

CALIFORNIA COASTAL COMMISSION45 FREMONT STREET, SUITE 2000
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VOICE AND TDD (415) 904-5200**RECORD PACKET COPY****Tu 14b**STAFF REPORT AND RECOMMENDATIONON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-117-99
Staff:	JRR-SF
File Date:	12/16/1999
45th Day:	01/30/2000
60th Day:	02/14/2000
Commission Meeting:	02/01/2000

FEDERAL AGENCY: Corps of Engineers**DEVELOPMENT****LOCATION:**

Lower Mission Creek, Santa Barbara (Exhibit 1)

DEVELOPMENT**DESCRIPTION:**Lower Mission Creek flood-control improvements
(Exhibit 2-9)**STAFF NOTE**

The Coastal Commission staff sent a memorandum, dated January 18, 2000 (Exhibit 10), to the Corps of Engineers requesting additional information. On February 23 and 24, 2000, the Commission staff received responses to its memorandum (Exhibit 11 and 12) and additional supporting information from the City of Santa Barbara and the Corps of Engineers. The deadline for completion of the staff recommendation was February 24, 2000, which did not give staff sufficient time to review the new information and revise its draft recommendation. Therefore, the staff has published its initial recommendation, which does not reflect the new information, and has attached the letters from the City and Corps to this report. The staff will review these letters and supporting information

before the Commission meeting and, if appropriate, revise its recommendation for the hearing on March 14, 2000.

EXECUTIVE SUMMARY

The Corps has submitted a consistency determination to improve flood protection on Mission Creek, in the City of Santa Barbara. The proposed project would increase the channel capacity to 3400 cubic feet per second (cfs) and would thereby provide approximately a 20-year storm level of protection. Seven bridges along the study reach would be replaced. Additionally, the project includes a new culvert bypassing the oxbow upstream of Highway 101 ("oxbow bypass"). The oxbow would be left in place as a low flow channel. The project includes planting of native riparian species along sloped banks stabilized by riprap, creation of 0.6 acres of wetlands and riparian habitat adjacent to the oxbow, and enlargement of sloped planting areas. The creek banks would consist of either a vertical wall or a combination vertical wall and riprap sideslope. The combination vertical wall and riprap sideslope would consist of vertical wall for the bottom half, while ungrouted slope would form the upper half. Native riparian vegetation would be planted within the riprap. Existing natural stream bottom would be maintained and stream bottom that is now concrete lined would be restored to natural conditions, except for immediately underneath bridges and through the oxbow bypass.

The flood control facility within the coastal zone consists primarily of vertical walls, with two small sections that include short walls with a vegetated riprap slope above the walls. Sections 30236 and 30233 of the Coastal Act prevent the Commission from approving this stream alteration unless it is the least damaging feasible alternative. The Commission believes that there are possible alternatives to the proposed design of the flood-control facility south of Highway 101 that minimize the need to harden the banks of the creek. The most environmentally beneficial alternative appears to be the use of vegetated riprap or short floodwalls with vegetated riprap above the walls. Without an analysis of these alternatives, the Commission cannot conclude that the proposed project is the least environmentally damaging alternative.

The proposed project includes impacts to estuarine and riparian wetland resources. Sections 30236 and 30233 of the Coastal Act prevent the Commission from approving this stream alteration unless it includes feasible mitigation. The Corps proposes to mitigate for these impacts by designing the project to include creation of riparian habitat on the banks of the stream. For most of the length of the proposed project, the stream banks would consist of low floodwalls with vegetated riprap slopes above the walls. However, the consistency determination does not include a detailed final mitigation and monitoring plan, without which, the Commission cannot determine if the Corps'

mitigation would adequately replace the habitat resources affected by the proposed project.

Mission Creek provides habitat for two federally listed endangered species, the steelhead trout and the tidewater goby. Section 30240 prevents the Commission from approving an activity within an environmentally sensitive habitat area unless it is a resource dependent activity and avoids significant disruption to the habitat values. The proposed project includes in-stream excavation that results in potential impacts to both the steelhead trout and tidewater goby. The Corps has not yet completed its consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Without this consultation, the Commission cannot determine if the project would significantly disrupt the habitat values of the endangered species in the creek.

The proposed flood-control facility provides the Corps with an opportunity to restore water quality resources in Mission Creek by incorporating appropriate measures or technologies into the project design. Section 30231 of the Coastal Act requires the restoration of water quality resources where feasible. The Commission believes that the proposed project provides the Corps with an opportunity to reduce non-point source pollution discharge. The Corps consistency determination does not include an analysis of this issue, and therefore, the Commission cannot determine if there are feasible measures to restore water quality.

The proposed project includes the removal of sediment from the stream. Section 30233 of the Coastal Act requires sediment removed from coastal streams to be used to restore sand supply on local beaches. Although the Corps' consistency determination does not evaluate the suitability of this sediment for beach replenishment purposes, it proposes to dispose of excess material at local landfills. Without this analysis, the Commission cannot evaluate the project for consistency with the sand supply policies of the Coastal Act.

The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. Section 30251 of the Coastal Act provides for the protection of visual resources within the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. However, the Corps has not evaluated an alternative to the project that does not include the construction of floodwalls, and thus avoiding the visual impacts. Additionally, the Corps does not provide detailed description of its proposed measures to minimize visual impacts from the proposed project. Without this information, the Commission cannot evaluate the project's consistency with the visual policies of the Coastal Act.

The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project

and commits to coordination with the State Historic Preservation Officer (SHPO). However, without the benefit of the SHPO's analysis, the Commission cannot determine if the project is consistent with Section 30244 of the Coastal Act.

SUBSTANTIVE FILE DOCUMENTS:

1. Draft Environmental Impact Statement/Environmental Impact Report for Lower Mission Creek Flood Control Project, Santa Barbara, California, December 1999
2. Biological Assessments; Lower Mission Creek Flood Control Project, Santa Barbara, California, December 1999.
3. Draft Fish and Wildlife Coordination Act Report, Lower Mission Creek Flood Control Project, Santa Barbara, California, U.S. Fish and Wildlife Service, September 1999.

STAFF SUMMARY AND RECOMMENDATION:

I. Project Description.

The proposed project would develop a flood-control facility on Mission Creek in Santa Barbara with a capacity of 3,400 cubic feet per second (cfs) and would thereby provide approximately a 20-year storm level of protection. Seven bridges along the study reach would be replaced including De la Guerra Street, Ortega Street, Cota Street, De la Vina Street, Gutierrez Street, Chapala Street, and Mason Street Bridges. Additionally, the project includes a new culvert bypassing the oxbow upstream of Highway 101 ("oxbow bypass"). The culvert would cross the highway, Montecito Street, and the railroad tracks before rejoining the creek just upstream of the Chapala Street Bridge. The culvert would be covered only across Montecito Street down to its confluence at Chapala Street Bridge; this portion would consist of two concrete boxes (12 ft x 10.5 ft). The open portion of the culvert beginning just upstream of Highway 101 would be a 25-foot-wide rectangular concrete channel. The open channel would be approximately 200 linear feet, while the concrete box culvert would be approximately 350 feet in length. The oxbow would be left in place as a low flow channel.

The project includes planting of native riparian species along sloped banks stabilized by riprap, creation of 0.6 acres of wetlands and riparian habitat adjacent to the oxbow, and enlargement of sloped planting areas. Land acquisitions would provide for the widening of the creek and creation of habitat expansion zones at several locations (as many as six) along Lower Mission Creek. The habitat expansion zones would be planted with trees native to coastal California. Species planted may include western sycamore (*Platanus*

racemosa), cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), California laurel (*Umbellularia californica*), wax myrtle (*Myrica californica*), hollyleaf cherry (*Prunus ilicifolia*), and white alder (*Alnus rhombifolia*).

The creek banks would consist of either a vertical wall or a combination vertical wall and riprap sideslope. The combination vertical wall and riprap sideslope would consist of vertical wall for the bottom half, while ungrouted riprap (15 inches thick) at a 1.5:1 (Vertical to Height ratio) slope would form the upper half. The height of the vertical wall in this combination design would vary along the entire length of the project area. Riprap would be overlain on a layer of native rock and soil, with topsoil distributed through the interstices of the riprap, and covered with 9 inches of prepared topsoil. Concrete pipes in varying sizes (up to a maximum three feet in diameter) would be placed in between the riprap to allow planting of native trees and vegetation. Several species of riparian trees, including western sycamore, cottonwood, and coast live oak would be planted from 1 gallon nursery stock into cylindrical planters embedded within the riprap and spaced 40 feet apart.

Willow branches would be placed into prepared soil below the riprap in dense rows with the expectation that approximately 20% would sprout vegetatively and find their way through gaps in the riprap. Other native understory species, including arroyo willow (*Salix lasiolepis*), Mexican elderberry (*Sambucus mexicana*), and coyote brush (*Baccharis pilularis*), would be seeded into the topsoil, or set out from liner stock.

Combination riprap and vertical wall would be the dominant bank treatment upstream of Highway 101, except in two short reaches just upstream of Haley-De la Vina Bridge and De la Guerra Bridge. Below Highway 101, the combination riprap and vertical wall would be applied along the southeast bank, starting from midpoint between Chapala Bridge and Mason Bridge down to midpoint between Mason Bridge and State Bridge. In total, about 4,275 feet of Mission Creek would be finished with this combination design. The remaining length of the project reach would consist of vertical walls.

Existing natural stream bottom would be maintained and stream bottom that is now concrete lined would be restored to natural conditions, except for immediately underneath bridges and through the oxbow bypass. Restoration to natural bottom would necessitate excavation and removal of one to four feet of streambed in the reach between De la Guerra Street bridge and Ortega Street Bridge, one to three feet of streambed between Ortega Street Bridge and Bath Street Bridge, two to three feet of streambed between Cota Street Bridge and Haley-De la Vina Bridge, and two to four feet of streambed between Haley-De la Vina Bridge and Gutierrez Street Bridge. In the reach between Chapala Street Bridge and State Street Bridge, there would be excavation and/or fill of one foot of streambed. In the final reach of Lower Mission Creek from State Street Bridge

to Cabrillo Boulevard Bridge, the streambed would be cleared of leftover footing from earlier structures.

II. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the CCMP, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has partially incorporated the Santa Barbara LCP into the CCMP.

III. Federal Agency's Consistency Determination.

The Corps of Engineers has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

IV. Motion:

I move that the Commission agree with consistency determination CD-117-99 that the proposed project is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (CCMP).

A. Staff Recommendation:

Staff recommends a **NO** vote on the motion. Failure of this motion will result in a disagreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

B. Resolution To Disagree With Consistency Determination:

The Commission hereby disagrees with the consistency determination by the Corps of Engineers on the grounds that the consistency determination for the proposed project does not contain enough information for the Commission to determine if the project is consistent with the enforceable policies of the CCMP.

V. Procedures

A. Necessary Information:

Section 930.42(b) of the federal consistency regulations (15 CFR Section 930.42(b)) requires that, if the Commission's objection is based on a lack of

information, the Commission must identify the information necessary for it to assess the project's consistency with the CCMP. That section states that:

If the State agency's disagreement is based upon a finding that the Federal agency has failed to supply sufficient information (see Section 930.39(a)), the State agency's response must describe the nature of the information requested and the necessity of having such information to determine the consistency of the Federal activity with the management program.

As described fully in the findings below, the Commission has found this consistency determination to lack the necessary information to determine if the proposed project is consistent with Sections 30231, 30233, 30236, 30240, 30244, and 30251 of the Coastal Act. In order to evaluate the project's consistency with the CCMP, the Commission needs the following information:

B. Endangered Species. Final Biological Opinions from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on the projects impacts to the tidewater goby and steelhead trout.

C. Estuarine Habitat. A detailed analysis of the portion of the flood control-facility within the coastal zone that describes the following:

1. The purpose and need for the full-length vertical floodwalls in the coastal zone.
2. The purpose and need for the short walls in the coastal zone.
3. The possibility of achieving the same level of flood control protection from a project that does not include any floodwalls.
4. Any resource impacts from a flood-control project that does not include the floodwalls.
5. The reason why the use of short floodwalls with vegetated riprap was rejected as an alternative for most of the project within the coastal zone.

D. Mitigation. Revise the mitigation plan to include the following:

1. Identify its habitat restoration goals.
2. Provide more details on the biologic, hydrologic, geologic nature of the restoration activities.
3. Revise the monitoring to use performance standards instead of limiting the monitoring to five years. The Corps should identify its restoration goals and

monitor the area until those goals are accomplished. If the goals are not reached, the Corps should implement improvements to the habitat until the resource goals are met. Monitoring should continue on a periodic basis after the resource goals have been attained.

4. Revise the mitigation plan to contain a long-term commitment to maintain restored areas.
5. Add restrictions to the mitigation plan so it will contain an evaluation of the effect of long-term maintenance of the flood-control facility on restored habitat resources, and commitments to protect the habitat from the maintenance of the flood-control facility.

E. Water Quality. The Corps should revise its consistency determination to evaluate the feasibility and benefit from installing devices at street storm drains, at the Highway 101 culvert, or any other mechanisms or measures that could be used to capture or filter non-point source discharges. Additionally, the Corps should evaluate the possibility of designing the proposed wetland creation project, north of Highway 101, to capture non-point source pollution discharges to the estuary and ocean.

Finally, the consistency determination should include a runoff and erosion control plan that minimizes non-point source pollution associated with construction activities from the proposed project.

F. Sand Supply. The Corps' consistency determination should include an evaluation of the suitability of material removed from the creek to be used for beach replenishment. This evaluation should analyze the physical and chemical characteristics of the sediment to determine if it is suitable for beach replenishment. If the material is suitable, the evaluation should consider the feasibility of using that material for beach replenishment purposes. Additionally, since the proposed maintenance activities provide for the regular removal of sediment from the stream, these maintenance activities should also be analyzed for these concerns.

G. Visual Resources. The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. The Commission has two concerns with respect to the Corps analysis of visual impacts. First, as described above, it is not clear that the construction of vertical walls is necessary. Until the Corps provides additional information that justifies the need for the walls, the Commission considers the use of vegetated riprap to be a less visually damaging alternative. If the Corps can demonstrate that the vertical walls are necessary, the second concern of the Commission is that aesthetic design improvements

proposed by the Corps are not described in detail and the Commission cannot determine if the improvements would sufficiently mitigate for visual impacts.

H. Cultural Resources. The consistency determination should be revised to include an analysis of the effects from the project on historical and archaeological resources from the State Historic Preservation Officer.

VI. Findings and Declarations:

The Commission finds and declares as follows:

A. Stream Alteration. The Coastal Act provides for the protection of stream resources. Section 30233(a) provides that:

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

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

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

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30236 of the Coastal Act provides that:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain 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

1. Existing Resources. The Corps of Engineers proposes to develop a flood-control facility on Lower Mission Creek, a 1.1-mile section of Mission Creek from the intersection of Canon Perdido and Castillo Streets to Cabrillo Boulevard, located in the City of Santa Barbara. This section of Mission Creek flows southeast through the City of Santa Barbara and eventually discharges into the ocean approximately 450 feet east of Stearn's Wharf.

The Mission Creek drainage, the largest of several coastal stream systems in the Santa Barbara region, originates from the Santa Ynez Mountains in the Los Padres National Forest, north of Santa Barbara. The drainage, including its tributaries, is approximately 11.5 square miles in size. The headwaters of Mission Creek and its major tributary, Rattlesnake Creek, occur at 3,500 feet in the Santa Ynez Mountains. During the rainy season, Mission Creek ranges from a comparatively small stream carrying an average maximum of 370 cubic feet per second (cfs) during non-flood years to a creek capable of destructive peak flows of 5120 cfs¹. The incidental trickle moving down the channel after mid-summer appears to be primarily urban runoff which enters Mission Creek via

¹ Hydrology data from the U.S. Army Corps of Engineers 1995a.

storm drains along its course. Mission Creek also periodically receives water from the Santa Barbara water tunnels.

The condition of the natural resources varies along the length of the Mission Creek watershed. The creek flows through steep terrain and the vegetation of the drainage is relatively undisturbed in its upper reaches, north of the Santa Barbara Botanical Garden. On this portion of the drainage, riparian woodland vegetation occurs along Mission Creek and its tributaries, and the surrounding vegetation includes chaparral and coast live oak woodland. South of the Botanical Garden, the terrain becomes flatter and the creek shows more signs of disturbance associated with the greater density of adjacent commercial and residential development. Within the project study area, between Canon Perdido Street and Cabrillo Boulevard, the natural habitat of the creek is highly modified. Only remnants of native vegetation remain in the creek and estuary, and the area adjacent to the creek consists of buildings, ornamental landscapes, parking lots, and roads. Natural habitat is significantly limited by urban development including periodic clearance of vegetation and accumulated sediments from the channel, the indiscriminate use of the channel as a dumping ground for refuse, intermittent and private hard siding of its channels, housing along both sides of the channel, bridges carrying roads over the channel, discharge of storm water lines into the channel (especially underneath bridges), and the concentration of business developments within or adjacent to residential neighborhoods.

