



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1399

18 Sep 14

CESPD-DE

MEMORANDUM FOR Commander, Los Angeles District, ATTN: CESPL-PM-N, Mr. Joseph Johnson

Subject: Port Hueneme Deepening Project, Continuing Authorities Program (CAP), Section 107, City of Oxnard, Ventura County, California

1. The Port Hueneme Deepening Project, Continuing Authorities Program (CAP), Section 107, City of Oxnard, Ventura County, California, Review Plan that is enclosed is in accordance with Engineering Circular (EC) 1165-2-214, Review of Decision Documents, dated 15 Dec 2012. The South Pacific Division (SPD), Planning and Policy Division, Regional Business Technical Division, and Los Angeles District Support Team have reviewed the Review Plan that has been submitted. The South Pacific Division approves the Port Hueneme Deepening Project Review Plan.
2. With MSC approval the Review Plan will be made available for public comment via the internet and the comments received will be incorporated into future revisions of the Review Plans. SPD is designated as the Review Management Organization (RMO) for the Port Hueneme Deepening project. The Review Plan excludes Independent External Peer Review Type II Safety Assurance Review (SAR).
3. I hereby approve the Review Plan which is subject to change as study circumstances require. This is consistent with study development under the Project Management Business Process. Subsequent revisions to the Review Plan after public comment or during project execution will require new written approval from this office.
4. Points of contact for this action are Mr. Marc J. Goodhue, CESPD-RBT, 415-503-6568, [marc.j.goodhue@usace.army.mil](mailto:marc.j.goodhue@usace.army.mil) and Mr. Paul Bowers, CESPD-PDC, 415-503-6556, [paul.w.bowers@usace.army.mil](mailto:paul.w.bowers@usace.army.mil).

***BUILDING STRONG and Taking Care of People!***

R. MARK TOY  
Brigadier General, USA  
Commanding

Encl

Continuing Authorities Program (CAP)  
Section 107 Project

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# **Review Plan**

Port Hueneme Deepening Project

City of Oxnard, Ventura County, California

for

Plans & Specifications

Revised – 8 August 2014



**U.S. ARMY CORPS**  
**of ENGINEERS**  
Los Angeles District

## **REVIEW PLAN for Plans & Specifications**

Port Hueneme Deepening Project – CAP Section 107, Ventura County, California

### **Table of Contents**

1. Purpose
2. References
3. Project Information
4. Design Considerations
5. Review Process
6. Type II Independent External Peer Review (Safety Assurance Review)
7. Documentation
8. Project Delivery Team Leads
9. ATR Team
10. Review Plan Points of Contact

Appendix A – Project Delivery Team

Appendix B - Sample Statement of Technical Review for Plans & Specs

## 1.0 Purpose

The purpose of this Review Plan is to outline the review processes that will be executed for the plans & specifications for the Port Hueneme Deepening Project, CAP Section 107 Feasibility Study, Oxnard, CA.

## 2.0 References

- (1) EC 1165-2-214, Civil Works Review Policy, 15 December 2012
- (2) ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug 1999
- (3) ER 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1110-1-8159, Engineering and Design, DrChecks, 10 May 2001

## 3.0 Project Information

This project is authorized under the Continuing Authorities Program (CAP) Section 107, Navigation Improvements. The project is located at Port Hueneme Harbor, located in Oxnard, CA in Ventura County. Port Hueneme Harbor is a deep-draft commercial and military harbor that was initially constructed in 1939 by the Oxnard Harbor District. The U.S. Navy acquired the entire facility by condemnation in 1942. In 1947, the Navy leased the original wharf and some contiguous land area to the Oxnard Harbor District for commercial use. Approximately half of the harbor is utilized by the Oxnard Harbor District, and half by the U.S. Navy.

The existing navigation features are comprised of a -40 ft MLLW Approach Channel, -36 ft Entrance Channel, and -35 ft Central Basin. The project will deepen the channels to -43 ft MLLW for the Approach Channel, and -40 ft MLLW for both the Entrance Channel and Central Basin. There is a total dredge quantity of 325,000 cubic yards, with all of it clean material that will be placed on nearby Hueneme Beach. The purpose of the project is to allow commercial shipping to access the harbor at deeper drafts.

The horizontal distance of the limits of the federal channel to existing infrastructure ranges from 35 feet to 80 feet. Slope stability analysis was performed and results determined that a dredge cut 1V to 3H slope was stable to the limits. Wharves adjacent to berths are anticipated to be deepened in addition to the federal channel, to maintain overall proposed channel deepening berths. The dredging of these areas is within the buffer zone outside of the federal channel limits, and is the responsibility of the local sponsor. The local sponsor areas to be dredged will require modification of the wharf structures to accommodate the deepening.

Maintenance dredging is performed at Port Hueneme on a regular cycle of once every 6 years, utilizing a hydraulic cutter-head/ pipeline dredge operation, with placement of dredge material at the adjacent Hueneme Beach. The ocean exposed work at the approach channel is conducted during times of favorable sea conditions, and work is conducted in the protected portion of the harbor when sea conditions at the approach cause a potential hazard. The deepening project will be similar to the maintenance dredging work.

## 4.0 Design Considerations

### 4.1 Design Criteria

Design Criteria is based on standard engineering practice and applicable engineering regulations, criteria, guides, memoranda, policies, and procedures.

### 4.2 Design Complexity

The project includes proposed construction features for which the engineering analyses and design is considered non-complex. These features include dredging and installation of revetment.

### 4.3 Construction Complexity

Construction of the project components is considered non-complex, and is comprised of dredging and rock work.

### 4.4 Special Considerations

The deepening of the channels will need to avoid undermining of the revetted slopes. Construction of the project components is considered non-complex, and is comprised of dredging and rock work.

### 4.5 Model certifications / acceptance

For slope stability analysis, model SLOPE/W2012 will be utilized.

## 5.0 Review Process

The review process will consist of multiple standard reviews of all work products. The work products for this phase include the final plans & specifications, and any environmental compliance or documentation. The reviews to be conducted include a discipline quality check of each design discipline prior to District Quality Control (DQC). Review information and processes are summarized below:

### 5.1 Review Management Organization (RMO)

The South Pacific Division (SPD) is designated as the RMO for the Port Hueneme Deepening project.

### 5.2 Design Review and Checking System (DrChecks)

The DQC, ATR, BCOE, and Sponsor review teams will document all comments and recommendations in the DrChecks module in ProjNet in accordance with ER 1110-1-8159. Comments will be written to give a clear statement of the concern, basis of concern, and actions necessary to resolve the concern. Comments should cite appropriate references (ER, design memorandums, etc.). The PDT will evaluate and respond to each comment in DrChecks. Responses will clearly state concurrence or non-concurrence with the comment. Non-concurrence will include an explanation or a proposed alternative action to address the concern. Concurrence will include what corrective action will be taken, when, and where it will be done (plan sheet #, specifications section #, etc.). All comments shall be resolved and back-checked in the DrChecks project record prior to the corresponding review certification.

### 5.3 Issue Resolution

If issues cannot be resolved between the PDT team members and the reviewer counterpart, then the ATR lead shall resolve the issue. If this is not doable, then the issue will be raised to the next level of management for both the PDT discipline and the review team discipline, and if necessary to the MSC or HQUSACE.

#### *5.4 District Quality Control (DQC)*

The District Quality Control (DQC) is conducted to include a comprehensive evaluation of correct application of methods, validity of assumptions, adequacy of basic data, completeness of documentation, compliance with guidance and standards, biddability, constructability, operability, and environmental considerations.

The DQC comments shall be provided in DrChecks in accordance with paragraph 5.2 above. The DQC team members, upon review of the revised final work products, shall complete the Statement of DQC Certification.

The DQC team members shall include district staff members not directly involved in the design; Section and/or Branch Chiefs; and/or their representative staff member to ensure consistency and effective coordination across all disciplines, and to assure overall coherence and integrity of the final products.

