



REPLY TO
ATTENTION OF

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

CESAD-RBT

25 MAR 2013

MEMORANDUM FOR COMMANDER JACKSONVILLE DISTRICT (CESAJ-EN-Q/
[REDACTED])

SUBJECT: Approval of the Review Plan for River Acres, Supplemental Work, Contract 15A, Kissimmee River Restoration Project, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 5 March 2013, Approval of Review Plan for River Acres, Supplemental Work, Contract 15A, Kissimmee River Restoration Project, Florida (Enclosure).

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

2. The enclosed Review Plan for the River Acres, Supplemental Work, Contract 15A, Kissimmee River Restoration Project, Plans and Specifications submitted by reference 1.a, has been reviewed by this office and is approved in accordance with reference 1.b.

3. We concur with the conclusion of the District Chief of Engineering that a Type II Independent External Peer Review (IEPR) is not required on this project effort. The primary basis for our concurrence that a Type II IEPR is not required is that failure or loss of the Contract 15A features do not pose a significant threat to human life.

4. The District should take steps to post the Review Plan 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 Review Plan, should they become necessary, will require new written approval from this office.

5. The SAD point of contact is [REDACTED] elc [REDACTED].

DONALD E. JACKSON, JR.
COL, EN
Commanding

Encl



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P.O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

CESAJ-EN-Q

5 March 2013

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT)

SUBJECT: Approval of Review Plan for River Acres, Supplemental Work, Contract 15A, Kissimmee River Restoration Project, Florida

1. References.

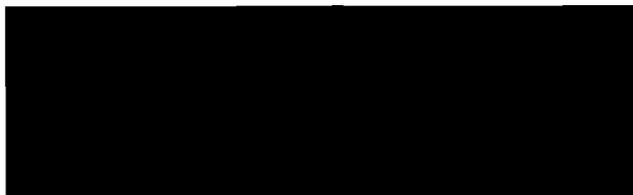
- a. EC 1165-2-214, Civil Works Review Policy, 15 December 2012
- b. WRDA 2007 H. R. 1495 Public Law 110-114, 08 November 2007

2. I hereby request approval of the enclosed Review Plan and concurrence that an ATR is required and a Type II Independent External Peer Review (IEPR) of this project is not recommended. The Type II IEPR determination is based on the EC 1165-2-214 Risk Informed Decision Process as presented in the Review Plan. Approval of this plan is for the Plans and Specifications and DDR Implementation Documents. The Review Plan complies with applicable policy and has been coordinated with CESAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by CESAD.

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

FOR THE COMMANDER:

Encl



REVIEW PLAN

For

RIVER ACRES SUPPLEMENTAL WORK Kissimmee River Restoration Project

Jacksonville District

March 2013

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.



**US Army Corps
of Engineers** ®

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope of review activities for the River Acres Supplemental Work project, located in Okeechobee County, Florida. Review activity for this project consists of District Quality Control (DQC). An Agency Technical Review (ATR) will be conducted on the Final PED documents. The related project documents consist of Plans and Specifications (P&S) and a Design Documentation Report (DDR). Upon approval, this review plan will be included into the Project Management Plan (PMP) as an appendix to the Quality Management Plan (QMP).

b. References.

- (1). EC 1165-2-214, Civil Works Review, 15 December 2012
- (2). ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 August 1999
- (3). ER 1110-1-12, Engineering and Design Quality Management, 31 March 2011
- (4). River Acres Flood Protection Supplemental Work, P2#114520.

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 EC provides the procedures for ensuring the quality and credibility of the U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and work products. The EC outlines three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review.

(1) District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, or overseeing contracted work that is being reviewed. Basic quality control tools include a QMP providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review.

(2) Agency Technical Review (ATR). ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assures that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the parent MSC.

(3) Type II Independent External Peer Review (IEPR). 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. In accordance with Section 2035 of Water Resources Development Act (WRDA) of 2007 and EC 1165-2-214, a Type II IEPR (SAR) shall be conducted on design and construction activities for hurricane and storm risk management and flood risk management projects, as well as other projects where existing and potential hazards pose a significant threat to human life prior to initiation of physical construction and periodically thereafter until construction activities are completed. IEPR should occur on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare.

d. Review Management Organization (RMO). The South Atlantic Division (SAD) is designated as the RMO for the River Acres Flood Protection Supplemental Work Project. The RMO is responsible for managing the review activities described in this Review Plan.

2. PROJECT INFORMATION AND BACKGROUND

This project is supplemental to another completed effort, both of which are component projects of the overall Kissimmee River Restoration (KRR). Overall construction of the KRR began in the 1990's. The construction has been sub-divided into 34 phased construction contracts and is approximately 70% complete at this time.

