



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

18 December 2019

MEMORANDUM FOR Commander, Jacksonville District, 701 San Marco Boulevard,
Jacksonville, Florida 32207

SUBJECT: Approval of the Review Plan for the Picayune Strand Restoration Project
Conveyance Features, Collier County, Florida

1. References:

- a. Memorandum, CESAJ-EN-Q, subject as above, 06 December 2019.
- b. Engineering Circular (EC) 1165-2-217, Water Resources Policies and Authorities Review Policy for Civil Works, 20 February 2018.

2. The Review Plan (RP) for the Picayune Strand Restoration Project Conveyance Features submitted by the Jacksonville District via reference 1.a. noted above has been reviewed by South Atlantic Division (SAD). The RP is hereby approved in accordance with reference 1.b.

3. The South Atlantic Division Office shall be the Review Management Organization (RMO) for this project.

4. SAD concurs with the District's RP recommendation that outlines the requirements for District Quality Control (DQC), Agency Technical Review (ATR), and Biddability, Constructability, Operability, Environmental and Sustainability (BCOES) Review, and the conclusion that a Safety Assurance Review/Type II Independent External Peer Review is not required.

5. The District should take steps to post the approved RP to its website and provide a link to CESAD-RBT. Before posting to the website, 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.

6. The SAD point of contact is [REDACTED] CESAD-RBT, [REDACTED]

Encl

[REDACTED]
Major General, USA
Commanding



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8175

CESAJ-EN-Q

06 December 19

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT), 60 Forsyth Street SW, Room 10M15, Atlanta, GA 30303

SUBJECT: Approval of Review Plan for the Picayune Strand Restoration Project Conveyance Features, Collier County, Florida

1. References:

- a. Engineering Circular (EC) 1165-2-217, Review Policy for Civil Works, 20 Feb 18.
- b. Flood Control Act of 1946, Public Law 79-526, 24 Jul 46.

2. I hereby request approval of the enclosed Review Plan for the Picayune Strand Restoration Project, Collier County, Florida and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation not to perform a Type II IEPR is based on the EC 1165-2-217 Risk Informed Decision Process as presented in the Review Plan. The Review Plan complies with applicable policy, provides for Agency Technical Review, and has been coordinated with the SAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by SAD.

3. The district will post the approved Review Plan to its website and provide a link to the SAD for its use. Names of Corps/Army employees will be withheld from the posted version, in accordance with guidance.

4. Point of contact is [REDACTED], Engineering Review Manager, [REDACTED]
or [REDACTED]

[REDACTED]

COL, EN
Commanding

PROJECT REVIEW PLAN

For

Design-Build Contract Documents

For

Picayune Strand Restoration Project Conveyance Features Collier County, Florida

**Project P2 number:
112375**

**Jacksonville District
November 2019**



**US Army Corps
of Engineers**®

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, JACKSONVILLE DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS	2
a. Purpose	2
b. References	2
c. Requirements	2
d. Review Plan Approval and Updates	3
e. Review Management Organization.....	3
2. PROJECT INFORMATION	4
a. Project Location	4
b. Project Background	7
c. Project Description.....	8
d. Public Participation	9
e. Civil Works Cost Engineering Mandatory Center of Expertise Review and Certification	9
3. DISTRICT QUALITY CONTROL	10
a. Requirements	10
b. Documentation.....	10
4. AGENCY TECHNICAL REVIEW	11
a. Risk Informed Decision on Appropriate Level of Review	11
b. Agency Technical Review Scope	11
c. ATR Disciplines	11
5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY REVIEW	13
6. INDEPENDENT EXTERNAL PEER REVIEW	14
a. General.....	14
b. Type I Independent External Peer Review Determination.....	14
c. Type II Independent External Peer Review Determination (Section 2035).....	14
7. POLICY AND LEGAL COMPLIANCE	16
8. MODEL CERTIFICATION AND APPROVAL	17
9. PROJECT DELIVERY TEAM DISCIPLINES.....	18
10. BUDGET AND SCHEDULE.....	19
a. Project Milestones.	19
b. ATR Cost.	19
11. REVIEW PLAN POINTS OF CONTACT.....	20
Table 3: Review Plan Point of Contacts	20

