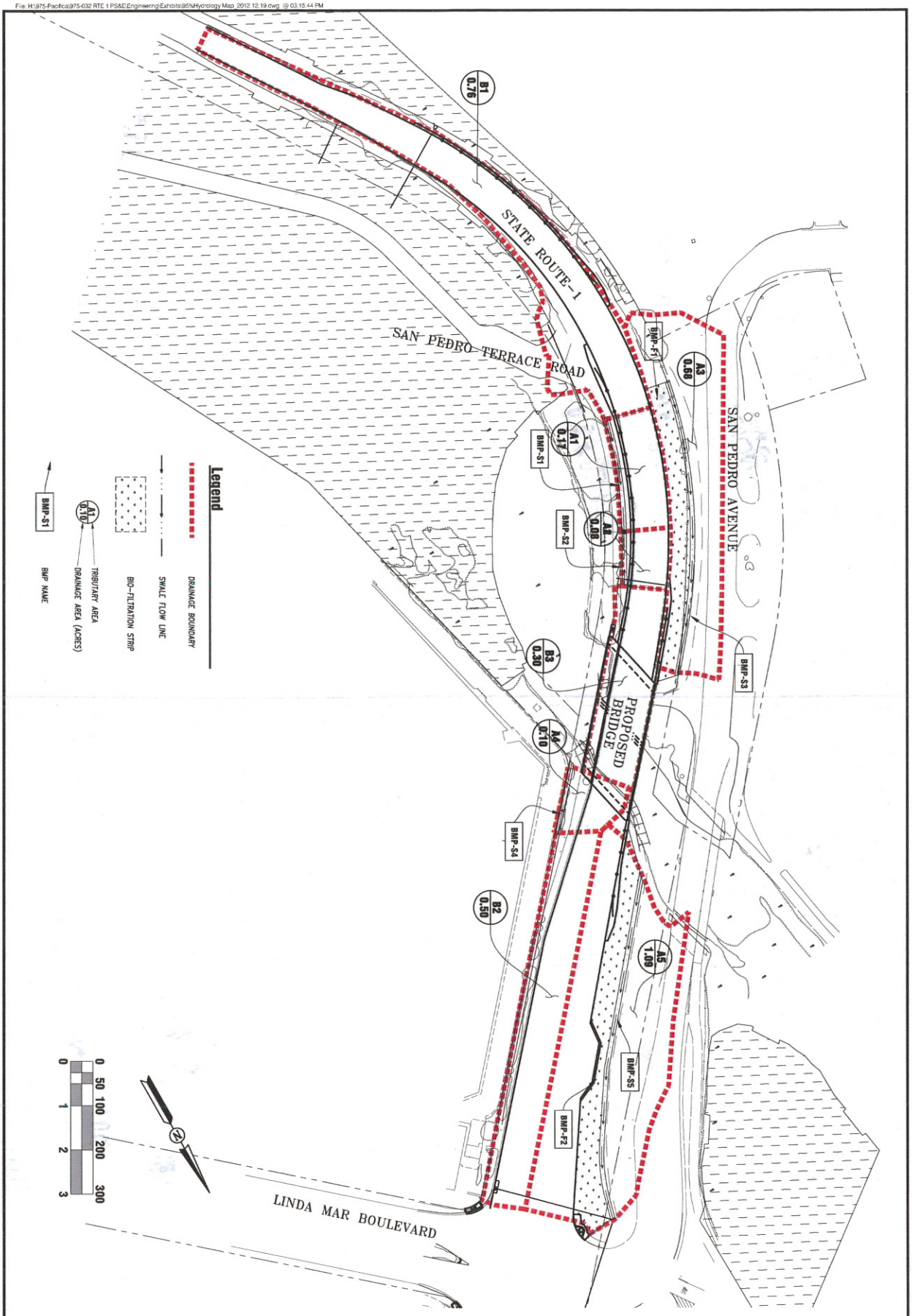
- Forest (Riparian) Wetland
- Aquatic
- Emergent Wetland

Created	(ft^2)	Converted to	(ft^2)	Restored to	(ft^2)
Forest (Riparian) Wetland	0.00	Forest (Riparian) Wetland	9,204.39	Forest (Riparian) Wetland	12,723.06
Aquatic	4,111.81	Aquatic	0.00	Aquatic	10,011.40
Emergent Wetland	0.00	Emergent Wetland	15,518.45	Emergent Wetland	18,100.68
Total	*4,111.81*	*Total*	*24,722.84*	*Total*	*40,835.14*

