PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**
LOS ANGELES DISTRICT

APPLICATION FOR PERMIT
Hueneme Beach Long-Term Shore Protection

Public Notice/Application No.: SPL-2013-00766-AJS
Project: Hueneme Beach shore protection at Surfside Drive
Comment Period: November 25 through December 9, 2013
Project Manager: Antal Szijj; 805-585-2147; Antal.J.Szijj@usace.army.mil

Applicant
Greg Brown
City of Port Hueneme
250 North Ventura Road
Port Hueneme, California 93041-3094

Contact
Kim Garvey
Moffatt & Nichol
3780 Kilroy Airport Way, Suite 600
Long Beach, California 90806

Location
Along Hueneme Beach, in the city of Port Hueneme, Ventura County, CA (at: lat 34.143987 N, long 119.197850 W). See Figure 1.

Activity
The proposed project is to allow the existing 500-foot-long emergency rock revetment placed in July-August 2013 to remain on a permanent basis and to continue to construct revetment downcoast to the Hueneme Pier, as necessary, to protect adjacent infrastructure from erosion (a maximum total shoreline length of 2,400 feet). For more information see page 3 of this 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 drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that support 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 (33 U.S.C §1344) and Section 10 of the Rivers and Harbors Act (33 U.S.C. §403). Comments should be mailed to:

Antal Szijj
U.S. Army Corps of Engineers
Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

Alternatively, comments can be sent electronically to: Antal.J.Szijj@usace.army.mil

The mission of the U.S. Army Corps of Engineers 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 water 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 system 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 EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers 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 of Engineers 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 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 environmental impact statement 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 California Regional Water Quality Control Board. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance. For any proposed activity on Tribal land that is subject to Section 404 jurisdiction, the applicant will be required to obtain water quality certification from the U.S. Environmental Protection Agency.

Coastal Zone Management- The applicant has certified that the proposed activity would comply with and would be conducted in a manner that is consistent with the approved State Coastal Zone Management Program. For those projects in or affecting the coastal zone, the Federal Coastal Zone Management Act requires that prior to issuing the Corps authorization for the project, the applicant must obtain concurrence from the California Coastal Commission that the project is consistent with the State's Coastal Zone Management Plan. The District Engineer hereby requests the California Coastal Commission's concurrence or non-concurrence.

Essential Fish Habitat- Preliminary determinations indicate the proposed activity may adversely affect essential Fish Habitat. Pursuant to Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Los Angeles District hereby requests initiation of EFH consultation for the proposed project. This notice initiates the EFH consultation requirements of the Act (via abbreviated consultation). In order to comply with the Magnuson-Stevens Fishery Conservation and Management Act (MSA), pursuant to 50 CFR 600.920(e)(3), the Corps is providing, enclosing, or otherwise identifying the following information:

1. Description of the proposed action: see project description beginning on page 4 of this public notice.

2. On site inspection information: see baseline information on page 4 of this public notice.

3. Analysis of the potential adverse effects on EFH: During construction activities, disturbance within the surf zone may result from excavating previously placed rock as well as construction of the new rock revetment. This would include excavation and/or burial of benthic organisms that may be present within the work zone. Characteristic sandy beach organisms typically consist of sand crabs (Emerita anloga), bloodworms (Euzonus mucronata), beach hoppers (Orchestoidea sp.), and the Pismo clam (Tivela stultorum). In addition, Grunions (Leuresthes tenuis) may use the beach area for spawning between March and September. Peak grunion spawning activity occurs between April and June. Adverse effects to these species are expected to be short-term. Long-term effects would be dependent on the volume and availability of sand replenishment within the project area. With adequate sand replenishment, the rock revetment would remain buried and well outside the active surf zone (and EFH). Without adequate sand replenishment, the rock would be exposed to wave action, resulting in a rocky intertidal shoreline. The rock placement is only intended to serve as a “last line of defense” to protect adjacent infrastructure from damage by erosion.

4. Proposed minimization, conservation, or mitigation measures: The following best management practices (BMPs) proposed by the applicant would also serve to minimize adverse effects to EFH:

Construction will occur from the land side to the maximum extent possible.
Construction will occur during low tide hours (out of waters of the U.S.) to the maximum extent possible
No equipment will be stored on the beach.
No fueling of equipment will be allowed on the beach.
No stockpiling of material will be allowed on the beach
Sand bags will be placed along street catch basins
Dust control will be performed at the rock stockpile site.

