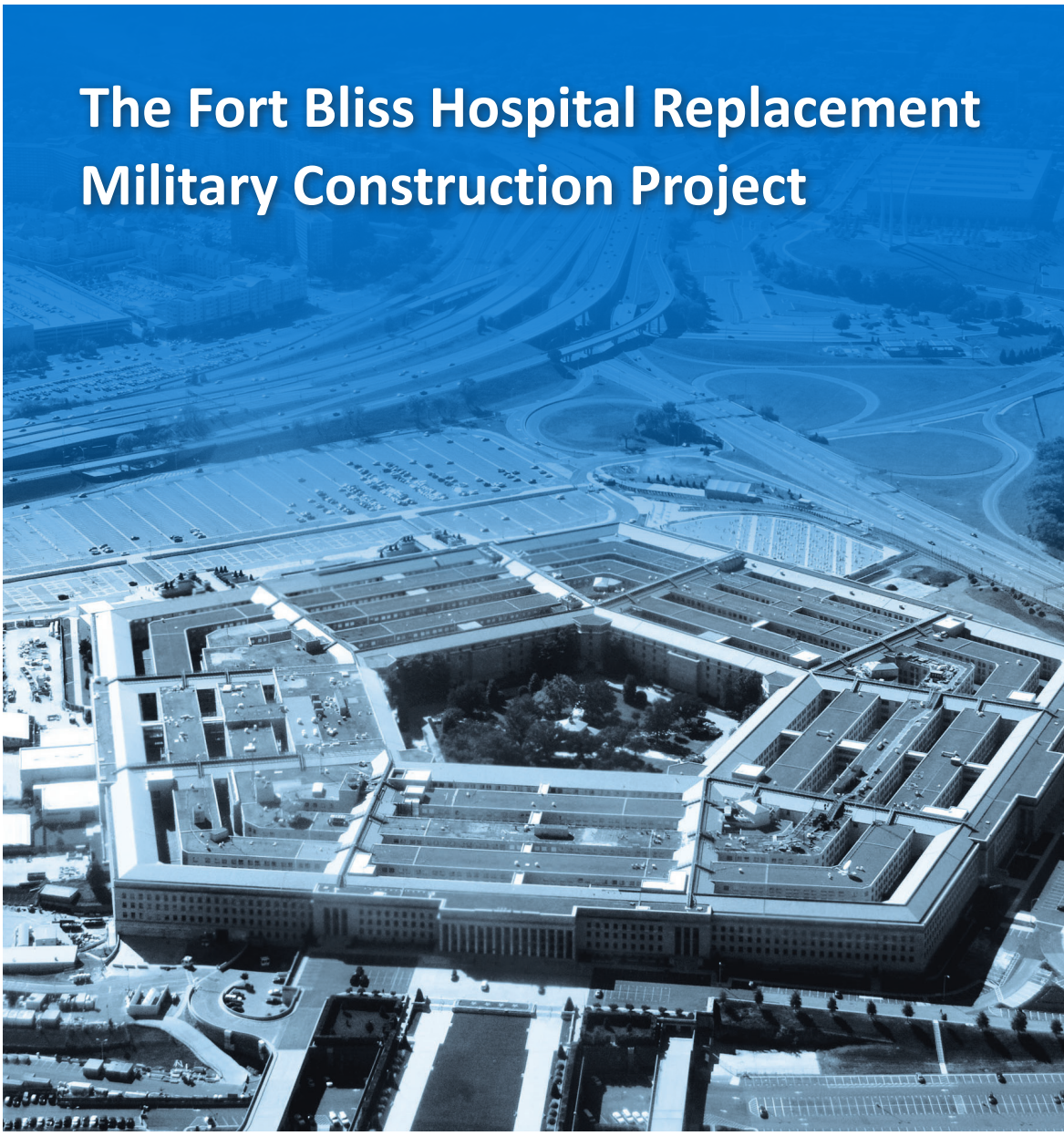
Report No. DODIG-2018-125

INSPECTOR GENERAL

U.S. Department of Defense

JUNE 6, 2018

The Fort Bliss Hospital Replacement Military Construction Project



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Results in Brief

The Fort Bliss Hospital Replacement Military Construction Project

June 6, 2018

Objective

We performed this audit in response to the FY 2018 National Defense Authorization Act (NDAA) requirement that the DoD Office of Inspector General (OIG) provide a report on the design errors and omissions related to the construction of the Fort Bliss Hospital Replacement project at Fort Bliss, Texas. To fulfill the NDAA requirement, we reviewed the requirements development, the design-bid-build contract award processes, design suitability, and contractor oversight.

Background

The Fort Bliss Hospital Replacement (FBHR) is an ongoing construction project. The FBHR will include a main hospital, inpatient and outpatient clinics, an administrative building, a research building, a central utility plant, two access control points, and surface parking. The FBHR medical facility will be 1.13 million square feet and include 135 hospital beds, 10 operating rooms, and 30 specialty clinics.

Findings

To fulfill the NDAA requirement we reported on the following five elements.

First, we examined the detailed description of the specific design errors and omissions that resulted in the cost increase for the hospital replacement project. As of March 15, 2018, the FBHR project had 978 contract change requests, including 132 cancelled change requests that occurred during construction. The change requests included 453 engineering changes, including design errors and omissions. The FY 2018 budget request for $251.3 million included three line items for design errors and

Findings (cont'd)

omissions, valued at $165.6 million. The Headquarters United States Army Corps of Engineers (HQUSACE) Medical National Program Manager stated that the requested amount for design errors and omissions of $165.6 million was an estimated amount and that this amount was revised based on negotiations. We identified the modifications awarded as of March 2018, with the negotiated amounts related to the three line items for design errors and omissions.

- **Design Errors and Omissions (through May 2016) [Legacy Issues] for $32.1 million –** The USACE Fort Worth District Medical Project Manager stated that design errors and omissions through May 2016 are referred to as legacy issues, which are requests for equitable adjustment made by the construction contractor before May 31, 2016. For example, one design error and omission legacy issue was related to costs and time associated with the Government's direction that structural steel beams and columns be refabricated to correct errors in the design of the structure and that the contractor cease delivery of steel to the site. This direction impacted the steel erection activities, resulting in reordering work and suspending critical work activities until the refabricated steel was delivered to the site. The cost and time increase for this change was $9.8 million and 65 calendar days.
- **Impact Costs (through May 2016) [Time-Delay Costs] for $142 million –** Impact cost is the cost of the overall time delay that the USACE Fort Worth District contracting officer or administrative contracting officer negotiated with the construction contractor. The time delay specifically resulted from changes to the contract related to requests for equitable adjustment before May 31, 2016. One example of a time-delay cost was the addition of 306 calendar days to the contract, including 126 calendar days due to USACE-caused delays. The delays related to interior framing issues, seismic test issues, and additional commissioning. Seismic tests ensure the structure being built is earthquake proof. Commissioning is the process of verifying that all building systems perform interactively to the design intent and the systems meet the owner's operational needs. The cost of the 306 days was $12.7 million.

Results in Brief

The Fort Bliss Hospital Replacement Military Construction Project

Findings (cont'd)

- **Design Errors and Omissions (after May 2016) [Design Validation] for $3.7 million –** The USACE Fort Worth District Medical Project Manager stated that Design Errors and Omissions after May 2016 were a result of the design validation. The design validation was a review of the design to identify future cost and schedule impacts that had not been previously identified and which may affect work progress. An example of design errors and omissions during design validation related to the need to correct lighting fixtures and problems with the ceiling. The cost of the lighting and ceiling issues was $1.8 million.

For the full detailed description of the design errors and omissions in the FY 2018 budget request, see the 'Design Errors and Omissions' section under Reporting Element 1, in the body of this report.

Second, we examined a description of DoD's planned actions to prevent further schedule delays and cost increases on this project as well as lessons learned that could be applied to future projects. We determined that the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment and HQUSACE implemented, or are in the process of implementing, several initiatives, including updating guidance on roles, responsibilities, and management controls. During the FBHR project, the USACE Southwestern Division and Fort Worth District replaced Government management of the FBHR project, conducted a design validation review, and conducted a cost schedule risk analysis. USACE Fort Worth District officials stated that lessons learned would not be determined until an official after action review occurs.

Third, we describe any ongoing or completed proceedings or investigations of parties responsible for the delay or cost increase and the status of those proceedings. We determined that as of March 2018, there were no ongoing or completed proceedings or investigations related to the FBHR project.

Fourth, we report the results of any final judicial or administration actions taken because of the above proceedings or investigations. As discussed in element 3, as of March 2018, there were no ongoing or completed proceedings or investigations related to the FBHR project.

Fifth, we determined that there are areas where improvements are needed for future military construction projects. The recommendations section discusses our recommendations to the key DoD organizations involved in the FBHR project but which should be applied as guidelines for all DoD construction projects, as applicable.

Recommendations

We recommend that the Assistant Secretary of Defense for Energy, Installations, and Environment develop guidance to implement the section 2851, title 10, United States Code reporting requirement for each military construction project that has been specifically authorized by Congress. In addition, we recommend that the Assistant Secretary of Defense for Energy, Installations, and Environment develop guidance to identify roles and responsibilities for key segments of construction and establish metrics that include financial risk management parameters and triggers.

We recommend that the Defense Health Agency Director, review the actions of the individuals involved in the FBHR project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold them accountable as appropriate.

We recommend that the U.S. Army Corps of Engineers Commander, review the actions of the individuals involved in the FBHR project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold the individuals accountable as appropriate;

Recommendations (cont'd)

issue guidance to improve medical infrastructure projects; complete an after action review following construction of the FBHR project; and issue guidance directing contracting personnel to issue past performance evaluations in accordance with the Federal Acquisition Regulation.

We recommend that the U.S. Army Health Facility Planning Agency Commander, review the actions of the individuals involved in the FBHR project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold the individuals accountable as appropriate.

Management Comments and Our Response

The Assistant Secretary of Defense for Energy, Installations, and Environment agreed with the recommendations and stated that the planned completion for the actions associated with implementing the recommendations would occur within 1 year. In addition, because of the Assistant Secretary comments, we revised one recommendation to clarify the guidance that he plans to issue related to roles and responsibilities for key segments of a facility construction project.

The Defense Health Agency Deputy Director, responding for the Defense Health Agency Director, agreed with the recommendation to review the actions of the individuals involved in the FBHR project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold them accountable as appropriate. The Deputy Director stated that the Defense Health Agency, in conjunction with the U.S. Army Health Facility Planning Agency Commander will conduct a joint review, which he estimated will take 12 weeks to perform.

The USACE Commander agreed with all recommendations to review the actions of the individuals involved in the FBHR project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold the individuals accountable as appropriate; issue guidance to improve medical infrastructure projects; complete an after action review following construction of the FBHR project; and issue guidance directing contracting personnel to issue past performance evaluations in accordance with the Federal Acquisition Regulation.

Specifically, the Commander stated that actions have been taken in accordance with USACE internal management controls and business processes to identify accountability for the actions, which will continue through construction completion. Furthermore, the Commander stated that USACE policies related to engineering and construction quality management and reporting of projects at risk is an established, on-going process. Additionally, the Commander stated that USACE will conduct an after action report within 180 days of construction completion, which currently is planned for September 2019. Lastly, the Commander stated that USACE will issue interim guidance within 90 days in accordance with the Federal Acquisition Regulation Subpart 42.15, "Contractor Performance Information," requirements.