#### *5.5 Agency Technical Review (ATR)*

##### *5.5.1 Process*

Agency Technical Review (ATR) is undertaken to “ensure the quality and credibility of the government’s scientific information” is in accordance with EC 1165-2-214 and ER 1110-1-12. An ATR will be performed on the Plans & Specifications.

ATR will be conducted by individuals and organizations that are external to the Los Angeles District. The ATR Team leader is a Corps of Engineers employee from outside the South Pacific Division (SPD). The ATR Team required disciplines and experience are described below.

ATR comments are documented in the DrChecks review documentation database. DrChecks is a module within the ProjNet suite of tools.

At the conclusion of the ATR effort, the ATR team will prepare a Review Report summarizing the review. This Review Report will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organization, their position, and relevant expertise;
- Include the charge to the reviewer;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issues (if any); and
- Include a verbatim copy of each reviewer’s comments, or represent the views of the group as a whole, including any disparate and dissenting views.

The ATR team, upon review of the revised final work products, shall complete the Statement of ATR Certification.

##### *5.5.2 ATR Team members and Responsibilities*

As stipulated in ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS) ; appointed subject matter experts (SME) from other districts; senior level experts from other districts; Center of Expertise staff; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. All Engineering

and Construction ATR reviewers shall be certified in the Corps of Engineers Review Certification and Access Program (CERCAP). The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels:

*5.5.2.1 **Coastal Engineering.** The team member should be a technical expert in coastal engineering and have at least 12 years experience in dredging and deepening projects.*

*5.5.2.2 **Geotechnical Engineering.** The team member should be a registered professional with experience with harbor deepening projects and slope revetment design, analysis and construction.*

*5.5.2.3 **NEPA Compliance.** The team member should have experience in NEPA compliance activities and preparation of Environmental Assessments and writing of specification section “Environmental Protection” for navigation projects.*

*5.5.2.4 **ATR Team Leader.** The ATR team Leader should have experience with harbor deepening projects. The ATR Team Lead may be a co-duty to one of the above review disciplines.*

#### *5.6 Biddability, Constructability, Operability, and Environmental Review*

Biddability, Constructability, Operability, and Environmental (BCOE) Review are conducted to ensure that:

- contract documents can be understood, bid, administered, and executed;
- the designed project can be built with ease;
- the project can be operated and maintained with ease; and
- the air, water, land, animals, plants and other natural resources are protected from the effects of the construction and operation of the project.

##### *5.6.1 Process*

The BCOE team members will review the work products for biddability, constructability, operability, and environmental in accordance with ER 415-1-11. All comments and responses shall be stated and provided in DrChecks in accordance with paragraph 5.2 above. The BCOE team, upon review of the revised final work products, shall complete the Statement of BCOE Certification.

#### *5.7 Customer Review*

A customer review will be conducted to ensure the customer’s expectations as agreed upon for the project are met. The customer review will take place concurrently with the ATR.

##### *5.7.1 Process*

The Sponsor review team members will review the work products. All comments and responses shall be stated and provided in DrChecks in accordance with paragraph 5.2 above.

#### *5.8 Cost Engineering*

DQC will be performed on cost engineering products.

**6.0. TYPE II INDEPENDENT EXTERNAL PEER REVIEW (Safety Assurance Review)**

a. Life Safety. A Type II IEPR (SAR) shall be conducted on design and construction activities for any project where potential hazards pose a significant threat to human life (public safety); the Federal action is justified by life safety; or the failure of the project would pose a significant threat to human life. This applies to new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities. Any project where the Federal action would pose a significant threat to human life (public safety) requires a Type II review.

External panels will review the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed. The review shall be on a regular schedule sufficient to inform the Chief of Engineering on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring that good science, sound engineering, and public health, safety, and welfare.

There are a few cases where the project is minor and the threat to human life is not significant. For example, a channel modification which has no structural alternatives and involves a low frequency event may not pose a significant threat to human life.

The District Chief of Engineering, as the Engineer in Responsible Charge, needs to assess whether the threat is significant and document that in the Review Plan. A recommendation to not conduct a SAR shall (like any Review Plan recommendation) have the endorsement of the RMO prior to approval of the Review Plan.