2-11-038
Exhibit 5, Page 1 of 1

Figure 16 Revegetation Areas Shown on Aerial Photograph

File: H:\975-Pacifica\975-032 RTE 1 PS&E\Engineering\Exhibits\95%Hydrology Map_2012.12.19.dwg @ 03:15:44 PM



CALTRANS
DISTRICT 4

BRIDGE REPLACEMENT

SAN PEDRO CREEK AT ROUTE-1

HYDROLOGY MAP

PACIFICA SAN MATEO COUNTY CALIFORNIA

No	Date	Issue / Revision Description	By

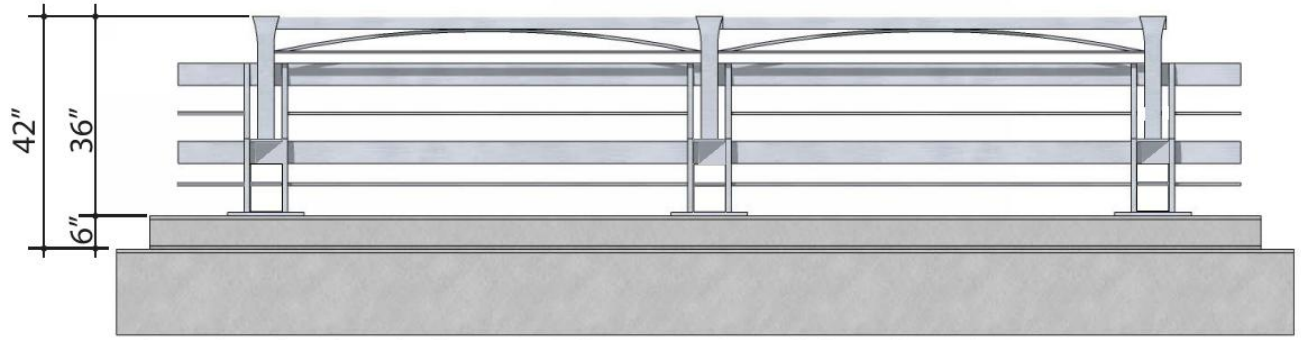
Sheet 1 of 1
Project No.: 0975-032
Scale: 1" = 100'
Date: Nov. 19, 2012

WILSEY HAM
ENGINEERING ■ PLANNING ■ SURVEYING
3130 La Selva Drive, Suite 1
San Mateo, CA 944
650 / 349-2151
Fax: 650 / 345-4

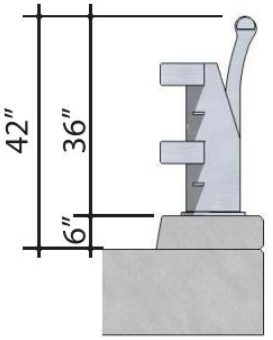
2-11-038
Exhibit 6
Page 1 of 1

San Pedro Creek Bridge Replacement Project
Proposed Rail Design

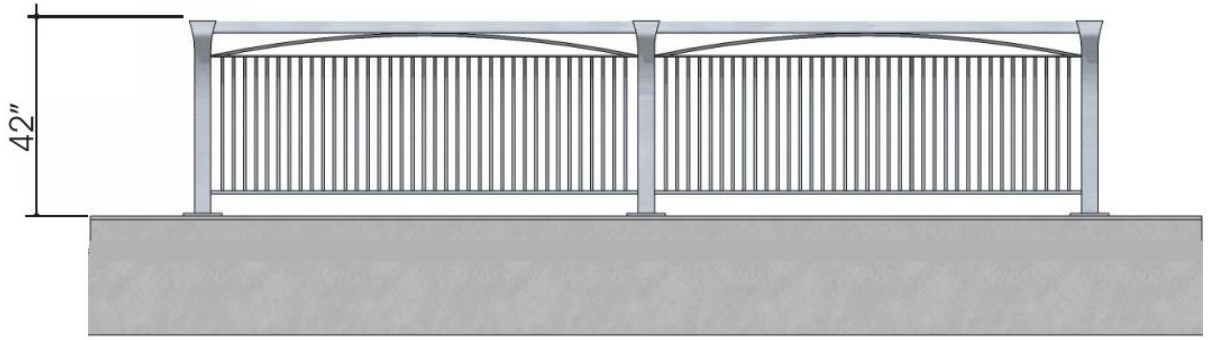
"Hand Rails Similar to Devil's Slide"



