



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION  
60 FORSYTH STREET SW, ROOM 10M15  
ATLANTA, GA 30303-8801

CESAD-RBT

01 NOV 2017

MEMORANDUM FOR COMMANDER, SAVANNAH DISTRICT

SUBJECT: Approval of the Implementation Documents Review Plan for the U.S. Coast Guard Station Demolition and Replacement at Port Everglades, Florida

1. References:

a. Memorandum, CESAS-EN, 22 September 2017, subject: Review Plan for the U.S. Coast Guard Station Demolition and Replacement at Port Everglades, Florida (Encl).

b. EC 1165-2-214, Civil Works Review, 15 December 2012.

2. The enclosed subject Review Plan (RP) submitted by the Savannah District via reference 1.a has been reviewed by South Atlantic Division (SAD) and is hereby approved in accordance with reference 1.b above.

3. SAD concurs with the District Chief of Engineering's determination that a Type II Independent External Peer Review (IEPR) is not required on the Plans and Specifications and Design Documentation Report on this effort. The primary basis for this concurrence is that failure or loss of the features associated with the facilities covered by this RP will not pose a significant threat to human life.

4. The District should take steps to post the approved RP to its web site and provide a link to CESAD-RBT. Before posting to the web site, the names of Corps/Army employees should be removed. Subsequent significant changes to this RP, such as scope or level of review changes, should they become necessary, will require new written approval from this office.

5. The SAD point of contact is Mr. James Truelove, CESAD-RBT, 404-562-5121.

Encl

  
DIANA M. HOLLAND  
Brigadier General, USA  
Commanding

CF:  
CESAW-ECP-EC /Mr. Tracy L. Hendren  
CESAW-ECP-EC /Ms. Laura E. Williams



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT  
100 W. OGLETHORPE AVENUE  
SAVANNAH, GEORGIA 31401-3604

CESAS-EN

22 SEP 2017

MEMORANDUM FOR Commander, South Atlantic Division, 60 Forsyth St, SW, Room 9M15, Atlanta, GA 30303 (Attn: James Truelove)

SUBJECT: Review Plan for the U.S. Coast Guard Station Demolition and Replacement at Port Everglades, Florida.

1. References:

a. EC 1165-2-214, Water Resources Policies and Authorities, Civil Works Review, 15 December 2012.

b. ER 1110-1-12, Engineering and Design Quality Management, 30 September 2006.

2. In accordance with the references above, the enclosed is the Review Plan for the new Coast Guard facilities located at Port Everglades, Florida, submitted for review and approval.

3. The implementation documents for this project include the plans and specifications associated with the demolition of the current facility and design of the new facility on the current property. This project is a component of the Jacksonville District Port Everglades Project.

4. This review plan has been coordinated with Jacksonville District.

5. Point of contact for this action is Mr. Tracy L. Hendren, Chief of Hydrology and Hydraulics Branch at 912-652-5457.

Encl

  
MARVIN L. GRIFFIN, P.E.  
COL, EN  
Commanding

**Review Plan  
U.S. Army Corps of Engineers  
South Atlantic Division  
Savannah District**

# **Port Everglades**

## **Demolition, Design, and Construction of the U.S. Coast Guard Station**

**Broward County, Florida**

**MSC Approval Date: *Pending***

**Last Revision Date: 22 September 2017**

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.



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## **1. Purpose and Requirements**

### **a. Purpose**

This Review Plan (RP) is intended to ensure a quality-engineering project is developed by the Corps of Engineers. This review plan has been developed for the design and construction of the U.S. Coast Guard Station as part of the Port Everglades Project. This Review Plan was prepared in accordance with EC 1165-2-214, "Civil Works Review Policy". The review plan shall layout a value added process that assures the correctness of the information shown. This review plan describes the scope of review for the current phase of work, and will be included in the Project Management Plan upon approval.

This review plan prepared by the Savannah District is for the implementation of the U.S. Coast Guard component of the Port Everglades Project of the Jacksonville District. Jacksonville District has completed a separate Review Plan for the Port Everglades Deepening Project. This Review Plan sets the scope and schedule for the construction contract that is envisioned for the project so that required review activities can be scheduled and completed. This review plan will be updated when necessary to address designs or schedule changes.

