



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SOUTHWESTERN DIVISION
1100 COMMERCE STREET
DALLAS, TX 75242-1317

CESWD-RBT

MEMORANDUM FOR Commander, Fort Worth District

SUBJECT: Review Plan approval for Granger Project Office Design and Construction Phases

1. References:

a. EC 1165-2-217, Water Resources Policies and Authorities - Review Policy for Civil Works, 20 February 2018.

b. SWD Memorandum: Delegation of Authority for Review Plans for Civil Works Projects (Encl 1).


c. Final Review Plan for Granger Project Office Design and Construction Phases (Encl 2).

2. In accordance with 1.a. and 1.b., I hereby approve the enclosed Review Plan (RP) for the subject project.

3. Please post the final approved RP with a copy of this memorandum to the District's public internet website. Prior to posting to the District website, the names of USACE employees should be removed.

4. The SWD point of contact for this action is Mr. Michael Southern, CESWD-RBT, at 918-669-7148.

1 Encl
as


PETE G. PEREZ, P.E.
Director, Regional Business Directorate

CF:
CESWF-PM-C/ Hicks (w/encls)



US Army Corps
of Engineers®

Prepared by:
SWF District
SWD Division

Granger Project Office

Design and Construction Phases

Review Plan

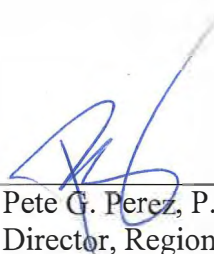
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Gail Hicks, PMP
Project Manager
CESWF-PM-C

APPROVED
BY:


Pete G. Perez, P.E.
Director, Regional Business
Directorate

(signature)

6/4/2019

MSC Approval Date: June 4, 2019

Last Revision Date:

Section 1

Introduction

1.1 Purpose

This Review Plan (RP) for Granger Office P2# 470402, will help ensure a quality-engineering project is developed by the Corps of Engineers in accordance with EC 1165-2-217, "Review Policy for Civil Works". As part of the Project Management Plan 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, and Sustainability (BOCES) Review, Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. This RP will be provided to Project Delivery Team (PDT), 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 and Construction 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 5.1.

1.2 References

- EC 1165-2-217, Review Policy For Civil Works, 20 February 2018
- ER 1110-1-12, Quality Management, 31 Mar 2011
- ER 415-1-11, Biddability, Constructability, Operability, Environmental and Sustainability (BCOES) Reviews, 1 January, 2013
- Project Management Plan (PMP)

1.3 Review Management Organization

SWD is the Review Management Organization (RMO) for this project.

Section 2

Project Description

2.1 Project Description

The project site is located at approximate GPS coordinates (30° 43' 06.17"N, 97° 19' 16.41"W), the SW corner of the intersection of Hwy 971 and Granger Dam Road, across Granger Dam Road to the west of the existing Lake Office located at 3100 Granger Dam Road, Granger, TX. The project entails the construction of a new field office building at Granger Dam as the original office was deemed uninhabitable

and thus will be demolished. The new office building will be approximately 4,856 sf. See Attachment 4 Exhibit 1 for a concept of the building layout.

2.2 Project Sponsor

There is no non-Federal sponsor for this project.

Section 3

District Quality Control

3.1 Requirements

All implementation documents (including supporting data, analyses, reports, environmental compliance documents, water control manuals, etc.) shall undergo DQC in accordance with EC 1165-2-217. The District shall perform these minimum required reviews in accordance with SWD QMS 06501 QC/QA Procedures for Civil Works Study and Design located on the USACE QMS website.

<https://apps.usace.army.mil/sites/QMS/DC/QMSDocumentLibrary/Forms/1%20Basic%20List%20%20Grp%20by%20Function.aspx?ProcessQStringToCAML=1>

DQC reviewers will be assigned as each review is received. There is no specific team assigned to this project as it is being designed by an AE.

3.2 Documentation

Documentation of DQC activities is required and will be implemented by the process linked in paragraph 3.1.

3.3 DQC Schedule and Estimated Cost

Although DQC is always seamless, the following milestone reviews scheduled are shown in Table 1 . The cost for the DQC is approximately \$65,000.

Project Phase/Submittal	Review Start Date	Review End Date
DQC 30% Review	3 Dec 2018	17 Dec 2018
DQC 60% P&S Review	18 Mar 2019	29 Mar 2019
DQC Final P&S Review	15 Apr 2019	26 Apr 2019

Table 1 DQC Schedule

Section 4

Agency Technical Review

4.1 Requirements

All implementation documents (including supporting data, analyses, reports, environmental compliance documents, water control manuals, etc.) shall undergo ATR in accordance EC 1165-2-217. ATR reviews will occur seamlessly, including early involvement of the ATR team for validation of key design decisions, and at the scheduled milestones as shown in Section 4.6. A site visit will not be scheduled for the ATR Team as the new office will be located in an empty field across the street from the existing office building.

4.2 Documentation of ATR

Documentation of ATR will occur using the requirements of EC 1165-2-217. This includes the four part comment structure and the use of DrChecksSM.

4.3 Products to Undergo ATR

The products the ATR team will review includes Plans, Specifications, and Design Analysis documents.

4.4 Required Team Expertise and Requirements

ATR teams will be established in accordance with EC 1165-2-217. The following disciplines will be required for ATR of this project:

ATR Lead: The ATR team lead is a senior professional outside the home MSC with extensive experience in preparing Civil Works documents and conducting ATRs. The lead has the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline, in this case,

Geotechnical Engineer - shall have experience in both dam safety and the field of geotechnical engineering, analysis, design, and construction of pavement and building foundations. The geotechnical engineer shall have experience in subsurface investigations, rock and soil mechanics, erosion protection design, and earthwork construction.

Site Civil Engineer – shall have experience in the site and grading necessary for the design of office buildings.

Mechanical Engineer – shall have experience in the design of office buildings.

Electrical Engineer – shall have experience in the design of office buildings.

Structural Engineer – shall have experience and be proficient in performing stability analysis, finite element analysis, seismic time history studies, and external stability analysis including foundations. The structural engineer shall have specialized experience in the design, construction of office buildings.

4.5 Statement of Technical Review Report

At the conclusion of the ATR effort, the ATR team will prepare a review report with a completion and certification memo. The report will be prepared in accordance with EC 1165-2-217.

4.6 ATR Schedule and Estimated Cost

Although ATR is always seamless, the ATR will run concurrently with the DQC review. The cost for the ATR is approximately \$60,000.

Section 5

Safety Assurance Review

5.1 Decision on SAR

The District Chief of Engineering and Construction made a risk-informed-decision that this project does not pose a significant threat to human life (public safety) and therefore a SAR /will not be performed.

Section 6

Policy and Legal Compliance Review

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

Section 7

Public Posting of Review Plan

As required by EC 1165-2-217, the approved RP will be posted on the District public website (<https://www.swf.usace.army.mil/About/Organization/PPMD/Peer-Review-Plans/>). 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 RP are necessary.

Section 8

Review Plan Approval and Updates

The MSC Commander, or delegated official, is responsible for approving this RP. The Commander's approval reflects vertical team input (involving the District and MSC as to the appropriate scope and level of review. The RP is a living document and should be updated in accordance with 1165-2-217. All changes made to the approved RP will be documented in Attachment 3, Table 6 RP Revisions. The latest version of the RP, along with the Commanders' approval memorandum, will be posted on the District's webpage and linked to the HQUSACE webpage. The approved RP should be provided to the RMO.

Section 9

Engineering Models

The use of certified, validated, or agency 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, BCOES, policy and legal review, and SAR (if required). Where such approvals have not been completed, appropriate independent checks of critical calculations will be performed and documented. The following engineering models, software, and tools are anticipated to be used:

Model Name	Version	Validation Date
Add relevant engineering and planning models used		

Table 2 Models and Status

Section 10

Review Plan Points of Contact

Title	Organization	Phone
Project Manager	CESWF-PM-C	817-886-1900
Senior Reviewer	CESWD-RBT	918-669-7148

Table 3 RP POC's

ATTACHMENT 3

Review Plan Revisions

Revision Date	Description of Change	Page/Paragraph Number

Table 6 RP Revisions

ATTACHMENT 4

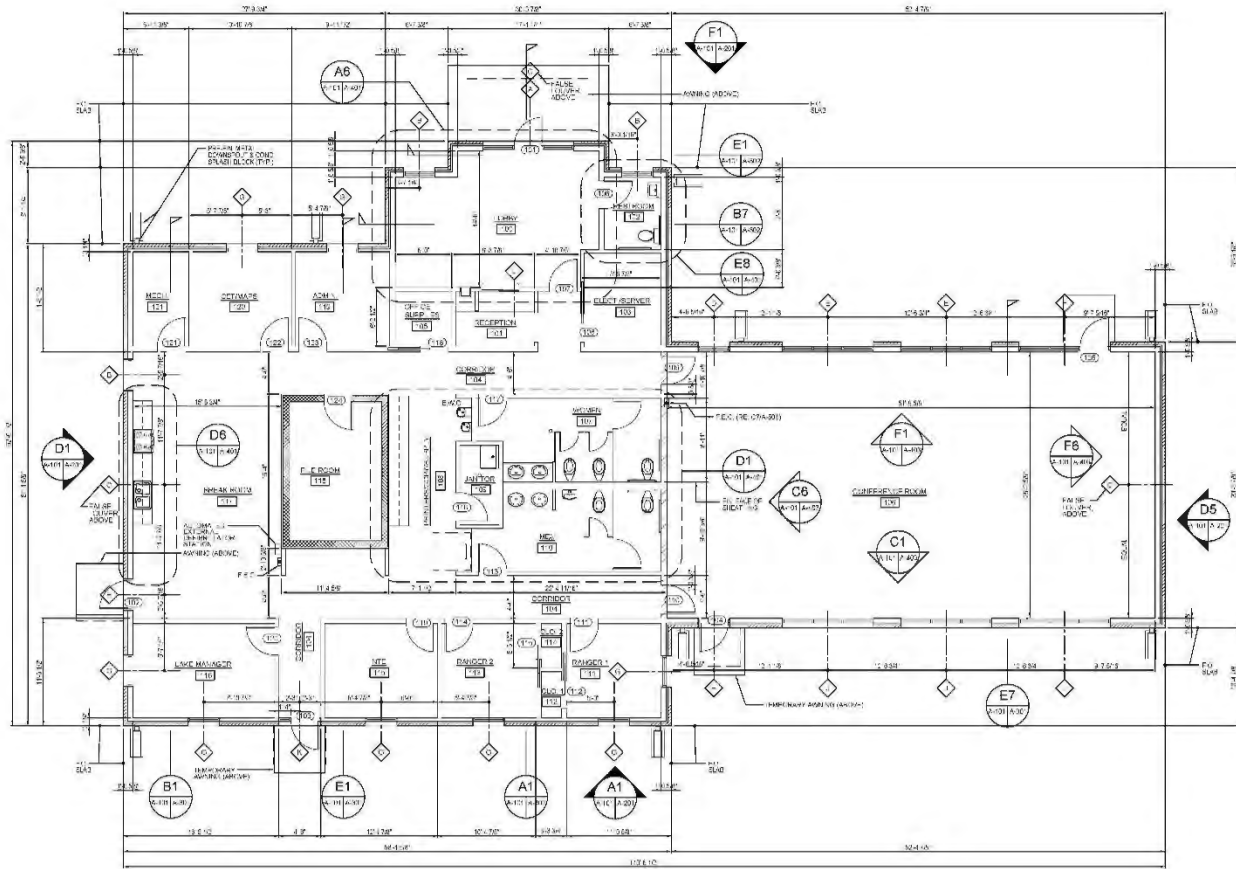


Exhibit 1. Office Building Floor plan