In lower Mission Creek, three areas of concrete interrupt the natural channel bottom and banks. Approximately 0.3 miles of a concrete trapezoidal channel occurs from Los Olivos Street to Mission Street. An approximately 0.8-mile concrete trapezoidal channel occurs from Valerio Street to Canon Perdido, the point where the project study area begins. Lastly, a 0.1-mile rectangular concrete-bottomed and stone-walled channel occurs in the project study area from the Southern Pacific Railroad tracks to Chapala Street. In addition, the banks and stream bottom in the project area have been altered with grout stone, sacked concrete, pipe and wire revetment, gabions, bulkhead structures, and other stabilization structures to prevent bank erosion and flooding to adjacent development. Thus, the physical characteristics of the creek have been modified to some extent, especially along the lower portions.

Although the Mission Creek watershed is not entirely pristine, the drainage as a whole is an important riparian system for the area. Mission Creek and its main tributary, Rattlesnake Creek, are designated by Santa Barbara County as prime examples of freshwater streams in the County. This designation maintains that these creeks deserve special protection because the upper Mission Creek drainage supports extensive areas of quality riparian communities with high wildlife value.

2. Allowable Use and Alternatives. Section 30233 of the Coastal Act identifies eight allowable uses for the dredging diking and filling of coastal waters. The proposed project includes the removal of sediment from the stream and the construction of floodwalls, which the Coastal Act defines as fill. Flood-control facilities are not defined as an allowable use under Section 30233(a). Section 30236 of the Coastal Act, however, allows for construction of such facilities, if they are necessary to provide flood protection, water supply, or habitat benefits. Section 30236 is a more specific policy that clearly allows alterations of streams for flood-control purposes. The Coastal Act, therefore, allows dredging and filling of streams for flood-control purposes, even though that activity is not identified as an allowable use under Section 30233(a).

However, the project must meet all of the requirements of Section 30236 in order to be an allowable flood-control project. That section allows alterations of streams for flood-control purposes if there is no other feasible method for protecting existing structures in the floodplain and where such protection is necessary for public safety or to protect existing development. According to the Corps flooding of Mission Creek has been an historic problem for the area. In its Feasibility Study, the Corps states that:

The primary problem affecting the lower Mission Creek study area is the threat of flooding to property which affects the health, safety and well-being of the residents of Santa Barbara. This is substantiated by flood records dating back to 1862. Records show that the area has suffered at least 20 considerable floods since 1900. Increased urbanization of the Santa Barbara area over the last century has contributed to increased runoff, and therefore, increased flooding frequencies.

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Records since 1900 show that floods occurred in the Santa Barbara County area in 1906, 1907, 1909, 1911, 1914, 1918, 1938, 1941, 1943, 1952, 1958, 1962, 1964, 1967, 1969, 1973, 1978, 1980, 1983, 1995, and 1998.

Clearly, the area is subject to flooding and because of the urbanization of the lower watershed, the flooding has the potential to have significant effects on existing development. However, the Coastal Act limits the development of flood-control facilities to those where there is no other feasible method for protecting existing structures. This test is similar to the alternatives requirement of Section 30233 of the Coastal Act, which prevents the Commission from authorizing dredging or filling within a stream unless the activity is the least damaging feasible alternative. The Corps analyzed several different alternatives to the proposed project. These alternatives include several different flood-control

designs and the no-project alternatives. The Corps' analysis of non-structural alternatives includes flood plain management, flood proofing, and relocation. The Corps describes these alternatives as follows:

The City of Santa Barbara has been a participant in the National Flood Insurance Program which requires the City to maintain a Flood Plain Management Plan to reduce future flood plain hazards. The Reconnaissance Study also investigated the flood warning system and evacuation element of flood plain management. The study revealed that a flood warning system would be impractical to implement. Storm waters falling in the upper Mission Creek watershed reach the lower Mission Creek area in less than one hour, which would be too short a time for local residents to respond to any flood warning.

Flood proofing measures examined in the Reconnaissance Study include blocking flood water from entering a structure, jacking the first floor of a structure above a flood surface elevation, and constructing a flood wall or ring dike. Blocking the flood waters at individual structures was not considered feasible due to likely failure of the structures' walls as a result of hydrostatic and hydrodynamic forces. Raising (jacking) structures above flood water elevations was determined to be too expensive and uneconomical given the frequency of flooding in the area. Flood walls or ring dikes were not considered a feasible alternative due to inadequate space, aesthetic considerations, and the difficulty in ensuring proper closure of openings in the wall or dike during a flood.

Finally, relocation of structures in the flood plain was considered. However, Santa Barbara is a highly developed area which has very little space to relocate structures out of the floodplain.

The Commission agrees that the lower Mission Creek is an urban stream and relocation or retrofitting existing development would likely be cost prohibitive and infeasible. However, the Commission does not conclude that lack of an alternative to stream alteration means that the proposed project is the least damaging feasible alternative. The Corps submittal did not consider alternative flood-control facilities that do not require hardening of the stream banks, especially in the coastal zone.

The flood-control facility within the coastal zone consists primarily of vertical walls, with two small sections that include short walls with a vegetated riprap slope above the walls. The Corps did not include in its submittal analysis of the engineering and design decisions that required this feature. The Commission is

concerned about the preservation of as much of the natural estuarine habitat as feasible. To that end, the Commission believes that there may be alternatives to the proposed design of the flood-control facility south of Highway 101 that minimizes the need to harden the banks of the creek and estuary. The most environmentally beneficial alternative appears to be the use of vegetated riprap or short floodwalls with vegetated riprap above the walls. The Corps did not consider these alternatives in its environmental documents. The Commission assumes that the lack of consideration of these alternatives is due to the constraints of existing development on the banks of the creek. However, the Commission cannot find that the proposed project is the least damaging feasible alternative unless it has data that demonstrates that the use of vegetated riprap slopes with and without flood walls is not feasible or is more environmentally damaging than the proposed alternative. Therefore, the Commission finds that the consistency determination lacks sufficient information for the Commission to conclude that the proposed project is consistent with the alternatives requirements of Section 30233 and 30236 of the Coastal Act. Without a complete alternatives analysis, the Commission cannot conclude that the proposed project is only method for protecting existing structures in the floodplain.

3. **Mitigation.** The proposed project includes impacts to estuarine and riparian wetland resources. The Corps proposes to mitigate for these impacts by designing the project to include creation of riparian habitat on the banks of the stream. For most of the length of the proposed project, the stream banks would consist of low floodwalls with riprap slopes above the walls. These slopes would be covered with soil and planted with native vegetation.

However, after reviewing the proposed mitigation plan, the Commission believes that it is incomplete. The following issues need further elaboration:

1. The mitigation and restoration plan does not completely identify its habitat restoration goals.
2. The mitigation/restoration plan needs to be more detailed in order for the Commission to determine its consistency with the Coastal Act.
3. The monitoring is limited to five years and is not based on performance standards. The Corps should identify its restoration goals and monitor the area until those goals are accomplished. If the goals are not reached, the Corps should implement improvements to the habitat until the resource goals are met. Monitoring should continue on a periodic basis after the resource goals have been attained.
4. The mitigation plan does not contain a long-term commitment to maintain restored areas.

5. An evaluation of the effect of long-term maintenance of the flood-control facility on restored habitat resources.

In conclusion, without a detailed final mitigation and monitoring plan, the Commission cannot determine if the Corps' mitigation would adequately replace the habitat resources that would be affected by the proposed project. Therefore, the Commission finds that the Corps' consistency determination does not contain enough information for the Commission to determine if the project is consistent with the mitigation requirements of Sections 30233 and 30236 of the Coastal Act.

B. . Environmentally Sensitive Habitat Resources. The Coastal Act protects sensitive habitat resources of the coastal zone. Section 30240 of the Coastal Act provides that:

(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.

Mission Creek provides habitat for two federally listed endangered species, the steelhead trout and the tidewater goby. The steelhead trout uses Lower Mission Creek as a migratory corridor to the upper reaches of the watershed, which is suitable for fish spawning. In addition, the Mission Creek estuary where provides habitat for the tidewater goby. The proposed project includes in-stream excavation that could result in potential impacts to both the steelhead trout and tidewater goby. The Corps proposes to mitigate for these impacts as follows:

The project construction will restore a soft bottom to Mission Creek or retain that soft bottom if it is already present. ... With thorough planning of construction schedules, these potential impacts [to steelhead trout] can be avoided entirely. For all construction activities which alter the banks or stream bottom above Yanonali Street, machinery must be excluded from the channel and stream bottom any time significant flows pass down Mission Creek between mid-December and mid-May. All construction activities above Yanonali Street should be restricted to the months between the beginning of June and the end of November. During those months, a double strand of silt fencing material should be strung across the channel below the current area of work to retain sediments dislodged from the banks or creek bottom. The strands need to be at least 30 feet apart to facilitate the lower fence trapping any sediments which swirl past the upper.

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The estuarine waters through which steelhead would swim to reach spawning sites higher in the watershed are the very habitat occupied throughout the year by gobies. Mitigation measures is included in the project construction schedule that complete all work between Yanonali Street and Cabrillo Boulevard between April and June, because gobies will be more inclined to enter the estuary as summer conditions begin to prevail.

To minimize any impacts to gobies, it will be necessary to close off both ends of the area to be de-watered with some impermeable barrier, then have a biologist knowledgeable of tidewater gobies and the ecological niche they inhabit seine the entire impoundment for gobies. The biologist must have appropriate authorization from the US Fish and Wildlife Service for such incidental take. Any and all gobies netted this way will have to be freed into the estuarine water outside the barrier. Once cleared of fish, the impounded half channel can be de-watered without impacts to tidewater gobies.²

The Corps is in the process of coordinating with the U.S. Fish and Wildlife Service (Service) and the National Marine Fisheries Service (NMFS) pursuant to the requirements of Section 7 of the Endangered Species Act. The consultation process is not completed and the Commission does not have the benefit of the complete input from the Service and NMFS on the issue of protection of endangered species. Without a completed Section 7 consultation, the Commission cannot determine if the Corps' mitigation measures would adequately minimize impacts to these listed species. This issue is also of concern in this case because the Corps has identified some potential impacts to these species from its proposed project but relies on the Section 7 process to resolve these concerns. Specifically, the Corps states that:

The potential effects on foraging behavior and migration through the estuary of mechanical vibration transmitted through the ground and water cannot be evaluated based on any experimental data known to the USACOE. That such a disruption of normal behavior may occur seems probable. The level of such an effect must be weighed during Section 7 Consultation.

Construction on the banks would remove what little vegetation now grows along the estuary. To the extent that plant growth provides important cover for steelhead as they enter the estuary, its removal could perhaps have a direct effect [on] their migratory behavior.

² Corps federal consistency determination for the proposed Mission Creek Project, p. D-8.

The level of such an effect also cannot be evaluated for lack of experimental data. Section 7 Consultation must also evaluate this possible effect.

...

Construction upstream of Yanonali Street will still be constrained: no mechanized equipment permitted in significant stream flows between December 15 and the end of March. As construction moves farther upstream, silt curtains will be deployed below the immediate area of construction to reduce suspended sediments in the water. In all likelihood, these fences probably will not trap all sediments and some will be carried downstream to the estuary. The concentration of such sediments cannot be estimated, hence the possible indirect effects to steelhead which may be present somewhere downstream after the end of March cannot be evaluated at this time. The magnitude of such indirect effects must also be evaluated during Section 7.³

A similar analysis is in the Biological Assessment for the tidewater goby. The Corps clearly identifies these issues as unresolved and is relying on the Section 7 process to address these potential impacts. Without further information on the nature of these impacts and mitigation, if necessary, the Commission can not make the findings that the proposed project will not significantly disrupt these species. In other words, these issues need to be resolved before the Commission can find the project consistent with the habitat policies of the Coastal Act. Therefore, the Commission finds that the consistency determination for the proposed project lacks sufficient information for the Commission to find that this project is consistent with Section 30240 of the Coastal Act.

C. Water Quality. The Coastal Act protects the quality of coastal waters, including streams. Section 30231 of the Coastal Act provides that:

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

³ Biological Assessment, p. 14-15

maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

As stated above, Mission Creek is located in a relatively urban part of the City of Santa Barbara. The water quality of Mission Creek has been degraded by the discharge of non-point source pollution associated with urban land uses. The proposed flood-control facility provides the Corps with an opportunity to restore water quality resources in Mission Creek by incorporating appropriate measures or technologies into the project design. The Commission recognizes that there are currently discharges of non-point source pollution into Mission Creek and that the proposed project would not alter the nature or increase the volume of these discharges. The reconstruction of the flood-control facility, including the replacement of bridges, installation of a culvert under Highway 101, and construction of wetlands just north Highway 101, provide the Corps with an opportunity to design the facility to incorporate measures into the project in order to reduce non-point source pollution. Section 30231 of the Coastal Act requires the restoration of water quality resources where feasible. The Corps could install devices at street storm drains or at the Highway 101 culvert that capture or filter discharges. The Commission recognizes that there are costs and environmental issues that may affect the feasibility of such measures. The installation and maintenance of filters at the major discharge areas may require substantial capital costs and the use of a filter or other device on the culvert at Highway 101 may result in impacts to sand supply and steelhead trout migration. These issues were not evaluated in the Corps' environmental documents. In order for the Commission to evaluate this issue, the Corps must provide additional analysis of these potential water quality improvements.

A possible measure to reduce non-point source pollution discharges to the estuary and ocean is the construction of a wetland, as proposed, north of Highway 101. However, the Corps' commitment to construct such a wetland is dependent on cleanup of a hazardous waste at that site. That cleanup project is not a Corps project and any wetland restoration is not assured until the cleanup issues are resolved. Therefore, the Corps cannot commit to the restoration project at this time. If the cleanup issues at that site are resolved, the Corps should include a wetland restoration plan as part of its project and the wetlands should be designed to maximize capture and filtration of pollutants.

In addition, the proposed construction activities may have water quality impacts from construction equipment and grading activities. The environmental documents indicate that the Corps would prepare a runoff and erosion control plan. The details of this plan are necessary for the Commission to evaluate water quality impacts from the proposed project. Without this plan, the Commission cannot determine if the project is consistent with the water quality policies of the Coastal Act.

In conclusion, the Commission finds that the consistency determination for the proposed project does not contain enough information for the Commission to evaluate the consistency of the project with the water quality polices of the Coastal Act.

D. Sand Supply. Section 30233(d) of the Coastal Act provides for the use of suitable material removed from coastal streams to be used for beach replenishment purposes. This section provides that:

(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

The proposed project includes the removal of sediment from the stream. With such activities, the Coastal Act requires the use of suitable sediment for beach replenishment purposes, if it is feasible. However, in this case, the Corps proposes to dispose of this sediment at nearby landfills. The Corps' environmental documents do not evaluate the suitability of this material for beach replenishment or the feasibility of using it for that purpose. In order to make such an evaluation, the Corps must analyze the physical and chemical characteristics of the sediment. If the material is predominately sand and relatively free of contaminants, the Corps should use the material for beach replenishment purposes, unless it can demonstrate that beach replenishment is not feasible. Additionally, the proposed maintenance activities provide for the regular removal of sediment from the stream. These maintenance activities must also be analyzed for sand supply concerns. Without these evaluations, the Commission cannot determine if the project is consistent with the sand supply policies of the Coastal Act. Therefore, the Commission finds that the proposed project does not contain enough information to evaluate the project for consistency with the sand supply policies of the Coastal Act.

E. Visual Resources. The Coastal Act protects visual resources of the coastal zone. Section 30251 of the Coastal Act provides that:

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 construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. The Corps describes addresses visual quality as follows:

Aesthetic values would be increased by planting native riparian types of vegetation on the upper slope of the creek. Establishment of vegetation on the creek banks would enhance aesthetic values of the project area compared to other alternatives and existing conditions. Vertical walls would not be visible to people walking along the creek banks, as the upper banks would be covered with vegetation. Aesthetic treatment would be applied to visible lower banks to minimize impacts of the vertical walls. During the public scoping meeting, people voiced their concerns regarding aesthetic resources located within the project area. The new constructed channel would be pleasing and natural looking. Their concerns are addressed by implementation of this alternative. The visual quality of the project reach would have positive impacts on tourists visiting the City of the Santa Barbara. Within a few years, planted vegetation would be mature, and trees would increase the visual value of the project area. Lower vertical walls may not be visible to people walking on a side of the creek banks due to the vegetation growth on upper banks. It should be noted, however that full height vertical walls would be used for most of the distance between State and Mason Streets. These walls would also receive aesthetic treatment, including the use of colored concrete and forms that would mimic the appearance of sandstone or natural vertical creek banks.

As stated above, most of the Creek within the coastal zone would be developed with vertical walls and would not appear as a natural stream. Although the area is already developed with some man made structures, it still has some natural appearance. The proposed project would change that appearance to a channelized hardened stream.

The Commission has two concerns with respect to the Corps' analysis of visual impacts. First, as described in the Habitat Section above, it is not clear that the construction of vertical walls is necessary. Until the Corps provides additional information that justifies the need for the walls, the Commission considers the use of vegetated slopes to be a less visually damaging alternative. If the Corps can demonstrate that the vertical walls are necessary, the second concern of the Commission is that aesthetic design improvements proposed by the Corps are not described in detail and the Commission cannot determine if the improvements would sufficiently mitigate for visual impacts. Without this information, the Commission cannot determine if the project is consistent with the visual policies of the Coastal Act. Therefore, the Commission finds that the consistency determination for the proposed project does not provide enough information to determine if the project is consistent with the view protection policies of the Coastal Act.

F. Archaeological Resources. The Coastal Act provides for protection of historic and archaeological resources. Section 30244 of the Coastal Act provides that:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The proposed project is located in an area that contains both historic structures and archaeological sites. The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project. The Corps commits, in its EIS, to coordinating with the State Historic Preservation Officer (SHPO). However, the Coastal Act requires implementation, or at least identification, of the mitigation measures to protect resources identified by the SHPO. Without the benefit of the SHPO's analysis, the Commission cannot determine if the project is consistent with Section 30244 of the Coastal Act. Therefore, the Commission finds that it cannot determine if the proposed project is consistent with the archaeological policies of the Coastal Act.



CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET • SUITE 2000 • SAN FRANCISCO • CA 94105-2219 • (415) 904-5200

The California Coastal Commission has 12 voting members and 4 non-voting members. Six of the voting members are "public members," and six are local elected officials who come from specific coastal districts. All voting members serve at the pleasure of their appointing authority for 2-year terms and are appointed either by the Governor, Senate Rules Committee, or the Speaker of the Assembly; each appoints four commissioners, two public members and two elected officials. Each Commissioner may appoint an alternate to serve in his or her absence. The Secretaries of the Resources Agency, the Business and Transportation Agency, the Trade & Commerce Agency, and the Chair of the State Lands Commission serve as non-voting members and may appoint a designee to serve in their place.

ROSTER OF COMMISSIONERS

GOVERNOR'S APPOINTMENTS	SENATE RULES COMMITTEE APPOINTMENTS	ASSEMBLY SPEAKER APPOINTMENTS
Christina L. Desser *2/25/99 2151 Pacific Street San Francisco, CA 94115 (415) 561-2627	Sara J. Wan, Chair *1/11/96 22350 Carbon Mesa Road Malibu, CA 90265 (310) 456-6605 **1/19/00	Paula Daniels *3/16/99 Kudo & Daniels, LLP 12400 Wilshire Blvd., Suite 400 Los Angeles, CA 90025-1023 (310) 442-7900
Cynthia McClain-Hill *2/25/99 333 So. Hope Street, Suite 4020 Los Angeles, CA 90071 (213) 830-9900	Pedro Nava, Esq. *3/10/97 Huskinson, Brown & Nava 1231 State Street, Suite 200 Santa Barbara, CA 93101 (805) 966-7223 (Appointed by Assembly Speaker) **3/17/99	Cecilia Estolano *3/16/99 1954 Lemoyne Street Los Angeles, CA 90026 (323) 662-6442
NORTH COAST DISTRICT REPRESENTATIVE	NORTH CENTRAL COAST REPRESENTATIVE	CENTRAL COAST DISTRICT REPRESENTATIVE
John Woolley *12/14/99 Board of Supervisors 825 - 5 th Street Eureka, CA 95501-1153 (707) 476-2393	Mike Reilly, Supervisor *3/10/97 County of Sonoma 575 Administration Drive, Room 100 Santa Rosa, CA 95403-2887 (707) 527-2241 **3/17/99	Dave Potter, Vice Chair *3/10/97 County of Monterey, District 5 1200 Aguajito Road, Suite 001 Monterey, CA 93940 (831) 647-7755 **3/16/99
SOUTH CENTRAL COAST DISTRICT REPRESENTATIVE	SOUTH COAST DISTRICT REPRESENTATIVE	SAN DIEGO COAST DISTRICT REPRESENTATIVE
V A C A N T	Shirley S. Dettloff, City Council Member *2/4/98 City of Huntington Beach 2000 Main Street Huntington Beach, CA 92648 (714) 536-5553 **1/19/00	Christine Kehoe, City Council Member *3/10/97 City of San Diego 202 "C" Street San Diego, CA 92101 (619) 236-6633 **3/16/99

THE FOUR NON-VOTING MEMBERS BELOW ARE APPOINTED REPRESENTATIVES BY THEIR RESPECTIVE AGENCIES

CALIFORNIA TRADE AND COMMERCE AGENCY	RESOURCES AGENCY	STATE LANDS COMMISSION	BUSINESS, TRANSPORTATION & HOUSING AGENCY
Ms. Joan Dean *8/1/99 Director, San Diego Region California Trade & Commerce Agency 750 B Street, Suite 1830 San Diego, CA 92101 (619) 645-2659	Mary D. Nichols, Secretary *12/16/98 Michael Sweeney, Undersecretary Resources Agency 1416 Ninth Street, Room 1311 Sacramento, CA 95814-5570 (916) 653-5656	Paul Thayer, Executive Officer *6/11/81 Dwight Sanders, Chief, EPM **4/26/83 State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202 (916) 574-1900	Pat Neal *1/3/99 Deputy Secretary Business, Transportation & Housing Agency 980 - 9th Street, Suite 2450 Sacramento, CA 95814-2719 (916) 323-5408

As of February 24, 2000



PETER M. DOUGLAS
EXECUTIVE DIRECTOR



*Appointment dates (for approximately 2 years)
**Reappointment dates

ALTERNATES FOR STATE COMMISSIONERS

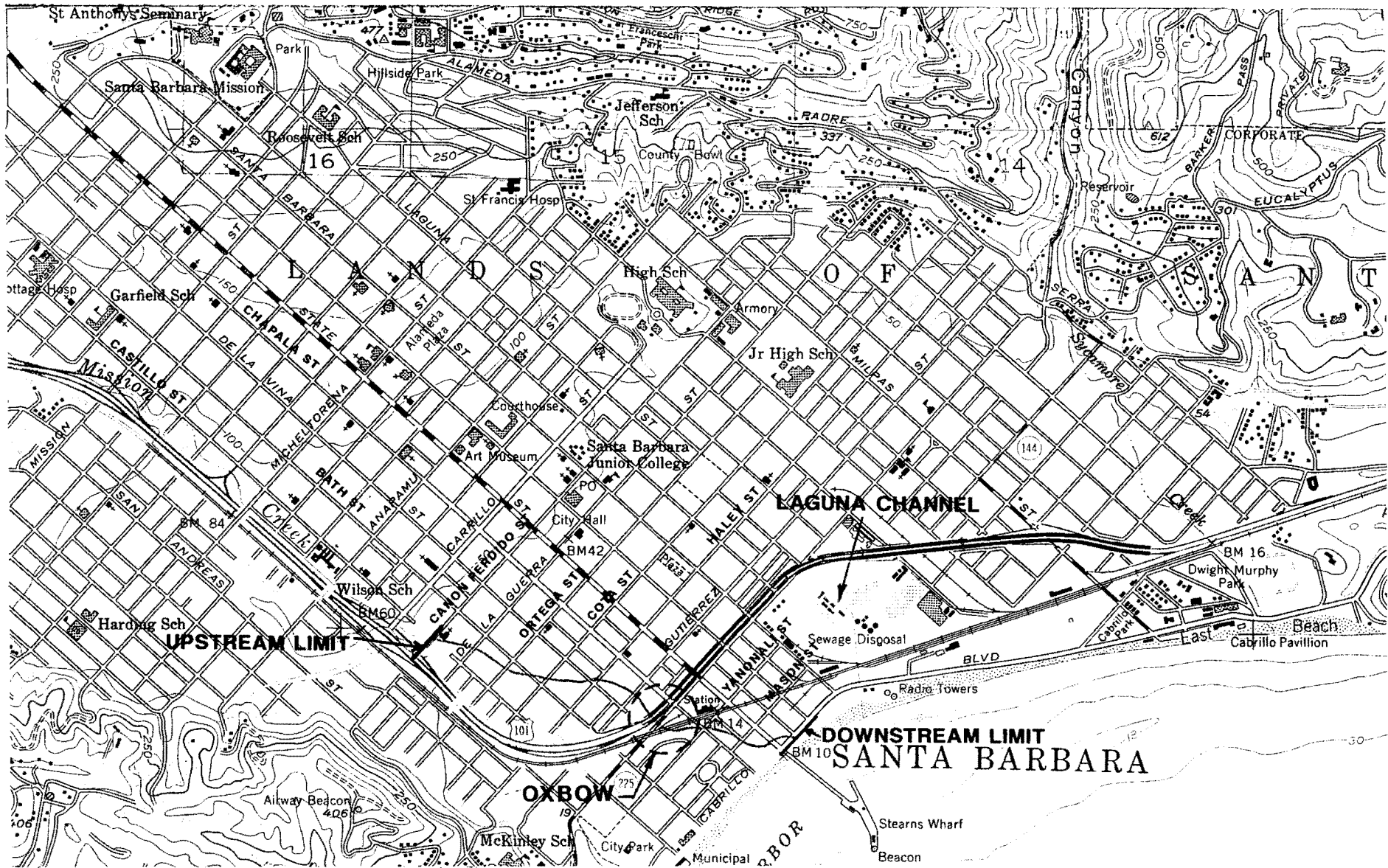
GOVERNOR'S APPOINTMENTS	SENATE RULES COMMITTEE APPOINTMENTS	ASSEMBLY SPEAKER APPOINTMENTS
VACANT (For Desser)	Edward Laurence Albert P.O. Box 6303 Malibu, CA 90265 (310) 457-4295 (fax)	Connie Rice 801 South Grand, Suite 1900 Los Angeles, CA 90017 (213) 615-1677
VACANT (For McClain-Hill)	Trent Orr 96 Manchester Street San Francisco, CA 94110 (415) 206-0898	David Allgood 10780 Santa Monica Blvd., Suite 210 Los Angeles, CA 90025 (310) 441-4162 ext. 302
NORTH COAST DISTRICT REPRESENTATIVE	NORTH CENTRAL COAST REPRESENTATIVE	CENTRAL COAST DISTRICT REPRESENTATIVE
VACANT (For Woolley)	Annette Rose, Supervisor County of Marin, Civic Center, Room 329 San Rafael, CA 94903-4193 (415) 499-7331	Troy S. Fletcher P O Box 1368 Hoopa, CA 95546 (530) 625-4557
SOUTH CENTRAL COAST DISTRICT REPRESENTATIVE	SOUTH COAST DISTRICT REPRESENTATIVE	SAN DIEGO COAST DISTRICT REPRESENTATIVE
VACANT (For Vacant)	Fran Pavley 4050 Jim Bowie Road Agoura Hills, CA 91301 (818) 865-1385	Patrick Kruer Patrick Property Services 2445 - 5 th Avenue, Suite 400 San Diego, CA 92101 (619) 231-3637

NEW EX PARTE COMMUNICATION REQUIREMENTS

As of January 1, 1993, significant new ex parte requirements affecting communications with Commissioners go into effect. (Public Resources Code, sections 30319-30324.) These stringent new provisions of law may have serious consequences. **Anyone** wishing to communicate with a Commissioner about any matter pending before the Commission should read and abide by the guidelines below. The following guidance covers **most** of the new requirements.

- **No** written materials should be sent to Coastal Commissioners **unless** the Commission staff receives copies of all of the same materials at the same time.
- All materials transmitted to Commissioners should clearly indicate (e.g., on the cover page or envelope) that they have also been forwarded to the staff. Materials that do not show that copies have been provided to staff might not be accepted, opened or read by Commissioners. In these cases, **no** ex parte communication has occurred.
- **Messages** of a non-procedural nature (e.g., substantive) should **not** be left for a Commissioner. These include telephone, FAX, telegraphic or other forms of message.
- All oral or written communications of a non-procedural nature by an "interested person" that are **not** made according to the above procedures are ex parte communications which are prohibited **unless** publicly reported by the Commissioner. If the Commissioner does not report the communication, the Commission's action that was the subject of the communication may be revoked and penalties may result.
- Coastal Commission decisions must be made on the basis of information available to all commissioners and the public. Therefore, copies of communications made to Commissioners that are forwarded to staff will be included in the public record. Public records are available for inspection at Commission meetings or in the Commission's office.

NOTE: The purpose of these new legal requirements is to protect due process and fairness in the Commission's decision-making process. Failure to follow them **could** lead to fines, revocation of permits and substantial costs. If you have any questions, you can contact Commission legal staff.



Source: USGS 1:24,000, Santa Barbara, California

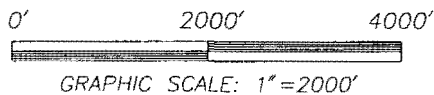


EXHIBIT NO. 1

APPLICATION NO. CD-117-99

SANTA BARBARA COUNTY STREAMS
LOWER MISSION CREEK

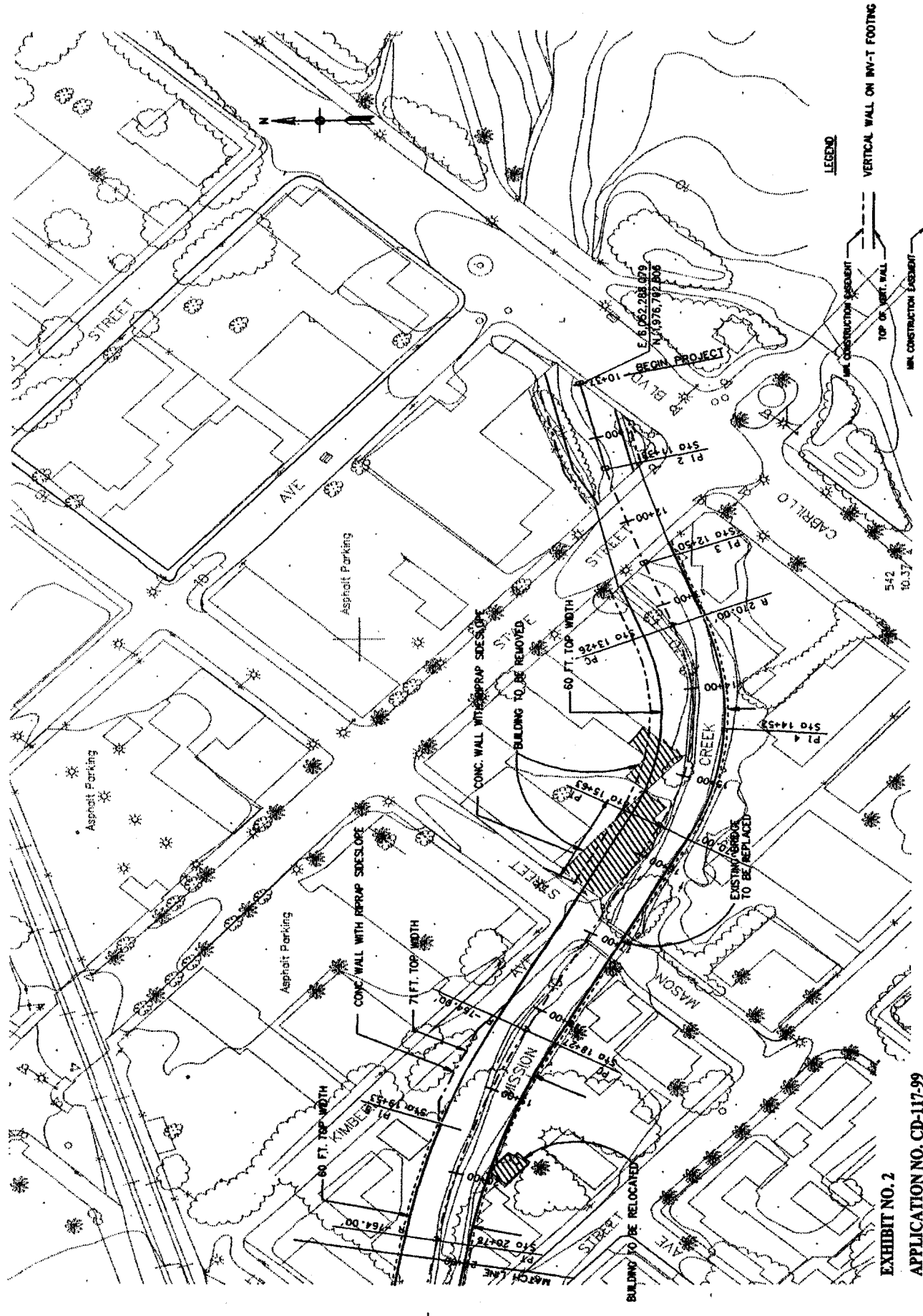
LOCATION MAP

California Coastal Commission

REVISIONS	DATE	APPROVAL

LOWER MISSION CREEK FEASIBILITY STUDY
 SANTA BARBARA COUNTY, CALIFORNIA
 3400 CFS ALTERNATIVE
 RIPRAP SIDESLOPE WALL ALTERNATIVE
 ALTERNATIVE 12

U.S. ARMY ENGINEER DISTRICT
 LOS ANGELES
 CORPS OF ENGINEERS
 THOMAS H. SAEG, P.E.
 CHIEF DESIGNER
 DRAWING NO. 14
 SHEET NO. 12