ATTACHMENT A - Approved Review Plan Revisions

ATTACHMENT B - Partial List of Acronyms and Abbreviations

ATTACHMENT C - ATR Report Outline and Completion of Agency Technical Review Form

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan (RP) for Picayune Strand Restoration Project, Conveyance Features, will help ensure a quality-engineering project is developed by the U.S. Army Corps of Engineers (USACE) in accordance with EC 1165-2-217, "Review Policy for Civil Works." As part of the Project Management Plan (PMP), this RP establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products and lays out a value added process and describes the scope of review for the current phase of work. The EC outlines five general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review, Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. This RP will be provided to the Project Delivery Team (PDT), and the DQC, ATR, and BCOES Teams. The technical review efforts addressed in this RP, DQC and ATR, are to augment and complement the policy review processes. The District Chief of Engineering has assessed that the life safety risk of this project is not significant; therefore, a Type II IEPR/Safety Assurance Review (SAR) will not be required, see Paragraph 6. Any levels of review not performed in accordance with EC 1165-2-217 will require documentation in the RP of the risk-informed decision not to undertake that level of review.

b. References

- (1). EC 1165-2-217, Review Policy for Civil Works, 20 February 2018
- (2). ER 1110-1-12, Engineering and Design Quality Management, 31 March 2011
- (3). ER 415-1-11, Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review, 1 January 2013
- (4). 02611 – SAJ Quality Control of In-House Products: Civil Works PED, 4 December 2017
- (5). 02612 – SAJ Quality Assurance Outsourced (AE) Engineering Products: Civil Works PED
- (6). 02710 – SAJ Preparation and Submittal of Civil Works Review Plans
- (7). Project Management Plan for the Picayune Strand Restoration Project

c. Requirements

This RP was developed in accordance with EC 1165-2-217, 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 EC

provides the procedures for ensuring the quality and credibility of USACE decision, implementation, and operations and maintenance documents and other work products.

d. Review Plan Approval and Updates

The South Atlantic Division (SAD) Commander is responsible for approving this RP. The Commander's approval reflects vertical team input as to the appropriate scope and level of review. Like the PMP, the RP is a living document and may change as the project progresses. The Jacksonville District (SAJ) is responsible for keeping the RP up to date. Minor changes to the RP since the last SAD Commander approval will be documented in Attachment A. Significant changes to the RP (such as changes to the scope and/or level of review) should be re-approved by the SAD Commander following the process used for initially approving the plan. The latest version of the RP, along with the Commander's approval memorandum, will be posted on the SAJ's webpage. The latest RP will be provided to SAD.

e. Review Management Organization

SAD is designated as the Review Management Organization (RMO). The RMO, in cooperation with the vertical team, will approve the ATR team members. SAJ will assist SAD with management of the ATR and development of the charge to reviewers.

2. PROJECT INFORMATION

a. Project Location

The Picayune Strand Restoration Project (PSRP) is located in southern Collier County, Florida. The PSRP is a joint effort between USACE and the local sponsor, the South Florida Water Management District (SFWMD). The Southwest Protection Features are located on the southwest corner of the PSRP. See Figure 1 for the regional project map and Figure 2 for the detailed project map.