The implementation documents to be reviewed under this review plan are Plans and Specifications (P&S) and a Design Documentation Report (DDR) for the demolition of the current and construction of the new U.S. Coast Guard facility at Port Everglades. The Savannah District Chief of Engineering has assessed that risk of the project is insignificant; therefore a Safety Assurance Review (SAR) also known as a Type II IEPR will not be required.

Review activities consist of District Quality Control (DQC), Agency Technical Review (ATR), as well as a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review of the design phase of the project.

### **b. Guidance and Policy References**

- Engineering and Construction Bulletin Number 2016-9, Civil Works Review, Issued 04 March 2016
- EC 1165-2-214, Civil Works Review Policy, 15 December 2012
- ER 1110-1-12, Quality Management, 31 Mar 2011
- ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 August 1999
- ER 415-1-11, "Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review", 1 January 2013
- Savannah District Design Manual for Military Construction, 1 June 2016
- Quality Control Plan





### **c. Requirements**

This review plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The Engineering Circular (EC) outlines four general levels of review: District Quality Control/Quality Assurance, Agency Technical Review, Independent External Peer Review, a Biddability, Constructability, Operability, Environmental, and Sustainability Review, and Policy and Legal Compliance Review. The RP identifies the most important skill sets needed in the reviews and the objective of the review and the specific advice sought, thus setting the appropriate scale and scope of review for the individual project. This Review Plan should be provided to the PDT, DQC, and ATR Teams.

### **d. Review Management Organization**

The South Atlantic Division (SAD) is the Review Management Organization (RMO) for this project. Contents of this review plan have been coordinated with SAD. In-Progress Review (IPR) team meetings with SAD and HQ will be scheduled on an as needed basis to discuss programmatic, policy, and technical matters. This review plan will be updated for design or schedule changes. SAD, as RMO, is responsible for assembling the ATR Team and completing ATR in accordance with this review plan and USACE guidance. Savannah District is the Designer of Record (DOR) for this project, except for the temporary facilities, and will assist SAD with development of the ATR team and management of the ATR reviews.

## **2. Project Description and Information**

The U.S. Coast Guard Station is a component of the Port Everglades deepening project. The new channel alignment of the deepening encroaches on the current Coast Guard boat basin. The Savannah District portion of the project consists of demolition of the current facilities and design/construction of the new facilities. The new facilities will be designed/constructed within the current property of the U.S. Coast Guard, except for the temporary facilities (handled by Jacksonville District), which will be located at Broward County Port Authority facilities. The new U.S. Coast Guard facilities will be shifted eastward on the current property and will include a new multi-mission facility, boat house, boat basin, mooring facilities, parking lots, and other components.

## **3. District Quality Control**

### **a. Requirements**

All implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo a DQC. (Note – all permitting for facilities is being handled by Jacksonville District.) A DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). DQC will be performed





on the P&S and DDR in accordance CESAS Engineering Division Quality Management Plan and shall include Jacksonville District PDT members.

DQC occurs during the design development process and is carried out as a routine management practice by each discipline. Checklists are utilized by each discipline for each submittal to facilitate the review and to document the DQC review comments. Certification of the Final Discipline Quality Check and Review is signed by the Branch Chief certifying that the DQC on all design analyses and products have been completed in accordance with the EN QM process prior to release of the final design documents from the Branch.

The DQC review shall ensure consistency and effective coordination across all disciplines and to assure the overall coherence and integrity of the products. Review comments and responses for this review will be documented in DrChecks. The District Quality Control Review shall be certified by the Engineering Technical Lead (ETL) and all applicable Section and Branch Chiefs. This DQC certification signifies that all Discipline Specific Quality Checks and Review Certification are complete, as well as the Product Quality Control Reviews.

#### **4. Agency Technical Review**

##### **a. Requirements**

Agency Technical Review (ATR) is undertaken to ensure consistency with established criteria, guidance, procedures, and policy in accordance with EC 1165-2-214, ER 10-1-51 and ER 1110-1-12. ATR is mandatory for all implementation documents (including supporting data, analyses, environmental compliance documents, etc.). The ATR will assess whether the analyses presented are technically correct, went through robust DQC, and comply with published USACE guidance. The ATR will also assess whether the document explains the analyses and results in a reasonably clear manner for the public and decision makers. The PDT should obtain ATR agreement on key data such as hydraulic, geotechnical, and structural parameters early in design process. A site visit will not be required by the ATR team.