5. Conclusions regarding effects of the proposed project on EFH: The majority of the project area is currently above the high tide line and outside designated EFH. However, assuming work within a given section of the action area is at or below the high tide line at the time of rock placement (due to progressive beach erosion) up to 2,400 linear feet of shoreline comprised of sandy substrate supporting EFH may be temporarily impacted by rock placement (of this, 500 linear feet have been impacted by the initial rock placement in July-August 2013). This assumes beach nourishment with compatible sand would continue. As stated previously, the proposed rock placement is only intended to provide a last line of defense to protect adjacent public facilities and infrastructure. In the absence of rock placement, ongoing erosion would result in damage to these facilities and debris and potential contaminants along the affected section of shoreline. The existing 500 feet of rock revetment in place since August 2013 provides an example of post-project site conditions without beach nourishment and exhibits a narrow, sandy beach area exposed at low tide transitioning to rock revetment at a 1.5:1 slope. Future beach nourishment is expected to resume along Hueneme Beach.

Therefore, the Corps has determined the proposed activity may adversely affect but would not have a substantial adverse impact on EFH or federally managed fisheries in California waters. The final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NOAA Fisheries. If no written comments (regular mail or e-mail) are received within the 30-day notification period, the Corps will assume concurrence by NOAA Fisheries.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. The project area is a section of shoreline which has been previously disturbed by construction activities as well as natural erosion and accretion processes. For this reason the Corps has determined the project has no potential to affect historic properties.

Endangered Species- The project area is within designated critical habitat for the western snowy plover (*Charadrius nivosus nivosus*) which is known to utilize the project area for foraging activities and nearby areas for nesting. The section of beach within the project limits is heavily used by the public and does not provide high quality habitat for the plover. Work would also be concentrated in areas that are not typically used by plovers. The applicant has also proposed measures to avoid and minimize potential effects to this species and its critical habitat, including biological monitoring prior to and during construction activities. Construction would be halted if it is determined to be adversely affecting the plover. Other avoidance/minimization measures would include operating construction equipment from the land side to the maximum extent feasible; timing construction during low tide periods; avoiding stockpiling of material, fueling of equipment, and equipment storage on the beach; and implementing dust control measures.

Based on these considerations, the Corps has determined the project may affect, but would not adversely affect western snowy plover or its designated critical habitat. The Corps will be initiating consultation with the U.S. Fish & Wildlife Service to request concurrence with this determination.

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). For this action the basic project purpose is *shoreline protection*.

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 protect public facilities and infrastructure along a 2,400-foot-section of Hueneme Beach from erosion caused by wave uprush*.

Additional Project Information

Baseline information- The project site is an approximately 2,400 foot section of Hueneme Beach, extending from the southeast end of the Port Hueneme waterfront promenade revetment (approximately Market Street) to the Hueneme Pier. The width of the beach varies due to ongoing cycles of erosion and sand replenishment. The construction of Port Hueneme has resulted in an interruption of the natural littoral drift that progresses from north to south. Armor stone was previously placed by the Corps in 1978 to address erosion concerns. This stone has since subsided and displaced laterally and does not currently provide protection from wave uprush.

Hueneme Beach Park is located immediately downcoast of the Port Hueneme jetties (Figure 1) which form a nearly complete barrier to littoral sand transported alongshore. Hueneme Beach and other downcoast beaches are entirely dependent upon the U.S. Army Corps of Engineers' Channel Island/Port Hueneme Harbors Maintenance Dredging Project to maintain the balance between sand supplied and sand lost to littoral transport. During the last dredging cycle (2006-2011), approximately 3.9 mcy of material from the Channel Islands Harbor/Port Hueneme dredging programs were deposited on Hueneme Beach. During the 2000-2005 dredging cycle, approximately 4.8 million cubic yards of material were deposited on Hueneme Beach. During 1988 to 2000, approximately 1.9 million cubic yards of material from the Channel Islands Harbor/Port Hueneme dredging programs were deposited on Hueneme Beach every two years. However, due to federal funding limitations, the recent amount bypassed to Hueneme Beach has been much less than the targeted volume of approximately 2.5 million cubic yards (cy) every two years. The last dredge cycle in 2012 placed only 400,000 cy of sand on Hueneme Beach and was washed away over the course of several months. The net longshore sand transport rate of about 1.2 million cubic yards per year (Herron & Harris, 1966) is resulting in significant erosion at Hueneme Beach which will continue until the next USACE dredge cycle, tentatively planned for the USACE Fiscal Year 2015 (Fall-Winter 2014). Additional

sources of funding for beach nourishment are currently being sought by the city to address shortfall of the federal dredging/beach nourishment program.

Continued beach erosion threatens public infrastructure including Surfside Drive, utilities, sidewalks, restrooms, parking lots and residences along Surfside Drive. Corps permits were issued on an emergency basis in June (initial 100 linear feet of rock placement) and July (additional 400 linear feet of rock) of 2013 to address erosion along the area closest to the south jetty of the Port Hueneme entrance channel.