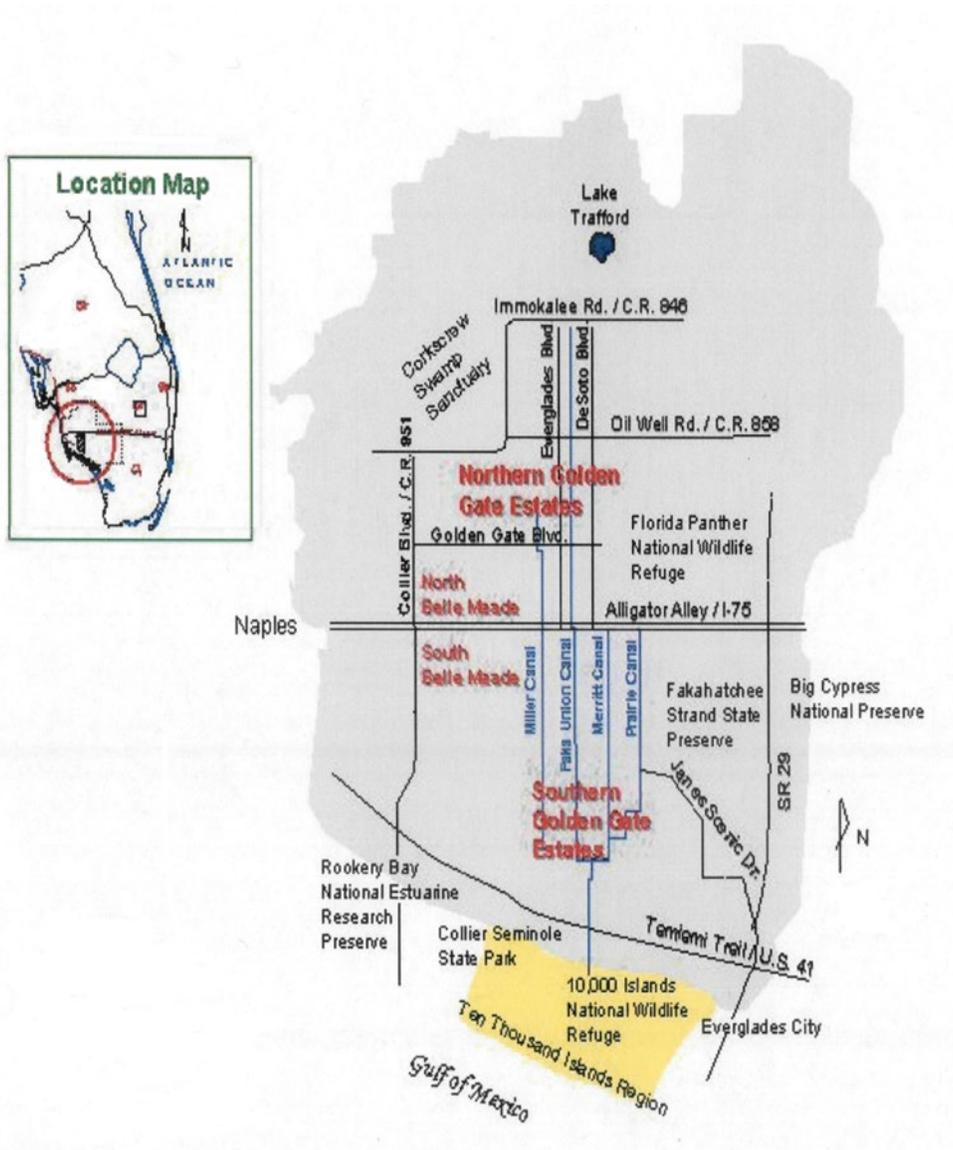


Figure 1: Regional Project Map



Figure 2: Picayune Strand Restoration Project Map



Figure 3: Picayune Strand Conveyance Features Project Area

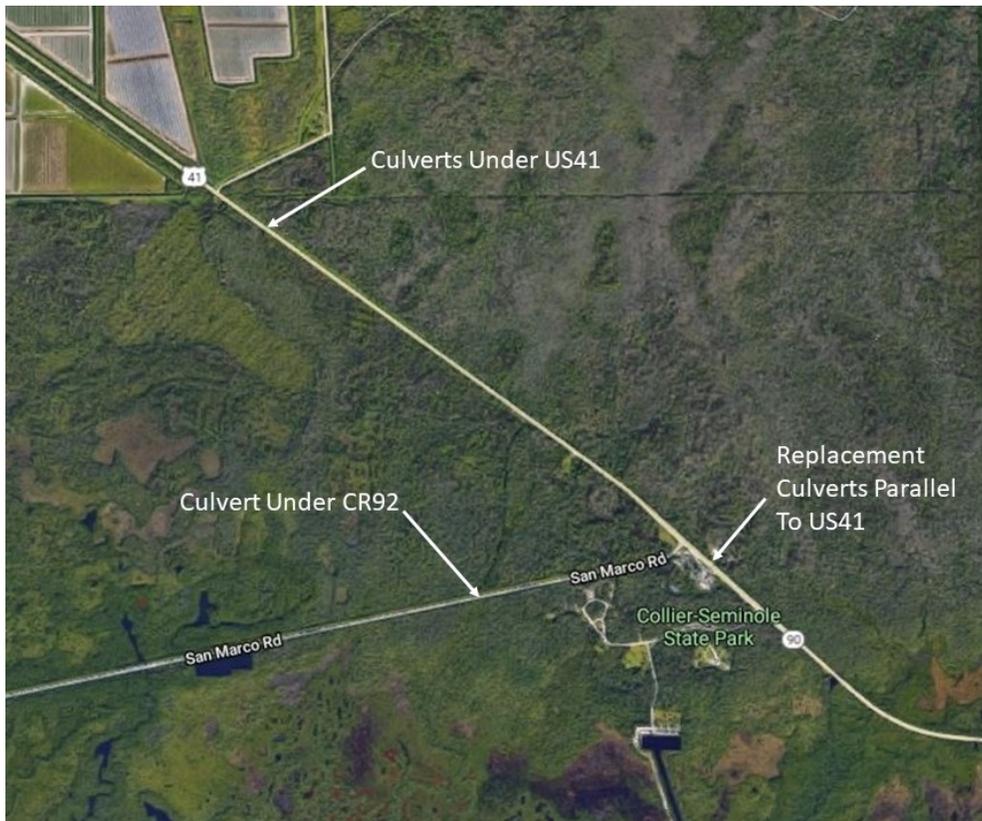


Figure 4: Picayune Strand Conveyance Features Locations

b. Project Background

The goal of the Picayune Strand Restoration Project is to restore Southern Golden Gate Estates (SGGE), a large development located east of Naples in southern Collier County, to its pre-development condition. SGGE was part of a larger development, Golden Gate Estates, the northern portion of which is a rapidly developing residential community. The area has undergone extensive hydrologic and environmental alteration due to construction of a network of canals, levees, and roads built in the 1960s.

Prior to development, the SGGE was characterized by seasonal flooding and slow-moving overland sheetflow that supported a variety of plant and animal communities in uplands and freshwater wetlands and in its downstream brackish wetlands and estuaries. Channelization of water flows has resulted in elimination of sheetflow across SGGE and into the estuaries, severely lowered water tables within SGGE, and creation of an erratically fluctuating freshwater point discharge to the estuarine ecosystem. Upland, wetland, and estuarine plant communities have also been severely degraded. In addition, the abundance of native fish, wildlife, and estuarine shellfish populations has declined, the recharge of the surficial aquifer has been reduced, and non-native species have greatly increased in abundance. The severely drained conditions have resulted in widespread and much more intense wildfires than occurred under pre-drainage conditions. These fires have accelerated a change in vegetation from wetlands to upland communities dominated by fire tolerant species such as cabbage palm (*Sabal palmetto*) and exotics such as Brazilian pepper (*Schinus terebinthifolius*). In addition, similar impacts are occurring over distances of a mile or more from the canals into adjacent public lands.