When a Type II review is included in the project's approved Review Plan, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, is responsible for ensuring the Type II review is conducted in accordance with this Circular, and will fully coordinate with the Chief of Construction, the Chief of Operations, and the project manager through the Pre-Construction, Engineering and Design (PED) and construction phases.

b. Other Factors. Other factors to consider for conducting a Type II IEPR (Safety Assurance Review) of a project or components of a project are:

(1) The project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices;

(2) The project design requires redundancy, resiliency, and robustness.

(a) Redundancy. Redundancy is the duplication of critical components of a system with the intention of increasing reliability of the system, usually in the case of a backup or fail-safe.

(b) Resiliency. Resiliency is the ability to avoid, minimize, withstand, and recover from the effects of adversity, whether natural or manmade, under all circumstances of use.

(c) Robustness. Robustness is the ability of a system to continue to operate correctly across a wide range of operational conditions (the wider the range of conditions, the more



robust the system), with minimal damage, alteration or loss of functionality, and to fail gracefully outside of that range.

(3) The project has unique construction sequencing or a reduced or overlapping design construction schedule; for example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.

c. Chief of Engineering Life Safety Assessment. The Los Angeles District Chief of Engineering has determined that there is no significant threat to human life associated with the project. The navigation improvement project at Port Hueneme has no effect on the areas coastal storm damage risk, does not increase vessel traffic or create hazards to navigation, and does not include any feature that would change the risk to human life. Other factors considered:

(1) The Port Hueneme Project involves deepening of existing channels by 3 to 5 feet, with placement of clean sand dredge materials on the nearby Hueneme Beach. It does not use innovative materials or techniques where engineering is based on novel methods, nor does it present complex challenges for interpretations, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;

(2) The project design does not require redundancy, resiliency, or robustness. Once completed, the current maintenance dredging practice is expected to be sufficient for the improved navigation channel.

(3) The project has a routine construction sequence and does not involve overlapping design and construction schedules; or include features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.

Therefore, a Type II IEPR, or Safety Assurance Review (SAR), will not be conducted on the design, plans and specification, and construction activities for the Port Hueneme Channel Deepening project.

## 7.0 Documentation

The engineering technical team leader (ETL) will maintain a file of quality control records for the project. Documents to be stored in the project quality control file will include, but not be limited to: Review Plan, annotated DrChecks comments for all reviews, and review certifications. In addition, each PDT member is responsible for keeping adequate records of all design decisions, calculations, and process. Records should include applicable e-mails, meeting notes, telephone notes, and design notes.

## 8.0 Project Delivery Team Leads

See Appendix A for the list of Project Delivery Team members.

## 9.0 ATR Team

The ATR Team will be comprised of Honolulu District (POH) personnel.  
ATR Team Lead: Tom Smith (POH-EC-T) 808-835-4141

**10.0 Review Plan Points of Contact**

|                                  |  |
|----------------------------------|--|
| Project Manager (PM)             | Joe Johnson (213) 452-3829<br><a href="mailto:joseph.a.johnson@usace.army.mil">joseph.a.johnson@usace.army.mil</a> |
| Engineering Technical Lead (ETL) | Joe Ryan (213) 452-3679<br><a href="mailto:joseph.a.ryan@usace.army.mil">joseph.a.ryan@usace.army.mil</a>          |
| South Pacific Division (SPD)     | Paul Bowers (415) 503-6556<br><a href="mailto:paul.w.bowers@usace.army.mil">paul.w.bowers@usace.army.mil</a>       |

**Appendix A**

**Members of the Project Delivery Team**

|            |            |            |
|------------|------------|------------|
| [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] |            | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] |

## APPENDIX B: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

### COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks<sup>sm</sup>.

*SIGNATURE*

Name

ATR Team Leader

Office Symbol/Company

Date

*SIGNATURE*

Name

Project Manager

Office Symbol

Date

*SIGNATURE*

Name

Review Management Office Representative

Office Symbol

Date

### CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

*SIGNATURE*

Name

Chief, Engineering Division

Office Symbol

Date

*SIGNATURE*

Name

Chief, Planning Division

Office Symbol

Date