Project description- The proposed project would allow the existing 500-ft-long emergency revetment extending from the southeast end of the Port Hueneme waterfront promenade revetment (approximately Market Street) to remain on a permanent basis and to continue to construct revetment downcoast, as necessary, to the Hueneme Pier (a max total shoreline length of 2,400 feet—see Figures 2 & 3). The additional revetment would be contiguous with the existing emergency revetment and would be constructed using 3- to 5-ton armor stone and ¼-ton underlayer stone. The volume of armor rock is up to 29,000 tons for the entire length, including the 4,000 tons already placed for the emergency revetment. Overall width from the landward crest to the buried toe would be approximately 40 feet. Some of this armor stone would be from the remnant USACE revetment and the remaining would be imported. The volume of underlayer rock is up to 9,000 tons for the entire length. The proposed design is a 1.5:1 (horizontal:vertical) slope to minimize the beach footprint, a crest elevation that is the same level or just below the adjacent sidewalk (generally + 16 ft MLL W), and a crest width of 15-17 feet along the entire length of the rock revetment (see Figure 4). Rock placement would also include additional rock on top of the emergency revetment to raise the crest elevation to match this elevation (approximately 2 vertical feet additional). The revetment as been designed to be placed as far landward as possible and generally follows the alignment of the adjacent sidewalk along Surfside Drive. The design slope of 1.5:1 would minimize encroachment of the revetment onto the beach and relocation of the remnant rocks placed by the Corps in 1978 would improve the current condition and public access of the beach. The revetment would be mostly buried during the periods when the Corps' sand bypassing project occurs.

The rate of beach erosion along the project area is dependent on several factors including the availability of sand for beach nourishment, as well as extreme high tide events and storm surges that typically trigger more extensive erosion. Construction of additional revetment would only occur as needed. The City would evaluate site conditions in conjunction with the anticipated timing and volume of any beach nourishment that may be anticipated and determine the need and extent of additional rock placement within the remaining 1,900 linear feet. The City would be required to notify the Corps and obtain approval prior to any individual rock placement project.

In order to construct any given section of the rock revetment, sand would be excavated to the 0 feet mean lower low water (MLLW) revetment toe elevation and placed on the seaward side of the toe trench. Any visible rock from the prior (1978) placement would be retrieved and reutilized in the new revetment with excavated sand used to fill any holes left behind. Filter fabric would then be placed prior to placement of the underlayment and surface stone according to the design configuration. Staging of rock and equipment is expected to occur on the empty lot at the west end of Hueneme Beach Park. Work would be accomplished primarily from the landward side of the revetment, primarily during low tides.

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 site-specific nature of the proposed action and uncertainty of sand replenishment, complete avoidance is not possible.

Minimization: Rock placement would only occur as needed when progressive beach erosion threatens to encroach upon existing facilities and infrastructure. In addition to minimization measures designed to avoid adverse impacts to western snowy plover, the applicant is proposing to include the following best management practices during construction:

Construction will occur from the land side to the maximum extent possible.
Construction will occur during low tide hours (out of waters of the U.S.) to the maximum extent possible.
No equipment will be stored on the beach.
No fueling of equipment will be allowed on the beach.
No stockpiling of material will be allowed on the beach.
Sand bags will be placed along street catch basins.
Dust control will be performed at the rock stockpile site.

Compensation: No compensatory mitigation is proposed.

Proposed Special Conditions

No specific special conditions are proposed at this time. It is anticipated that special conditions implementing the above-described minimization measures would be incorporated into the permit, if issued.

For additional information please call Antal Szijj of my staff at 805-585-2147 or via e-mail at Antal.J.Szijj@usace.army.mil . This public notice is issued by the Chief, Regulatory Division.

Regulatory Program Goals:

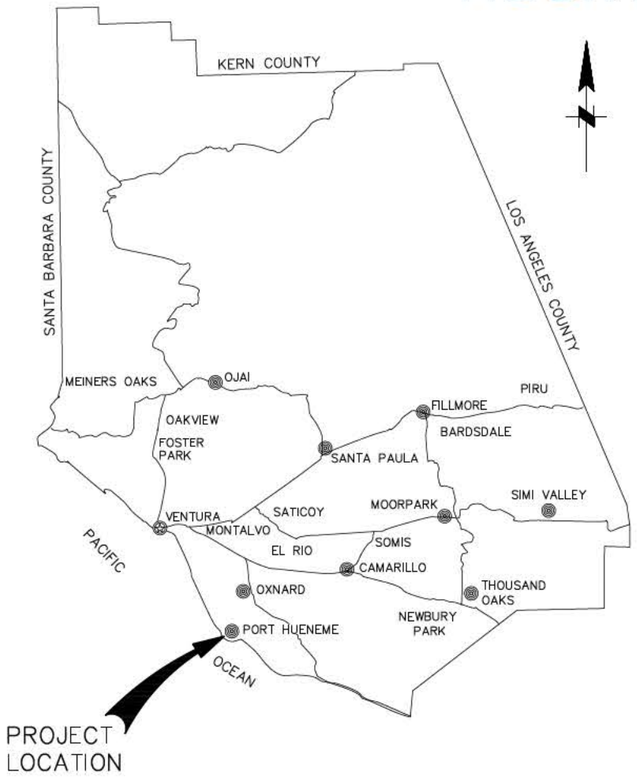
- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