The SGGE has a network of east-west roads every quarter mile that are connected by north-south roads approximately every mile. The most significant environmental impact of the road network is that it impedes natural sheetflow. However, it also provides colonization sites for exotic and nuisance vegetation, easy access to all parts of the project area where there are widespread impacts from off-road vehicles, poaching of animals and plants, vandalism, and the illegal dumping of trash. The roads and canals have resulted in the fragmentation of an extensive block of contiguous natural lands that severely compromises the value of the whole area for a variety of wide-ranging wildlife such as the Florida panther as well as other threatened and endangered species.

The specific objectives of the PSRP include the reestablishment of historic flow-ways, overland sheetflow, wetland hydroperiods, and wet and dry season water levels within SGGE. This would also result in a more natural fire regime in the SGGE and its adjacent natural areas, as well as more natural seasonal salinity patterns in its downstream coastal marshes and estuaries. Biological restoration targets are the freshwater and estuarine fauna, and the long-term reestablishment of the pre-development plant and animal communities in those portions of SGGE that are downstream of the project's pumps and spreader canals.

USACE and SFWMD are currently constructing the PSRP. Major aspects of the PSRP involve the construction of three pump stations designed to maintain existing flood protection of

upstream private lands and the leveling of over 200 miles of roads and over 50 miles of logging trams, and the plugging of over 40 miles of major canals to restore the natural hydrologic regime in the 55,000 acre SGGE. These activities will also provide similar benefits on over 100,000 acres of public lands in Fakahatchee Strand Preserve State Park to the east, Picayune Strand State Forest lands to the west, and Collier Seminole State Park and Ten Thousand Islands National Wildlife Refuge to the south.

c. Project Description

The Conveyance Features are culvert structures in three locations. The principal intent of this project is to provide hydraulic connectivity through the addition of new culverts under or adjacent to existing US Route 41 (US41) and existing County Road 92 (CR92/San Marco Dr.) in Collier County.