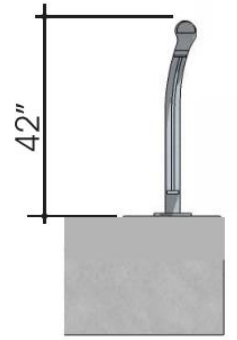
42" HIGH ST-10 BICYCLE RAIL-OFF BRIDGE LOOKING EAST



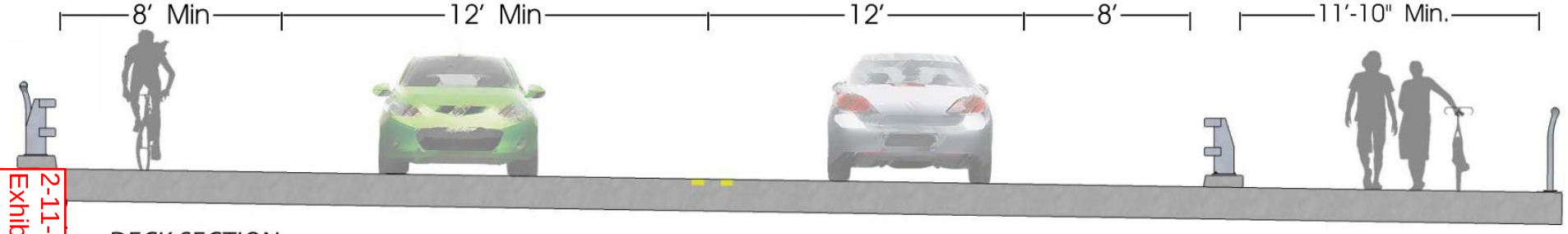
RAIL SECTION



42" HIGH PEDESTRIAN RAIL-OFF BRIDGE LOOKING WEST



RAIL SECTION



DECK SECTION

San Pedro Creek Bridge Replacement Project
Proposed Rail Design

"Hand Rails Similar to Devil's Slide"

Source: Wilsey-Hamm, 2012; TRA, 2013

Action Area
Existing Designated Path/Trail
New Pedestrian/Class I Bicycle Path
Trailhead

Figure 5 New Bridge Pedestrian/Class I Bicycle Path

Highway 1 Bridge Project at San Pedro Creek

TRA ENVIRONMENTAL SCIENCES, Inc.

2-11-038
Exhibit 8
Page 1 of 1

F9a

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170 Santa Maria Avenue • Pacifica, California 94044-2506
www.cityofpacifica.org

Scenic Pacifica

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Len Stone

MAYOR PRO TEM
Mary Ann Nihart

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Sue Digre
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• Field Services
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FAX (650) 738-9747

June 11, 2013

Ms. Tami Grove
Central Coast Deputy Director
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

Subject: Coastal Development Permit Application (CDP) No. 2-11-038 (Route 1, San Pedro Creek Bridge Replacement and Creek Widening Project, Pacifica)

Dear Ms. Grove,

This letter is to confirm our previous conversation that the City of Pacifica has reviewed the staff report and conditions of approval for the subject Coastal Development Permit Application (CDP) No. 2-11-038 for the Route 1, San Pedro Creek Bridge Replacement and Creek Widening Project, Pacifica and accepts all the conditions stated in the report.

Sincerely,

Signature on file

Van Dominic Ocampo, P.E.
Director of Public Works/ City Engineer

Cc: Stephen Rhodes – City Manager, City of Pacifica
Stuart Kirkham – Caltrans
Stefan Galvez – Caltrans
Brandon Davis – Wilsey Ham
Tay Peterson – Thomas Reid and Associates

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Flex your power!
Be energy efficient!

June 11, 2013

Ms. Tami Grove
Central Coast Deputy Director
California Coastal Commission
725 Front St
Santa Cruz, CA 95060

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(Route 1, San Pedro Creek Bridge Replacement and Creek Widening Project, Pacifica)

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Sincerely,

Signature on file

JEFFREY G. JENSEN
District Office Chief
Office of Biological Sciences and Permits

cc:

Van Ocampo, Director of Public Works/City Engineer, City of Pacifica