River Acres is a platted subdivision in Okeechobee County, Florida. The subdivision consists of 135 lots including vacant lots, lots with mobile homes, and lots with conventional houses. At the time the KRR was authorized in 1992, the South Florida Water Management District (SFWMD) assured this community that residences in this subdivision would not be flooded or forced to sell their homes. The SFWMD and the U.S. Army Corps of Engineers (USACE) developed a recommended engineering alternative to mitigate flood impacts for the residents. Flood mitigation was to be accomplished by construction of a tieback levee on the northwest corner of the subdivision, a seepage levee and canal north of the CSX right-of-way, canal extension and improvements, and a bridge across the new canal extension. These features have already been completed but some supplemental work is required which shall be completed under a separate construction contract.

The supplemental work at the River Acres community will consist of:

a. Encroachments: Demolish existing encroachments (concrete boat ramps, wooden docks, sheds, bulkheads) at 11 residential lots (lots 1, 2, 3, 4, 6, 44, 45, 47, 49, 50, 52). Dispose of materials generated by demolition offsite. After demolition, regrade and sod embankment slopes at lots 1-8 and 36-53. Conduct a pre-construction survey of all structures (homes, etc) for each lot prior to any demolition and/or construction work. Perform vibration monitoring during all demolition and construction operations. Conduct a post-construction survey after the completion of work.

b. Weir: Install a low volume water crossing within the existing maintenance berm between approximate Stations 71+00 and 73+00.

c. Pavement Repairs:

- Cul-de-Sac No. 1 (NW 80th Dr): Remove and salvage buried reinforced concrete pipe (RCP) and corrugated metal pipe (CMP) culvert pipes. Install elliptical RCP with MES. Install pavement.
- Cul-de-Sac No. 2 (NW 189th Ave): Remove and replace existing pavement.
- Lofton Road: Remove and replace existing pavement.
- Miscellaneous areas: Remove and replace existing pavement.

d. S-65DX3 Access: Construct access ramp from NW 80th Dr.

e. Gate Replacements: Remove and replace ten existing double-leaf vehicular access gates.

f. Canal Restoration: Perform excavation and grading as required to restore the River Acres Canal to the design template. Install sod on all disturbed areas above the normal canal water line (~EL 22 FT NGVD 29).

3. DISTRICT QUALITY CONTROL

District Quality Control and Quality Assurance activities for implementation documents (DDR and P&S) are stipulated in ER 1110-1-12, Engineering & Design Quality Management. The subject project DDR and P&S will be prepared by the Jacksonville District using the SAJ procedures and will undergo DQC and QC Review and Certification. Comments are to 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).

4. AGENCY TECHNICAL REVIEW

- a. **Scope.** Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-214 and ER 1110-1-12. The following questions and additional appropriate questions from EC 214, paragraph 15, were considered:

- 1) Does it include any design (structural, mechanical, hydraulic, etc)?
There is no structural, mechanical or hydraulic design involved as there are no concrete structures to be built, nor hydraulic, water control gates installed. Civil engineering design efforts are limited to asphalt pavement, which is largely following Okeechobee county requirements, and geotechnical design of the low volume water crossing slope protection which is geotextile fabric, fine gravel and a 6" standard Articulated Concrete Block Mattress.

- 2) Does it evaluate alternatives?
A detailed design memorandum (DDR) documenting rationale for engineering decisions and requirements is being prepared concurrent with the plans and specifications to perform the work. This project is needed basically to construct a new Low Water Volume Crossing (intended to alleviate water ponding close to an adjacent air strip and remove private encroachments on public lands). There is no need to evaluate any alternatives and therefore no need to recommend anything other than repairs.
- 3) Does it include a recommendation? *No.*
- 4) Does it have a formal cost estimate?
Because the work is not complicated, the acquisition strategy chosen is an 8A Sole Source Procurement. A formal Independent Government Estimate will be prepared just as it would be for any standard USACE contract effort. The current working estimate is under \$1 Million.
- 5) Does it have or will it require a NEPA document?
There is no new NEPA document required.
- 6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks?
The recently completed River Acres Flood Protection project is expected to fully mitigate for increases in water levels associated with the overall Kissimmee River Restoration effort. The intent of this follow-on supplemental work is to alleviate water ponding on an adjacent airstrip where a maintenance berm had been constructed and remove private encroachments constructed by residents on SFWMD property. Were this supplemental project to fail, there would no significant threat to human life posed. No structure, culvert or canal itself, involve potential life safety risks.
- 7) What are the consequences of non-performance?
Non-performance of this contract action could result in continued sloughing of portions of the canal banks with heavy rains with most of the embankment material filling the bottom of the canal. There is already one area where as much as three feet of material has been deposited due to sloughing. If the Low Water Volume Crossing is not done there will be three additional feet of water in an interior wetlands area that borders the residents' air strip. While it will not rise high enough to flood the air strip or any residents, it will, and has, attracted more birds which are a safety concern with flying aircraft. The private encroachments on public lands inhibit proper maintenance of the canal by the local sponsor.
- 8) Does it support a significant investment of public monies? *No. This is supplemental work at the River Acres community and is not considered a significant investment of public monies.*
- 9) Does it support a budget request? *No.*
- 10) Does it change the operation of the project?