Culverts under US41

Three new double barrel 12 foot wide by 5 foot high concrete box culverts will be located under US41, approximately 1,000-feet southeast of the intersection of US41 and Tomato Road. The exact location of the culverts shall be determined during design, with a minimum and maximum range of 80 to 130 feet between centerline of culvert locations. The three culvert locations will create new hydraulic openings for conveyance from the Tamiami Canal to the south side of US41. Culvert barrels will not require skews. The culvert invert elevation is -1.5 feet NAVD88. The preliminary estimated length of culvert barrel is approximately 70 feet based on preliminary hydraulics; however, maintenance of traffic and phased construction may control culvert length. The required culvert length and wingwall geometric configuration shall be determined during design minimally based on existing roadway cross section including survey, proposed grading and safety requirements. Vehicular, two-lane, two-way, and pedestrian access shall be maintained at all times during construction in the maintenance of traffic plan. US41 is an evacuation route. Culverts shall be considered bridge-sized culverts and require load rating in accordance with FDOT requirements. The limits of construction including any approach construction are from Sta. 810+00 to 837+00. Maintenance of traffic may extend beyond these limits. All construction for maintenance of traffic must be removed at the end of the project and the original grades restored.

Culverts parallel to US41

Three existing HDPE pipe culverts are located in the Tamiami Canal parallel to US 41. Culverts are on the north side of US 41 and approximately 400 feet southeast of the intersection of CR92 (San Marco Rd.) at US41. Existing culverts are located under a driveway, allowing ingress and egress to the adjacent residents at 20201 Tamiami Trail East, which is located within Collier-Seminole State Park. Existing culverts shall be replaced with three 42 inch diameter pipes with an invert elevation of -0.5 feet NAVD88. Work shall include maintenance of traffic for ingress/egress property access at all times during construction. Appropriate safety features shall be provided where clear zone requirements cannot be met and may include but not be limited to new barriers and guardrail. Culverts shall be provided in

accordance with Florida Department of Transportation Standard Specifications for Road and Bridge Construction Section 430 Pipe Culverts.

Culvert under CR92 (San Marco Drive)

One new double barrel 10 foot wide by 3 foot deep concrete box culvert will be located under County Road 92 (San Marco Drive), approximately 2,400-feet west of the intersection of CR92 at US41. The new culvert will create a hydraulic opening for conveyance between the north and south sides of CR92. Culvert barrels will not require skewers. The preliminary estimated length of culvert barrel is approximately 110 feet with an invert elevation of 0.015 feet NAVD88. The required culvert length and wingwall geometric configuration shall be determined during design minimally based on existing roadway conditions, survey, proposed grading and safety requirements. Vehicular, two-lane, two-way, access shall be maintained at all times during construction in the maintenance of traffic plan. CR92 is an evacuation route. Culvert shall be considered a bridge-sized culvert and requires load rating in accordance with FDOT requirements. The limits of construction including any approach construction are from Sta. 558+00 to 578+00. Maintenance of traffic may extend beyond these limits. All construction for maintenance of traffic must be removed at the end of the project and the original grades restores.

Signing and pavement marking is the responsibility of the Design-Build Firm.

It is USACE's intent that all Project improvements be completed without FDOT design variations and exceptions.

It is USACE's intent that all Project construction activities be conducted within the existing Right-of-Way. Any Technical Proposal that requires the acquisition of additional Right-of-Way will be rejected.

d. Public Participation

The Jacksonville District Corporate Communications Office continually keeps the affected public informed on Jacksonville District projects and activities. Monthly Project Delivery Team meetings are held via conference call. The public is encouraged to participate. The approved RP will be posted on the Jacksonville District Internet. Any comments or questions regarding the RP will be addressed by SAJ.

e. Civil Works Cost Engineering Mandatory Center of Expertise Review and Certification

The cost related documents associated with this contract do not require external peer review or certification. Therefore, no additional review requirements will be executed by the Cost Engineering Mandatory Center of Expertise (MCX) for the implementation documents addressed by this RP.