The Chief of Staff for the Office of the Surgeon General and U.S. Army Medical Command, responding for the U.S. Army Health Facility Planning Agency Commander, disagreed with the recommendation to review the actions of the individuals involved in the FBHR project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold them accountable as appropriate. However, the Chief of Staff stated

Management Comments and Our Response (cont'd)

that he would conduct an inquiry to examine military construction (MILCON) processes, management of project sites, and interactions with stakeholders to refine current procedures. He further stated that the inquiry's finding will be reviewed and implemented on future projects. Additionally, the Chief of Staff stated that the Army Health Facility Planning Agency will assist the Defense Health Agency and USACE, as necessary, with any reviews they may undertake, as a result of this report and its findings. These alternate actions, if implemented, will address the intent of the recommendation.

All four recommendations are resolved but remain open. The recommendations will be closed when we obtain evidence to verify that the actions in response to the recommendations have been completed.

Please see the Recommendations Table on the next page.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Assistant Secretary of Defense for Energy, Installations, and Environment	None	1.a.i, 1.a.ii, 1.b.i, 1.b.ii	None
Director, Defense Health Agency	None	2	None
Commander, U.S. Army Corps of Engineers	None	3.a, 3.b, 3.c, 3.d	None
Commander, U.S. Army Health Facility Planning Agency	None	4	None

Note: The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – OIG verified that the agreed upon corrective actions were implemented.


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June 6, 2018

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,
AND SUSTAINMENT
DIRECTOR, DEFENSE HEALTH AGENCY
COMMANDING GENERAL, U.S. ARMY CORPS OF ENGINEERS
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: The Fort Bliss Hospital Replacement Military Construction Project
(Report No. DODIG-2018-125)

We are providing this report for your information and use. We conducted this audit in accordance with generally accepted government auditing standards except for evaluating internal controls, information systems controls, and the reliability of computer-processed data.

We considered management comments on a draft of this report when preparing the final report. Comments from the Assistant Secretary of Defense for Energy, Installations, and Environment; the Director of Defense Health Agency; the Commander of U.S. Army Corps of Engineers; and the Commander of U.S. Army Health Facility Planning Agency conformed to the requirements of the DoD Instruction 7650.03. Therefore, we do not require additional comments.

We appreciate the cooperation and assistance received during the audit. Please direct questions to me at (703) 604-9312 (DSN 664-9312).

Theresa S. Hull
Assistant Inspector General
Acquisition, Contracting, and Sustainment

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Introduction

Objective

We performed this audit in accordance with Public Law 115-91, "National Defense Authorization Act for Fiscal Year 2018," section 2823, "Report on Design Errors and Omissions Related to the Fort Bliss Hospital Replacement Project." Section 2823 requires the DoD Office of Inspector General (OIG) to report on five elements relating to the design errors and omissions related to hospital replacement project at Fort Bliss, Texas, no later than June 10, 2018. The following are the five elements Congress required the DoD OIG to include in the report.

- A detailed description of the specific design errors and omissions that resulted in the cost increase for the hospital replacement project.
- A description of the specific actions taken to prevent further schedule delays and cost increases on this project, as well as lessons learned that will be applied to future projects.
- A description of any ongoing or completed proceedings or investigations of parties responsible for the delay or cost increase and the status of those proceedings or investigations.
- The results of any final judicial or administrative actions taken because of the proceedings or investigations.
- A summary of any changes we believe may be required for future military construction projects as a result of problems identified and lessons learned from this project.

To answer the five elements, we reviewed the requirements development and design-bid-build contract award processes. We also reviewed design suitability and contractor oversight for the Fort Bliss Hospital Replacement (FBHR) construction project. See Appendix A for scope and methodology and prior audit coverage.

Background

Federal law defines military construction (MILCON) as construction development, conversion or extension of any kind carried out with respect to a military installation, whether temporary or permanent; any acquisition of land; or construction of a defense access road.[1] Substantial alterations or construction of new facilities that exceed $1 million must be funded by MILCON appropriations.

[1] Section 2801, title 10, chapter 169, "Military Construction and Military Family Housing," United States Code (2010) (10 U.S.C. § 2801 [2010]).

Military Construction Process

Department of Defense (DD) Form 1391, "Military Construction Project Data," is a form that originates at military installations and is used by the DoD as a programming document to request construction funding from Congress. The DoD uses DD Form 1391 for construction projects that must be funded by MILCON appropriations through approval from Congress. The DD Form 1391 is provided for each proposed construction project. The form includes a cost estimate, description of proposed construction, requirement for the MILCON project, current situation, the impact on operations if the project is not approved, and supplemental data.

Public Works personnel at the military installation where the construction will occur draft the DD Form 1391. The installation commander reviews and prioritizes the potential MILCON projects, then forwards the forms to the military regional commands or the applicable Defense Agency. In this particular case, once approved by the Defense Health Agency (DHA), the DD Form 1391 is forwarded to the Office of Secretary of Defense, which reviews, prioritizes, and consolidates MILCON projects across the DoD for inclusion in the defense portion of the President's budget. The Office of Management and Budget and the President make final revisions to the President's budget and submit it to Congress, which reviews the budget request and authorizes and appropriates funds. Finally, the Office of the Secretary of Defense allocates funds to the Military Services for congressionally approved construction projects. Once approved, if a MILCON project's costs increase more than 25 percent of the amount appropriated, the Secretary must notify Congress. The DHA is the official liaison with Congress regarding the FBHR construction project.

Key DoD Organizations with Responsibilities

The FBHR at Fort Bliss is an ongoing construction project. The FBHR will include a main hospital, inpatient and outpatient clinics, an administrative building, a research building, a central utility plant, helipad, visitor control center, two access control points, and surface parking. The FBHR medical facility will be 1.13 million square feet and will include 135 hospital beds, 10 operating rooms, and 30 specialty clinics. Originally, the Department of Veteran's Affairs planned to participate in the FBHR project; however, they could not obtain the funding and withdrew from the project. The Fort Bliss medical campus master plan allowed for the Department of Veteran's Affairs to connect to the hospital complex in the future or develop a standalone facility by the FBHR. Figure 1 shows the FBHR as of February 2018.

Figure 1. FBHR as of February 2018
Source: The DoD OIG.

Multiple DoD Components were involved in the planning, funding, design, and construction phases of the FBHR project. We met with personnel from the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment (OASD EI&E), U.S. Army Corps of Engineers (USACE) Headquarters (HQUSACE), USACE Southwestern Division, USACE Fort Worth District, USACE Fort Bliss Medical Construction Office, the DHA, U.S. Army Health Facility Planning Agency (HFPA), and U.S. Army Installations Management Command.

The Assistant Secretary of Defense for Energy, Installations, and Environment

The OASD (EI&E) is responsible for enhancing the DoD's planning, programs, and military capabilities through MILCON, facilities investment, environmental restoration and compliance, installation and operational energy resilience, occupational safety, and defense community assistance programs. The office is also responsible for policy development and execution of initiatives concerning utilization, consolidation, and optimization of domestic and overseas installations.

The Assistant Secretary of Defense for Health Affairs

The Office of the Assistant Secretary of Defense for Health Affairs is the principal advisor to the Secretary of Defense for health issues. The Office of the Assistant Secretary administers the Military Health System budget, oversees the development of medical policies, and issues guidance to DoD components on medical matters. In addition, the Office of the Assistant Secretary exercises authority, direction, and control over the DHA.

Defense Health Agency

The DHA is the resource sponsor for the FBHR project.[2] The DHA was established in October 2013 to serve as a combat support agency that enables the Army, Navy, and Air Force medical services to provide a medically ready force to Combatant Commands.[3] The DHA supports the delivery of integrated, affordable, and high-quality health services to 9.4 million Military Health System beneficiaries.

U.S. Army Medical Command–Office of the Surgeon General

U.S. Army Medical Command–Office of the Surgeon General provides sustained health services and research. The Office of the Surgeon General established the medical functional criteria for the FBHR project. U.S. Army Medical Command developed the requirements for the FBHR project. The Surgeon General, through the Commander, U.S. Army HFPA, was responsible for program surveillance, coordination, cost control, and staffing user-requested changes for the FBHR project.

U.S. Army HFPA–Assistant Chief of Staff for Facilities

The U.S. Army HFPA–Assistant Chief of Staff for Facilities (G-9) serves as the Surgeon General's Program Manager and user representative for health facility planning, programming, design, and construction of medical treatment facilities. The Army HFPA G-9 provides health facility expertise, manages programs, and executes projects. The Commander, Army HFPA, through his or her staff, is the program manager for the U.S. Army medical construction program. For the FBHR project, Army HFPA reviewed change orders, construction contract modifications, and coordinated all user medical and functional needs. The Army HFPA was responsible for the management and monitoring of all medical functional aspects and any other aspects having direct or indirect impact upon the medical function of the project. An Army HFPA Program Manager, designated by the Army HFPA, acted as the Army HFPA's point of contact during the construction stage of the project.

[2] A resource sponsor is responsible for the advocacy and funding of a program.

[3] Before October 2013, the DHA was the Tri-Care Management Activity. In this report, we refer to the agency as the DHA.

Health Facility Planning Office–Project Manager

A Health Facility Planning Office–Project Manager, established by the Army HFPA, was the local field representative at Fort Bliss during construction of the FBHR project. The Health Facility Planning Office–Project Manager was designated as the construction point of contact and sole on-site liaison representative to the USACE for Army HFPA.

U.S. Army Corps of Engineers

USACE delivers engineering services to stakeholders worldwide. USACE was the awarding contracting office for the design contract and the build (construction) contract.

Headquarters, Directorate of Military Programs, USACE

For the FBHR project, the Directorate of Military Programs was the program manager for the USACE Medical MILCON program and was the primary USACE point of contact for the Office of the Assistant Secretary of Defense for Health Affairs. The Directorate of Military Programs was the primary point of contact between DHA and USACE. The Programs Management Division, Programs Integration Division, served as the primary point of contact for all medical program management issues with the DHA, the stakeholder agencies' surgeons general and engineering organizations, and other Federal headquarters-level organizations involved with the design, construction, or maintenance of medical facilities.

Medical Facilities Mandatory Center of Expertise and Standardization

The Medical Facilities Mandatory Center of Expertise and Standardization (MX), Huntsville Engineering and Support Center is the USACE source of subject matter experts for all medically unique technical issues. For the FBHR project, it provided technical assistance to the USACE Fort Worth District during the design phase. During the construction phase, the MX continued to provide support to the Fort Bliss Medical Construction Office related to technical medical design requirements. The MX was directly responsible for the certification of the concept design and facilitated the presentation to the DHA Portfolio and Planning Management Division. The MX also provided support to the USACE Fort Worth District and overall Project Delivery Team during the final design development.

USACE Southwestern Division

USACE Southwestern Division, Dallas, Texas, was the division representative of USACE and has responsibility for management overview of the design, procurement, and construction activities of the USACE Fort Worth District.

USACE Fort Worth District

The USACE Fort Worth District, Fort Worth, Texas, was the designated design, procurement, and field level construction agent for the FBHR project. The USACE Fort Worth District Senior Project Manager managed the overall development of the design and construction effort. The USACE Fort Worth District was responsible for managing the program parameters—scope, cost, budget, schedule, and definition of quality. The USACE Fort Worth District also prepared and maintained the official construction contract documents.

Criteria

The following sections describe the key criteria for MILCON projects, funding regulations, and military medical facilities.

United States Code

- Section 1102, title 40, United States Code (40 U.S.C. § 1102 [2011]) provides information on the term "architectural engineering services." This section states that architectural engineers may perform other professional services, such as drawing reviews.
- Section 2851, title 10, United States Code (10 U.S.C. § 2851 [2010]) provides instructions on the supervision of Defense agency projects, maintenance of MILCON information on the internet, and access to that information.