##### **b. Documentation of ATR**

DrChecks will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments will be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components,





- efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern.

### **c. Comment Resolution**

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist. The ATR documentation in DrChecks includes the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

### **d. Products to Undergo ATR**

An ATR will be performed on the contract drawings, technical specifications, and DDR (which will include all relevant design information).

### **e. Required ATR Team Expertise and Requirements**

ATR will be conducted by individuals and organizations that are external to the Savannah and Jacksonville Districts. The ATR Team Leader will be a USACE employee outside the South Atlantic Division. For this project, Norfolk District will perform the ATR and provide the ATR lead. Norfolk has extensive experience with dredging, mooring facilities, and vertical construction similar to what is being designed for the Coast Guard. Their experience is a good fit for review of this project. As stipulated in ER 1110-1-12, ATR members are 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; appointed SME or senior level experts from the responsible district; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. The ATR team will be chosen based on each individual's qualifications and experience with similar projects. All ATR leads will be certified in CERCAP: [https://team.usace.army.mil/sites/ERDC-CRREL/PDT/atr\\_certification/default.aspx](https://team.usace.army.mil/sites/ERDC-CRREL/PDT/atr_certification/default.aspx). The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

ATR Lead. The ATR team lead shall be a senior professional outside the home MSC with extensive experience in preparing Civil Works documents and conducting ATRs. The ATR Team Leader should have 10 or more years of experience with Civil Works Projects and have performed ATR Team Leader duties on complex civil works projects. The ATR Team Leader can also serve as one of the review disciplines.





Hydrology and Hydraulics. One or more team members may be required to review the hydraulic design, navigation design, and wind/wave analyses. The team member(s) should be registered professionals with 10 or more years of experience in conducting and evaluating hydrologic and hydraulic analyses and navigation design projects. Experience with hydraulic modeling, navigation design, and wind/wave analysis is required.

Geotechnical Engineering. The team member should be a registered professional engineer and have 10 or more years of experience in geotechnical engineering. Experience needs to encompass static and dynamic slope stability evaluation, evaluation of deep foundations, and retaining structures, including sheet pile retaining structures.

Architectural. The team member should be a registered professional architect and have 10 or more years of experience in architectural engineering. Experience needs to include engineering and design of commercial and/or military facilities (MILCON vertical facilities).

Structural Engineering. The team member should be a registered professional engineer and have 10 or more years of experience in structural engineering. Experience needs to include engineering and design of commercial and/or military facilities (MILCON vertical facilities) as well as retaining walls and sheet pile structures.

Mechanical Engineering. The team members should have 10 or more years of experience in mechanical engineering. Experience needs to include engineering and design of commercial and/or military facilities (MILCON vertical facilities)

Electrical Engineering. The team members should have 10 or more years of experience in electrical engineering. Experience needs to include engineering and design of commercial and/or military facilities (MILCON vertical facilities)

Civil Engineering. The team member should be a registered professional engineer and have 10 or more years of experience with civil/site work projects to include excavations/embankments, roads and highways, relocations, paving and drainage.

#### **f. Completion and Certification of the ATR**

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

- (1) Identify the document(s) reviewed and the purpose of the review;
- (2) Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- (3) Include the charge to the reviewers;
- (4) Describe the nature of their review and their findings and conclusions;
- (5) Identify and summarize each unresolved issue (if any); and





- (6) Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR lead will prepare a completion of ATR and Certification of ATR. It will certify that the issues raised by the ATR team have been resolved (or elevated to the vertical team). The completion and certification should be completed based on the work reviewed to date for the project. A Sample Completion of ATR and Certification of ATR are included in Attachment 1.

## **5. Independent External Peer Review/Safety Assurance Review**

### **a. Requirements**

IEPR may be required for implementation documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted.

Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

### **b. Decision on IEPR**

A risk-informed decision was made as to whether an IEPR is appropriate based on the factors to consider for conducting a Type I or II IEPR review that are outlined in EC 1165-2-214, Appendix E, Section 2 (a) thru (c).

A Type I IEPR is primarily associated with decision documents. No decision documents are addressed/covered by this Review Plan. Therefore, a Type I IEPR is not applicable to the implementation documents covered by this Review Plan.

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-214), and therefore, a review under Section 2035 is not required. The factors in determining whether a review of design and





construction activities of a project are necessary as stated under Section 2035 along with this Review Plan's applicability statements follow.

(1) The failure of the project would pose a significant threat to human life.

*This project provides facilities for the multi-mission purposes of the U.S. Coast Guard located at Ft. Lauderdale. The facilities include vertical structures, as well as the boat basin and mooring facilities. These facilities are not flood damage reduction structures and are not intended to reduce the risk of loss of life within the project area.*

*In addition, the prevention of loss of life within the project area from hurricanes and severe storms is via public education about the risks, warning of potential threats and evacuations before hurricane landfall.*

(2) The project involves the use of innovative materials or techniques.

*This project will utilize methods and procedures used by the Corps of Engineers on other similar works.*

(3) The project design lacks redundancy.

*The project features are not complex in nature and do not require a concept of redundancy.*

(4) The project has unique construction sequencing or a reduced or overlapping design construction schedule.

*This project's construction does not have unique sequencing or a reduced or overlapping design. The construction sequence and schedule has been used successfully by the Corps of Engineers on other similar works.*

Based on the discussion above, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of the P&S and DDR and construction associated with this project.

## **6. Biddability, Constructability, Operability, Environmental, and Sustainability Review**

The value of a BCOES review is based on minimizing problems during the construction phase through effective checks performed by knowledgeable, experienced personnel prior to advertising for a contract. Biddability, constructability, operability, environmental, and sustainability requirements must be emphasized throughout the design process for all programs and projects, including during planning and design. This will help to ensure that the government's contract requirements are clear, executable, and readily understandable by private sector bidders or proposers. It will also help ensure that the construction may be done efficiently and in an environmentally sound manner, and that the construction activities and projects are sufficiently sustainable. Effective BCOES



reviews of design and contract documents will reduce risks of cost and time growth, unnecessary changes and claims, as well as support safe, efficient, sustainable operations and maintenance by the facility users and maintenance organization after construction is complete. Jacksonville District will lead the BCOES effort and Savannah District will provide the engineering review and certification.

### 7. Policy and Legal Compliance Review

All implementation documents will be reviewed throughout the project for their compliance with law and policy. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies.

### 8. Review Schedule and Costs

#### a. Schedule of Reviews

The schedule of reviews are provided in the table below.

U.S Coast Guard Facility Design Reviews			
PRODUCT	Activity	Preparer	Date
35% Design DQC	Design	SAS	14-16 February 2017
35% VE	Design	SAS	15-16 March 2017
60% Design DQC	Design	SAS	29-31 August 2017
60% Design ATR	Design	SAS	13-26 September 2017
100% Design DQC	Design	SAS	4-8 December 2017
100% Design ATR	Design	SAS	20 Dec – 2 Jan 2018
BCOES Review	Design	SAS	5-12 January 2018

#### b. ATR Cost

The cost for the ATR is estimated at approximately \$40,000 to \$50,000.

### 9. Public Participation of Review Plan

As required by EC 1165-2-214, the approved Review Plan will be posted on the Savannah District public review plan website at <http://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/>. The public will have 30 days to provide comments on the documents; after all comments have been submitted, the comments will be provided to the technical reviewers. This is not a formal comment period and there is no set timeframe for the opportunity for public comment. If and when comments are received, the PDT will consider them and decide if revisions to the review plan are necessary. This engagement will ensure that the peer review approach is responsive to the wide array of stakeholders and customers, both within and outside the federal government.





## 10. Review Plan Approval and Updates

The MSC for this product(s) is the South Atlantic Division. The MSC Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving the Savannah District, Jacksonville District, and MSC) as to the appropriate scope and level of review for the project. Like the PMP, the Review Plan is a living document and may change as the study progresses, the Savannah District is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval will be documented in an Attachment to this plan. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commander's approval memorandum, will be posted on the Savannah District public review plan website at <http://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/> and linked to the HQUSACE webpage. The latest Review Plan should also be provided to the RMO and home MSC.

## 11. Engineering Model Certification and Approval

The use of certified or approved engineering models is required for all activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required). The following engineering models are anticipated to be used:

MODEL
Bentley Microstation V8i
Bentley InRoads Microstation V8i
Revit, Autodesk
GIS (ESRI ArcMap)
SEEP/W, GeoStudio 2012 Version 8.0.9.6484
SLOPE/W, GeoStudio 2012 Version 8.0.9.6484
STAADPro v8.0
CWALSHT
Ram Element Version 10.7



## 12. Review Plan Points of Contact

NAME	TITLE	ORGANIZATION	EMAIL/PHONE
Lacy Pfaff	Project Manager	CESAJ-PM-W	<a href="mailto:lacy.f.pfaff@usace.army.mil">lacy.f.pfaff@usace.army.mil</a> 904-232-1550
Curtis L. McKenzie	Project Architect Engineer	CESAS-EN-D	<a href="mailto:curtis.l.mckenzie@usace.army.mil">curtis.l.mckenzie@usace.army.mil</a> 912-652-5895
James Truelove	Review Manager	CESAD-RBT	<a href="mailto:james.c.truelove@usace.army.mil">james.c.truelove@usace.army.mil</a> 404-562-5121





## ATTACHMENT 1: COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Project Title. 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

Michael Esry  
ATR Team Leader  
CENNAO-ECE-D

\_\_\_\_\_  
Date

SIGNATURE

Lacy Pfaff  
Project Manager  
CESAJ-PM

\_\_\_\_\_  
Date

SIGNATURE

Curtis L. McKenzie  
Project Architect Engineer  
CESAS-EN-D

\_\_\_\_\_  
Date

SIGNATURE

James Truelove  
CESAD-RBT

\_\_\_\_\_  
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

Gordon L. Simmons, P.E.  
Chief, Engineering Division, Savannah District  
CESAS-EN

\_\_\_\_\_  
Date

SIGNATURE

Laureen A. Borocharner, P.E.  
Chief, Engineering Division, Jacksonville District  
CESAJ-EN

\_\_\_\_\_  
Date



**ATTACHMENT 2: PARTIAL LIST OF ACRONYMS AND ABBREVIATIONS**

<u>Acronyms</u>	<u>Defined</u>
AFB	Alternatives Formulation Briefing
ATR	Agency Technical Review
BCOES	Biddability, Constructability, Operability, Environmental, and Sustainability Review
CAP	Continuing Authorities Program
CERCAP	Corps of Engineers Reviewer Certification and Access Program
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EC	Engineering Circular
EA	Environmental Assessment
ER	Engineering Regulation
ERDC-CERL	Engineer Research and Development Center – Construction Engineering Research Laboratory
ESA	Endangered Species Act
ETL	Engineering Technical Lead
FDEP	Florida Department of Environmental Protection
FONSI	Findings of No Significant Impacts
FSCA	Feasibility and Cost Sharing Agreement
FY	Fiscal Year
GRR	General Reevaluation Report
IEPR	Independent External Peer Review
LPP	Locally Preferred Plan
MCX	Mandatory Center of Expertise
MLLW	Mean Low Low Water
MSC	Major Subordinate Command
NAS	National Academy of Sciences
NEPA	National Environmental Policy Act
ODMDS	Ocean Dredged Material Disposal Site
OMB	Office of Management and Budget
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
P&S	Plans and Specifications
PED	Preconstruction Engineering and Design
PDT	Project Delivery Team
PM	Project Manager
PMP	Project Management Plan
PPA	Project Partnering Agreement
PQCR	Product Quality Control Review





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## Savannah District

<u>Acronyms</u>	<u>Defined</u>
QA	Quality Assurance
QCP	Quality Control Plan
QMP	Quality Management Plan
QMS	Quality Management System
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
RTS	Regional Technical Specialist
SAJ	South Atlantic Jacksonville District Office
SAS	South Atlantic Savannah District Office
SAD	South Atlantic Division Office
SAR	Safety Assurance Review (also referred as Type II IEPR)
SME	Subject Matter Expert
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources and Development Act