3. DISTRICT QUALITY CONTROL

a. Requirements

All implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo a DQC. A DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. DQC will be performed on the Plans and Specifications (P&S) and the Design Documentation Report (DDR) in accordance with SAJ's Engineering Division Quality Management System (EN QMS). The EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Check and Review (DQCR) and Product Quality Control Review (PQCR). The contract specifications require the contractor to provide a quality control plan for design work for approval by SAJ prior to design work being performed.

b. Documentation

The contractor is required to provide certifications as described in their approved quality control plan that all quality control reviews have been performed. The quality control plan is described in specification 01 45 04 Contractor Quality Control of the project specifications. The Quality Control Plan will be submitted for approval to the SAJ Resident Office for approval. The Contractor cannot start work until the Quality Control Plan has been approved, although conditional acceptance may be given for an Interim Quality Control Plan for the first 30 calendar days of the project. The Quality Control Plan must include an organizational chart, staff qualifications, and submittal control.

4. AGENCY TECHNICAL REVIEW

a. Risk Informed Decision on Appropriate Level of Review

PED phase implementation documents for the project will be prepared by the design-build contractor's engineer. The intermediate and pre-final P&S and DDR documents prepared by the firm will undergo an ATR following the contractor's quality control certification.

b. Agency Technical Review Scope

ATR is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-217 and ER 1110-1-12.

A site visit will not be scheduled for the ATR Team. If necessary, additional data and photos of the project site required by the ATR team will be gathered by PDT members during plan-in-hand site visits. This information will be disseminated to the ATR Team by the PDT.

ATR will be conducted by individuals and organizations that are external to the SAJ. The ATR Team Leader will be a USACE employee outside SAD. The required disciplines and experience are described below.

ATR comments will be documented in the DrCheckssm model review documentation database. DrCheckssm is a module in the ProjNetsm suite of tools developed and operated at ERDC-CERL (www.projnet.org). At the conclusion of ATR, the ATR Team Leader will prepare an ATR Review Report that summarizes the review. An outline for an ATR Review Report is in Attachment C. The report will include at a minimum the Charge to Reviewers, ATR Certification Form from EC 1165-2-217, and the DrCheckssm printout of the comment resolution.

c. ATR Disciplines

As stipulated in ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS); subject matter experts (SME) certified in CERCAP; 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. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

Team Leader. The Team Leader shall have 7 or more years of experience with Civil Works Projects. The Team Leader can also serve as one of the review disciplines.

Civil Engineering. The team member shall be a registered professional engineer and have 7 or more years of experience with civil/site work projects that includes highway construction and ecosystem restoration features. Related project construction experience is desired.

Geotechnical Engineering. The team member shall be a registered professional engineer and have 10 or more years of experience in geotechnical engineering. Experience shall include geotechnical evaluation of highway structures.

Structural Engineer. The team reviewer shall be a registered professional with experience in highway culverts, concrete structures, and bridge load ratings. A minimum of 10 years of related project design/construction experience is required.

Climate Change Reviewer. The team reviewer shall have 5 years of experience in climate compliance activities associated with ecosystem restoration features.

5. 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. BCOES review requirements must be emphasized throughout the planning and design processes 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. A BCOES Review will be conducted for this project at two stages. The first BCOES review will be performed on the scope documents prior to advertising the contract. The second BCOES review will be performed on the construction drawings prior to giving the contractor notice to proceed for construction. Requirements and further details are stipulated in ER 1110-1-12, ER 415-1-11, and SAJ EN QMS 02611.

6. INDEPENDENT EXTERNAL PEER REVIEW

a. General.

EC 1165-2-217 provides guidance for the implementation of IEPR according to Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be managed and conducted outside the Corps of Engineers.

b. Type I Independent External Peer Review Determination.

A Type I IEPR is primarily associated with decision documents. A Type I IEPR is not applicable to the implementation documents covered by this RP.

c. Type II Independent External Peer Review Determination (Section 2035).

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-217). 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 the applicability statements for this RP, are as follows:

- (1) Does failure of the project pose a significant threat to human life?

The Conveyance Features involve the design and construction of below ground culverts. The project is only intended to provide additional flow capacity under or adjacent to the roadways. This additional capacity is needed to convey additional flow resulting from the plugging of the upstream canals. Failure of these features will not pose a threat to human life.