Financial Management Regulation

- DoD Regulation 7000.14-R, "DoD Financial Management Regulation," (FMR), volume 2B, chapter 6, "Military Construction/Family Housing Appropriations," provides instructions applicable to congressional justification for MILCON appropriations. The FMR requires the DoD to complete DD Form 1391, "Military Construction Project Data," to justify all construction projects. The FMR states that the DD Form 1391 content requirements should include, but are not limited to, primary and supporting facilities cost line items; design and construction schedule; the requirement; current situation; and impact if not provided.
- Volume 3, chapter 7, "Reprogramming of Military Construction and Family Housing Appropriated Funds," provides guidance for the preparation of reprogramming proposals for the appropriation of MILCON funds. The DoD FMR requires some flexibility in adjusting approved funding levels to comply with new conditions and to effectively plan programs to support assigned missions. The FMR also states that while congressional subcommittees are supporting DoD Component mission accomplishments, reprogramming measures are intended to ensure that the use of DoD appropriations complies with congressional intent.

Federal Acquisition Regulation

- Federal Acquisition Regulation (FAR) Part 9, "Contractor Qualifications," discusses the policies and procedures pertaining to prospective contractors' responsibility; debarment, suspension, and ineligibility; and organizational conflicts of interest.
- FAR Part 36, "Construction and Architect-Engineer Contracts," sets policies and procedures to contract for construction and architect-engineer services. The FAR also includes requirements for using certain clauses and standard forms that apply also to contracts for dismantling, demolition, or removal of improvements.
- FAR Part 42, "Contract Administration and Audit Services," discusses policies and procedures for assigning and performing contract administration and contract audit services.
- FAR Part 43, "Contract Modifications," sets policies and procedures for preparing and processing contract modifications for all types of contracts, including construction and architect-engineer contracts.
- FAR 52.236-23, "Responsibility of the Architect-Engineer Contractor," outlines the basic responsibilities of an architect-engineer contracted by the Government.
- FAR 52.236-24, "Work Oversight in Architect-Engineer Contracts," states that the extent and character of the work to be done by the contractor is subject to the general oversight, supervision, direction, control, and approval of the contracting officer.
- FAR 52.243-4, "Changes," contains a contract clause that is required to be inserted in contracts for the contracting officer to make changes to the general scope of the contract.

Defense Federal Acquisition Regulation Supplement

- Defense Federal Acquisition Regulation Supplement 252.232-7007, "Limitation of Government's Obligation," contains a contract clause that is required to be inserted in contracts for limiting the Government's obligation in contracts.

Unified Facilities Criteria

- Unified Facilities Criteria 4-510-01, "Design Military Medical Facilities," provides mandatory policies and procedures for programming, planning, design, and construction throughout the life cycle of Military Treatment Facilities (MTFs). This document implements DoD policy, procedures, and technical criteria for the programming, planning, design, and construction of facilities in the DoD Medical MILCON program or other design and construction projects, regardless of source of funding.

Army Regulation and Guidance

- Army Regulation 420-1, "Army Facilities Management," states that HQUSACE is required to establish and maintain a Medical Facilities Center of Expertise to manage concept designs and provide technical support during final design and construction for Health Care Delivery Medical Facilities (Army Facility Activity Code 500), Medical Research Laboratories (Facility Activity Code 310-60), and facilities associated with medical training (Facility Activity Codes 171 and 179). HQUSACE must cooperate with the Office of the Surgeon General, ensuring compliance with Unified Facilities Criteria 4-510-01 requirements and conformance to design procedures prescribed by the Assistant Secretary of Defense for Health Affairs.

DoD Directives

- DoD Directive 4270.5, "Military Construction," establishes policies and responsibilities for the MILCON program and the use of DoD construction agents in the design or construction of MILCON program facilities. In addition, the Directive delegates statutory responsibilities relating to MILCON. This Directive is applicable to the Office of the Secretary of Defense, the Military Departments, the Defense Agencies, the DoD field activities, and all other organizational entities in the DoD. This Directive also applies to MILCON projects that are authorized and funded in MILCON authorization and appropriation acts to support the DoD Components.

Definitions of Key Terms

Architectural Supplemental Instruction (ASI) – Instructions, clarifications, and interpretations to the contract that changes the design provided by the Designer of Record.

Beneficial Occupancy Date – The date the stakeholder can expect to receive useful occupancy of the facility or construction work.

Design-Bid-Build – The traditional delivery method where design and construction are sequential and contracted for separately with two contracts and two contractors.

Design Charrette – A process by which designers, users, and installation decision makers gather information, define and document project requirements, and collaborate to develop the project design.

Design Validation – A review of the design to identify future cost and schedule impacts that have not been previously identified which may affect work progress.

Disciplines – The disciplines in the FBHR construction project include structural engineer, electrical engineer, mechanical engineer, communication system engineer, heating ventilation and air conditioning engineer, plumbing system engineer, fire protection engineer, cost engineer, medical equipment planner, architect, interior designer, and project scheduler and estimator.

Legacy Issues – All requests for equitable adjustment before May 31, 2016. The USACE Fort Worth District project manager and administrative contracting officer stated that USACE Fort Worth District refers to legacy issues as requests for equitable adjustment made before May 31, 2016.

Mega Project – HQUSACE categorized a list of projects as "Mega Projects" based on the following attributes: Cost and Duration, Uniqueness, Delivery Method, National Significance, Critical Nature of Completion Date, Coordination of Multiple Prime Contractors, and Coordination of Multiple Design Agents.

Request for Equitable Adjustment – A contract adjustment made in accordance with the changes clause.

Resident Management System (RMS) – A comprehensive system for the management of construction contracts through tracking and documentation of facts of a contract by USACE field offices and contractors.

Contracts and Documentation Reviewed

The FBHR construction project was a design-bid-build acquisition method. We reviewed the design contract, external reviewer contracts, construction contracts, construction phase support contracts, contract modifications, task orders, task order amendments, statements of work, Price Negotiation Memorandums and Pre-negotiation Objective Memorandums, Determination and Findings reports, Change Request Register, DD Forms 1391, funding authorization documentation, design authorizations, current working estimates, congressional notifications, project management plans, 10 U.S.C. § 2851 reporting requirements for each MILCON project that has been specifically authorized by Congress, contractor performance assessment reports, Contracting Officer's Representative (COR) monthly reports, snapshots of design submittal reviews, value engineering study report, DrChecks Conference meeting minutes, design submittal checklists, DrChecks' Comment Reports, design and construction evaluation reports, in process review briefings, Commander's Critical Information Requirements reports, Stakeholder Monthly Reports, Cost and Schedule Risk Reports, Project Status Reports, and budget request documentation.

Design Contract

The design work for the FBHR project occurred through three task orders awarded under an existing indefinite-delivery, indefinite-quantity contract, W912DY-09-D-0067.[4] The USACE Fort Worth District awarded three design task orders, DY01, DY02, and DY03, under this Medical Facilities Architect and Engineering Services contract for the design effort of the FBHR project.

On March 8, 2010, the USACE Fort Worth District awarded task order DY01, valued at $3.4 million. This task order required the architect-engineer to provide services to the DHA, Army HFPA, and USACE to develop the Fort Bliss Medical Fact-Finding Session, which was known as a Design Charrette.

On September 14, 2010, the USACE Fort Worth District awarded task order DY02, valued at $6 million. This task order required the architect-engineer to provide design services to the DHA, Army HFPA, and USACE to develop the design of the Replacement (Hospital), Campus Infrastructure Project to be located at Fort Bliss.

On September 10, 2010, the USACE Fort Worth District awarded task order DY03, valued at $17.4 million with two option years totaling $40.1 million for a total contract value of $57.5 million. This task order required the architect-engineer to provide design services to the DHA, Army HFPA, and USACE to develop the design of the Replacement (Hospital) to be located at Fort Bliss.

External Reviewer Contracts

The USACE Fort Worth District and MX contracted with external technical architect-engineer reviewers to support the agencies' reviews of task order W912DY-09-D-0067-DY03 FBHR design submittals.

On September 13, 2011, the U.S. Army Engineer and Support Center, Huntsville, Alabama, awarded task order W912DY-10-D-0004-0002, valued at $249,897. The architect-engineer was required to provide expert technical review support to the MX. The Peer Review Consultant services were to support the MX team and analyze, review, assess, and provide advice on the technical suitability of the plans, specifications, design analyses, and other supporting documents being developed by the Designer of Record.

On September 30, 2011, the USACE Fort Worth District awarded task order W912DY-10-D-0006-DY01, valued at $1.8 million. This architect-engineer contract was awarded to support USACE's review of the FBHR design submittals. The architect-engineer was required to provide multi-disciplinary architect and engineering review services as the Peer Review Consultant for the FBHR design.

[4] W912DY-09-D-0067 was awarded by U.S. Army Engineering and Support Center, Huntsville, Alabama.

The Peer Review Consultant services were to analyze, review, assess, and provide advice on the technical suitability of the plans, specifications, design analyses, and other supporting documents being developed by the Designer of Record, as stated in the Medical Facilities Architect and Engineer Services contract W912DY-10-D-0067.

On December 9, 2010, the USACE Fort Worth District awarded task order W9126G-10-D-0017-0010, valued at $163,654. This value engineering contract was awarded to conduct a value engineering study of the infrastructure and the medical complex facility. The focus of the value engineering study was on the "review and evaluation of available project information to enhance the value of the project through the identification of appropriate cost saving measures, including life cycle cost saving measures, and added value improvements without sacrificing project requirements."

Construction Contract

The FBHR project was to be accomplished through eight separate construction packages for Hospital Infrastructure, Water Booster Pump Station and Tanks, Medical Center Complex, Parking A, Helipad, Parking B, Access Control North and South, and landscaping.

The Medical Center Complex construction contract W9126G-13-C-0004 was one of eight separate construction packages to accomplish the FBHR project. On January 29, 2013, the USACE Fort Worth District awarded the construction contract, valued at $648.9 million. The construction contractor responsible for the Medical Center Complex was to complete all work required by the plans and specifications for the construction of the FBHR project. On May 28, 2013, the contracting officer issued the notice to proceed after the U.S. Government Accountability Office (GAO) denied three protests from other contractors.

Construction was completed for the Hospital Infrastructure, Water Booster Pump Station and Tanks, Parking A, and Helipad. As of March 2018, the Medical Center Complex is an ongoing construction. The Parking B, Access Control North and South, and landscaping contracts are yet to be awarded.

Contract Modifications

The Medical Center Complex construction contract, W9126G-13-C-0004, as reported in the Federal Procurement Data System-Next Generation, had 355 contract modifications, valued at $229.8 million, awarded as of March 2018. The administrative contracting officer (ACO) was delegated the responsibility for any contract modification less than $500,000. Of the 355 modifications to the construction contract, 270 were initiated by the ACO and 85 were initiated by the procurement contracting officer (PCO).

Construction Phase Support Contracts

The USACE Fort Worth District awarded three additional task orders under contract W912DY-09-D-0067 for the construction phase support to the FBHR project.

- On October 21, 2011, the USACE Fort Worth District awarded task order W912DY-09-D-0067-DY07, valued at $199,729. The design contractor was required to provide construction phase support for the Medical Campus Infrastructure and Water Booster Pump Station and Tanks projects.
- On September 16, 2013, the U.S. Army Engineer and Support Center, awarded task order W912DY-09-D-0067-0004, valued at $11.7 million. The design contractor was required to provide construction phase support for construction contract W9126G-13-C-0004.
- On September 2, 2014, the U.S. Army Engineer and Support Center, awarded task order W912DY-09-D-0067-0010, valued at $1.1 million. The design contractor was required to provide commissioning support services for the FBHR project.[5]

The USACE Fort Worth District awarded task orders W9126G-11-D-0016-0017 and W9126G-12-D-0002-0004 to provide support to the Fort Bliss Medical Construction Office. These contracts were to support all or part of Government's construction management of the FBHR project with an emphasis on quality assurance of the contract.

[5] Commissioning is defined by the building industry as the process of verifying that all building systems perform interactively according to the design intent, and the systems meet the owner's operational needs.

Chronology of Significant Events

Table 1 lists a chronology of significant events. Although this table does not contain every event, it provides a general timeline of key events that were relevant to our review of the FBHR project. Because none of the stakeholders in the FBHR project could provide a complete, comprehensive timeline of significant events, we developed this timeline based on the interviews conducted and documentation collected during our review.

Table 1. Chronology of FBHR Project Events

Date	Events
May 2009 to October 2009	The initial plan was to build a Women's, Infant's, and Pediatric Center, but the plan changed to construct a medical center hospital replacement. As a result, the Fort Bliss Hospital Replacement project grew from 167,786 square feet in May 2009 to 1.1 million square feet in October 2009.
October 28, 2009	Public Law 111-84, "National Defense Authorization Act for Fiscal Year 2010," Section 2404, "Authorization of Appropriations, Defense Agencies," authorized the DHA $966 million for a MILCON project at Fort Bliss, Texas.
March 8, 2010	The USACE Fort Worth District awarded task order DY01, valued at $3.4 million. This task order required the architect-engineer contractor to provide services to the DHA, Army HFPA, and USACE to develop the Fort Bliss Medical Fact-Finding Session, which was known as a design charrette.
March 9, 2010	The initial kick-off meeting for the FBHR construction project allowed the Architect–Engineer team and the USACE project management team to meet.
March 10, 2010	A follow-up to the kick-off meeting occurred between the DHA, Department of Veteran's Affairs, USACE (Fort Bliss and Fort Worth District project management team), USACE Medical Design Center of Expertise, Fort Bliss Department of Public Works, and Army HFPA.
April 27 to April 28, 2010	The design contractor conducted a pre-charrette design conference and site verification visit in accordance with the task order DY01 (from an existing indefinite-delivery, indefinite-quantity contract) scope of work. The design contractor reviewed the deliverables under this task order. Included were presentations on site analysis, design drivers, sustainability, and life cycle costing methodology.
June 4, 2010	The Department of Veteran's Affairs announced it could not obtain funding for the FBHR project and decided not to participate in the planning and design development efforts with the DoD at Fort Bliss.
June 28, 2010	USACE Fort Worth District initiated the design charrette for the FBHR project. This project was developed and executed as a DoD–only project. The Fort Bliss medical campus master plan allowed for the Department of Veteran's Affairs to connect to the hospital complex in the future or develop a standalone facility by the FBHR.

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
September 2010	The concept design submittal at 10 percent of the design completion was reviewed by the USACE Fort Worth District, MX, Army HFPA, and the DHA. The project management plan, July 2010, stated that the design charrette documents would be further developed to meet the 10-percent requirements and presented to the DHA for approval of the project scope.
March 2011	The schematic design submittal, at 20 percent of the design completion, was reviewed by the USACE Fort Worth District, MX, Army HFPA, and the DHA.
April 8, 2011	The final project planning package of the FBHR was issued.
October 2011	The concept design submittal, at 35 percent of the design completion, was reviewed by the USACE Fort Worth District, MX, Army HFPA, DHA, and the architect-engineer.
November 18, 2011	According to the Design, Construction, and Activation Branch Chief at the DHA, the concept design submittal, at 35 percent of the design completion, was presented to the DHA for approval. At 35 percent of the design completion, the FBHR construction project was within the cost and scope requirements of the DD Form 1391 and certified by the agent (USACE) as the project design progressed.
January 31, 2012	HQUSACE developed the first Engineering and Construction Bulletin (ECB) to provide guidance on additional engineering and construction management controls for mega projects.
February to April 2012	The design submittal, at 65 percent of the design completion, was reviewed by the USACE Fort Worth District, MX, Army HFPA, and the DHA.
May to June 2012	The final 100-percent design submittal for advertising and award was reviewed from May 14, 2012, through June 15, 2012. In addition, the Government reviewed all Government and contractor comments from previous design submittals to ensure comments were incorporated into the final design submittal from June 18 through 22, 2012.
August 2012	According to the timeline provided by the USACE Fort Worth District Medical Program Manager, the medical campus design effort was completed.
January 29, 2013	The construction contract was awarded by USACE Fort Worth District to the construction contractor.
May 20 through May 28, 2013	According to U.S. Government Accountability Office (GAO) bid protest decision documents, three contractors protested the award of the contract pertaining to the construction of the hospital and related buildings at Fort Bliss. GAO denied all three protests.
May 29, 2013	Receipt of notice to proceed was acknowledged by the construction contractor. The notice to proceed was signed by the contracting officer on May 28, 2013. According to USACE Fort Worth District, this established the contractual construction completion date of November 26, 2016.
August 19, 2013	Construction of the new Fort Bliss Hospital began.

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
October 16, 2013 to Present	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, HQUSACE began to give a quarterly executive overview to the DHA Portfolio and Planning Management Division on the status of MILCON projects.
February 2014	The pier drilling subcontractor responsible for laying the foundation to the Fort Bliss Hospital went bankrupt.
July 8 to July 10, 2014	According to the Final Design and Construction Evaluation Report (revised September 22, 2014), the HQUSACE Design and Construction Evaluation team conducted a review of the Fort Hood and Fort Bliss Hospital construction projects. They evaluated and made recommendations to the USACE Southwestern Division and the Fort Worth District to promote successful delivery of remaining work and future projects and enhance the development of future project delivery teams. The four recommendation areas made were: mega projects, design build, contract administration, and technical areas.
October 2014	According to the former Commander, USACE Southwestern Division, a whistleblower allegation was made against the former administrative contracting officer (ACO) regarding how he administered the contract safety activities. The former Commander also stated that the Chief of Engineering and Construction, USACE Fort Worth District, stated that the allegation was not substantiated.
November 2014	According to the timeline provided by the Design, Construction and Activation Branch Chief at the DHA, the schedule "stop light" changed from GREEN to AMBER.
Between December 2014 and January 2015	The USACE Southwestern Division, Regional Business Director, assumed oversight of the Civil Works Directorate for the MILCON missions.
January 2015	The Commander's Critical Information Requirements report stated that delays to pier construction and structural steel erection delayed the beneficial occupancy date by 90 days. A Commander's Critical Information Requirements report is used to notify the division commander of a project schedule slip or a missed milestone.
February 2015	A job site fatality occurred on February 24, 2015. There was no official stop work order issued, but a 1-month stand down was implemented while investigations into the fatality were conducted. The beneficial occupancy date changed from April 3, 2017, to October 3, 2017.
March 9, 2015	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the USACE Southwestern Division Commander updated HQUSACE on the following topics: the convening of a board of investigation for the fatality; the USACE Southwestern Division Safety Officer review of the project activity hazard analysis; and an Army Regulation 15-6 investigation into 'whistleblower' allegations of safety and, quality control and quality assurance issues.

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
June to July 2015	The USACE Southwestern Division Regional Business Director brought in personnel to mentor the ACO on the Fort Bliss hospital project. On July 30, 2015, the USACE Fort Worth District Medical Program Manager organized a partnering session at the Fort Worth District Office with the construction contractor, Designer of Record, USACE Fort Worth District, the DHA, and HFPA. The purpose of the workshop was to create good working relationships among all project stakeholders and jointly create a problem-solving procedure to eliminate unnecessary delays and costs.
September 2015	The Health Facility Planning Office at Fort Bliss assessed the FBHR construction project as AMBER for the first time.
November 2015	According to the USACE Fort Worth District Chief of Engineering and Construction, a meeting occurred between the two Chief Executive Officers of the construction contract joint venture and the USACE Fort Worth District Chief of Engineering and Construction to discuss contractor performance issues. The joint venture Chief Executive Officers listened to the issues presented and proposed a 90-day pause on the issuance of the interim rating to allow the joint venture time to address the USACE concerns. The joint venture Chief Executive Officers also stated during this meeting that many of the issues encountered were due to complications in the construction contract joint venture's interpretation of the design. The construction contract joint venture determined that the design interpretation issues were the responsibility of the Government, thus impacting the contractor's ability to perform. As a result of this meeting, the Government requested that the joint venture Chief Executive Officers provide a "get-well plan" to chart the path of improvement. This plan was received in December 2015.
January 2016	The USACE Southwestern Division Regional Business Director called a meeting in Dallas, with USACE Fort Worth District, the designer of record, and construction contractor leadership to discuss onsite project leadership changes. They made a joint determination that it was necessary to replace onsite project leadership to move the FBHR project forward. This meeting was referred to by USACE Southwestern Division Officials as the management reset meeting.
February 10, 2016 to Present	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the DHA conducted a quarterly line item review on the status of MILCON projects. The USACE Fort Worth District reported that the FBHR construction project was significantly behind schedule.
March 2016	In the DHA stakeholder monthly report, the DHA project manager reported that Fort Bliss Hospital funding would likely exceed the authorization amount in FY 2017.
March 2016	Significant leadership changes occurred among the project delivery team stakeholders; on-site leadership position changes included the construction manager (USACE), project manager (design contractor), and project executive (construction contractor). These leadership changes were a result of the management reset meeting in January 2016.

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
March 2016	The Health Facility Planning Office at Fort Bliss assessed the FBHR construction project as RED for the first time.
March 2016	The beneficial occupancy date estimate changed from October 3, 2017, to September 3, 2018.
March 2016	The USACE Fort Bliss Medical Construction Office deferred all negotiations of discretionary change. The Health Facility Planning Office at Fort Bliss cancelled active changes and curtailed all discretionary change procedures going forward.
March 2016	The Army HFPA issued two executive summaries to the U.S. Army Medical Command leadership communicating operational impacts of the anticipated project delay and project leadership changes. One of the executive summaries stated that the project manager informed the Army HFPA, DHA, and HQUSACE that the FBHR construction project was 31 percent behind schedule.
April 21, 2016	USACE Fort Worth District prepared a project status update on the above threshold reprogramming. The purpose was to discuss the current funding level of the Fort Bliss Hospital and options to maintain schedule and momentum.
June 2016	The DHA notified OSD of the desire to reprogram funds to execute the access control points, parking, and landscaping.
June 2016	According to the timeline provided by the USACE Fort Worth District Medical Program Manager, the design validation was introduced into the FBHR construction project to proactively understand future design and construction issues and mitigate those costs by early action.
June 23, 2016	A HQUSACE Design and Construction Evaluation Report identified a delay of 1 to 2 years and a requirement for an additional $200 million to complete the FBHR project. The Mega Design and Construction Evaluation Team evaluated and made recommendations to the USACE Southwestern Division and USACE Fort Worth District to promote successful delivery of remaining work and future projects and to enhance the development of future project delivery teams.
July 12, 2016	The first Executive Leadership Team meeting was held at Fort Bliss. The Executive Leadership Team are the senior leaders responsible and accountable for making decisions and applying resources to solve problems above the day-to-day management of the project.
July 18 to 20, 2016	The first of the six legacy issues, exterior framing, was presented to the dispute review board. The board was established by the construction contractor and USACE Fort Worth District to evaluate disputes that arose from the construction contract for the FBHR project. A site visit was conducted on July 19, 2016.
July 20, 2016	The first principals meeting managed by the Executive Leadership Team was held at Fort Bliss.

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
August 2016	According to the prenegotiation objective memorandum of the construction contract, the construction contractor submitted a time impact analysis requesting approximately 21 months of compensable delay due to six major issues that were identified throughout the FBHR project. These issues included seismic bracing of mechanical and plumbing piping, splice zone requirements of concrete reinforcing, structural steel erection, interior and exterior framing, structural concrete topping slabs, and interdisciplinary design coordination. This memorandum served as authority to negotiate time impacts during any direct cost discussions on individual issues in categories 5 or 6 of the legacy issue resolution proceedings. Multiple design changes and subsequent time impacts resulted in a duration for construction longer than planned.
August 4, 2016	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the USACE Southwestern Division Regional Business Director briefed an approach to address issues at Fort Bliss to HQUSACE.
August 23, 2016	An Executive Leadership Team teleconference was held to discuss the schedule and outline for the design validation at Fort Bliss.
August 26,2016	The USACE Southwestern Division Regional Chief of Engineering and Construction scheduled the first meeting of the design validation review team. The team met to discuss and identify as many future issues and impacts of design-related items as possible when forecasting funding for the project.
September 2016	The design validation review effort was from September 6 through September 30, 2016.
September 2016	DHA notified OSD that additional funds were required to complete the FBHR project.
September 2016	OASD (EI&E) became aware of the Fort Bliss Hospital design, execution, and financial challenges when the DHA identified the need for a reprogramming request.
October 1, 2016	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, HQUSACE provided contract negotiation expertise on resolution of legacy items from October 2016 through March 2017.
November 2016	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the USACE Southwestern Division submitted the FY 2017 above threshold reprogramming request for $74 million to HQUSACE.
November 26, 2016	Original construction completion date of the FBHR construction project.
January 10 to 12, 2017	According to the Defense-Wide MILCON Program Analyst, OASD (EI&E) visited the project site to meet with DHA, USACE, and HFPA to better understand the execution and fiscal challenges to defend the FY 2017 reprogramming request and the FY 2018 budget request.

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
January 12, 2017	The Under Secretary of Defense (Comptroller) notified the House and Senate Committee on Appropriations of the proposed reprogramming of funds for the Fort Bliss Hospital Replacement project, which totaled $74 million.
January 19, 2017	The USACE Fort Worth District provided HQUSACE a copy of the Fort Bliss Cost Schedule Risk Assessment, which contained information in support of the DHA FY 2018 increment for the Fort Bliss Hospital. USACE Fort Worth District prepared the executive slides of the cost and schedule risk analysis on January 18, 2017.
January 24, 2017	According to the Defense-Wide MILCON Program Analyst, OASD (EI&E) attended the principal's meeting to ensure that there was a clear understanding of the information necessary to support the FY 2018 budget request.
February 6, 2017	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the DHA requested an additional increment of $251.3 million in the FY 2018 budget for the Fort Bliss Hospital.
April 3, 2017	Original beneficial occupancy date estimate of the FBHR construction project.
April 2017	Congress approved the FY 2017 $74 million above threshold reprogramming for mandatory design modifications, contingency, and construction support services, and negotiated contractor requests for equitable adjustment items.
April 20, 2017	HQUSACE requested $29 million from the DHA for settlement of claims on Fort Bliss Hospital legacy items; the funds were provided in May 2017.
April 21, 2017	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the HQUSACE Deputy Commanding General for Military and International Operations directed an independent diagnostic assessment of the training, tactics, and procedures in the delivery of the FBHR project.
May 2, 2017	The U.S. House of Representatives Committee on Appropriations notified the DoD of an inquiry into the cost, schedule, and performance of the project. HQUSACE planned to conduct a comprehensive review of mega projects policy, metrics, and reporting, and established a 2018 Mega Design and Construction Evaluation schedule.
May 23, 2017	The DHA notified Congress of an authorized cost increase of $245 million for a total authorized cost of $1.2 billion.
June 22, 2017	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, HQUSACE completed a diagnostic assessment of FBHR construction. HQUSACE, the Southwestern Division, and the Fort Worth District were briefed on the findings. See audit report section on "Actions Taken to Prevent Further Schedule Delays and Cost Increases."

Table 1. Chronology of FBHR Project Events (cont'd)

Date	Events
November 2017	A former USACE Fort Bliss resident engineer was appointed as the lead of the first ICE Breaker team at the USACE Fort Bliss Medical Construction Office. The ICE Breaker team was formed to proactively identify and solve on-site coordination, engineering, design, construction, and change management process issues.
November 17, 2017	The request for equitable adjustment final settlement agreement was reached.
November 20, 2017	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, HQUSACE requested $142 million from the DHA for settlement of FBHR project legacy issues (claims).
November 21, 2017	According to the timeline provided by the HQUSACE Chief, Air Force/ DoD Branch, Program Integration Division, the DHA informed HQUSACE that the OUSD (Comptroller) sent the full amount of $142 million to DHA.
December 2017	According to the timeline provided by the Design, Construction and Activation Branch Chief at the DHA, the beneficial occupancy date estimate for the project changed from September 3, 2018, to February 2020.
January 29 to 30, 2018	According to the Defense-Wide MILCON Program Analyst, OASD (EI&E), a site visit was conducted by OASD (EI&E) to meet with the DHA, HFPA, USACE Southwestern Division, and Fort Worth District to assess the project delivery team.
June 29, 2018	Contractual construction completion date of the FBHR construction project as a result of the legacy settlement.
July 25, 2019	Final projected completion date of the FBHR construction project, as of the January 2018 project schedule.
February 2020	Final projected beneficial occupancy date for the FBHR construction project, according to the project management plan.
September 2020	The Fort Bliss Hospital is anticipated to be at full operational capability.

Finding

FY 2018 NDAA Section 2823 Reporting Elements and DoD OIG Responses

We conducted the audit in accordance with the FY 2018 NDAA requirement for the DoD OIG to provide a report on the design errors and omissions related to the construction of the Fort Bliss Hospital Replacement project at Fort Bliss. Specifically, Congress required the DoD OIG to include the following five elements in the report:

1. a detailed description of the specific design errors and omissions that resulted in the cost increase for the hospital replacement project;
2. a description of the specific actions taken to prevent further schedule delays and cost increases on this project as well as lessons learned that will be applied to future hospital projects;
3. a description of any ongoing or completed proceedings or investigation into a government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases and the status of such proceeding or investigation;
4. if any proceeding or investigation identified in item (3) resulted in final judicial or administrative action for the following:
    a. in the case of a judicial or administrative action taken against a government employee, the report must identify the individual's organization name, position within the organization, and the action taken against the individual; or
    b. in the case of the judicial or administrative action taken against a prime contractor, subcontractor, or non-governmental organization, the report must identify the prime contractor, subcontractor, or non-governmental organization and the action taken against the prime contractor, subcontractor, or non-governmental organization; and
5. a summary of any changes that the Inspector General believes may be required to the organizational structure, project management and oversight practices, policy, or authorities of a government organization involved in MILCON projects as a result of problems identified and lessons learned from this project.

The following sections address each of these elements.

FY 2018 NDAA Section 2823 (b) Reporting Element (1): Reasons for Design Errors and Omissions

We examined the FY 2018 NDAA Section 2823 (b) Reporting Element (1) that required the DoD OIG to report on the specific design errors and omissions that resulted in the cost increase for the hospital replacement project at Fort Bliss.

DoD OIG Response to FY 2018 NDAA Section 2823 (b) Reporting Element 1

As of March 15, 2018, the USACE Change Request Register showed 978 contract change requests, including 132 cancelled change requests that occurred during construction of the FBHR project. The change requests included 453 engineering changes with contract modifications or negotiated pending contract modifications. The FY 2018 budget request for $251.3 million included three line items for design errors and omissions, valued at $165.6 million. We identified the modifications awarded as of March 2018 with the negotiated amounts related to the three line items for design errors and omissions.

- **Design Errors and Omissions (through May 2016) [Legacy Issues] for $32.1 million –** The USACE Fort Worth District Medical Project Manager stated that design errors and omissions through May 2016 are referred to as "legacy issues," which are requests for equitable adjustment made by the construction contractor before May 31, 2016. For example, one design error and omission legacy issue was related to costs and time associated with the Government's direction that structural steel beams and columns be refabricated to correct errors in the design of the structure and to cease delivery of steel to the site. This direction impacted the steel erection activities, resulting in reordering work and suspending critical work activities until the refabricated steel was delivered to the site. The cost and time increase for this change was $9.8 million and 65 calendar days.
- **Impact Costs (through May 2016) [Time-Delay Costs] for $142 million –** Impact cost is the cost of the overall time delay that the USACE Fort Worth District Contracting Officer or ACO negotiated with the construction contractor. The time delay specifically resulted from changes to the contract related to requests for equitable adjustment made by the construction contractor before May 31, 2016. One example of a time-delay cost included 306 calendar days added to the contract, including 126 calendar days due to USACE-caused delays. The delays were related to interior framing issues, seismic issues, and additional commissioning.[6] The cost of the 306 days was $12.7 million.

[6] Commissioning is defined by the building industry as the process of verifying that all building systems perform interactively according to the design intent and the systems meet the owner's operational needs. Seismic tests are conducted to ensure that the structure being built is earthquake-proof.

- **Design Errors and Omissions (after May 2016) [Design Validation] for $3.7 million –** The USACE Fort Worth District Medical Project Manager stated that design errors and omissions after May 2016 were a result of the design validation. The design validation was a review of the design to identify future cost and schedule impacts that had not been previously identified and may affect work progress. One example of design errors and omissions during design validation related to correcting lighting fixtures and problems with the ceiling. The cost of the lighting and ceiling issues was $1.8 million.

The HQUSACE Medical National Program Manager stated that the requested amount for design errors and omissions of $165.6 million was an estimated amount and that this amount was revised based on negotiations. For the full detailed description of the design errors and omissions in the FY 2018 budget request, see the Design Errors and Omissions section.

We reviewed the design oversight process and identified the details of the specific design errors and omissions that resulted in the FBHR project cost increase included in the FY 2018 budget request. For our review of the design oversight process, we:

- completed a site visit to the USACE Fort Worth District and interviewed the project managers for the FBHR project on their design review process and the involvement of each stakeholder during the review of the design submittals completed by the design architect-engineer contractor;
- reviewed the FBHR design architect-engineer contract requirements for the FBHR submittals along with the FBHR project management plan;
- reviewed architect-engineer contracts for the external design review. All Government stakeholders conducted the design submittals review in the DrCheck system; and
- assessed whether the USACE Fort Worth District reviewed the FBHR design in accordance with USACE Engineer Regulation 415-1-11 for Biddability, Constructability, Operability, and Environmental (BCOE) and in accordance with USACE Engineer Regulation 11-1-321 for value engineering.[7]

For the detailed design errors and omissions, we first reviewed the USACE RMS and assessed how the USACE Fort Bliss Medical Construction Office identified the contract changes. We then obtained the details of the FY 2018 budget request and identified the specific design errors and omissions that resulted in

[7] According to USACE Engineer Regulation 1110-1-8159, "Engineering and Design, DrChecks," January 1, 2015, DrChecks is mandatory for all military and civil projects requiring the established design review process and used as a required repository for collecting and transmitting project review comments.

the contract cost increase for the hospital. Finally, we identified the contract modifications that have been awarded for the design errors and omissions included in the FY 2018 budget request.

In addition, we interviewed personnel at the USACE Southwestern Division and Fort Worth District levels about when they became aware of the issues in the FBHR project and reviewed supplemental documentation on this matter. Specifically, we reviewed:

- USACE Fort Worth District and Fort Bliss Medical Construction Office guidance and manuals for their processes for design changes;
- USACE Fort Worth District Project Manager's In-Process Reviews and the Commander Critical Information Reports related to the FBHR project to assess whether stakeholders were made aware of the design changes and project status; and
- two executive summaries issued in March 2016 by Army HFPA to U.S. Medical Command leadership.

Design Oversight

The USACE Fort Worth District hosted the technical reviews of the design submittals in conjunction with the MX. The USACE Fort Worth District was responsible for the review of non–medically-specific features of the FBHR design in each project design submission by technical personnel qualified in the individual disciplines. The MX was responsible for review of medically-specific design features, with special attention to compliance with Unified Facilities Criteria 4-510-01, "Design: Military Medical Facilities." The DHA was responsible for project programming, budgeting, design authorization, design review, and construction authorization.

The USACE Fort Worth District and MX contracted with external architect-engineer independent technical reviewers to support the USACE Fort Worth District and MX reviews of task order W912DY-09-D-0067-DY03 FBHR design submittals. According to USACE Fort Worth District project managers, the external architect-engineer firm contracted by the USACE Fort Worth District started participating in reviewing the design submittals at 35 percent of the design completion. A USACE Fort Worth project manager stated that USACE contracted with an external architect-engineer firm to provide support on its reviews of the design submittals because the Fort Worth District was concurrently working on multiple projects and did not have enough people or time to review the drawings. The USACE Fort Worth District Project Manager stated that the USACE Fort Worth District review on the deliverables from this external architect-engineer firm was to make sure the architect-engineer firm was submitting comments for all disciplines with non–medically-specific features.

Design Submittals

The design architect-engineer was required to follow contract requirements and the statement of work outlined in the contract and develop submittals based on the medical design instruction provided by MX and the design charrette 10-percent completion submittal.

The design charrette documents developed by the design contractor under task order W912DY-09-D-0067-DY01 for the 10-percent completion submittal were reviewed by the DHA for approval of the project scope. The DHA comments were incorporated into the final concept design at 10-percent completion for DHA's approval of the scope and cost of the project.

The USACE Fort Worth District, MX, Army HFPA, and the DHA conducted a formal review for each design submittal under task order W912DY-09-D-0067-DY03. Review periods were for the 20-percent, 35-percent, 65-percent, 95-percent, and 100-percent of the design completion submittals.

- The schematic design submittal for 20 percent of the design completion was reviewed in March 2011. This submittal included development of the room-by-room floor plans, elevations, and initial analysis of the major architectural and engineering systems. The primary purpose of this submittal and review was to identify and resolve all major space program deficiencies at an early stage in design. All DrChecks comments for review of 20-percent design completion were addressed by the design contractor and closed out by USACE Fort Worth District personnel.
- The concept design submittal for 35 percent of the design completion was reviewed in October 2011. This submittal was required to be a minimum 35 percent of the total design effort in all disciplines and included a corrected and refined package based on the 20-percent design completion review. This was considered the technical submission that must include all technical elements of the design. For example, all issues regarding costs, value engineering study, constructability, commissioning, phasing, and any other special studies were required to be resolved. The USACE Fort Worth District outsourced the value engineering study, which was conducted simultaneously with the 35-percent design completion review. The value engineering study and 35-percent design completion review both concluded on October 21, 2011. On December 6, 2011, the DHA issued a memorandum for record signed by the Director of Portfolio Planning and Management Division to the Commander, HQUSACE, for approval of the 35-percent design completion submittal and authorized HQUSACE to proceed to 100-percent design completion as required by the USACE execution policy. In addition, all DrChecks comments for review of 35 percent of the design completion were closed out by the USACE Fort Worth District.

- The final design documents for 65 percent of the design completion was reviewed in February 2012. The submittal of the design documents was to provide the USACE Fort Worth District and Army HFPA an opportunity to review how accurately the designer captured the Government's requirements and provide an indication that the design development was on schedule.

  The USACE Fort Worth District Project Manager stated that the Government review for the 65-percent design completion occurred between February 27 and April 20, 2012. This review included the design architect-engineer internal review and back-check responses and a review conference in El Paso, Texas.[8] In addition, USACE Fort Worth District reviewed the back check responses provided by the design architect-engineer. Our review of the 65 percent design completion meeting minutes from the February 27, 2012, meeting shows that the architect-engineer provided a design submittal checklist certifying the 65 percent of the design completion. In addition, all DrChecks comments for review of 65-percent design completion were closed out by the USACE Fort Worth District.

- The review for the 95-percent of the design completion occurred in May 2012. The 100 percent back-check review occurred in June 2012. When the design was complete, the USACE Fort Worth District was responsible for submitting a copy of the final documents (including, among other items, drawings, specification, cost estimate, and instructions to bidders) to the DHA Portfolio Planning and Management Division. Along with this package, the USACE Fort Worth District was required to provide a memorandum to the DHA Portfolio Planning and Management Division certifying that the design was completed and that all technical requirements and cost criteria approved at the 35-percent design completion were incorporated into the final design. In addition, all DrChecks comments for the 95-percent design completion review were closed out by the USACE Fort Worth District.

  The USACE Fort Worth District Project Manager stated that the Government review for 95-percent design completion and the final 100-percent submittal for advertising and award occurred between May 14 and June 15, 2012. The Government back-check comments review occurred from June 18 through June 22, 2012.

[8] A back-check review is a review of all comments from previous design submittals to ensure that comments were incorporated into the final design submittal.

In addition, per the MX execution policy, MX was responsible for providing documentation for the final design that the project complied with all medical unique technical requirements to the DHA. However, the MX Chief stated that MX does not have a record of a similar memorandum being prepared for the 100 percent of the design completion for the FBHR project. He also stated that they did not find any validation memorandum for other projects regarding the verification of compliance as a past practice that may have ended before the FBHR project.

Biddability, Constructability, Operability, and Environmental Review

In addition to reviewing the design architect-engineer submittal described previously, the USACE Fort Worth District Chief of Engineering performed reviews for BCOE of the project for minimizing potential delays during construction. The USACE Engineer Regulation 415-1-11, September 1, 1994, "Biddability, Constructability, and Operability, and Environmental Review," requires division and district offices to perform a minimum of two specific reviews: one at the concept stage and a second one at the final design stage. The regulation also requires the Chief of Engineering to ensure that BCOE reviews were accomplished and to certify in writing that all appropriate BCOE comments were incorporated in the bid documents or satisfactorily resolved and that feedback on all comments were provided to reviewers.

The Project Management Plan for the FBHR project, July 20, 2010, required the Fort Worth District Chief of Engineering and Construction to sign a BCOE review at the conclusion of the 95 percent of the design completion stage and before the contracting officer proceeded with the ready-to-advertise package. The Assistant Chief of Engineering and Construction Branch, Fort Worth District, signed the BCOE certificate on July 12, 2012, which stated that the final design review comments were addressed and that the pre-award package complied with the Army standards and USACE standard design and criteria as required by USACE Engineer Regulation 415-1-11. The USACE Fort Worth Medical Project Manager did not address whether any additional BCOE certificates were completed for the FBHR design.

In addition, Engineer Regulation 415-1-11 requires that all BCOE review comments be transmitted through the Automated Review Management System, which was replaced by DrChecks in May 10, 2001. The USACE Fort Worth District Medical Project Manager explained that the submittal reviews were the basis for issuance of the BCOE certificate before contract solicitation to ensure all comments had been addressed.

Value Engineering

According to USACE Engineer Regulation 11-1-321, "Value Engineering," January 1, 2011, all projects, programs, and procurements greater than $1 million must have an appropriate value engineering study, or studies, or an approved waiver. The USACE Engineer Regulation also states that value engineering certification for MILCON must be performed on all programs with a current working estimate or program amount greater than $1 million, including Centers of Standardizations Programs and Projects, and regardless of acquisition strategy. The USACE Engineer Regulation states that the request to waive the value engineering study must be made at the very beginning of the design action to be considered, and the request must contain comprehensive justification. Lastly, the USACE Engineer Regulation states that the value engineering officer is responsible for ensuring that the value engineering requirements are completed for projects.

The USACE Fort Worth District Medical Project Manager stated that a contracted value engineer study was contracted out and completed in October 2011 and, therefore, no waiver was needed. We reviewed the "Final Value Engineering Study Report," issued in February 29, 2012, which summarized the events of the study conducted from October 17 through 21, 2011. The evaluation resulted in the development of 23 alternatives with a combined savings of $36.6 million. The objective of this study was to perform value engineering analysis on the FBHR project to develop alternative concepts to improve overall project value. The value engineering study team was composed of cost estimators, architect, and multiple engineering disciplines.

DrChecks and Comment Reviews

The USACE Engineer Regulation 11-1-321, "Value Engineering," January 1, 2011, requires that the technical inquiries for all projects are posted onto the ProjNet Project Management site in the DrChecks section.[9] The architect-engineer was required to conduct project reviews in the DrCheck system and provide a written notification of resolution actions for each comment. Our review of DrChecks' snapshot comment reports show entries from the architect-engineer addressing comments from Government stakeholders. In addition, the architect-engineer included the signed checklist for the disciplines reviewed, stating that the disciplines have been reviewed by the architect-engineer and comments were incorporated into the submittal documents.

[9] ProjNet Project Management site is the website where USACE districts access DrChecks. The system allows unlimited use by Government and private sector personnel assigned with project review responsibility by a USACE district.

USACE Fort Worth District project managers explained that for each submittal from 20 percent of the design completion through 95 percent of the design completion, a DrChecks snapshot report was reviewed in eight different sections for Life Safety, Site, Main Hospital, Clinics, Admin and Education Building, Clinical Investigation Building, Central Utility Plant and Tunnel, and Shared Package.

The USACE Fort Worth District Project Manager further explained that all of the designs were posted on the Federal Business Opportunities website. Interested contractors had at least 30 days to look at the designs and post any questions in DrChecks, which the design architect-engineer could then answer. USACE Fort Worth District personnel were required to close the comments in DrChecks.

Design Errors and Omissions

Despite the numerous design submittal reviews by the USACE Fort Worth District, MX, the DHA, Army HFPA, and two external architect-engineer independent technical reviewers, as of March 2018, the USACE Change Request Register showed 978 change requests, including 132 cancelled change requests that occurred during construction of the FBHR project. The change requests included 453 engineering changes, including design errors and omissions. Contract modifications have been awarded or negotiation pending contract modifications occurred for the 453 engineering changes.

The USACE Fort Worth District kept track of all changes throughout the FBHR project in the USACE RMS and categorized the list of all contract modifications awarded by USACE-established RMS codes: Engineer Changes (1), Value Engineer Changes (8), Government Furnished Property (G), Suspensions of Work (S), Termination of Work (T), and Construction Changes (V). These codes are for changes that the USACE Fort Worth District can control. In addition to these codes for controllable changes, the USACE Fort Worth District also categorized codes for uncontrollable changes, such as Discretionary User Changes (4), Differing Site Conditions (7), Administrative Changes (9), Adverse Security Conditions (A), Excusable Delay for No Fault Such as Weather or Act of Nature (E), Variations in Estimated Quantities (Q), Revaluation Such as Foreign Currency (R), and Miscellaneous Changes (6).

The USACE Fort Worth District Medical Project Manager stated that engineering changes are identified by RMS code 1; however, these engineering changes are not exclusively for changes because of design errors or omissions. Engineering changes coded 1 in RMS may also include changes because of specification revisions that may have also resulted in drawing revisions. In addition to specification revisions, the engineering changes can be a result of a request for information issued by the construction contractor or an ASI issued by the Designer of Record.

These engineering changes contributed to the FBHR project's cost and time increase. Figure 2 shows the numerous sets of drawings for the FBHR project that resulted from drawing revisions.

We identified the modifications awarded as of March 2018 for the design errors and omissions identified in the FY 2018 budget request. However, we note that the contracting personnel classified some of these modifications in RMS as codes other than code 1, Engineer Changes. Contracting personnel also used code 6, Miscellaneous Changes; code V, Construction Changes Necessary to Complete Contract; and code 9, Administrative Changes. Therefore, the design errors and omissions for FBHR project are not all coded 1 in RMS as Engineering Changes. See Tables 3, 4, and 5 for contract modifications awarded as of March 2018 that the HQUSACE Medical National Program Manager identified as design errors and omissions which resulted in the FBHR project's cost and time increase.

Figure 2. FBHR Project Drawing Room
Source: The DoD OIG.