U.S. ARMY CORPS OF ENGINEERS – LOS ANGELES DISTRICT
Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, CA 93001
WWW.SPL.USACE.ARMY.MIL

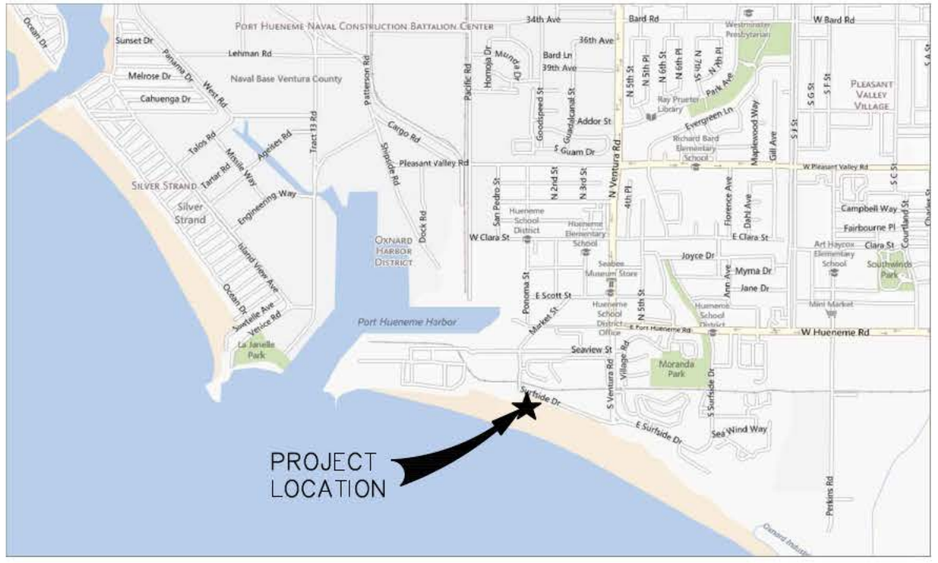
Figure 1

CITY OF PORT HUENEME

SHORE PROTECTION
AT HUENEME BEACH PARK
ROCK REVETMENT ALONG ENTIRE LENGTH



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

INDEX OF DRAWINGS		
INDEX NO.	SHEET NO.	DESCRIPTION
1	T-1	TITLE SHEET
2	SP-1	SITE PLAN WEST
3	SP-2	SITE PLAN EAST
4	XS-1	TYPICAL REVETMENT SECTIONS

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OWNER

CITY OF PORT HUENEME
250 NORTH VENTURA ROAD
PORT HUENEME, CA 93041
TEL. (805) 986-6500

CIVIL ENGINEER

MOFFATT & NICHOL
3780 KILROY AIRPORT WAY, SUITE 600
LONG BEACH, CA 90806
TEL. (562) 426-9551

CITY OF PORT HUENEME
CITY OF PORT HUENEME
EMERGENCY SHORE PROTECTION
TITLE SHEET
ROCK REVETMENT ALONG ENTIRE LENGTH

Mark | Description | Date | Appr.

Designed by: AH | Drawn by: GL | Chkd by: RB | Reviewed by: RB
Date: OCTOBER, 2013 | M&N Project No. 8080 | Drawing code: | Drawing Scale: Plot scale AS SHOWN
Submitted by: RUSS BOUDREAU, P.E. MOFFATT & NICHOL

moffatt & nichol
3780 KILROY AIRPORT WAY, STE 600
LONG BEACH, CA 90806
562-426-9551

REGISTERED PROFESSIONAL ENGINEER
RUSSELL H. BOUDREAU
No. C041810
EXP. 3/31/14
CIVIL
STATE OF CALIFORNIA
SEAL

Sheet Reference No.
T-1
INDEX: 1 OF 4

Rev. 1

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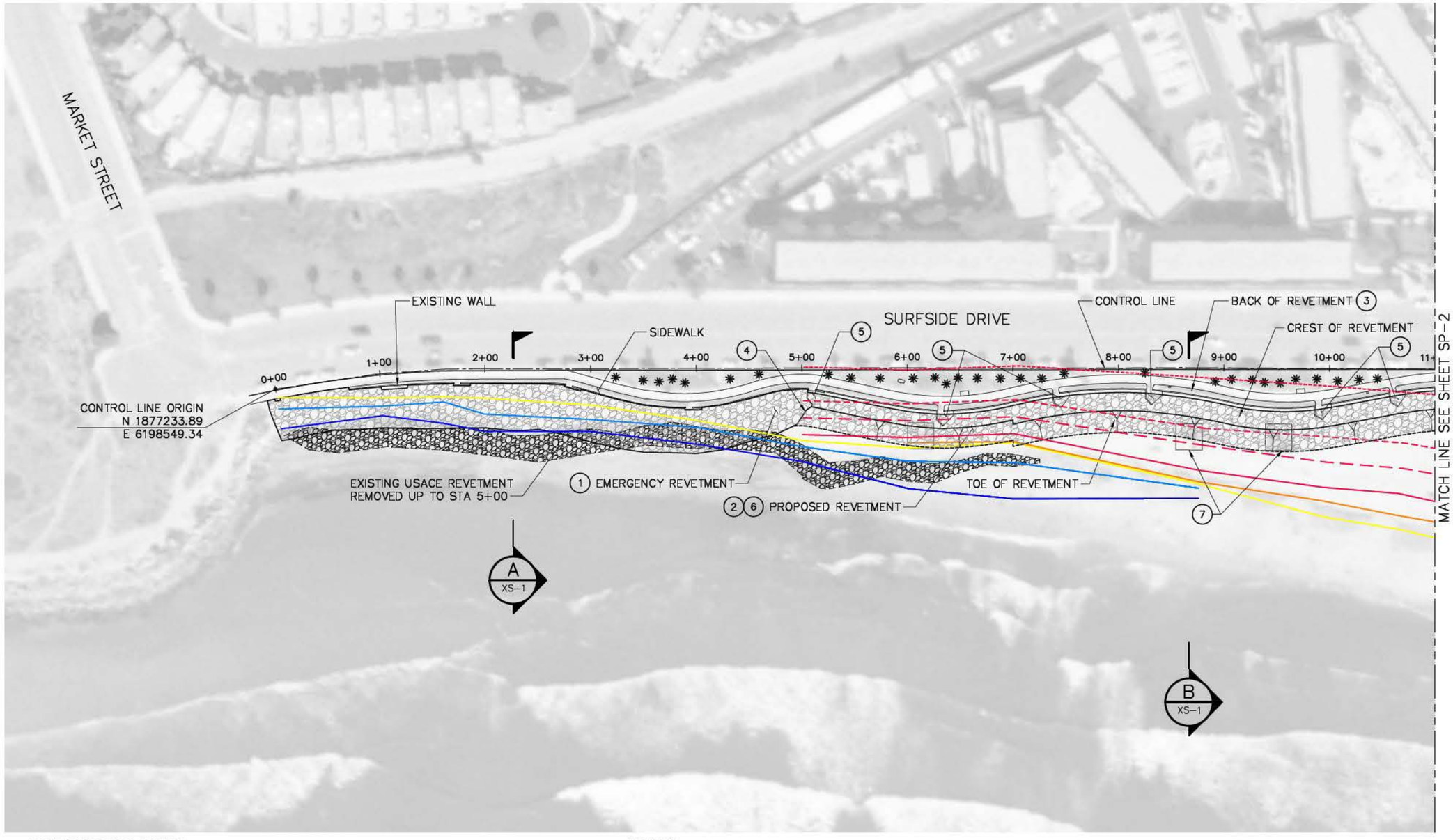
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



CONSTRUCTION NOTES

1. EMERGENCY ROCK REVETMENT CONSTRUCTED FROM STATION 0+00 TO STATION 5+00.
2. PROPOSED REVETMENT TO BE CONSTRUCTED IN 500'± SEGMENTS WHEN MINIMUM BEACH WIDTH TRIGGERS ARE REACHED.
3. BACK OF REVETMENT FOLLOWS ALIGNMENT OF EXISTING CONCRETE WALL.
4. REMOVE AND REPLACE ARMOR STONE AS NEEDED TO INTERLOCK NEW ARMOR LAYERS WITH THE EMERGENCY REVETMENT.
5. REMOVE CONCRETE ACCESS PADS AND ADJACENT WALL. DISPOSE OF CONCRETE DEBRIS AT APPROPRIATE FACILITY.
6. PROPOSED REVETMENT TO INCORPORATE LOOSE ARMOR STONE FROM EXISTING USACE REVETMENT SUPPLEMENTED WITH IMPORTED STONE TO ACHEIVE THE DESIGN DIMENSIONS.
7. PICNIC PADS TO BE REMOVED AS NEEDED.

LEGEND

- 2013 EMERGENCY REVETMENT
- EXISTING USACE REVETMENT
- CMWD OUTFALL PIPE
- SCARP 05/13/2013
- SCARP 06/03/2013
- SCARP 07/08.2013
- SCARP 07/29/2013
- SCARP 10/01/2013
- PROJECTED SCARP (12/01/2013)
- PROJECTED SCARP (02/01/2014)
- PROJECTED SCARP (06/01/2014)

Figure 2

50' 0' 50' 100'
SCALE: 1"=50'

CITY OF PORT HUENEME

Mark	Description	Date	Appr.

CITY OF PORT HUENEME
EMERGENCY SHORE PROTECTION

SITE PLAN WEST
ROCK REVETMENT ALONG ENTIRE LENGTH

Rev. –
Date: OCTOBER, 2013
M&N Project No. 8080
Drawing Scale:
Designed by: AH
Drawn by: GL
Ckd by: RB
Reviewed by: RB
Submitted by: RUSS BOUDREAU P.E. MOFFATT & NICHOL
Plot scale: AS SHOWN

moffatt & nichol
3780 KILROY AIRPORT WAY, STE 600
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SEAL

Sheet Reference No.
SP-1
INDEX: 2 OF 4

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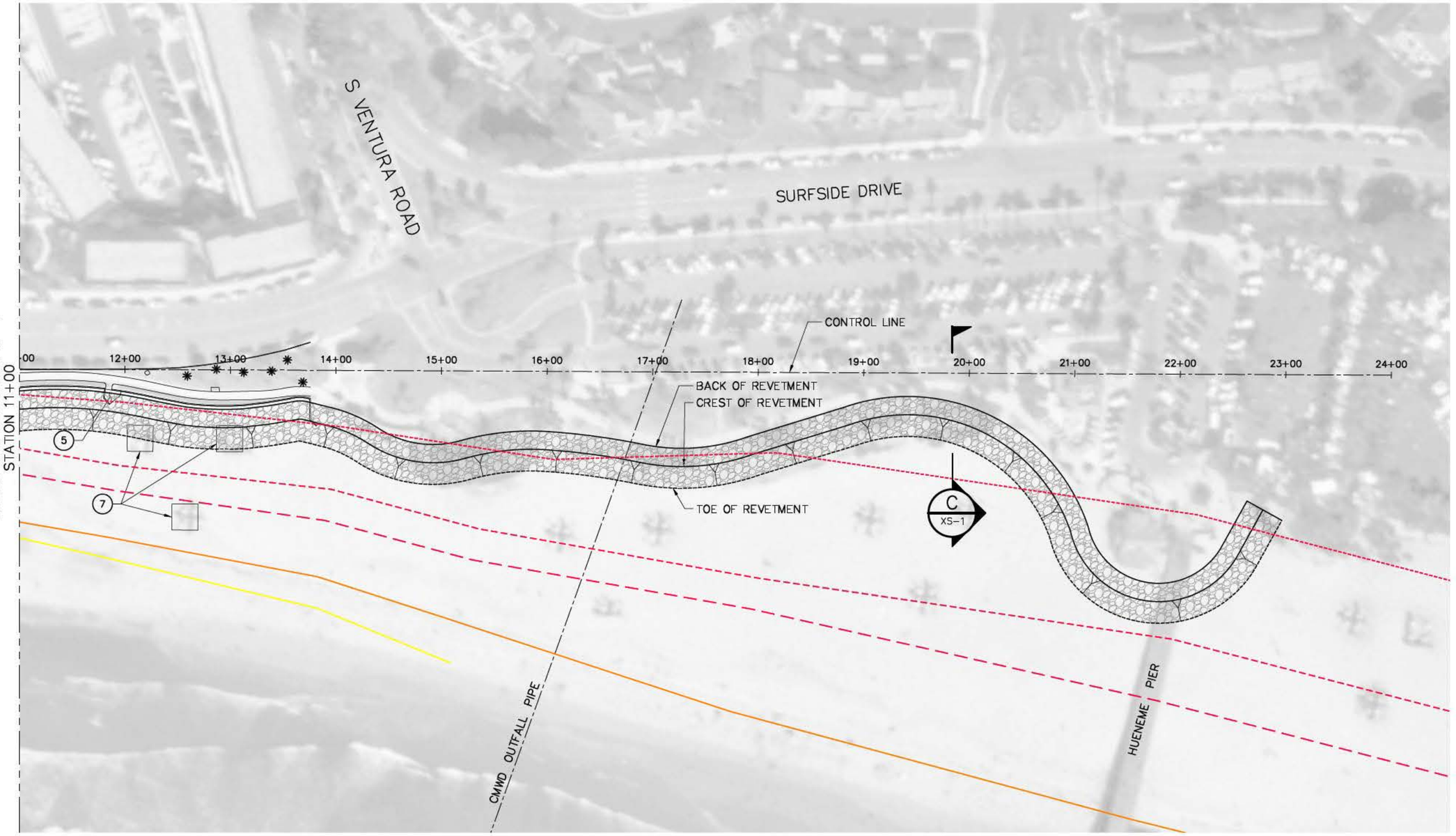

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- SCARP 10/01/2013
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- PROJECTED SCARP (02/01/2014)
- PROJECTED SCARP (06/01/2014)

Figure 3

50' 0' 50' 100'
SCALE: 1"=50'

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

CITY OF PORT HUENEME

Mark	Description	Date	Appr.
1			

CITY OF PORT HUENEME
EMERGENCY SHORE PROTECTION

SITE PLAN EAST
ROCK REVETMENT ALONG ENTIRE LENGTH

Designed by: AH
Drawn by: GL
Ckd by: RB
Reviewed by: RB
Date: OCTOBER, 2013
M&N Project No: 8080
Drawing code:
Drawing Scale: Plot scale: AS SHOWN
Submitted by: RUSS BOUDREAU, P.E. MOFFATT & NICHOL
Rev: 1

moffatt & nichol
3780 KILROY AIRPORT WAY, STE 600
LONG BEACH, CA 90806
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REGISTERED PROFESSIONAL ENGINEER
RUSSELL H. BOUDREAU
No. C041810
EXP. 3/31/14
CIVIL
STATE OF CALIFORNIA
SEAL

Sheet Reference No.
SP-2
INDEX: 3 OF 4

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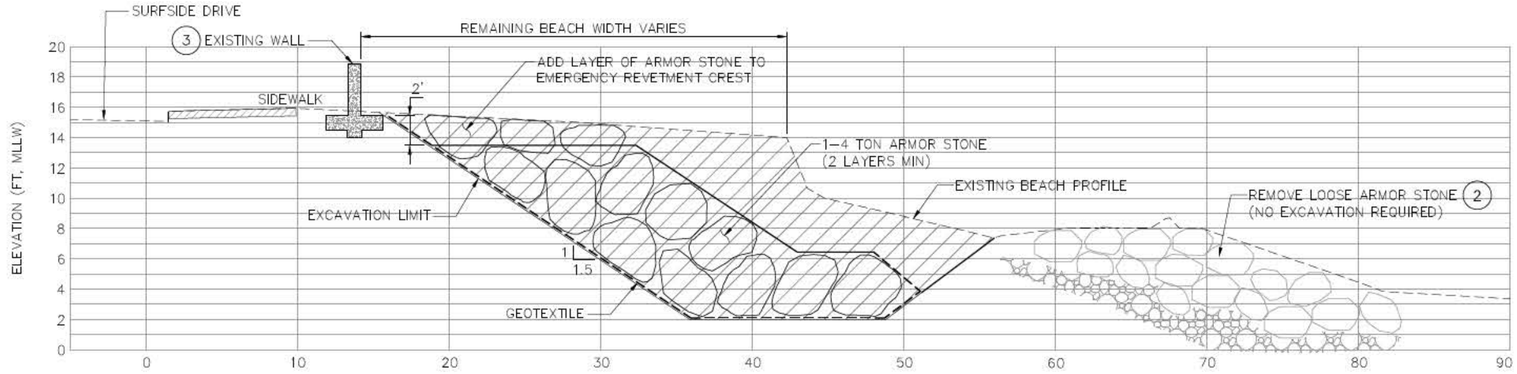
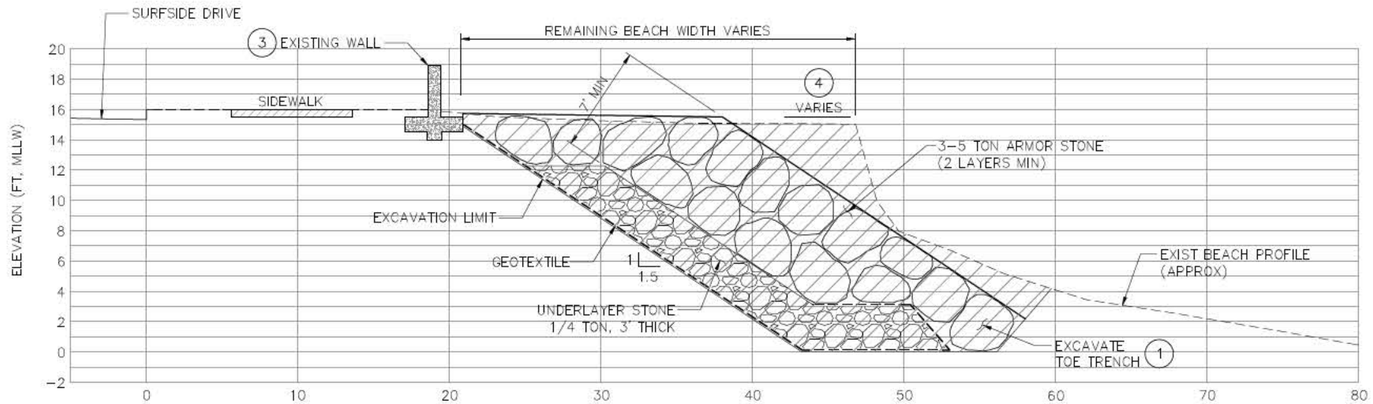
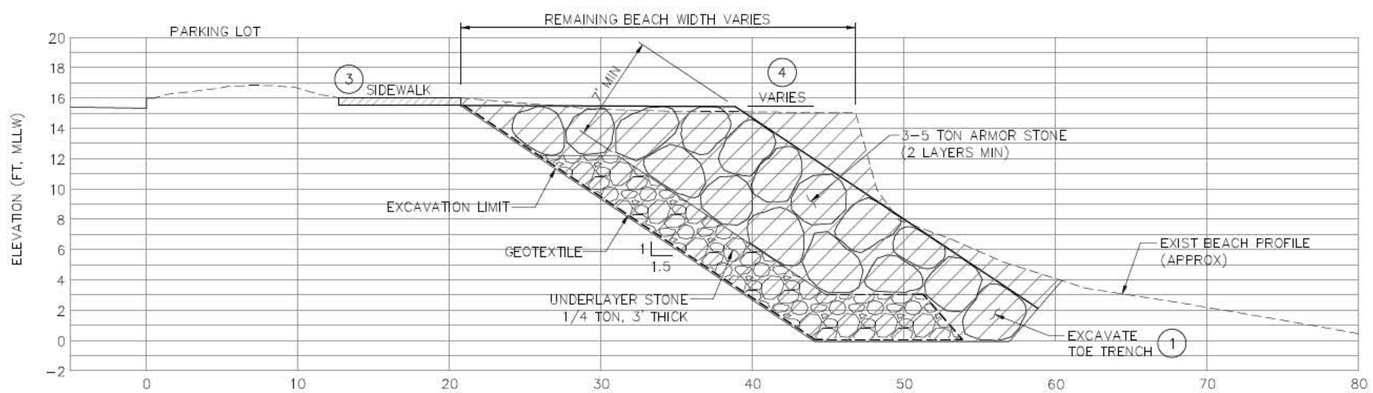


SECTION A – SURFSIDE DRIVE (STATION 2+00)
TYPICAL FROM STA 0+00 TO STA 5+00



SECTION B – SURFSIDE DRIVE
TYPICAL FROM STA 5+00 TO STA 15+50



SECTION C – WEST OF HUENEME PIER
TYPICAL FROM STA 15+50 TO STA 21+00

CONSTRUCTION NOTES

1. EXCAVATE TOE TRENCH AT ELEVATION 0 FT MLLW TO THE APPROXIMATE DIMENSIONS SHOWN.
2. REMOVE LOOSE ARMOR STONE FROM SURFACE OF EXISTING USACE REVETMENT AND INCORPORATE INTO NEW REVETMENT OR STOCKPILE FOR FUTURE USE. EXCAVATION TO REMOVE BURIED ROCK NOT REQUIRED.
3. PROTECT IN PLACE THE EXISTING SIDEWALK AND CONCRETE WALL.
4. MAXIMUM ARMOR STONE CREST ELEVATION TO MATCH TOP OF WALL FOOTING OR SIDEWALK (WHERE APPLICABLE).

Figure 4

SCALE: 1"=5'

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

CITY OF PORT HUENEME

CITY OF PORT HUENEME
EMERGENCY SHORE PROTECTION

TYPICAL REVETMENT SECTIONS
ROCK REVETMENT ALONG ENTIRE LENGTH

Mark	Description	Appd
1	Date: OCTOBER, 2013	

Designed by: JH
Drawn by: GL
Chkd by: PB
Reviewed by: PB
Submitted by: RUSS BOUDREAU, P.E. MOFFATT & NICHOL
MAIN Project No. 8080
Drawing code:
Drawing Scale
Plot scale: AS SHOWN

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SEAL

Sheet Reference No.
XS-1
INDEX: 4 OF 4

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