No. The River Acres canal is a relatively small two mile long section, and is a residential canal not intended nor designed to function as a flood control feature. The one culvert gate that would exert any type of control is Structure S-65DX3. The gate on this 24" diameter pipe is always closed and it is located at the northern terminus of the canal; the southern terminus of the canal is directly linked to the C-38 (Kissimmee River). The culvert structure functions only to keep the water levels in the River Acres canal at the same elevation as Pool E of the Kissimmee River (C-38) and for continued capability of the residents to boat directly into the Kissimmee River. North of S-65DX3 is Pool D. Both of these pools, as well as the entire C-38 are highly regulated. No structure, culvert or canal itself, involve potential life safety risks. The initial reason for this overall effort is to mitigate for the future increased water levels that will result from completion of the overall Kissimmee River Restoration project.

11) Does it involve ground disturbances?

Yes. While there are some ground disturbances they are superficial to at most 3 feet in depth. No cultural resources, historic properties, survey markers will be disturbed.

12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?

No. The project does not affect any special features.

13) Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions?

Yes. The project does not require Section 404 permitting. It will trigger NPDES related actions for the dewatering effort during construction. The contractor will be responsible for obtaining the necessary NPDES permit.

14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? *No.*

15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?

Yes. The only referenced reliance is on manufacturers' specifications is for the installation of the Articulated Concrete Block Mattress. There will be no referenced reliance on any other item.

16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc?

No. There is no reliance of local authorities for inspection of utilities. There are no utilities involved in this project.

17) Is there or was there expected to be any controversy surrounding the Federal action associated

No. There is currently no environmental or public controversy with this effort. Residents have acknowledged that the encroachments to be removed were built on public lands and have acquiesced to their removal.

An ATR will be conducted for this project. The scope of work is not complex, and engineering design effort involved is minor with the most complex consisting of degrading a portion of an existing maintenance berm and pavement repair. In accordance with EC 1165-2-214, an ATR is scalable to the size and complexity of a project. The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance.

ATR will be conducted by individuals and organizations that are external to the Jacksonville District. The ATR Team Leader is a Corps of Engineers employee outside the South Atlantic Division. The required disciplines and experience are described in paragraph b. "ATR Disciplines" below.

ATR comments are 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 a Review Report that summarizes the review. The report will consist of the ATR Certification Form from EC 1165-2-214 and the DrCheckssm printout of the closed comments.

b. ATR Disciplines. As stipulated 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. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

(1) *Civil Engineering* - The team member should be a registered professional engineer with experience in civil/site work experience that includes earthwork operations, site drainage, embankments and paving. A minimum of 7 years of related project design/construction experience is desired.

(2) *ATR Team Leader* - The ATR Team Leader will be from outside SAD and should have experience with canal and levee design projects. ATR Team Leader may be a co-duty to the Civil Engineering discipline.

5. INDEPENDENT EXTERNAL PEER REVIEW

a. General. EC 1165-2-214 provides implementation guidance for both 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 (IEPR) Determination. A Type I IEPR is associated with decision documents. No decision documents are addressed/covered by this Review Plan therefore a Type I IEPR is not covered by this Review Plan.

c. Type II Independent External Peer Review (IEPR) Determination (Section 2035). This supplemental work does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-214) and therefore, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR/SAR review under Section 2035. The factors in determining whether a review of design and construction activities of a project is necessary as stated under Section 2035 along with this review plans applicability statement follow.

- (1) The failure of the project would pose a significant threat to human life.
None of the project features are above the ground surface. Were this supplemental project to fail there would no significant threat to human life posed.
- (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. The work is non-complex.
- (3) The project design lacks redundancy.
The concept of redundancy does not apply to supplemental work at the River Acres community.
- (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 anticipated construction and schedule are routine to the Corps of Engineers.

6. MODEL CERTIFICATION AND APPROVAL

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

7. PROJECT DELIVERY TEAM

Names of PDT members were removed prior to posting.

Project Manager:

KRR Program Engineering Technical Lead:

Lead Civil Engineer and Project Engineer:

CESAJ-EN-DL, Civil:

CESAJ-EN-DS, Structural:

CESAJ-EN-DC, Specifications:

CESAJ-EN-DG, Geomatics:

CESAJ-EN-GS, Geotechnical:
CESAJ-EN-TC, Cost:
CESAJ-EN-WM, Hydrologic Modeling:
CESAJ-OD-MW, Water Management:

8. BUDGET AND SCHEDULE

a. Project Milestones.

District Quality Control Certification– 25 January 2013

Product Quality Control Certification- 13 February 2013

BCOE Review/Certification Complete – 8 April 2013

Ready to Advertise (8A Sole Source Procurement) – 16 April 2013

b. Schedule and Cost. Funds are available to execute DQC and schedule as outlined above. Funds are available for ATR in the amount of \$2,500.

The ATR schedule is below:

Provide Documents to ATR Reviewer – 4 March 2013

Teleconference with Reviewer – 6 March 2013

Final Comments – 8 March 2013

9. POINTS OF CONTACT

Per guidance, the names of the following individuals will be posted on the Internet with the Review Plan. Their titles and responsibilities were removed prior to posting.

Jacksonville District POCs: