



PUBLIC NOTICE

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

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**APPLICATION FOR PERMIT
Greenville-Banning Channel Flood Risk Management Improvement Project**

Public Notice/Application Number: SPL-2014-00227-SME

Project: Greenville-Banning Channel Flood Risk Management Improvement Project

Comment Period: December 24, 2014 through January 21, 2015

Project Manager: Stephen Estes; 213-452-3660; Stephen.M.Estes@usace.army.mil

Applicant

Vincent Gin
Orange County Public Works
300 North Flower Street
Santa Ana, California 92702
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Contact

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Location

The project site is located within the Greenville-Banning Channel from the I-405 freeway westward to approximately 1,050 feet downstream of California Street, in the city of Costa Mesa, Orange County, California (Latitude/Longitude: 33.691348; -117.929580) (Figures 1-3).

Activity

Orange County Public Works (OCPW) is proposing to re-configure and expand portions of the Greenville-Banning Channel from the I-405 freeway to approximately 1,050 feet downstream of California Street to reduce bank erosion, increase the flood conveyance capacity of the channel, and reduce the risk of flooding to adjacent properties (Project) (Figures 1-6). For more information, please see page 4 of this Public Notice.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawings. We invite you to review today's Public Notice and provide views on the proposed work. By providing substantive, site-specific comments to the U.S. Army Corps of Engineers (Corps) Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under section 404 of the Clean Water Act. Comments should be mailed to:

Department of the Army
U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division, Attn: Stephen Estes
915 Wilshire Boulevard, Suite 930
Los Angeles, California 90017

Alternatively, comments can be sent electronically to: Stephen.M.Estes@usace.army.mil.

The mission of the Corps Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible, and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable waters and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the U.S. Environmental Protection Agency (USEPA) Guidelines (40 C.F.R. part 230) as required by section 404(b)(1) of the Clean Water Act.

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an EIS is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under section 401 of the Clean Water Act, from the Santa Ana Regional Water Quality Control Board (RWQCB). Section 401 requires that any applicant for an individual section 404 permit provide proof of water quality certification to the Corps prior to permit issuance. The Santa Ana RWQCB issued a section 401 water quality certification for the Project on November 17, 2014 (RWQCB Project File No. 302014-13).

Coastal Zone Management- The Project is located outside the coastal zone and preliminary review indicates that it would not affect coastal zone resources. After a review of the comments received on this Public Notice, the Corps will make a final determination of whether this project affects coastal zone resources.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH would be affected by the proposed Project.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and the Project site is not listed. In addition, a sacred lands file search provided by the Native American Heritage Commission on December 11, 2014 did not indicate the presence of Native American cultural resources in the immediate Project area.

The existing Greenville-Banning Channel was constructed between 1958 and 1959. The Project may result in the excavation of previously undisturbed areas due to the proposed re-configuration of the channel. The Corps will make a determination on whether the existing channel structure is eligible for listing in the National Register of Historic Places and whether the Project would affect historic properties. This review constitutes the extent of cultural resources investigations by the District Engineer, and she is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate that the proposed activity would not affect federally listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under section 7 of the Endangered Species Act does not appear to be required at this time.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). Because no fills are proposed within special aquatic sites, identification of the basic project purpose is not necessary.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to reduce bank erosion, increase the flood conveyance capacity of the Greenville-Banning Channel reach, and reduce the risk of flooding to adjacent properties.

Additional Project Information

Baseline Information- The Greenville-Banning Channel is a flood risk management facility owned and maintained by the Orange County Flood Control District (OCFCD). The proposed project would occur between the I-405 freeway on the upstream end to approximately 1,050 feet downstream of California Street on the downstream end. This portion of the channel contains approximately 2.2 acres (3,480 linear feet) of non-wetland waters of the United States. The perennial flows in this reach mainly consist of urban and stormwater runoff. The channel bottom is earthen throughout approximately 2,310 linear feet and concrete-lined throughout approximately 1,170 linear feet of the reach. The channel side slopes alternate between earthen, rip-rap-lined, or concrete-lined bank segments, with one channel segment consisting of side slopes that are earthen from the top of the slope to approximately halfway to the channel bottom and are concrete-lined from that point to the concrete bottom. With the exception of a 2-foot by 100-foot patch of herbaceous weedy vegetation at the upstream toe of the slope, the entire channel is devoid of vegetation.

Project Description- OCPW is proposing to re-configure and expand portions of the Greenville-Banning Channel from the I-405 freeway to approximately 1,050 feet downstream of California Street for the purposes of reducing bank erosion, increasing the flood conveyance capacity of the channel, and reducing the risk of flooding to adjacent properties (Figures 1-6). To accomplish these goals, the Project would consist of the following activities within five designated channel segments, beginning from the downstream end of the Project:

Segment 1 (1,050 feet downstream of California Street to the downstream end of California Street): This channel segment is trapezoidal and fully concrete-lined except for the upper portion of the side slopes, which are earthen on both sides of the channel. The Project would repair the existing concrete-lined portion of the channel and would install concrete lining at the top of the side slopes (Figures 4 and 5). The replacement of the concrete-lined portion of the channel within waters of the United States would likely qualify for the maintenance exemption under section 404(f)(1)(B) of the Clean Water Act. The installation of concrete-lining on the existing upper earthen side slopes would occur outside of Corps jurisdictional limits. Temporary water diversion measures and site access would be needed during construction, resulting in temporary impacts to approximately 0.81 acre (1,050 linear feet) of non-wetland waters of the United States.

Segment 2 (California Street crossing): This channel segment consists of a triple barrel 12-foot by 10-foot reinforced concrete box (RCB) bridge crossing. The bridge crossing would not be modified. However, the concrete transition structures would be re-constructed upstream and downstream of the existing bridge crossing to provide stable inverts for flow transition and to provide turn-around areas for maintenance equipment. The channel invert would be widened on the upstream end of the crossing, increasing the area of waters of the United States by approximately 0.01 acre in this segment. The proposed activities within this channel segment would result in temporary impacts to approximately 0.04 acre (80 linear feet) of non-wetland waters of the United States.

Segment 3 (Upstream of California Street to downstream of New Hampshire Drive): This channel segment consists of an earthen trapezoidal configuration with rip-rap or concrete-lined side slopes. The Project would steepen and concrete-line the side slopes and widen the channel bottom from approximately 24 feet to 40 feet (Figure 4). The northern 26-foot portion of the channel bottom would consist of a reinforced earthen bottom. The reinforced earthen bottom would be constructed by re-locating existing rip-rap from the side slopes of Segments 3 and 5 to the channel bottom. The rip-rap would be buried and covered with one foot of soil to create the 26-foot-wide portion of the channel bottom. Additional rip-rap may be utilized if the existing rock within the channel falls short of the quantity needed. The buried rip-rap would be utilized as partially permeable fill that would allow some measure of infiltration and vegetation growth while preventing localized scour. The southern 14-foot portion of the channel bottom would be concrete-lined in order to increase hydraulic capacity and facilitate maintenance activities as it would provide better access for maintenance crew vehicles. This work would result in a net increase in approximately 0.72 acre of non-wetland waters of the United States. The proposed activities within this channel segment would result in approximately 1.18 acres (2,070 linear feet) of permanent impacts to non-wetland waters of the United States.

Segment 4 (New Hampshire Street Crossing): The proposed project would replace the New Hampshire Street RCB. The existing concrete transition structures would be re-constructed upstream and downstream of the bridge crossing in order to provide stable inverts for flow transitions and to provide adequate turn-around areas for maintenance equipment (Figure 4). Widening of the channel bottom upstream and downstream of the RCB would result in a net increase in 0.02 acre of waters of the United States. The proposed activities within this channel segment would result in approximately 0.04 acre (40 linear feet) of temporary impacts to non-wetland waters of the United States.

Segment 5 (Upstream of New Hampshire Street to downstream of I-405): This channel segment is earthen bottom trapezoidal with partially concrete- and rip-rap-lined side slopes. The Project would steepen and concrete-line the channel side slopes, widen the channel bottom from 24 feet to 40 feet, and concrete-line the channel bottom. These activities would increase the area of waters of the United States by approximately 0.09 acre. The proposed activities within this channel segment would also result in approximately 0.13 acre (240 linear feet) of permanent impacts to non-wetland waters of the United States.

Construction activities in the channel segments would utilize excavators, loaders, haul and concrete trucks, shoring operations, soil-nail equipment and concrete-placing equipment. Access would be from the existing maintenance roads via Gisler, California, and New Hampshire Streets. Staging would be along the channel downstream of the project area and within the OCFCD right-of-way. The proposed project would result in a total of approximately 1.31 acres of permanent impacts and 0.89 acre of temporary impacts to non-wetland waters of the United States.

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this Public Notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: Due to the need for increased hydraulic capacity and reduced erosion throughout the project area, the entire reach of the channel would be impacted. Therefore, OCPW would not avoid impacts to waters of the United States.

Minimization: The proposed project would result in a net increase of approximately 0.84 acre of non-wetland waters of the United States. Although only a small area of weedy vegetation is currently

present, vegetation would be allowed to grow in the northern 26-foot section of the channel bottom in Segment 3 (subject to maintenance). Standard Best Management Practices for water quality would be required during construction.

Compensation: No compensatory mitigation has been proposed to offset unavoidable permanent impacts to approximately 1.31 acres of waters of the United States. A determination on the need for compensatory mitigation will be made based on Public Notice comments, avoidance and minimization measures, and an in-depth review of Project-specific information.

Proposed Special Conditions

The following list is comprised of proposed Permit Special Conditions, which are required of similar types of projects:

1. Prior to initiating construction in waters of the United States, the Permittee shall submit to the Corps Regulatory Division a complete set of final detailed grading/construction plans showing all work and structures in waters of the United States. All plans shall be in compliance with the Final Map and Drawing Standards for the South Pacific Division Regulatory Program dated August 6, 2012 (<http://www.spd.usace.army.mil/Portals/13/docs/regulatory/standards/map.pdf>). All plan sheets shall be signed, dated, and submitted on paper no larger than 11x 17 inches. No work in waters of the United States is authorized until the Permittee receives, in writing (by letter or e-mail), Corps Regulatory Division approval of the final detailed grading/construction plans. The Permittee shall ensure that the project is built in accordance with the Corps-approved plans.
2. Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Archeology Staff within 24 hours (John Killeen at 213-452-3861). The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.

For additional information, please contact Stephen Estes at 213-452-3660 or via e-mail at Stephen.M.Estes@usace.army.mil. This Public Notice is issued by the Chief, Regulatory Division.

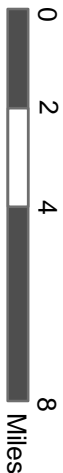


Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

**DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
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Los Angeles, California 90017
<http://www.spl.usace.army.mil/missions/regulatory>**

Source: ESRI World Street Map



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

GREENVILLE-BANNING CHANNEL IMPROVEMENT PROJECT

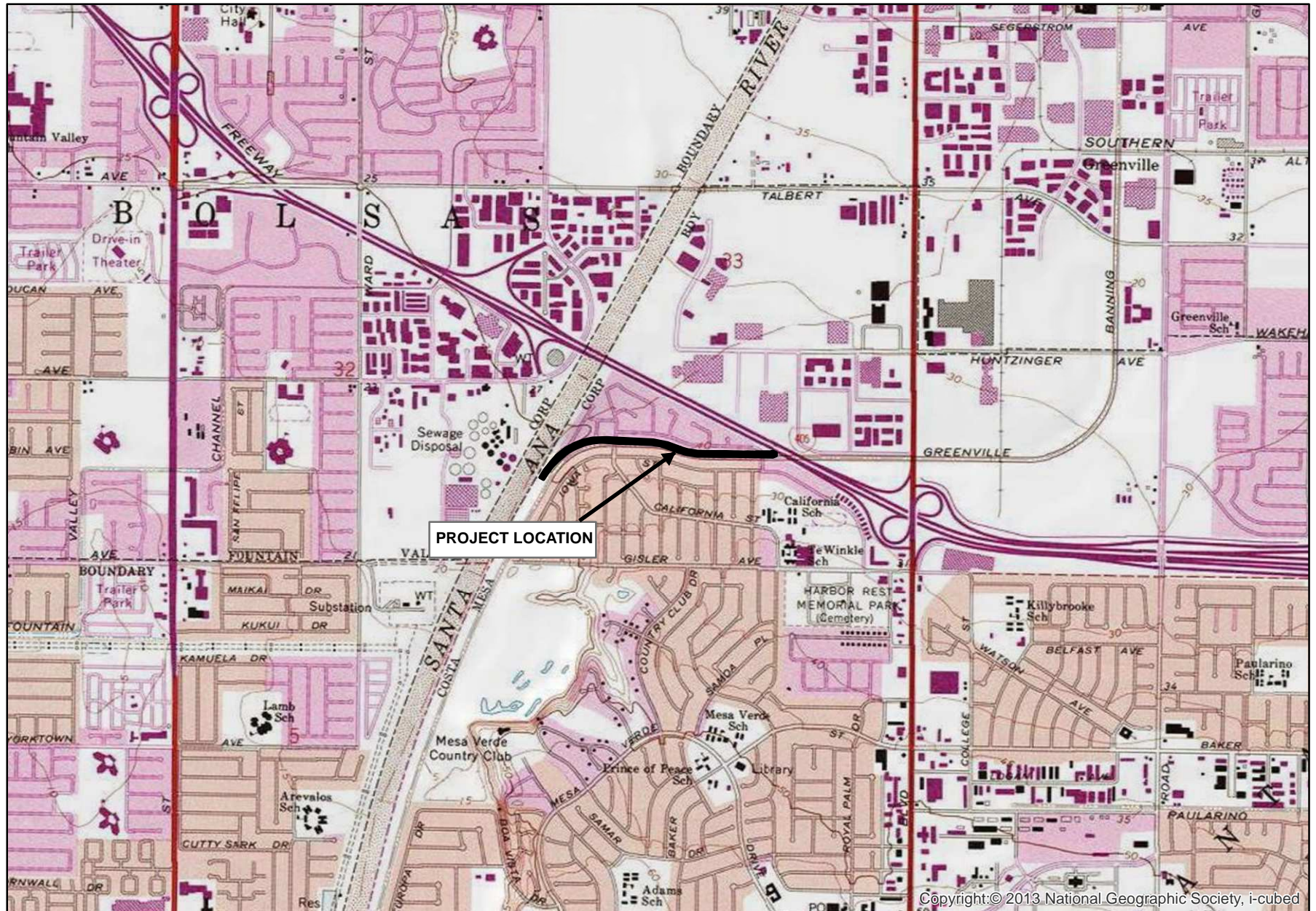
Regional Map

GLENN LUKOS ASSOCIATES

Figure 1



Adapted from USGS Newport Beach, CA quadrangle



GREENVILLE-BANNING CHANNEL IMPROVEMENT PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Figure 2

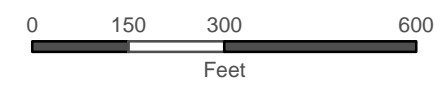




Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

 Project Site

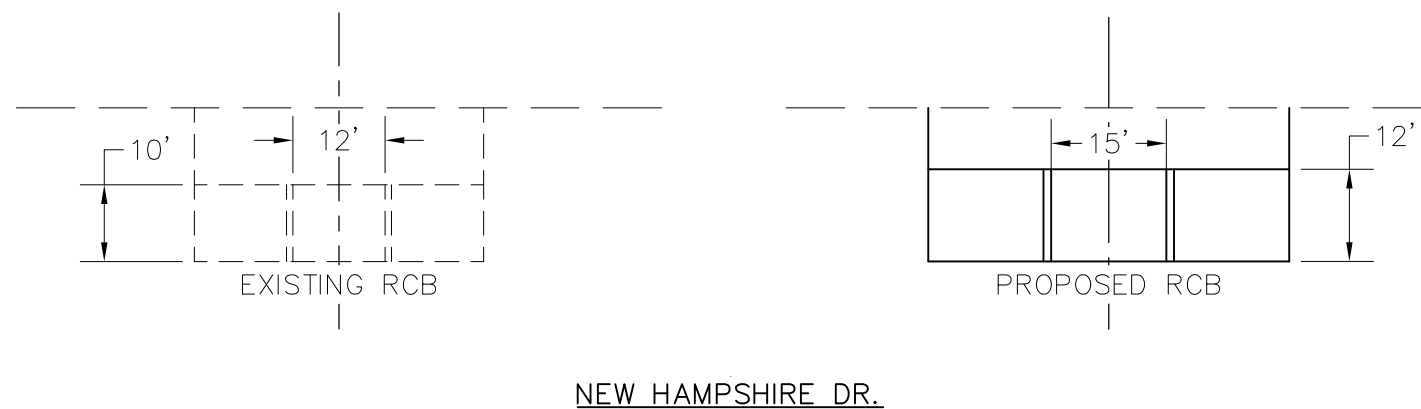
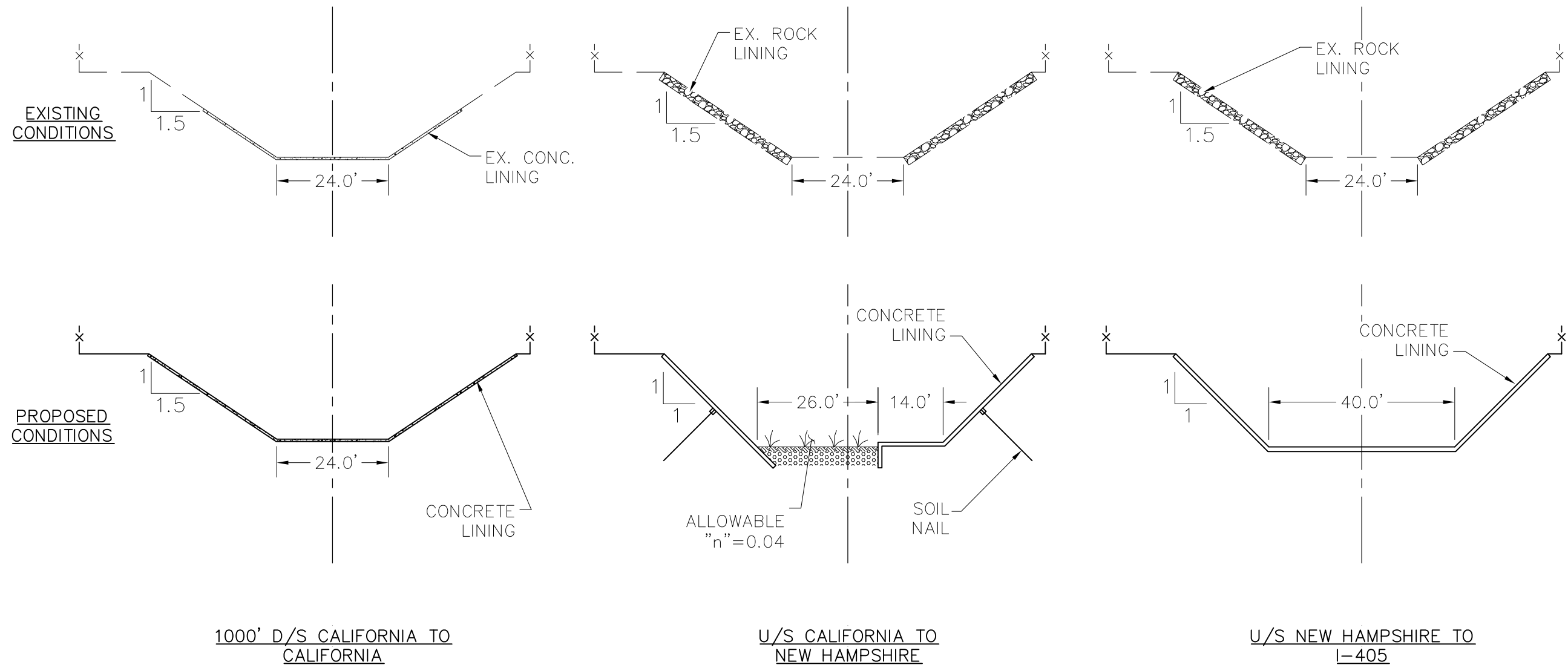