See Appendix B, Medical Complex Contract Modifications Coded 1, Engineering Changes, for the contract modifications awarded for 435 engineering changes and 18 engineer changes negotiated pending contract modifications, totaling $42.2 million for the FBHR project. These 435 engineering changes were identified as code 1 in RMS and most of the modifications resulted in the FBHR project's cost increase.

FY 2018 Budget Request to Include Design Errors and Omissions

On April 21, 2017, the USACE Fort Worth District requested the DHA's approval to obtain an FY 2018 budget request to increase the FBHR project's programmed funds by $251.3 million. This request included three line items for design errors and omissions: Legacy Issues, Time-Delay Costs, and Design Validation, valued at $165.6 million. The HQUSACE Medical National Program Manager stated that the FY 2018 budget request was an estimated amount shown in the USACE current working estimate as of January 25, 2017. The Program Manager further stated that the costs in the current working estimate were revised based on negotiations. See Table 2, FY 2018 Budget Request to Include Design Errors and Omissions, for the detail on each line item in the budget request.

Table 2. FY 2018 Budget Request to Include Design Errors and Omissions

Appropriation Request	Budget Request (in millions)
Legacy Issues	$9.0
Time-Delay Costs	144.6
Design Validation	12.0
Total for Design Errors and Omissions	**$165.6**
Other Appropriation Requests	85.8
TOTAL FY 2018 Budget Request	**$251.4***

Source: The DoD OIG.
* The computed total is $251.4 million due to rounding.

The project development team determined that the best way to resolve the large number of contract issues over 6 months old was to combine the issues into several large groups and settle each group as a whole. Categories one through five are for direct construction cost issues, and category six is for time impact to complete the FBHR project. Group five consists of numerous individual cost issues submitted by the medical complex construction contractor and subcontractors for the direct costs that arose on or before May 31, 2016. Group six accounts for the time impact associated with the request for equitable adjustment cost issues that arose on or before May 31, 2016. The USACE Fort Worth District included the first four of six categories of contract issues in the FY 2017 reprogramming request, and categories five and six, were included in the FY 2018 budget request.[10] Our review of the supplemental data provided by the HQUSACE Medical National Program Manager disclosed the following detail for each of the FY 2018 budget request line items for design errors and omissions.

[10] On January 12, 2017, the Under Secretary of Defense (Comptroller) notified Congress of the proposed $74 million reprogramming of funds for the FBHR, which was approved by Congress in April 2017.

Legacy Issues

The HQUSACE Medical National Program Manager provided supporting documentation for the FY 2018 budget request line item for legacy issues. The Program Manager stated that the FY 2018 budget request was an estimated amount of $29 million from the USACE current working estimate, as of January 25, 2017, for direct costs related to the request for equitable adjustment for cost issues categorized in group five. The Program Manager further stated that the claims settled on April 19, 2017, for $20 million resulted in less than the cost estimated, and that the remaining $9 million will be used as contingency for future mandatory modifications.

The settled claim of $20 million for legacy issues included three modifications valued at $18.9 million and the 5.7-percent fee for Supervision, Inspection, and Overhead, valued at $1.1 million. USACE Fort Worth District awarded three modifications, P00067, P00068, and P00077, for the contract issues included in the April 19, 2017, settled claim memorandum for the legacy issues.

- **Modification P00067** included a $9 million negotiated amount for all direct costs associated with 10 request for equitable adjustment cost issues. The documentation for the 10 request for equitable adjustment cost issues did not specify whether the issues were design errors or omissions. The P00067 modification included cost issues negotiated that are specifically related to slab reinforcing splice zone, corner bars, air barrier clarification eyebrow details, interior metal panel beam wrap, metal decking over moment plate, exterior and interior framing design issues, second shift duct fabrication, and canopies. The time-related costs, such as delay costs, disruption costs, and other increased costs, are not included in this modification.
- **Modification P00068** included a $9.8 million negotiated amount and 65 calendar days for a time increase associated with one cost issue for ASI 90 and 90.1. This cost issue is specifically related to costs and time associated with the Government's direction that certain structural steel beams and columns be refabricated to correct errors in the design of the structure and to cease delivery of steel to the site. This direction impacted the steel erection activities that was on the critical path, resulting in reordering work and suspending critical path activities until the refabricated steel was delivered to the site.[11]
- **Modification P00077** included a bilateral settlement of $165,000 and no time increase associated with one cost issue for cubicle track curtain requirements as listed in the plans but not in the specifications.

[11] Critical path is the linear path through a work schedule network determining the shortest time within which all work can be completed.

In addition to modifications P00067, P00068, and P00077, we identified modification P00079, which was awarded on December 13, 2017, by the USACE Fort Worth District for a $13.1 million cost increase related to request for equitable adjustment cost issues category group five. The P00079 modification included 22 negotiated cost issues. Specifically, the modification included:

- use of bent plate at slab edge of elevator openings;
- conflicts in the mechanical, structural, and architectural drawings for mechanical housekeeping pads on the 4th floor of the hospital;
- relocation of the four pipe heating and cooling system in the east clinic;
- coordination of the contract plans and specifications for the FBHR project related to electrical, structural steel, architectural, mechanical coordination, and additional fire proofing;
- remuneration for additional costs related to universal x-ray room in the west clinic and hospital;
- discrepancies in the contract plans related to interior metal panels at curtain wall system of the clinic buildings;
- continued special inspection services for the FBHR project related to concrete masonry walls that did not appear on the structural drawings;
- metal decking support at plate connections;
- location of a plaster trap in the hospital;
- concrete coverage of roof topping slabs in the hospital;
- installation of fall arrest anchors for the hospital;
- concrete design issues;
- electrical and communication room floor penetrations;
- window sill deflection joint conflict;
- additional compensation for drawing and specification comparison;
- missing topping slab on roof from the clinic;
- conflicts and clarifications related to patient lift;
- headwall and wall covering;
- tank chemical treatment schedule delay and installation of temporary pump, piping, and valves to circulate the water and chemicals;
- missing connection between structure and the elevator details;
- construction contractor-incurred costs for resolution of changes in the project; and
- offsite spoil removal.

See Table 3 for contract modifications awarded, valued at $32.1 million, related to the design errors and omissions from legacy issues.

Table 3. Contract Modifications Awarded Including Design Errors and Omissions Related to Legacy Issues

ACO and PCO Modifications	Effective Date	RMS Code	Description of Modification	Cost Increase	Time Increase
Legacy Issues					
P00067	6/16/2017	6	Legacy Issue Group 5, Round 1	$9,034,095	None
P00068	7/12/2017	6	Legacy Issue Resolution Group 5, Round 2	9,800,000	65 days
P00077	11/3/2017	1	Cost Issue #703, Cubicle Track Curtain System	165,000	None
P00079	12/13/2017	6	Legacy Issues Category 5, Round 3	13,073,402	None
Total of Modifications Awarded for Legacy Issues				**$32,072,497**	**65 days**

Source: The DoD OIG.

Time-Delay Costs

The HQUSACE Medical National Program Manager provided supporting documentation for the FY 2018 budget request line item for time-delay costs. The Program Manager stated that the initial FY 2018 budget request estimated amount of $154 million was reduced by $12.7 million awarded in modification P00048 for impact costs. In addition, the HQUSACE Medical National Program Manager stated that USACE used contingency funds to cover the $12.7 million awarded in P00048. The Program Manager further stated that, considering P00048, the FY 2018 budget request was an estimated amount of $141.3 million from the USACE current working estimate as of January 25, 2017, for impact costs related to the request for equitable adjustment for cost issues categorized in group six.

The FY 2018 budget request revision for settled claims of $9.4 million included one modification, P00057, valued at $8.9 million, and the 5.7-percent fee for Supervision, Inspection, and Overhead, valued at $0.5 million.

The Time-Delay Costs line item for the FY 2018 budget request included contract issues categorized in group six for time impact. The impact cost consisted of numerous individual cost issues submitted by the construction contractor and its subcontractors for indirect cost and time impact that arose on or before

May 31, 2016. The overall bilateral settlement for group six is a lump sum, firm-fixed-price settlement for $142 million. The settlement included compensable time for USACE-caused delays in modifications P00046, P00048, and P00057.

- **Modification P00046** included 306 calendar days added to the contract to include compensable time of 126 calendar days due to USACE-caused delays. The delays were related to ASI 90 and 90.1 for refabricating structural steel (34 days), interior framing issues (35 days), and added seismic and additional commissioning (57 days).[12] In addition, the USACE Fort Worth District included 180 days of contract time increase, which the contractor was entitled to. The time increase was caused by exterior framing delays from November 2014 through June 2015 and steel erection suspension by the contractor concurrent with the ASI 90 and 90.1 timeframe.
- **Modification P00048** included a contract cost increase of $12.7 million related to the time increase of 306 days awarded by the USACE Fort Worth District in modification P00046.
- **Modification P00057** included $8.9 million for 88 compensable days due to USACE-caused delays. This cost issue is specifically related to costs and time associated with interior framing and seismic issues.

We also identified modification P00078, which was awarded on December 13, 2017, by the USACE Fort Worth District for a $120.4 million cost increase related to the request for equitable adjustment cost issues in category group six. The P00078 modification includes 43 negotiated cost issues that specifically related to the construction contractor and subcontractors' costs of time impacts, including extended general conditions, escalation, and inefficiencies. These time impacts arose from 281 request for equitable adjustment cost issue changes to the contract.

See Table 4, for contract modifications awarded related to time-delay costs, valued at $142 million.

[12] Commissioning is defined by the building industry as the process of verifying that all building systems perform interactively according to the design intent, and the systems meet the owner's operational needs. Seismic refers to a test that is done to make sure the structure being built is earthquake proof.

Table 4. Contract Modifications Awarded Including Time-Delay Costs

ACO and PCO Modifications	Effective Date	RMS Code	Description of Modification	Cost Increase	Time Increase
Time-Delay Costs					
P00046	1/11/2017	9	MK371, Time Extension – Legacy Issue Resolution	$0	306 days
P00048	1/13/2017	9	MK378, Increase value to CLIN 1 for P00046	12,727,638	None
P00057	4/14/2017	9	MK438, Legacy Issues Time Extension II APR 17	8,889,144	88 days
P00078	12/13/2017	6	MK671, Legacy Issues Resolution Group 6	120,383,218	None
Total of Modifications Awarded for Time-Delay Costs				**$142,000,000**	**394 days**

Source: The DoD OIG.

Design Validation

The HQUSACE Medical National Program Manager provided supporting documentation for the FY 2018 budget request for design validation issues. The Program Manager stated that the FY 2018 budget request was an estimated amount of $12 million from the USACE current working estimate as of January 25, 2017, for design validation costs. The Program Manager further stated that the costs in the current working estimate were revised based on negotiations. In addition, the Program Manager identified 27 contract changes that were included in the estimate for the FY 2018 budget request. As of March 2018, USACE Fort Worth District issued 12 of the 27 contract changes, valued at $3.7 million.

See Table 5, for contract modifications awarded related to design validation, valued at $3.7 million.