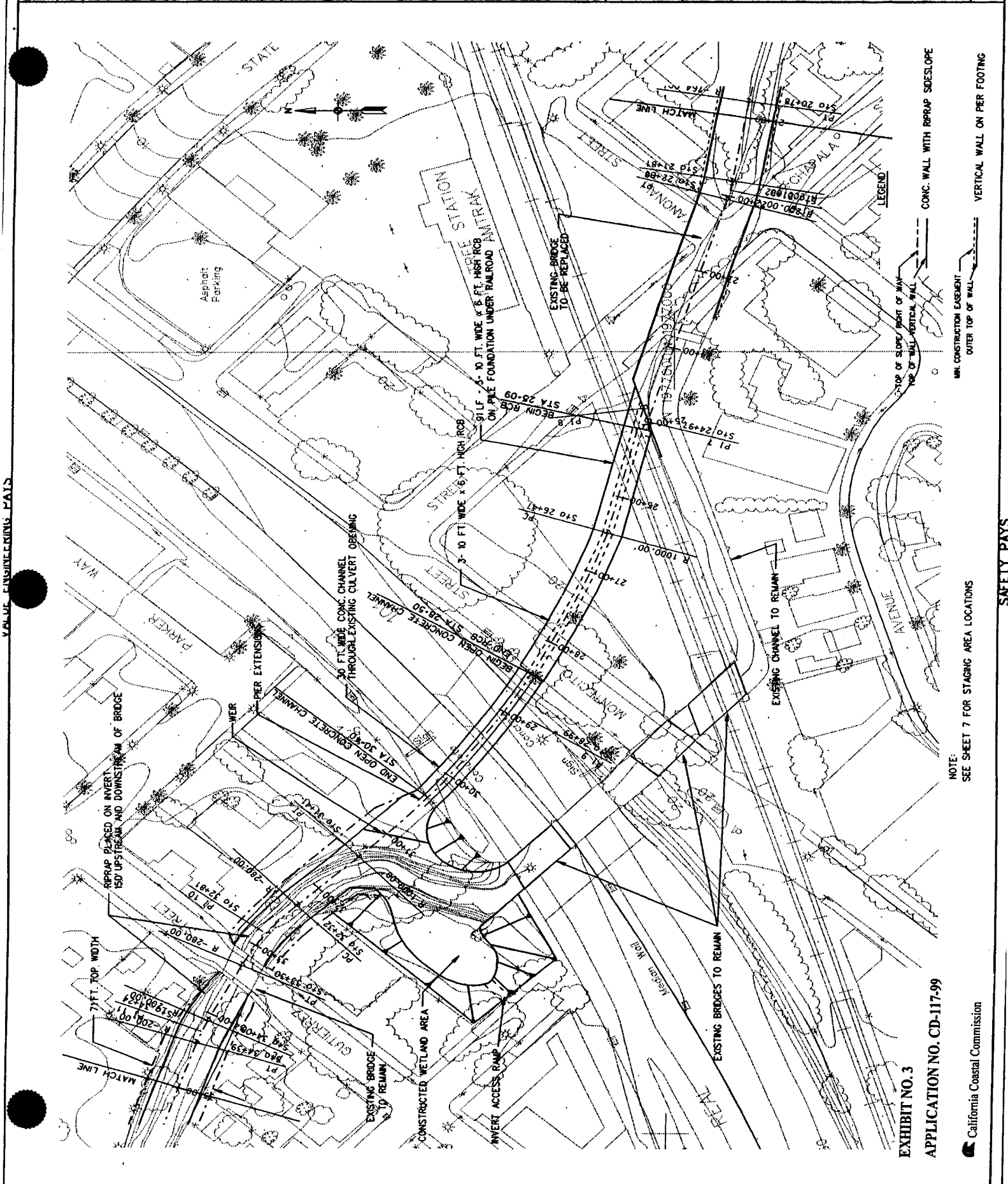
LEGEND

--- CONSTRUCTION EASEMENT
 --- TOP OF VERT. WALL
 --- CONSTRUCTION EASEMENT
 --- TOP OF VERT. WALL

--- VERTICAL WALL ON IN-T FOOTING
 --- VERTICAL WALL ON PER FOOTING

EXHIBIT NO. 2
 APPLICATION NO. CD-117-99

via Coastal Commission



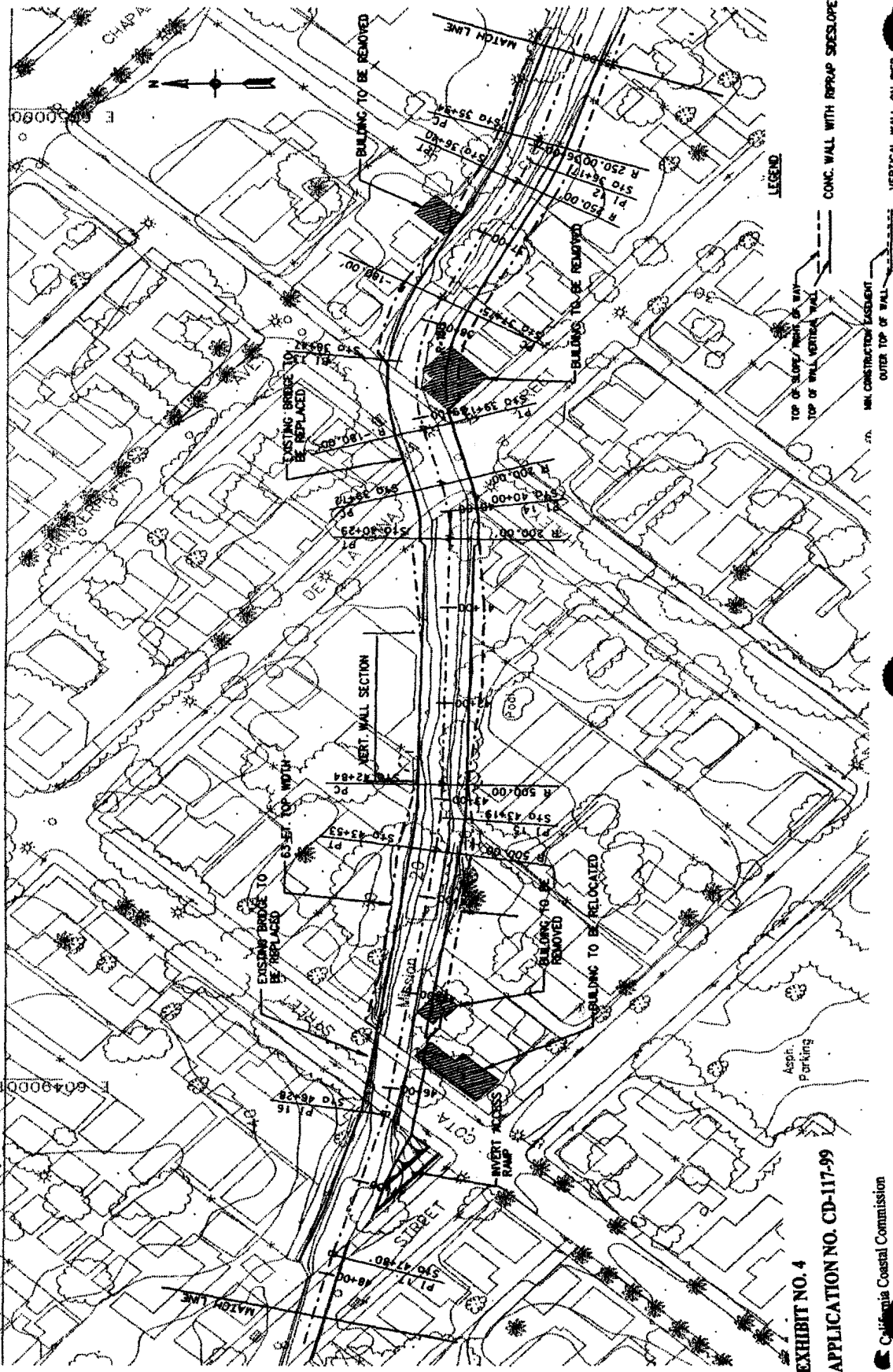
VALUE ENGINEERING PAYS

SAFETY PAYS

REVISIONS	DATE	APPROVAL

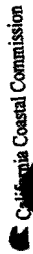
LOWER MISSION CREEK FEASIBILITY STUDY
 SANTA BARBARA COUNTY, CALIFORNIA
 3400 CR9 ALTERNATIVE
 RRAP SIDESLOPE WALL ALTERNATIVE
 ALTERNATIVE 12

U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 THOMAS H. SADE, P.E.
 CONTRACT PLS. NO. 200
 14



LEGEND
 TOP OF SLOPE/REAR OF WALL
 TOP OF WALL VERTICAL WALL
 CONC. WALL WITH RRAP SIDESLOPE
 MIN. CONSTRUCTION EASEMENT
 OUTER TOP OF WALL
 VERTICAL WALL ON PER

EXHIBIT NO. 4
 APPLICATION NO. CD-117-99



GENERAL CONTRACTOR: [unreadable]

CITY PAYS

F 60490005 6049000

REVISIONS	DATE	APPROVAL

LOWER MISSION CREEK FEASIBILITY STUDY
 SANTA BARBARA COUNTY, CALIFORNIA
 3400 CFS ALTERNATIVE
 RIPRAP SIDESLOPE WALL ALTERNATIVE
 ALTERNATIVE 12

U.S. ARMY ENGINEER DISTRICT
 LOS ANGELES
 COMPS OF ENGINEERS
 THOMAS H. SAGE, P.E.
 CIVIL DESIGN BRANCH
 DISTRICT FILE NO. 3807
 SHEET 13
 DRAWN BY: AT
 CHECKED BY: MT
 CADD FILE NAME: SHEET 34P.D

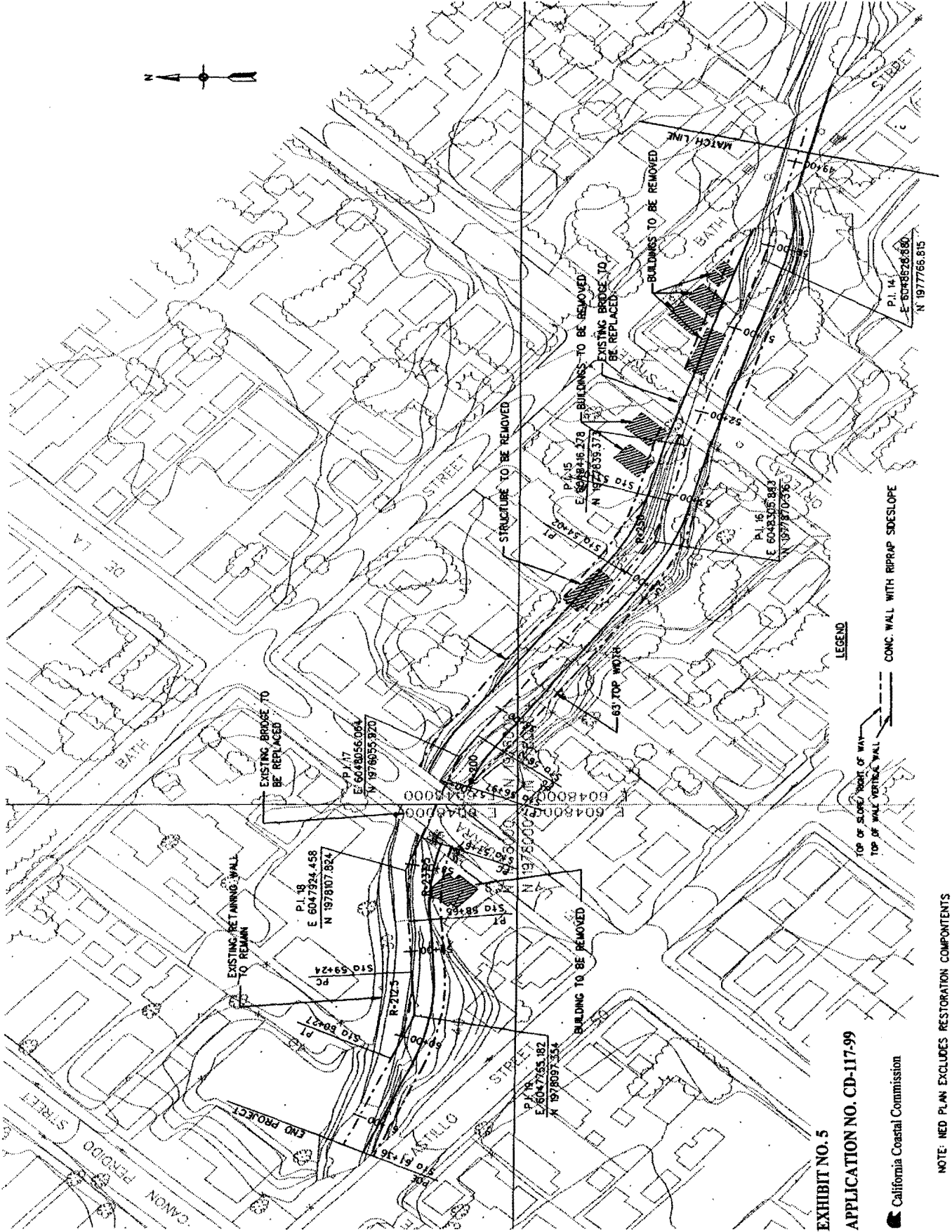
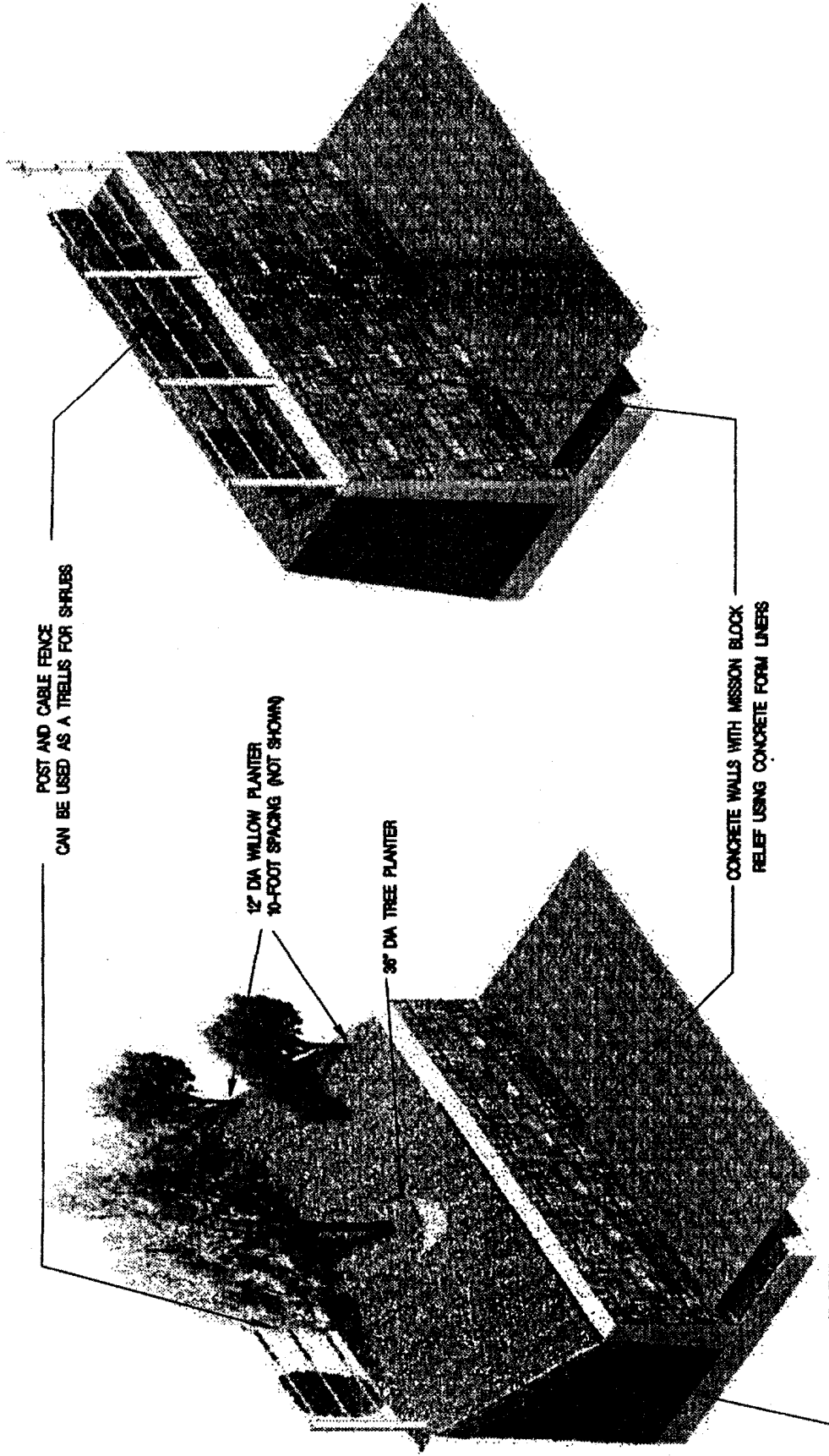


EXHIBIT NO. 5
 APPLICATION NO. CD-117-99



NOTE: RED PLAN EXCLUDES RESTORATION COMPONENTS



POST AND CABLE FENCE
CAN BE USED AS A TRELLIS FOR SHRUBS

12" DIA WILLOW PLANTER
10-FOOT SPACING (NOT SHOWN)

36" DIA TREE PLANTER

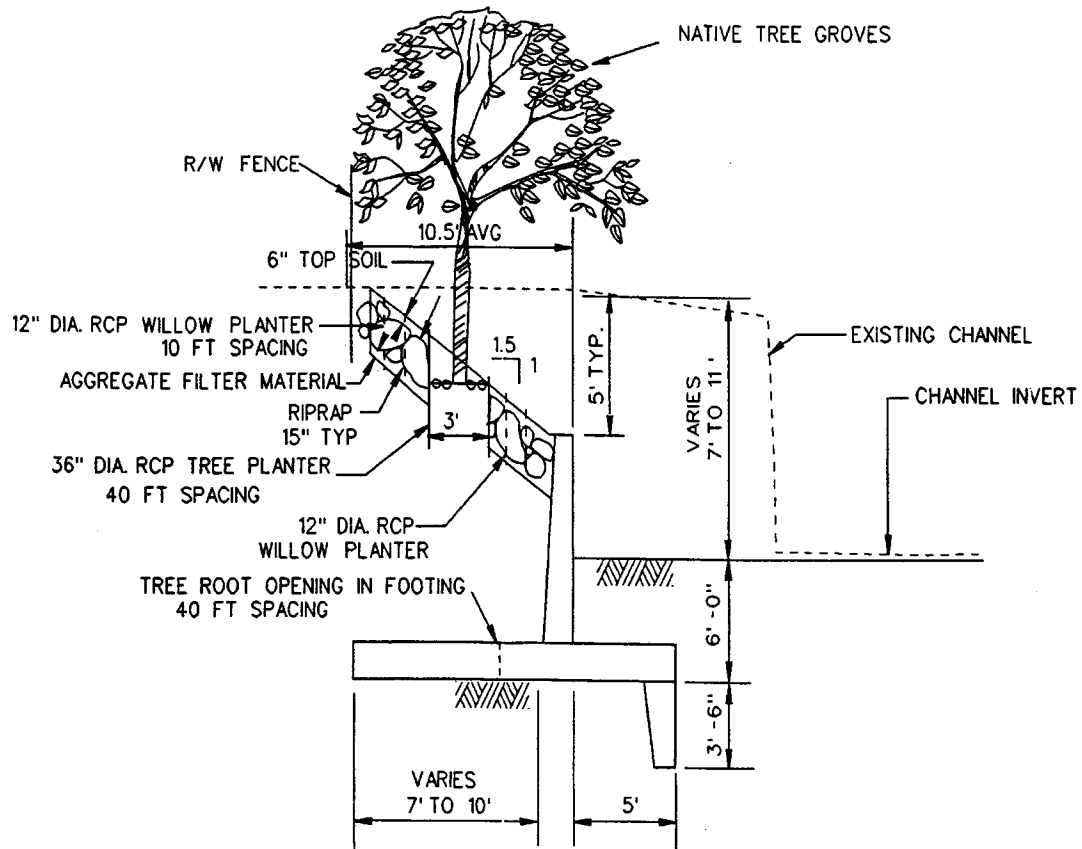
CONCRETE WALLS WITH MISSION BLOCK
RELIEF USING CONCRETE FORM LINERS

15" THICK RIPRAP WITH TOP SOIL
AND GROUND COVER

VERTICAL WALL
NOT TO SCALE

WALL WITH RIPRAP SIDESLOPE
NOT TO SCALE

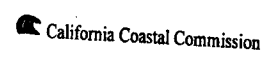
EXHIBIT NO. 6
APPLICATION NO. CD-117-99



RIPRAP WALL ALTERNATIVE

SCALE: NOT TO SCALE

EXHIBIT NO. 7
APPLICATION NO. CD-117-99

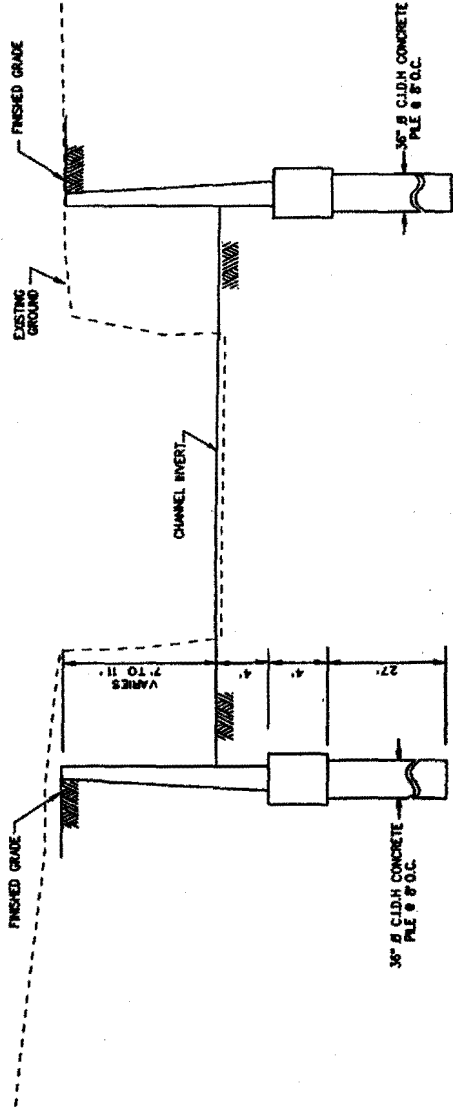


U.S. ARMY ENGINEER DISTRICT LOS ANGELES CORPS OF ENGINEERS THOMAS H. SAGE, P.E. CHIEF DESIGN BRANCH		DISTRICT FILE NO. 3004
DESIGNED BY: BT DRAWN BY: BT CHECKED BY: BT	CHECK FILE NAME	DATE
LOWER MISSION CREEK FEASIBILITY STUDY SANTA BARBARA COUNTY, CALIFORNIA 3400 OFS ALTERNATIVE RIPRAP WALL ALTERNATIVE CROSS SECTION		REVISIONS
SYMBOL	DESCRIPTION	DATE
APPROVAL	DATE	APPROVAL

NO.	DATE	DESCRIPTION	BY	APPROVAL

LOWER MISSION CREEK FEASIBILITY STUDY
 SANTA BARBARA COUNTY, CALIFORNIA
 TYPICAL CROSS SECTIONS

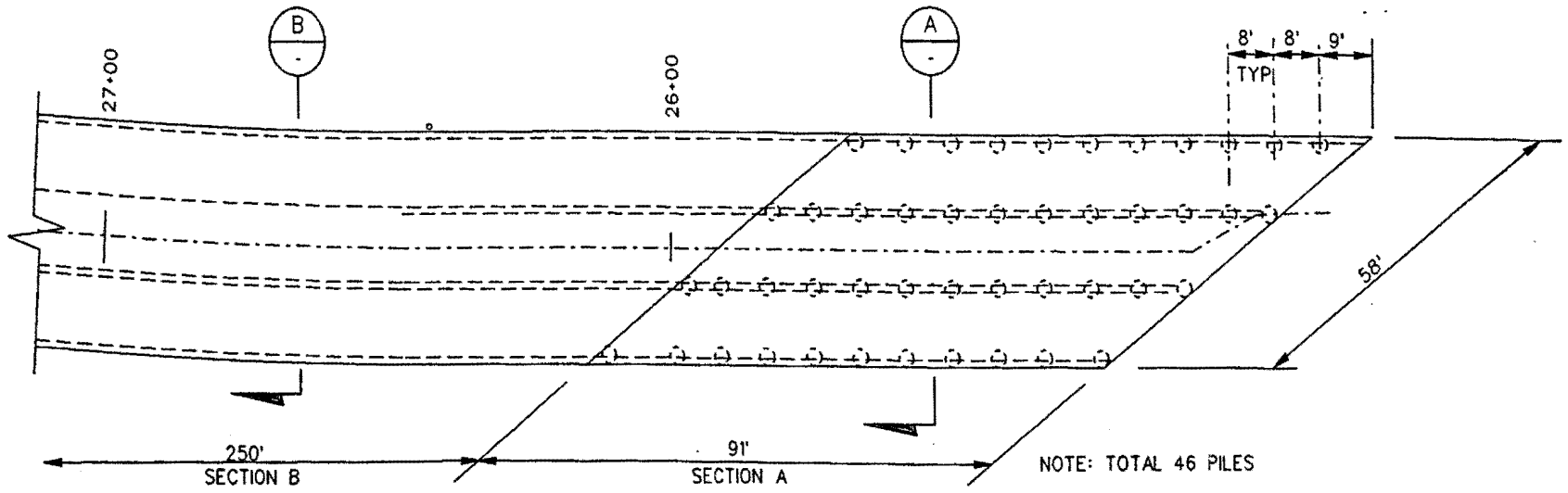
PROJECT FILE NO. 2007	DATE OF ISSUE
ISSUED BY JAMES M. CHUA, P.E.	DATE OF ISSUE
DESIGNED BY CORPS OF ENGINEERS	DATE OF ISSUE
CHECKED BY LOS ANGELES	DATE OF ISSUE
APPROVED BY U.S. ARMY ENGINEER DISTRICT	DATE OF ISSUE



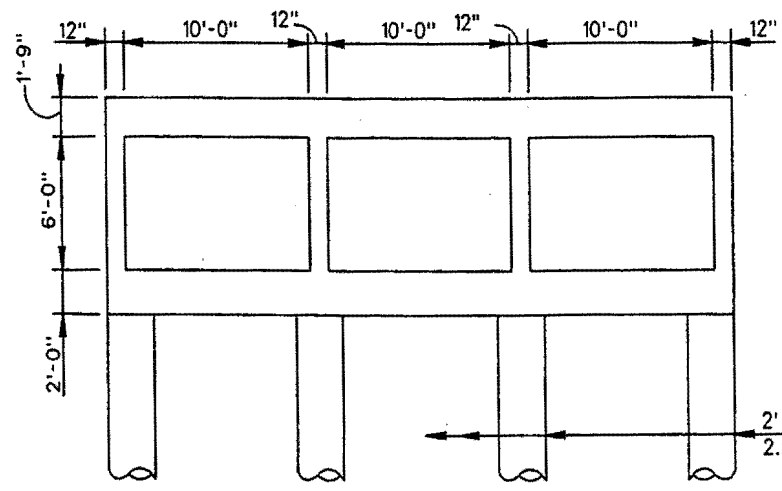
TYPICAL CROSS SECTION
 VERTICAL WALL ON PIER FOOTING
 *NOT TO SCALE

EXHIBIT NO. 8
 APPLICATION NO. CD-117-99

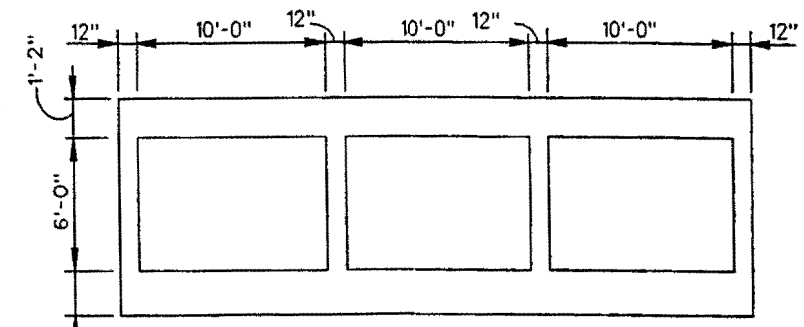




BOX CULVERT PLAN
SCALE: N.T.S.



SECTION A
SCALE: N.T.S.



SECTION B
SCALE: N.T.S.

EXHIBIT NO. 9
APPLICATION NO. CD-117-99

California Coastal Commission

U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

LOWER MISSION CREEK FEASIBILITY STUDY			FIGURE 7 OF 7
6' HIGH x 10' WIDE THREE-CELL BOX CULVERT			
DESIGNED BY M. LY	CHECKED BY X	DATE SEPT 2, 1999	FILE NAME LMC-PLAN



CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000

SAN FRANCISCO, CA 94105-2219

VOICE AND TDD (415) 904-5200

**EXHIBIT NO. 10****APPLICATION NO. CD-117-99**

California Coastal Commission

Date: January 18, 2000

To: John Moeur

From: James R. Raives, Federal Consistency Coordinator

Re: Mission Creek Flood-Control Improvements

As we discussed on the phone last week, the Commission staff believes that the consistency determination for the proposed Mission Creek flood-control improvements raises some Coastal Act concerns. In summary, the Commission staff believes that the consistency determination for this project lacks sufficient information to evaluate it for consistency with the habitat, water quality, sand supply, visual, and archaeological policies of the Coastal Act. Since the Coastal Zone Management Act does not have filing requirements for consistency determinations, the Commission must object to the Corps' project if it finds that the consistency determination lacks sufficient information for the Commission to find that the project is consistent with the California Coastal Management Program (CCMP).

The Commission staff's primary concern with the proposed project is with its impacts to habitat, mainly riparian, wetland, estuarine, and endangered species, habitat.

ENDANGERED SPECIES

The primary concern of the Commission staff is that the Section 7 process has not been completed. The Corps' Biological Assessments for both the steelhead and goby identify issues that will be resolved during the Section 7 Consultation process. These issues include impacts from vibrations transmitted through ground and water, loss of vegetation, and increases in suspended sediment. These issues need to be resolved before the Commission can find the project consistent with the habitat policies of the Coastal Act.

ESTUARINE HABITAT

The Commission staff is also concerned about concrete lining of the banks of the Mission Creek Estuary. According to the EIS, most of the banks below Highway 101 will be developed exclusively with vertical concrete walls, whereas, the banks of the creek above Highway 101 will be developed with short flood walls and vegetated riprap. However, the Commission staff is concerned about the

preservation of as much of the natural estuarine habitat as feasible. To that end, the Commission staff requests that the Corps consider alternatives to the proposed design of the flood-control facility south of Highway 101 that minimizes the need to harden the banks of the creek. The most environmentally beneficial alternative appears to be the use of vegetated riprap or short flood-walls with vegetated riprap above the walls. The Corps did not consider these alternatives in its environmental documents. The Commission staff assumes that the lack of consideration of these alternatives is due to the constraints of existing development on the banks of the creek. However, the Commission cannot find that the proposed project is the least damaging feasible alternative unless it has data that demonstrates that the use of vegetated riprap slopes with and without flood walls is not feasible or is more environmentally damaging than the proposed alternative. In evaluating these alternatives, the Commission staff requests that the Corps consider the following questions:

1. Why are the full-length vertical floodwalls necessary?
2. Why are short walls necessary?
3. Could flood control benefits be achieved without flood-walls?
4. Are there resource impacts from a project without walls?
5. Was the use of vegetated riprap considered as an alternative? If so, why was it rejected?

MITIGATION

Unfortunately, the Commission staff has not had a chance to thoroughly review the mitigation and monitoring plan in the environmental documents. However, from the staff's preliminary review, it appears that this plan is incomplete. The following issues need further elaboration:

1. The mitigation and restoration plan does not completely identify its habitat restoration goals.
2. The mitigation/restoration plan needs to be more detailed in order for the Commission staff to determine its consistency with the Coastal Act.
3. The monitoring is limited to five years and is not based on performance standards. The Corps should identify its restoration goals and monitor the area until those goals are accomplished. If the goals are not reached, the Corps should implement improvements to the habitat until the resource goals are met. Monitoring should continue on a periodic basis after the resource goals have been attained.

4. The mitigation plan does not contain a long-term commitment to maintain restored areas.
5. An evaluation of the effect of long-term maintenance of the flood-control facility on restored habitat resources is necessary for the Commission staff to evaluate this aspect of the project.

WATER QUALITY

The primary issue with respect to water quality is the protection of ocean and estuarine resources from non-point source pollution. Although the Commission staff recognizes that there are currently discharges of non-point source pollution into Mission Creek and that the proposed project will not alter the nature or increase the volume of these discharges. However, the reconstruction of the flood-control facility, including the replacement of bridges, installation of a culvert under Highway 101, and construction of wetlands just north Highway 101, provide the Corps with an opportunity to design the facility to incorporate measures into the project in order to reduce non-point source pollution. The Corps could install devices at street storm drains or at the Highway 101 culvert that capture or filter discharges. The Commission staff recognizes that there are costs and environmental issues that may affect the feasibility of such measures. The installation and maintenance of filters at the major discharge areas may require substantial capital costs and the use of a filter or other device on the culvert at Highway 101 may result in impacts to sand supply and steelhead trout migration. Once again, these issues were not evaluated in the Corps' environmental documents. In order for the Commission staff to evaluate this issue, the Corps must provide additional analysis of the potential water quality improvements.

A possible measure to reduce non-point source pollution discharges to the estuary and ocean is the construction of a wetland, as proposed, north of Highway 101. However, the Corps' commitment to construct such a wetland is dependent on cleanup of a hazardous waste at that site. That cleanup project is not a Corps project and any wetland restoration is not assured until the cleanup issues are resolved. Therefore, the Corps cannot commit to the restoration project at this time. If the cleanup issues at that site are resolved, the Corps should include a wetland restoration plan as part of its project and the wetlands should be designed to maximize capture and filtration of pollutants.

In addition, the proposed construction activities may have water quality impacts from construction equipment and grading activities. The environmental documents indicate that the Corps will prepare a stormwater pollution prevention plan. The details of this plan are necessary for the Commission staff to evaluate water quality impacts from the proposed project. Without this plan, the

Commission cannot determine if the project is consistent with the water quality policies of the Coastal Act.

SAND SUPPLY

The proposed project includes the removal of sediment from the stream. The Coastal Act requires sediment removed from a stream to be used for beach replenishment purposes. The Corps proposes to dispose of sediment removed from the stream at nearby landfills. If this material is suitable for beach replenishment, its disposal in a landfill is inconsistent with the Coastal Act. However, the Corps' environmental documents do not evaluate the suitability of this material for beach replenishment. In order to make such an evaluation, the Corps must analyze the physical and chemical characteristics of the sediment. If the material is predominately sand and relatively free of contaminants, the Corps should use the material for beach replenishment purposes. Additionally, the proposed maintenance activities provide for the regular removal of sediment from the stream. These maintenance activities must also be analyzed for sand supply concerns. Without these evaluations, the Commission staff cannot analyze the project for consistency with the sand supply policies of the Coastal Act.

VISUAL RESOURCES

The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. The Commission staff has two concerns with respect to the Corps analysis of visual impacts. First, as described in the Habitat Section above, it is not clear that the construction of vertical walls is necessary. Until the Corps provides additional information that justifies the need for the walls, the Commission staff considers the use of vegetated riprap to be a less visually damaging alternative. If it should be demonstrated that the vertical walls are necessary, the second concern of the Commission staff is that aesthetic design improvements proposed by the Corps are not described in detail and the Commission cannot determine if the improvements will sufficiently mitigate for visual impacts.

CULTURAL RESOURCES

The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project. The Corps commits, in its EIS, to coordinating with the State Historic Preservation Officer (SHPO). However, the Coastal Act requires implementation of the mitigation measures identified by the SHPO. Therefore, the Commission staff cannot analyze the project for consistency with the archaeological policies of the Coastal Act until the SHPO completes its review.

OTHER QUESTIONS

The Commission staff has additional questions that need to be addressed in order for it to evaluate the consistency determination for the proposed project. These questions are as follows:

1. Do the proposed bridge replacements include placement of solid material into the stream? If yes, do the replacements increase traffic capacity of the bridges or roads?
2. What are the existing widths of the creek below Highway 101?
3. How many linear feet of stream corridor are there below Highway 101?
4. Please confirm that there will be no staging areas below Highway 101. If staging does occur below the highway, where will it occur and what are the current uses of those sites?
5. The project provides for planting vines adjacent to the vertical floodwalls and along the chain link fence. Will the Corps use native vegetation for these plantings? Will the Corps monitor and maintain this vegetation?
6. When will the Corps test the West Gutierrez wetland restoration site for hazardous waste? Will the Corps coordinate with the Commission staff in developing the sampling plan and with the results of the plan?
7. Will the Corps coordinate with the Commission staff on the development and results of any other hazardous materials or sediment analysis plans?

CONCLUSION

The proposed Mission Creek project raises several significant coastal issues. Most of the concerns of the Commission staff at this point in time involve additional information requirements in order to completely analyze the activity. The regulations implementing the Coastal Zone Management Act allow the Commission to object to a consistency determination because it lacks the necessary information to analyze the activity for consistency with the CCMP. However, the staff believes that it would be more productive to postpone Commission review of the project until more information can be provided to the Commission staff. The project is currently scheduled for the Commission's meeting in February and the Commission staff must complete its analysis by January 27, 2000. We would appreciate a postponement decision to be made before the Commission staff mails its recommendation.

Mission Creek
January 18, 2000
Page 6

cc: Commissioner Pedro Nava
Mark Capelli
Gary Timm
Jack Ainsworth
Carrie Bluth
John Dixon
Lesley Ewing

Amplification on specific elements of the consistency determination submitted by the Corps of Engineers on December 15, 1999 for a flood control project on Lower Mission Creek (the Creek). The project would alter existing streambed and bank conditions between Canon Perdido Street and Cabrillo Boulevard in the City of Santa Barbara, California. These replies augment questions raised by Mr. James Raives, Federal Consistency Coordinator for the California Coastal Commission (CCC), during telephone conversations with John Moeur, staff biologist for the Corps of Engineers (Corps) and distilled into remarks of a note from Raives to Moeur on January 18, 2000. Answers follow the same order.

Endangered Species

Since January 1998, the Corps has coordinated extensively with the National Marine Fisheries Service (NMFS) and the US Fish & Wildlife Service (USFWS) regarding Federally listed species steelhead and tidewater goby. Both agencies have participated in the F-4 conference and Alternative Formulation Briefing meeting held in April and August 1999 respectively. The Corps invited biologists from both agencies for site visits and surveys of biological resources located within the project reach. Biological assessments were submitted to NMFS and the USFWS with the Draft EIS/EIR. A formal request to begin Section 7 Consultation has been made to NMFS concerning steelhead, and to USFWS concerning tidewater goby during the third week of December 1999. Informal discussions among those biologists have covered every aspect of design, construction schedules and techniques, and future maintenance requirements for the proposed project.

Corps believes that the proposed project would generate greater habitat quality compared with existing conditions. Neither the USFWS nor NMSF raised any serious concerns or issues for implementation of the proposed alternative. Based on our coordination with the both agencies and Draft Coordination Act Report (CAR), Corps does not anticipate a jeopardy opinion for the Federally listed species steelhead and tidewater goby. The Corps will submit a copy of both biological opinions to your office as soon as we receive them from the USFWS and NMFS.

Estuarine Habitat

The Corps chose to describe existing conditions in this reach of Mission Creek in a manner as innocuous, yet factually, as possible. The proposed project is located within densely populated urban area. Historic development on both banks of Mission Creek between Yanonali Street and Cabrillo Boulevard have, in fact, thoroughly transformed it into a confined channel in all but name. Aside from the aquatic channel where the bodies of water still meet, the Corps maintains that the ecological structure, complexities of bioenergetic processes, and the ecosystem functionalities of coastal estuaries (in particular among those, very high rates of primary and secondary production) which would characterize natural estuarine habitat have been completely supplanted by residential and commercial development in this sector of the creek.

EXHIBIT NO. 11

APPLICATION NO. CD-117-99

While saline and fresh water do mix tidally in this reach, poured concrete makes up the bottom of sizeable portions and neither mud flats nor tidal creek channels remain anywhere along Mission Creek. Over the decades, owners of private property have built houses immediately adjacent to the right-hand bank and protected those dwellings with vertical walls. The very walls of some commercial buildings constrain the creek on its left hand side. Commercial expansion on the right hand bank acquired some residential properties between Mason and State Streets, but retained the use of vertical walls immediately at the creek's edge in order to build hostelry facilities as close to the creek as possible. Flood-walls of full vertical height will be required because funds available have a limit far below that necessary for complete acquisition of structures (both residences and commercial buildings) on private property. During Feasibility Phase, outright purchase of all properties in the flood plain was considered. That alternative was economically infeasible, and therefore never pursued even into conceptual design. Similarly during Feasibility, two structural alternatives were evaluated: Nos. 5 and 9 so called, which both would entail wider right of way and consequently would permit use of lower walls. Both were shown to be economically infeasible because the amount of real estate each would require comes at a cost which precludes Federal participation in the project.

Replies to specific questions follow.

- 1) Necessity of full-length vertical flood-walls? Addressed above.
- 2) Necessity of short walls? The design of shorter toe-walls allow starting the slope part way up the bank. Economically it is not feasible to acquire need real-estate to minimize vertical walls. In addition widening of the channel will result in impacting historical structures located along the creek bank. *See details in enclosed letter from the City of Santa Barbara.*
- 3) Flood control benefits achievable without flood-walls? Yes, if no structures existed within the creek's flood plain.
- 4) Resource impacts from a project without flood-walls? To accomplish this plan, all existing vegetation would be removed, in particular a large sycamore just below the Mason Street Bridge. Additionally, an entire residential neighborhood on the right hand bank between Yanonali and Mason Streets, currently designated as historic by the State Historic Preservation Officer, as well as the historic West Downtown and historic Waterfront districts would be sacrificed.
- 5) Vegetated riprap considered as an alternative? Yes. This design requires acquisition of the same additional right of way as Alternatives 5 and 9, above. The same economic infeasibility would prohibit Federal participation in this design.

The Corps considers the proposed project consistent with CCMP because it would double the area of existing estuarine features, yet cause no loss of any elements of estuarine habitat because those components of natural estuarine habitat were completely eradicated historically.

Mitigation:

The project design incorporates planting of native vegetation along the upper banks and creating habitat expansion zones, where real-estate is available. The proposed plan provides more environmental benefits compared to all alternatives examined during plan formulation. Implementation of the project would yield improved quality habitat compare to the existing habitat. The design features of the proposed project are shown to be "self-mitigating" by choosing an environmentally sound alternative. The Corps performed a conservative HEP analysis. Through this analysis we learn that implementation of the proposed project will generate more habitat value than that consumed. Details has been shown in the Draft EIS/EIR (Appendix C).

Appendix H of the EIS/EIR tabulates Mitigation Monitoring Plan for the planted vegetation within the project reach, which identifies responsible agencies for monitoring and level of success expected after five years (see enclosure 2, the attached file LMDIEMON.WPD). The responsible agency (Corps and County) would submit a monitoring report to your office to provide status of the planted vegetation within the project reach. The text in the biological resources will be updated to reflect these changes. Details regarding planting of vegetation, monitoring and success criteria will be clarified in the Mitigation Monitoring Plan. The Corps will continuously coordinate with your staff for their suggestion and we will incorporate suggestions made by your staff in the Mitigation Monitoring Plan to maximum extent.

In addition, the US Fish and Wildlife Service concurs, as stated in the Draft Coordination Act Report. Restoration goals themselves have severe real estate constraints as well, as described above. In particular, little habitat restoration can occur below Highway 101. Recreation of a continuous riparian corridor, with both various canopy species (spaced at 40-foot intervals) and understory species having attained full establishment, is the goal for regions above 101.

3) The HEP analysis includes directly a projection of mortality. Any trees (sycamore, cottonwood, oak, California bay, etc.) which die before 5 years would be replaced by the responsible agency Corps or County. As a minimum, 90% of all native treesplanted into riprap slopes and habitat expansion zones will be viable after 5 years. Vegetation will be planted by the Corps selected contractor. The Corps or their environmental contractor will monitor planting for two years thereafter. For the remaining three years, monitoring will be performed by the Santa Barbara County. The project reach will be maintained by the local-sponsor for the life of the project. The Santa Barbara County will be responsible to maintain riparian vegetation along the creek.

4) At the public meeting held January 19, the primary local sponsor announced its intention to restore completely any areas of the riprap slopes and vegetation damaged after it assumes responsibility for maintenance.

5) The HEP analysis makes very conservative assumptions regarding long-term streambed maintenance. Half the channel would be cleaned once a year to preserve the design conveyance capacity, the other half cleaned in similar fashion a year later. A mosaic pattern for channel maintenance will be instituted. That regularity will keep the streambed nearly barren, save for small annuals, and hence there would be no opportunity for regrowth of stream side habitat. Bi-annual maintenance would keep the channel in a nearly steady state of very low habitat value. At any one time, half the streambed should always resemble the section shown as illustration in Fig. 1.

The HEP analysis includes an estimate for initial loss of habitat with construction. Following that quantified impact, 0.8 habitat units, no important subsequent impact would occur since little plant growth would occur between maintenance cycles.



Fig. 1. A representative view of the streambed in Mission Creek, following currently established maintenance procedures and criteria. The view looks upstream, from just above the De la Guerra Street Bridge. The white bag in the center stands 18" high.

Water Quality

As per Corps policy guidance (ER 1105-20-100) " The Water Quality Act of 1987 (Section 319) requires that Federal assistance program and development project be consistent with State non point source (NPS) management programs, for those states which have such Environmental Protection Agency (EPA) Approved programs. Federal agencies are required to assure that their programs and projects are consistent with those programs. EPA has developed a "Nonpoint Source Guidance" document dated December 1987 (52 FR 47971). The Corps coordinated with the City of Santa Barbara staff that do they have any program to minimize pollutant generated by non-point discharge.

The City of Santa Barbara is coordinating with your office regarding no-point source pollutant. *(See details in enclosure 1 - letter from the city of Santa Barbara).*

Sand Supply

Data on sediment gradation are currently being compiled. They appear to substantiate records keep by one of the local co-sponsors. Nearly all the sediments taken in the past from the creek channel have proven to be too coarse to be used for beach replenishment. The very small percentage which might prove of suitable grain size, likely to be a very small volume (estimated as, perhaps, 50 yd³) in any given round of maintenance, could be hauled to the beach provided it has low bacterial counts. The Corps has performed chemical analysis of the

sediment and water quality, which is incorporated in the EIS/EIR Section 7.1.3. Result of chemical analysis is located in Appendix F of the Draft EIS/EIR.

Visual Resources

Constraints of acquisition of real property leave no little alternative other than construction of vertical walls south of Highway 101. Use of custom molds which would simulate the appearance of Italian sandstone block joinery found elsewhere in this area would minimize the potential affront caused by the channel's appearance.

Cultural Resources:

We received a letter from the State Historic Preservation Officer (SHPO) dated January 27, 2000 responding to our notification of the Lower Mission Creek undertaking pursuant to 36 CFR 800.3(c)(3). They understand what the potential adverse effects to historic properties will be assuming the preferred alternative is constructed. A formal determination of eligibility pursuant to 36 CFR 800.4(c)(2), and finding that historic properties will be affected pursuant to 36 CFR 800.4(d)(2) will be conducted upon receipt of the final Phase I/II Architectural Resources Report by Post/Hazeltine Associates. Prior to initiation of the project construction Section 106 consultation with SHPO will be accomplished.

Additional Questions

- 1) Bridges will not be constructed as concrete boxes. Instead, piles will be driven as bridge abutments. Those bridges to be replaced will not have greater number of lanes nor be able to accommodate more traffic.
- 2) The creek varies in width from 30 to 60 feet.
- 3) No riparian corridor of any note exists below Highway 101. Approximately 1760 feet of stream channel lie between the highway and Cabrillo Boulevard.
- 4) An area south of the railroad tracks, essentially at the north end of Kimerbly Street, will be used as an equipment staging area. The site is currently a vacant lot.
- 5) Vines planted at vertical walls to help mask their appearance would be chosen more for their landscaping qualities and hardiness in the circumstances, rather than their provenance. If native species would suit, the Corp will use them. If not, the Corp will use appropriate ornamentals. The Corps would have responsibility to look after these plantings for the first 5 years. Thereafter, the local co-sponsors would assume all maintenance responsibilities.

The City of Santa Barbara has spoken of incentives, possibly monetary, to entice property owners to plant additional large native trees and arborescent native shrubs at the back edge of private properties, adjacent to the top of the banks. That is a local action beyond the Corps's authority.

- 6) Contamination of this property by tetrachloroethylene has already been established. The Corps will not assay the location to confirm chemical species or their concentrations.

Remediation of the site is the responsibility of the local co-sponsors. The site will be cleaned up prior to planting of vegetation. Public voiced their concerns regarding construction of wetland at this location. Concerns were sedimentation, and maintenance of the wetland for

the life of the project. Therefore, the City and County suggested that instead of construction of wetland create habitat expansion zone. Suitable riparian/native vegetation would be planted at this location.

7) The local co-sponsors will have the responsibility of coordination with the CCC staff regarding remediation goals and the work plans for treatment of contaminants at this site.

CITY OF SANTA BARBARA

COMMUNITY DEVELOPMENT DEPT.

Planning Division 564-5470
 Housing & Redevelopment Division .. 564-5481
 Building & Safety Division 564-5485
 Director's Office 564-5602
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February 22, 2000

Mr. James Raives
 California Coastal Commission
 45 Fremont St., Suite 2000
 San Francisco, CA 94105-2219

SUBJECT: Lower Mission Creek Flood Control Project, Coastal Consistency Determination (CD-117-99)

Dear Mr. Raives:

We have reviewed the memorandum you wrote to John Moeur at the U.S. Army Corps of Engineers (Corps) and the Draft Staff Report and Recommendation on the above-stated project. We understand that the Corps will be responding to most of the issues you have raised. However, the City of Santa Barbara has additional comments as well. These comments primarily focus on the vertical walls between Yanonali and State Streets and on water quality issues.

Replacement of Vertical Walls Between Yanonali and State Streets

Coastal Commission staff has raised the question of why the U.S. Army Corps of Engineers is not proposing to do either a short vertical wall with vegetated riprap slope above or a full vegetated riprap bank below the Freeway. There are several reasons why this is not being pursued. Alternative 12 (the Preferred Alternative) is projected to cost approximately \$18 million (this includes revisions to reflect the gross appraisal of acquisition costs prepared for the City and changes to the project design to reduce land acquisition costs). Alternative 9, which includes the low vertical toe wall and vegetated riprap above and is the alternative that most closely complies with the California Coastal Commission's request, is even more expensive. For additional information regarding how the Corps calculated real estate costs, as well as additional information on the hydrologic models, we have included a copy of the Technical Appendices for the Main Report (Exhibit 1). There are also additional costs that were not considered in the Corps estimation of costs. These are outlined in more detail below.

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Additional Property Acquisition Costs

In order to include short vertical walls and a vegetated riprap slope and keep the proposed 3400 cfs capacity, it would be necessary to widen the channel at the top of the bank by 20 feet. If the channel is designed with a full vegetated riprap slope, it would be necessary to widen the channel at the top of the bank by 32 feet. This would result in the need to demolish or relocate several buildings not considered for demolition as part of Alternative 12. These buildings are outlined in Exhibit 2 (attached). Land acquisition and relocation costs would increase from approximately \$4.1 million to \$8.1 million, increasing the project cost to at least \$22 million. It should be noted that the Corps estimates for acquisition for this area are substantially less than the \$4 million estimated by the independent appraisal performed as part of the required gross appraisal.

Required Replacement of Low and Moderate Income Housing in the Coastal Zone

There are nine (9) units contained in the buildings that would be affected by constructing Alternative 9. At least some of the units affected may be housing inhabited by low/moderate income residents. If this is the case, in addition to the standard relocation costs included above, it may be necessary to meet the provisions of California Government Code Article 10.7, Low- and Moderate-Income Housing Within the Coastal Zone, Section 65590, which states, in subsection (b):

"(b) The conversion or demolition of existing residential dwelling units occupied by persons and families of low or moderate income, as defined in Section 50093 of the Health and Safety Code, shall not be authorized unless provision has been made for the replacement of those dwelling units with units for persons and families of low or moderate income. Replacement dwelling units shall be located within the same city or county as the dwelling units to be demolished. The replacement units shall be located on the site of the converted or demolished structure or elsewhere within the coastal zone if feasible, or, if location on the site or elsewhere within the coastal zone is not feasible, they shall be located within three miles of the coastal zone. The replacement dwelling units shall be provided and available for use within three years from the date upon which work commenced on the conversion or demolition of the residential dwelling unit. In the event that an existing residential dwelling unit is occupied by more than one person or family, the provisions of this subdivision shall apply if at least one such person or family, excluding any dependents thereof, is of low or moderate income. ...

"The requirements of this subdivision for replacement dwelling units shall not apply to the following types of conversion or demolition unless the local government determines that replacement of all or any portion of the converted or demolished dwelling units is feasible, in which event replacement dwellings shall be required:

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"(1) The conversion or demolition of a residential structure which contains less than three dwelling units, or, in the event that a proposed conversion or demolition involves more than one residential structure, the conversion or demolition of 10 or fewer dwelling units.

"(2) The conversion or demolition of a residential structure for purposes of a nonresidential use which is either "coastal dependent," as defined in Section 30101 of the Public Resources Code, or "coastal related," as defined in Section 30101.3 of the Public Resources Code. ...

"(3) The conversion or demolition of a residential structure located within the jurisdiction of a local government which has within the area encompassing the coastal zone, and three miles inland therefrom, less than 50 acres, in aggregate, of land which is vacant, privately owned and available for residential use.

"(4) The conversion or demolition of a residential structure located within the jurisdiction of a local government which has established a procedure under which an applicant for conversion or demolition will pay an in-lieu fee into a program, the various provisions of which, in aggregate, will result in the replacement of the number of dwelling units which would otherwise have been required under this subdivision."

Replacement of lost low/moderate income housing in the Coastal Zone or anywhere in the City of Santa Barbara is extremely expensive, given the value of land in the Santa Barbara area (much less the Coastal Zone itself). The median cost of a single family home on the South Coast of Santa Barbara County was recently reported at \$475,000, well above affordability for most people. Condominiums in the area are priced in the mid \$250,000 range and above. Two-bedroom units currently rent at \$1200 per month and above. It would require a subsidy of approximately \$100,000 per unit to construct additional housing as required by Government Code Section 65590.

Use of Redevelopment Agency Funds

Comments have suggested that City Redevelopment Agency funds could be used to provide for an alternative that includes the low vertical walls with vegetated side slope or a full vegetated riprap bank. The Community Redevelopment Law (Health and Safety Code §33000 et seq.) limits project purposes for which redevelopment funds may be used. Case law has indicated that unless such purposes are stated specifically in the Community Redevelopment Law, funds should generally not be used for such purposes. Capital recreation projects intended to foster private redevelopment of physically and economically blighted areas might be considered. However, payment for flood control facilities is not included in the list of projects. Redevelopment funding can be used to improve project aesthetics or to provide for needed recreation. However, as

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indicated above, the additional funds required to purchase property to allow vegetated banks would be approximately \$4 million. The City Redevelopment Agency has agreed to set aside \$2.5 million to be used for project enhancements or betterments, provided that such enhancements are consistent with and foster the statutory objectives of Redevelopment law. This is not enough to buy the necessary property. In the Waterfront Area, south of U.S. 101, there are already significant recreation and park facilities, so the primary recreation focus has been on providing small passive park areas and/or "tot lots" north of the freeway, in the West Downtown area, where there are no park spaces and the residential density is much higher. Redevelopment funds would also be used to improve the appearance of the bridges to be replaced to make sure that they continue to fit the small-scale, semi-residential character of their neighborhoods. Redevelopment funds would be used to expand the number of trees and other plants used in the project reach and in the habitat expansion areas, in order to assure as much of a canopy and understory as possible. Finally, redevelopment funds would be used to provide interpretive signs that would enhance the creek experience and promote public education on creek systems.

Cost of Mitigation for Lost Historic Resources

The City is very concerned about the potential loss of significant historic resources as a result of the project. All of the buildings west of Mission Creek on Chapala and Mason Streets in the Waterfront Area are eligible for listing on the National Register of Historic Places, the California Register of Historic Resources and for designation as either a City Landmark or City Structure of Merit. The 100 Block of Chapala Street also appears to be eligible for designation as a National Register Landmark District. There is no acceptable mitigation for the loss of these structures, which would be significant and unavoidable. Even partial mitigation, which would include full Historic American Buildings Survey documentation, at a minimum, would be costly. It is estimated that documentation of the four historic buildings on the west side of the creek would cost approximately \$6,000. The best partial mitigation would be to try to relocate the structures to other parcels, which would be even more expensive than standard residential or business relocation costs, because of the need to both purchase a parcel on which to place the building and to actually move the building itself. At least one of the buildings may not be physically able to be relocated due to the type of construction involved. Costs could be expected to exceed \$1 million.

Aesthetics

The appearance of the vertical walls is another issue in this section of the creek. A Mission Creek Design Subcommittee was formed in 1999 and has met regularly for the last several months. The Subcommittee includes representatives from the City's Historic Landmarks Commission (which has design jurisdiction over most of the creek south of U.S. 101), the Architectural Board of Review (which has design review jurisdiction where the Historic Landmarks Commission does not), the Planning Commission and the Parks and Recreation Commission. The concept of vegetated side slopes with short vertical toe walls was developed

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with the assistance of the Design Subcommittee, based on the Alternative supported by the original Mission Creek Consensus Group. This alternative includes vertical walls where necessary to minimize impacts on historic structures and avoid prohibitively expensive acquisition of property, housing and businesses. The Design Subcommittee also made recommendations regarding various aesthetic improvements to the Corps project. The City forwarded these recommendations to the Corps and the Corps has agreed to incorporate these design changes into the project (see Exhibit 3 - 5 sheets showing the project reach by reach and Exhibit 4 - several pages showing design details). These drawings show that the concrete walls would be formed, textured and colored to resemble the sandstone walls so prevalent in Santa Barbara.

The preferred project (Alternative 12 plus the City and County preferred design changes) replaces significant sections of existing full height hard bank protection with vegetated side slopes with short toe walls. This approach is most feasible above the freeway where property costs are substantially less than in the areas below the freeway and development adjacent to the creek is somewhat less dense. However, as discussed below, there are two small habitat expansion zones in this area.

Habitat Expansion Zone Areas

While it may not be feasible to provide non-vertical walls for the entire project area south of Yanonali Street, it should be noted that there are two habitat expansion zones included in this area. Both are on the easterly side of the creek. One is between the creek and Kimberly Avenue, north of Mason Street. The second is immediately south of Mason Street. There are several ways to design these Habitat Expansion Zones. They can be designed so that there is vegetated riprap for the entire area. This would create locations for Tidewater gobies to hide in vegetation during high flows. It may also be feasible to redesign the area between State Street and Cabrillo Boulevard, which is proposed to have a low toe wall and vegetated riprap, to allow for more vegetation closer to the creek bottom.

Summary

For all of these reasons, including increased project costs, effects on housing and loss of cultural resources, we do not believe that it is feasible to redesign the project below U.S. 101 to include either low vertical walls with vegetated riprap side slopes or full vegetated riprap banks in the final design. We would further point out that the wider creek cross-section might also be more difficult to shade than the present vertical wall design. However, as indicated above, we believe that it may be possible to design both the habitat expansion zones in this area and the section between State Street and Cabrillo Boulevard to provide better habitat for the Tidewater goby.

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Water Quality

Background

Mission Creek water quality was studied as part of the South Coast Watershed Characterization Study and reported on in the Study's final report dated August 1999 (Exhibit 5). This study was undertaken to investigate four Santa Barbara County South Coast streams in reaction to the coming mandate to develop a National Pollution Discharge Elimination System (NPDES) work plan under Phase II of the NPDES regulations. The study concluded that the major contamination problem for South Coast streams is bacteriological contamination. Specifically regarding Mission Creek, the study concluded:

- Bacteria are the principal pollutants of concern
- Much of the uppermost watershed has acceptable levels of bacteria
- Storm drains and creek encampments are probable sources of high levels of bacteria in the middle portions of the watershed
- Storm drains and lagoon fauna, such as birds, are probable sources of high levels of bacteria in the lower watershed
- No direct link between septic system and beach closures has yet been established
- Stormwater carries several times the low flow levels of bacteria

Concurrent and subsequent investigations by the City have identified the existence of encampments in the lower watershed as one primary cause of high bacteria levels. In addition, Old Mission Creek, the abandoned former channel of Mission Creek prior to channel relocation of the middle reach of Mission Creek, is also a significant contributor to elevated bacteria levels downstream of its connection to the current main channel of Mission Creek.

Current Activities

The City and County of Santa Barbara are cooperatively continuing efforts to clean up local creeks. The reaches of Mission Creek with high bacteria levels are within the boundaries of the City of Santa Barbara, so efforts in this creek are largely those of the City. The cooperative public education and information program, however, is a joint effort that is key to gaining public acceptance of the many activities and improvements that will be needed to improve creek water quality in Mission Creek and other South Coast creeks.

The City's efforts in Mission Creek include a variety of activities directed toward improving creek water quality. This group of activities is called the Creek Water Quality Improvement Project. The Creeks Strategic Plan Program is also investigating Creek restoration. Both of these approaches should result in improvements to the water quality in the City's creeks.

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The Creek Water Quality Improvement Project includes the elements of a work plan required by Phase II of the NPDES stormwater management program. Activities include:

- Monitoring of creek water quality, including increased investigation of "hot spots"
- Increased enforcement of City ordinances related to prohibition of discharges of contaminated water
- Public information and education
- Municipal government good housekeeping
- Increased cleanups of catch basins and creeks
- Removal of illegal encampments within creek corridors
- Enhanced street sweeping

The City is also investigating the possibility of a pilot project for installation of one or more stormwater interceptors for storm drains that flow into lower Mission Creek.

The Creek Strategic Plan Program is doing a creeks inventory to determine restoration possibilities in City creeks, investigating revising City policies that are related to creek water quality and overall enhancement, and implementing a small number of opportunity restoration projects within City creeks. The creeks inventory is expected to present a larger list of restoration opportunities within City creeks. The opportunity projects of most interest for Mission Creek are enhancements to the Lower Mission Creek Flood Control Project and restoration of habitat and environmental education in a park along Old Mission Creek.

Future Activity in Mission Creek

The investigations underway indicate that lower Mission Creek has poor bacteriological water quality because it receives surface runoff from the City's commercial areas, has homeless encampments, and is the recipient of trash from a number of sources including neighboring residential areas and bridges. Old Mission Creek, which has elevated bacteria counts from a number of sources, provides the base flow for lower Mission Creek during periods of low flow. It is considered a "hot spot" and is a target for increased investigation to determine the exact sources of contamination. Because Mission Creek is the most visible City creek and is the subject of the flood control project, City staff is focusing efforts on this creek. The focused effort includes:

- Increased monitoring within the creek to determine sources of contamination dynamics (this includes weekly creek walks to document location and extent of contamination sources)
- Stormwater interceptor pilot project
- Installation of catch basin filters in the State Street commercial area (this area drains to lower Mission Creek)
- Cleanup of Old Mission Creek hot spot(s)

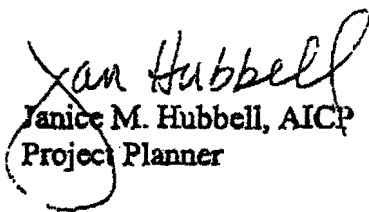
James Raives, California Coastal Commission
Lower Mission Creek Flood Control Project
February 22, 2000 Page 8

The Lower Mission Creek Flood Control Project, with the approved consensus-based enhancements, is considered to be an important creek restoration element for the improvement of water quality in the creek. We expect the creek restoration and the improved flood control maintenance elements of the project to be important additions to the water quality improvement activities described above. The improved creek bottom vegetation that is part of the project enhancements will act as a biofilter for the residual contamination. Improved flood control maintenance can act as a backup or enhancement to planned cleanup efforts. All these efforts will be needed to bring the water quality of the creek to the level expected by the residents of the City of Santa Barbara.

In conclusion, we believe that concerns regarding the use of vertical walls below Yanonali Street and the improvement of water quality can be resolved. If you have any questions, please contact Pat Kelly at (805) 564-5366 or Jan Hubbell at (805) 564-5470.

Sincerely,


Pat Kelly
City Engineer/Assistant Public Works Director


Janice M. Hubbell, AICP
Project Planner

Exhibits

1. Lower Mission Creek Flood Control Feasibility Study, Technical Appendices, December 1999
2. Estimate of Additional Right-of-Way Costs for Sloped Vegetated Side Slopes with Short Vertical Walls, State Street to Yanonali Street
3. City and County recommended Design Changes
4. City and County recommended Design Details
5. South Coast Watershed Characterization Study, August 1999, prepared by URS Greiner Woodward-Clyde for the Counties of Santa Barbara and Ventura and the Cities Santa Barbara and Carpinteria

cc: Dan Young, U.S. Army Corps of Engineers
Tom Fayram, Santa Barbara County Flood Control District

**APPENDIX - H (for Alternative 12)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Water Quality	Minor short-term increase in turbidity levels during construction and future maintenance.	<ul style="list-style-type: none"> - Stream water diversion shall use pipes/pilot channel and other standard methods to create low flow diversion channel during construction and future sediment removal. - No construction or sediment removal shall occur in flowing water or during heavy rains. Construction and future maintenance shall not occur during months of December 15 through April 1, when flow is high in the creek. - Conditions identified in the Water Quality Certifications shall be followed during construction as well as for future maintenance. - No discharge/leaks or spills of fuels, solvents or lubricants in the creek bed. A Storm Water Pollution Prevention Plan (SWPP) shall be required prior to project construction and implemented. 	<p>Construction: from initiation of construction to completion of construction.</p> <p>Future Maintenance: Between July and November</p>	<p>Construction: USACOE or Construction Contractor.</p> <p>Future Maintenance: Santa Barbara County or Contractor</p>	<p>Construction</p> <p>Approx. 2-years or until construction is completed</p> <p>Future Maint. About 15 to 30 days; every year</p>	<p>In the beginning every week; once construction is established once a month until construction is completed</p> <p>Future maintenance : Once a week.</p>	As conditions identified by the Water Quality Control Board.

Note: Only, resources are included in this table which require mitigation measures or environmental commitments and monitoring.

APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Air Quality	During construction and future sediment removal, short term increase in fugitive dust; no long term impacts on air quality.	<p>Construction: Water the excavation site, storage piles and unpaved roads twice each day of construction; once in the morning and at the end of the construction day; cover material transported in haul trucks; these conditions are applicable for construction and future maintenance.</p> <p>Limit vehicle speeds to 15 mph maximum within the construction site and maintenance areas (construction and future maintenance).</p> <p>Cease grading and earth movement when wind speeds exceed 20 mph, or as confirmed by SBCAPCD during construction and future maintenance activities.</p> <p>Future Maintenance: Same as Construction</p>	<p>Construction: from initiation of construction to completion of construction.</p> <p>Future Maintenance: Between July and November</p>	<p>Construction: USACOE or Construction Contractor.</p> <p>Future Maintenance: Santa Barbara County or Contractor</p>	<p>Construction</p> <p>Approx. 2-years or until construction is completed</p> <p>Future Maint. About 15 to 30 days; every year</p>	<p>In the beginning every week; once construction is established once a month until construction is completed</p> <p>Future maintenance: Once a week.</p>	As directed by the Santa Barbara County Air Pollution Control District.

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Noise	<p>Short term increase in noise levels due to use of the construction equipment and truck traffic. Noise levels will exceed 65 dBA at sensitive receptors.</p> <p>Residents located in the vicinity of the project area will experience increased noise levels during construction as well as during future maintenance.</p>	<p>Construction and future maintenance: Follow noise ordinance of the City of Santa Barbara. The project area is located within densely populated area; therefore, no loading or unloading of equipment or material shall be performed between 7:00 p.m. and 7:00 a.m., nor shall there be any heavy equipment operation prior to 8:00 a.m. and after 7:00 p.m. Monday through Saturday. No Sunday or holiday operation.</p> <p>Truck traffic shall be on designated truck routes established in coordination with the City of Santa Barbara.</p>	<p>Construction: from initiation of construction to completion of construction.</p> <p>Future Maintenance: Between July and November</p>	<p>Construction: USACOE or Construction Contractor.</p> <p>Future Maintenance: Santa Barbara County or Contractor</p>	<p>Approx. 2-years or until construction is completed</p> <p>Future Maint. About 15 to 30 days; every year</p>	<p>In the beginning every week; for a month; if complains received than continue monitoring every week otherwise every two months or after a complain received from the citizens.</p> <p>Future maintenance: Once at every event.</p>	<p>Follow City's local noise ordinance guideline.</p>

APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources							
Steelhead	All potential impacts to steelhead can be avoided by appropriate mitigation measures.	<p>No construction within flowing water between December 15 and March 31 to avoid impacts to steelhead.</p> <p>Qualified biologist would survey the area prior to the construction for presence of steelhead.</p> <p>Use of silt fences</p> <p>Strategic placement of large rocks as energy dissipators; soft bottom throughout flood control project</p>	<p>Construction: from initiation of construction to completion of construction.</p> <p>Future Maintenance: Between July and November</p>	<p>Construction: USACOE or Construction Contractor.</p> <p>Future Maintenance: Santa Barbara County or Contractor</p>	<p>Approx. 2-years or until construction is completed</p> <p>Future Maint. About 15 to 30 days; every year</p>	<p>In the beginning every week; for a month; depending upon water level in the creek, during construction of low-flow channel or installation of pipe, during heavy rainfall.</p> <p>Future maintenance: Once at every event.</p>	<p>Construction determined by the National Marine Fisheries Service, follow conditions identified in the biological opinion.</p> <p>Future Maintenance: Same as construction</p>

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources - Continued							
Tidewater Gobies	Incidental and temporary	<p>Tidewater gobies would be excluded from half the estuary at a time, and fish moved to the wet half while construction zone is dewatered slowly.</p> <p>Construction between April and end of June in estuary</p> <p>Soft bottom throughout flood control project; expansion of estuary by 220%.</p>	<p>Construction: from initiation of construction to completion of construction.</p> <p>Future Maintenance: Between July and November</p>	<p>Construction: USACOE or Construction Contractor.</p> <p>Future Maintenance: Santa Barbara County or Contractor</p>	<p>Approx. 2-years or until construction is completed</p> <p>Future Maint. About 15 to 30 days; every year</p>	<p>Construction: Area supporting tidewater gobies/i.e. in vicinity of lagoon, during construction of low-flow channel or dewatering of the construction full time monitoring, otherwise twice a week</p> <p>Future maintenance: If maintenance occurs in area supporting tidewater gobies, same conditions as identified for construction.</p>	<p>Construction: 90% As identified in the biological opinion and coordination report.</p> <p>Future Maintenance: Same as construction</p>

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date of Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources - Continued							
Aquatic habitat maintenance	net impact equivalent to 0.5 habitat	Strategic placement of large rocks as energy dissipaters; soft bottom throughout flood control project; expansion of estuary by 220%. Construction of wetlands, 0.25 acres, at natural oxbow.	Construction: from initiation of construction to completion of construction. Future Maintenance: Between July and November	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County or Contractor	Approx. 2-years or until construction is completed Future Maint. About 15 to 30 days; every year	After completion of the project, after first installation annually	100% or as identified in the biological opinion or directed by the USFWS.

**APPENDIX - H (for Alternative 12-Continued)
 MITIGATION MONITORING PLAN
 LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources Continued							
Isolated Native Trees	Probable removal 13 - 18 trees.	Design plantings would yield more than 200 mature native trees after 30 years.					
Stream Bank Vegetation	Projected average environmental quality equivalent to about 1¼ habitat units. Stream bank habitat would increase by 0.75 habitat units compared to Alternative 1.						

<p>Planted* Vegetation along riprap and habitat expansion zone</p>		<p>A temporary, above ground irrigation systems shall be installed and maintained . Invasive weeds (principally giant reed, castor bean, salt cedar, and sweet fennel). Any native trees which die within the first five years shall be removed and replaced by the same species from 1-gallon stock.</p>	<p>Construction: After completion of the project construction. Future Maintenance: After two years of completion of the project.</p>	<p>USACOE or Construction Contractor for first year of planting; after first year Santa Barbara County</p>	<p>for five years to ensure that planted trees/vegetation established in ground twice a year for the first two years, and annually for the next three years</p>	<p>Monitoring of the planted vegetation need be performed twice a year for five years First two years- USACOE or Construction Contractor Remaining three years: Santa Barbara County.</p>	<p>After a year of planting 60% success; After two years 80% success and after five years 100% success.</p>
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***Note: Planting along riprap, habitat expansion zone and wetland are part of the project design. It is not a mitigation measures. But planted vegetation need to be monitor to document success of planted vegetation.**

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date of Event	Responsible Party	Duration	Frequency	Level of Success Expected
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Land Use	<p>(1) No impacts to agricultural lands, Long-term Permanent Impacts: Buildings or property located within the project right-of-way will be removed or demolished for project construction. Therefore, land use would change from residential to natural creek bed or open space. However, most of the buildings located within the project reach are very old and all property located within the flood plains is subject to severe flood damage during heavy rains or flooding. Land use will change from residential to natural creek bed or open space within the construction right-of-way.</p> <p>(2) This alternative would require demolition of 14 complete and 2 partial structures (includes 1 complete removal of commercial building; 4 single family residential units and 5 multiple family units; 1 patio deck and 1 garage). 1 commercial building would be removed partially. Relocation of existing tenants may be difficult due to the cost of housing.</p> <p>No impact to oxbow area. Culverts would be installed away from the creek. During construction, temporary impacts near fig tree.</p>	The local sponsor will purchase the property and provide compensation to the property owner and tenants and/or property will be relocated	Prior to initiation of project	Santa Barbara County	About six months or negotiation is completed with the property owner.	One time - prior to the project construction.	As identified in state and local regulations for the property acquisition.
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APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Socio-economics	<p>(1) Long Term Impacts: Some of the property located along the creek bank would be removed. There would be economic loss to the property owner. However, property located within the flood plain would be protected from flooding hazards in future. Demolition of structures/building refer to Land Use Section. Relocation of existing tenants may be difficult due to the cost of housing.</p> <p>(2) Alternative 12 would require removal of 14 full structures and 2 partial. See details on type of the structures in Land Use Section.</p>	The local sponsor would purchase the property or relocate the housing or commercial units to a safer zone. The property owner would receive compensation equal or more to their property value; therefore, project related impact is not significant. All property removal would be fully mitigated.	Prior to initiation of the project construction	Santa Barbara County.	About six months.	One time-prior to the project construction.	As identified in state and local regulations for the property acquisition.

APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Aesthetics	<p>(1) Short-term: During construction, equipment and stockpile material would degrade aesthetic value of the project area. However, this impact is short term and would not be significant.</p> <p>(2) Long Term: Aesthetics/visuals of the creek banks would be improved with stabilization of banks. Implementation of this alternative will provide maximum aesthetic value. Creek will be more natural looking. Provides maximum vegetation cover. Bottom of the creek can not be seen from top because riprap will be planted with native and riparian vegetation. Aesthetic treatment would be provided to the vertical walls.</p> <p>(3) For safety reasons, some type of fencing shall be installed along the banks. If chain-link type of fencing is used, aesthetic treatment would be needed, including planting of vines to reduce impacts.</p>	<p>Alt. No. 12: Upper banks will be planted with the natural vegetation. Create pocket parks. To enhance environmental value, construction of wetland near oxbow area would be performed.</p> <p>Vertical Walls: Plant vines along the vertical walls to minimize impacts; cover concrete with natural color and texture.</p> <p>If fencing is installed in the project design for safety purposes, plant vines along fencing to minimize impacts. Upgraded fence materials shall be used in areas visible or accessible to the public.</p>	After stabilization of the side-slopes.	<p>USACOE or Construction Contractor.</p> <p>Future Maintenance: Santa Barbara County (repair of the damaged banks)</p>	<p>About a year.</p> <p>Future Maintenance: For the life of the project.</p>	<p>Inspection every year, and if damage is reported repair would occur on needed basis.</p>	Not applicable.

APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Recreation	Short-term: During construction, stock piled material, equipment etc. will restrict recreational use of the creek. However, all sections would not be constructed at the same time; therefore, this impact is temporary and not significant. Long-term impacts: This alternative provides maximum recreational opportunity compare to other alternatives. These opportunities include: bird watching, walking along the creek bank, enjoying natural vegetation planted on upper slope of the creek. However, access to the creek bottom will be restricted and the creek's use as a connective corridor will be lost.	Alt. 12: Planting of native and riparian type of vegetation along the upper slope of the creek banks and within open areas. Create habitat expansion zones (pocket parks) and construction of wetland at oxbow.	After completion of the project.	Initial responsibility is of USACOE or Construction Contractor. Future Maintenance: maintain sideslope and habitat expansion zone by Santa Barbara County.	Approximately a year after completion of the project, Future Maintenance: For the life of the project.	One time after completion of the project. Future Maintenance: as needed basis for the life of the project.	Not applicable.

APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date of Event	Responsible Party	Duration	Frequency	Level of Success Expected
*HTRW	<p>Two HTRW sites are located within the project reach, at 324 De la Vina and 220 W. Gutierrez Streets. The De la Vina property was used by former dry-cleaning establishment.</p> <p>Testing of sediments would be required at West Gutierrez Street.</p> <p>Sediment contamination by construction equipment-related leaks or spills of fuels, solvents, or lubricants; possibility of encountering PCE contaminated soil and/or shallow groundwater in the vicinity of the West Gutierrez Street Bridge. This event could potentially cause releases of this substance to the environment; and, possibility of encountering deep sediment contaminated by HTRW.</p>	<p>(1) Equipment shall be in proper condition; no gasoline or oil change shall occur in the creek bed. Prior to construction, samples of creek sediments will be analyzed to determine contamination. Plan will be developed in coordination with the regulatory agencies (RWQCB, County Department of Environmental Health Services).</p> <p>(2) If sufficient information is available, a work plan shall be developed to determine characterization of the plume and impact to the shallow groundwater and sediment testing.</p>	<p>(1) Construction: from initiation of construction to completion of construction.</p> <p>(2) When construction occurs in vicinity of 324 De la Vina and 220 W. Gutierrez Street.</p> <p>Future Maintenance: at every maintenance activity</p>	<p>Construction: USACOE or Construction Contractor</p> <p>Future Main.: Santa Barbara County</p>	<p>Construction: Approx. two years.</p> <p>Future Maintenance: About 15 to 30 days for the life of the project</p>	<p>Construction: Initially every week, after construction is established once a month until construction is completed.</p> <p>Future Maintenance: Once when maintenance is initiated.</p>	As directed by the WQCB.

* Hazardous Toxic and Radioactive Wast (HTRW)

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Traffic	Short-term/Long-term: During project construction and future sediment removal, some residents may not have direct access to their residences. Street closure would be required in some locations. This impact is a short-term, temporary increase in truck traffic along selected haul routes. Particular concerns would arise during the replacement of the De la Vina/ Haley Street bridge which would impact a major commuter route on Haley Street.	Project construction would be performed by sections. No access to the residents or commercial establishment would be eliminated. Appropriate detours and traffic control officers would be provided to direct traffic. Alternative routes shall be coordinated with the City of Santa Barbara.	Construction: Throughout the project construction. Future Maintenance: Between July and November every year	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County	Construction: Appro. two years. Future Maintenance: Approx. 15 to 30 days for the life of the project.	Construction: Initiation of construction every week; once a month until project construction is completed. Future Maintenance: Once during maintenance activities.	As determined by the City of Santa Barbara

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Safety	<p>Short-term Impacts: During construction, truck traffic will increase, potentially causing accidents.</p> <p>Long-term Impacts: After completion of the project, it could be possible that people could enter within the creek bed and injured.</p> <p>In addition people may get into by-pass tunnel and criminals may live and hide in culvert.</p>	<p>Short-term Impacts: During construction, traffic control officers would be provided to divert traffic to minimize accidents.</p> <p>Long-term Impacts: Fencing or other type of the protection shall be provided for public safety. Access points shall be provided to facilitate safe rescue.</p> <p>Install bars at end of tunnel to restrict passage to people (applicable to oxbow bypass Alts)</p>	<p>Construction From initiation of the project construction</p> <p>Future Maintenance: Between Months of July and November</p>	<p>Construction: USACOE or Construction Contracotr.</p> <p>Future Maintenance: Santa Barbara County</p>	<p>Construction Approx. Two years.</p> <p>Future Maintenance: Approx. 15 to 30 days at every year for the life of the project.</p>	<p>Construction Initially once a week, after construction is established once a month.</p> <p>Future Maintenance: Once during each event.</p>	Not applicable.

**APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT**

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date of Event	Responsible Party	Duration	Frequency	Level of Success Expected
	<p>Structures impacted under NEPA:</p> <ol style="list-style-type: none"> 1. Sandstone Diversion revetment retaining wall. Partial removal. 2. Chapala St. Bridge. Proposed for removal. 3. 116 Chapala St. Proposed for removal. 4. 536 Bath St. - Proposed for removal. 5. West Downtown Neighborhood - Loss of buildings that contribute to status. 6. Waterfront Neighborhood - Loss of structures that contribute to status. <p>Additional structures impacted under CEQA:</p> <ol style="list-style-type: none"> A. 15 W. Mason St. - Proposed for removal. B. Potter Hotel Footbridge - Proposed for removal. C. 134 Chapala St. - Proposed for partial removal. D. 434 De la Vina St. - Proposed for removal. E. 306 W. Ortega St. - Proposed for removal. 	<p>Primary mitigation under NEPA is Historic American Building survey (HABS) recordation for historic building(s) adversely affected. For the sandstone retaining wall, Historic American Engineering Record (HAER) recordation will be used. The Chapala Street Bridge is already listed on the HAER record.</p> <p>Mitigation Under CEQA:</p> <ol style="list-style-type: none"> 1. Extend box culvert downstream of Chapala Street Bridge. 2. Same as #1. Depending on design, may not mitigate to less than significant. 3. Realign proposed channel or relocate house on-site. 4. Relocate on-site. If not feasible, relocate off-site & complete biography of Karl Obert. Relocation off-site results in significant unavoidable impacts. 5. & 6. Save buildings on-site. Complete survey to determine boundaries and contributing elements. <p>A. HABS recordation. Significant unavoidable impact.</p> <p>B. See #1. HAER recordation & relocation would result in significant unavoidable impact.</p> <p>C. HABS recordation, photographic study & short history.</p> <p>D. Same as C.</p> <p>E. Begin vertical wall further upstream or otherwise redesign to avoid house. Also acceptable, HABS recordation & relocation on-site.</p>	<p>Construction: Prior to initiation of the project.</p> <p>Future Maintenance: Not applicable</p>	<p>NEPA: USACOE or Construction Contractor</p> <p>CEQA: City of Santa Barbara and County</p>	<p>Not determined yet.</p>	<p>Once prior to the project construction</p> <p>Future Maintenance Not applicable</p>	<p>NEPA: As determined by SHPO</p> <p>CEQA: As identified by State and Local agencies</p>

APPENDIX - H (for Alternative 12-Continued)
MITIGATION MONITORING PLAN
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Utilities	Water, sewer and telephone lines are located within the project reach. Relocation of these utility lines would be required. Residents may experience temporary loss of services for short periods.	Relocation of utility lines would be performed in such a manner as to minimize disruption in service and accidental spills. If there is disruption, property owners and tenants will be notified	Construction Prior to the initiation of construction Future Maintenance: Not applicable	Santa Barbara County or utility companies	Not determined yet	Once prior to construction	As identified in specification of the City of Santa Barbara and guideline for relocation of utilities.