- (2) Does the project involve the use of innovative materials or techniques?

Construction of this contract will utilize standard methods and procedures used by the Corps of Engineers on other similar work.

- (3) Does the project design require redundancy, resiliency, or robustness?

The project design does not require the addition of redundant project features. Resiliency or robustness incorporated into design features are a function of normal civil works design criteria and are not in excess of customary practice.

- (4) Does the project have a unique construction sequencing or a reduced or overlapping design construction schedule?

The design is not innovative and is not using design or construction techniques that are precedent setting; nor is the project using unique construction scheduling or Early Contractor Involvement (ECI) delivery systems.

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.

7. POLICY AND LEGAL COMPLIANCE

The SAJ Office of Counsel reviews all contract actions for legal sufficiency in accordance with Engineer Federal Acquisition Regulation Supplement 1.602-2 Responsibilities. The subject implementation documents and supporting environmental documents will be reviewed for legal sufficiency prior to advertisement.

8. MODEL CERTIFICATION AND APPROVAL

The project does not use any engineering models that have not been approved for use by USACE.

9. PROJECT DELIVERY TEAM DISCIPLINES

PDT Disciplines
Project Manager
Project ETL, Civil Engineer
Structural Engineer
Geotechnical Engineer
Geologist
Cost Engineer
Geomatics

Table 1: PDT Disciplines

10. BUDGET AND SCHEDULE

a. Project Milestones.

Task	Date
Scope Combined DQCR/PQCR Review	November 2019
Scope ATR Review	January 2020
Scope BCOES Review	January 2020
Scope ATR Certification	February 2020
Phase 1 DQCR/PQCR (by contractor)	TBD
Phase 2 DQCR/PQCR (by contractor)	TBD
Phase 3 DQCR/PQCR (by contractor)	TBD
Phase 4 DQCR/PQCR (by contractor)	TBD
Pre-Construction ATR	TBD
Pre-Construction ATR Certification	TBD
Pre-Construction BCOES	TBD
Pre-Construction BCOES Certification	TBD

Table 2: Project Schedule Milestones

b. ATR Cost.

Funds will be budgeted to execute ATR and schedule as outlined above. It is envisioned that each reviewer will be afforded 20 days review plus 10 days for coordination. The estimated cost range is \$25,000 - \$30,000.

11. REVIEW PLAN POINTS OF CONTACT

Title	Organization	Phone
Quality Manager	CESAD-RBT	[REDACTED]
Review Manager	CESAJ-EN-Q	[REDACTED]

Table 3: Review Plan Point of Contacts

ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
4/1/2020	Deleted Cost Engineer discipline from ATR panel.	Page 11 / Par 4.c
4/1/2020	Added Climate Change reviewer discipline to the ATR panel.	Page 12 / Par 4.c

Table 4: Review Plan Revisions

ATTACHMENT B: 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
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EC	Engineering Circular
EA	Environmental Assessment
EN QMS	Engineering Division Quality Management System
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
NED	National Economic Development
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

<u>Acronyms</u>	<u>Defined</u>
PMP	Project Management Plan
PPA	Project Partnering Agreement
PQCR	Product Quality Control Review
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
RPN	Rio Puerto Nuevo Flood Control Project
RTS	Regional Technical Specialist
SAJ	South Atlantic Jacksonville 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

Table 5: Abbreviations

ATTACHMENT C:

ATR REPORT OUTLINE AND COMPLETION OF AGENCY TECHNICAL REVIEW

**Picayune Strand Restoration Project; Conveyance Features
Collier County, FL**

ATR REPORT OUTLINE

- 1. Introduction:**
- 2. ATR Team Members:**
 - ATR Team Leader
 - Civil Engineer
 - Cost Engineer
 - Geotechnical Engineer
 - Structural Engineer
- 3. ATR Objective:**
- 4. Documents Reviewed:**
- 5. Findings and Conclusions:**
- 6. Unresolved Issues:**

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Design-Build Documents for the Picayune Strand Restoration Project, Conveyance Features, in Collier County, Florida including the design-build scope documents and specifications. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-217 and ER 1110-1-12. 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 DrCheckssm.

NAME
ATR Team Leader

Date

Engineering Technical Lead

Date

Review Management Office Representative
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.

Chief, Engineering Division, Jacksonville District
SAJ-EN

Date