**GREENVILLE-BANNING CHANNEL
IMPROVEMENT PROJECT**
Project Segment Map

GLENN LUKOS ASSOCIATES

Figure 3





MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: JBG	CHECKED BY: JBG	FILE NAME: FD_D03grnVh-Cal2Fwv_EX-DgnMkzmg	SCALE: 1" = 25'
DRAWN BY: JBG	DRAWING CODE:	PLOT DATE: 10/08/14	
County of Orange OC Public Works Department		DESIGN DIVISION	

GREENVILLE-BANNING
CHANNEL
OCFCD FACILITY No. D03
1000' D/S CALIFORNIA TO D/S EUCLID

**TYPICAL
SECTIONS**

Figure 4



Photograph 1: Looking upstream at the downstream-most segment where the channel is confined entirely within a concrete bottom and concrete vertical walls.



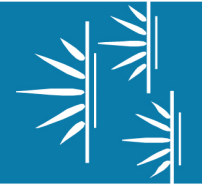
Photograph 2: Looking downstream at the point in the channel as it turns south to parallel the Santa Ana River. The channel bottom and lower section of the banks are concrete lined. Maintenance access road is shown to the right.



Photograph 3: Looking downstream from the same location as Photograph 2.



Photograph 4: Looking upstream from the California Street bridge crossing. Concrete transition structure is shown in foreground. Channel supports an earthen bottom with banks that transition between earthen (undercut) and rip rap-lined.



GLENN LUKOS ASSOCIATES

**GREENVILLE-BANNING CHANNEL
IMPROVEMENT PROJECT**

Site Photographs – May 7, 2014

Figure 5



Photograph 5: Looking downstream within the central segment of the channel. California Street bridge is visible in background. Channel is earthen lined with banks that transition between earthen and rip rap. Silt fence repair is shown in foreground.



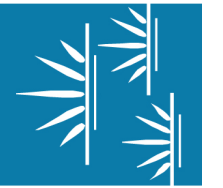
Photograph 6: Looking upstream within the central segment of the channel. Channel is earthen lined with banks that transition between earthen and rip rap.



Photograph 7: Looking further upstream within the central segment of the channel. Two outfall structures discharge nuisance flows from surrounding urbanized areas into the channel. Channel is earthen lined with banks that transition between earthen and rip rap.



Photograph 8: Looking at the upstream-most segment of the channel from the New Hampshire Drive bridge crossing. Concrete transition structures are shown in foreground and background. Channel supports an earthen bottom with banks that transition between earthen (undercut) and rip rap-lined, with 2'x100' herbaceous weedy vegetation at toe of slope.



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**GREENVILLE-BANNING CHANNEL
IMPROVEMENT PROJECT**
Site Photographs – May 7, 2014

Figure 6