Table 5. Contract Modifications Awarded Including Design Validation

ACO and PCO Modifications	Effective Date	RMS Code	Description of Modification	Cost Increase	Time Increase
Design Validation					
A00193	8/31/2017	1	Hospital MRI HVAC changes	$(2,380)	None
A00236	11/13/2017	1	Hospital – Fourth Floor Steam Pipe Expansion Loop	21,117	None
A00248	1/21/2018	1	Hospital – Loading Dock Canopy	53,148	None
A00253	1/23/2018	1	Hospital – Electrical Validation	322,832	None
A00254	1/26/2018	V	Hospital – Additional Work Galvanized Pipe	39,245	None
A00261	2/12/2018	V	Hospital – Light Fixture Change	1,636	None
P00065	6/13/2017	1	Project – Light Fixture and Ceiling Conflicts	500,000	None
P00069	7/28/2017	1	Galvanized Steel Pipe Change	635,207	None
P00073	10/10/2017	1	Project Wide – Revise Insulation Various Interior Walls	400,000	None
P00074	10/16/2017	1	Project – Light Fixture and Ceiling Conflicts	750,000	None
P00081	12/6/2017	1	Hospital – Behavioral Health Ward	443,502	None
P00082	3/1/2018	1	Project – Light Fixtures and Ceiling Conflicts	500,000	None
Total of Modifications Awarded for Time-Delay Costs				**$3,664,307**	**None**

Source: The DoD OIG.

Documentation for Design Changes

As of March 15, 2018, the USACE Change Request Register showed 978 contract change requests, including 132 cancelled change requests, on the FBHR project. We reviewed a non-statistical sample of 23 engineering change requests. These 23 engineering change requests were selected from the whole project and were not specific to the FY 2018 budget request. For the 23 engineering change requests reviewed, we requested that the USACE Fort Worth District and the

USACE Fort Bliss Medical Construction Office provide the specific reason or origin of the change. Collectively, USACE personnel could not provide the documentation that showed the sources of any of the 23 engineering changes.

For example, a basic change document for exterior stone masonry stated that the change was necessary to provide a better installation and finished product, and to help prevent harmful ultraviolet rays from damaging the air/vapor barrier that would otherwise be exposed. However, discussions with USACE Fort Bliss Medical Construction Office personnel revealed that this change was primarily for aesthetic purposes and for providing a more visually pleasing final product. Based upon the description of changes provided in the basic change document for exterior stone masonry and our discussions with USACE technical personnel at Fort Bliss, we concluded that the change was not the result of a design error or omission, as the specifications and drawings required a jagged or cleft face, which is allowed by building code. Rather, the change was initiated by USACE Fort Worth District and Fort Bliss Medical Construction Office personnel upon seeing the results of the model built by the construction contractor. Furthermore, Fort Bliss Medical Construction Office personnel stated that the change was not implemented on the central utility plant because it would be out of public view. Instead, an ultraviolet resistant vapor barrier was used to protect the vapor barrier on the plant. We requested an analysis from USACE Fort Bliss Medical Construction Office personnel on the applicability of the ultraviolet resistant vapor barrier in the plant and justification as to why that could not be used on the main hospital. The USACE Fort Bliss Medical Construction Office personnel were not able to provide analysis or justification.

In another example, a single ASI accumulated 142 changes across several design control documents, including the life safety plan, structural drawings, and architectural details. We requested that the USACE Fort Worth District and USACE Fort Bliss Medical Construction Office provide documentation that described the specific reason or origin of the changes contained in the ASI for building revisions. USACE could not provide documentation that showed the source of the changes contained in the ASI. Based on the description of the changes provided in the ASI and our discussions with the USACE technical representatives at Fort Bliss, we concluded that the design contractor conducted a subsequent quality review of the life safety plan and architectural drawings. This review found several National Fire Prevention Association code violations. To address the identified violations, the design contractor issued an ASI for building revisions to comply with the

National Fire Prevention Association code. However, USACE could not identify the specific requirements of the National Fire Prevention Association code that had been violated.

Although the ASI for building revisions provided a description of the required changes to the drawings and specifications, it did not provide any analysis that led to the change requirement. Furthermore, USACE could not provide substantiating analyses to demonstrate that the existing design was in error and the revised design was correct.

Stakeholder Awareness of Design Changes

A problem with the FBHR project was evident in October 2015 based on the in process review briefings. However, the stakeholders involved in the FBHR project did not provide an exact date for when they were notified of the problems with the FBHR project. We reviewed Army HFPA executive summaries, in process review briefings, and Commander's Critical Information Requirements reports to determine when the problem with the FBHR project became evident and when stakeholders were notified about the problems.

From January through April 2018, we interviewed the following stakeholders involved in the FBHR construction project. Each provided the following statement in response to the question of when they were made aware of the major issues with the FBHR project.[13]

- **OASD (EI&E)** personnel stated they became aware of the execution and financial challenges in September 2016 when DHA identified the need for a reprogramming request.
- **Army HFPA** officials stated that HFPA was informed about the FBHR construction project being off track in 2016.
- **DHA** officials stated that in April 2016 they attended the quarterly meeting at Fort Bliss. During this meeting, the USACE Southwestern Division Regional Business Director indicated that the project may need additional funds and voiced concerns regarding design quality.
- **HQUSACE** officials stated that problems were identified with the Fort Bliss project 2 months into the construction in July 2013. In addition, in 2016, the USACE Southwestern Division, Regional Business Director, held a meeting to address the issues with the FBHR project.

[13] The personnel interviewed did not provide exact dates for when they became aware of problems with the FBHR project and provided only general timeframes.

We interviewed multiple personnel at the USACE Southwestern Division and Fort Worth District levels to determine when they became aware of the issues with the FBHR construction project:

- The Former Commander and Division Engineer of the USACE Southwestern Division stated that during his assessment of the project in July 2014, the first year he was in the position as the commander, there was nothing out of the "normal realm of a MILCON project." He stated that the in process review briefings in December 2014 and March 2015 showed that the difference between the percent scheduled and the percent complete was increasing, indicating the project was getting further behind schedule.
- The Regional Business Director, for the USACE Southwestern Division stated that when he took over the position in late 2014, the rate of change in the financial status and lack of progress with the project was already apparent. He stated that part of his charter was to address the issues. (See Report Element 2, 'Management Reset' section.)
- The USACE Fort Worth District Senior Project Manager stated that when he returned to work for USACE on the FBHR project in January 2015, he determined there was indication of financial exposure that was found in late 2014.[14] He stated that financial and personnel issues became evident in 2015 and that USACE Fort Worth District started talking about what needed to be done at the field level to solve the issues.

Army HFPA Executive Summaries

On March 14, 2016, Army HFPA issued an executive summary to U.S. Army Medical Command leadership communicating operational impacts of the anticipated project delay. The executive summary referred to the project meeting minutes of March 8, 2016, which stated that the USACE Fort Worth District Project Manager notified the Army HFPA, the DHA, and HQUSACE that the project was 31 percent behind schedule.

In Process Reviews

The USACE Fort Worth District Project Manager completed quarterly in process review briefings and provided them to the USACE Southwestern Division Commander. The August 6, 2013, and May 22, 2014, in process review briefings do not show the project behind schedule; however, the two briefing do show an inconsistency in the risk rating for Design Issues (Errors and Omissions). The August 6, 2013, in process review briefing stated that the Design Issues (Errors and Omissions) risk rating was 50 (extremely high) with a probability of occurrence at 50 percent. The May 22, 2014, in process review briefing stated that the Design

[14] Financial exposure is the amount that can be lost in an investment.

Issues (Errors and Omissions) risk rating was 40 (high) with a probability of occurrence at 70 percent. The following in process review dates show the project falling increasingly behind schedule; however, between October 2016 and May 2017, the behind-schedule percentage began to decrease:

- September 9, 2014 – 5 percent behind schedule
- March 31, 2015 – 11 percent behind schedule
- June 23, 2015 – 16 percent behind schedule
- October 13, 2015 – 24 percent behind schedule
- January 20, 2016 – 30 percent behind schedule
- April 26, 2016 – 33 percent behind schedule
- July 20, 2016 – 41 percent behind schedule
- October 26, 2016 – 45 percent behind schedule
- May 9, 2017 – 34 percent behind schedule
- July 11, 2017 – 28 percent behind schedule

The USACE Fort Worth District Project Manager stated that the risk management matrix was developed for the FBHR project to manage risk and was updated on a quarterly basis. He stated that the Design Issues (Errors and Omissions) probability of occurrence percentage was reassessed and increased from 50 percent to 70 percent between August 6, 2013, and May 22, 2014, because the number of ASIs correcting the drawings and specifications may have been increasing during that time. The project development team believed this increase in the probability of occurrence warranted a revision of the percentage. However, the USACE Fort Worth District Project Manager did not explain why the overall risk rating decreased, when the probability of occurrence increased.

Commander's Critical Information Requirements Reports

The USACE Fort Worth District Project Manager also prepared Commander's Critical Information Requirements reports for the USACE Southwestern Division Commander. The February 13, 2013, Commander's Critical Information Requirements report stated that the contracting officer issued a stop work order to the construction contractor to suspend work on the hospital contract because of the three GAO protests. The January 13, 2015, Commander's Critical Information Requirements report stated that the FBHR project incurred delays due to "ambiguous design details" related to structural steel, but it did not specify the design errors or omissions.

FY 2018 NDAA Section 2823 (b) Reporting Element (2): Actions Taken to Prevent Further Schedule Delays and Cost Increases and Lessons Learned

We examined the FY 2018 NDAA Section 2823 (b) Reporting Element (2) that required the DoD OIG to report on the specific actions taken to prevent further schedule delays and cost increases on this project as well as lessons learned that will be applied to future hospital projects.

DoD OIG Response to FY 2018 NDAA Section 2823 (b) Reporting Element 2

We identified and reviewed actions taken by the FBHR project stakeholders to prevent further schedule delays and cost increases on the FBHR project. We determined that the OASD (EI&E) and HQUSACE implemented, or are in the process of implementing, several initiatives, including updated guidance on roles, responsibilities, and management controls. During the FBHR project, the USACE Fort Worth District took actions that included the management reset of the FBHR project, a design validation review, and a cost schedule risk analysis. USACE Fort Worth District officials stated that lessons learned would not be determined until an official after action review occurs.

We interviewed OASD (EI&E) personnel, including the Defense-Wide MILCON Program Analyst and obtained and reviewed e-mails from the OASD (EI&E) related to proposed actions to prevent future time delays and cost increases. We also completed site visits to USACE Headquarters, the USACE Fort Worth District, and the USACE Fort Bliss Medical Construction Office, and interviewed USACE officials, project managers, the ACO, and the COR about lessons learned and actions taken. We reviewed actions taken at each USACE level that could prevent further schedule delays and cost increases on the FBHR project as well as the actions these staff took to mitigate problems after they identified problems. We reviewed all versions of the USACE Engineering and Construction Bulletins for mega projects for the Executive Leadership Team. In addition, for our review of the USACE Fort Worth District actions taken, we obtained details on the management reset and the design validation efforts.

Actions Taken to Prevent Further Schedule Delays and Cost Increases

Office of the Assistant Secretary of Defense for Energy, Installations, and Environment

On March 1, 2018, the Defense-Wide MILCON Program Analyst at the OASD (EI&E) provided an e-mail to the audit team of proposed corrective actions to be taken and an article titled, "Improving Project Delivery," from The Military Engineer magazine.[15] The Defense-Wide MILCON Program Analyst stated in the e-mail that the OASD (EI&E) will implement proposed policy memorandums:

- to clarify roles and responsibilities of project sponsors, design and construction agents, and installation managers, including project specific agreements between the parties;
- for early design and construction agent involvement for MILCON projects in support of budget submissions; and
- for metrics associated with design and construction to identify projects of concern.

The article provided by the OASD (EI&E) Defense-Wide MILCON Program Analyst, stated that the Secretary of Defense established goals to improve readiness, increase lethality, strengthen partnerships, and reform business practices based on recent project delivery trends for projects with increased cost overruns or schedule delays. The article explained that the DoD will address project delivery challenges with updated instructions, reviews, and policy memorandums. The article also stated that a few of the updated instructions, reviews, and policy memorandums will:

- increase awareness and accountability at all levels of management and performance as problems arise;
- enhance in-house engineering expertise to improve Government design reviews;
- include tracking the status of change orders, equitable adjustments, or timelines of Government reviews, and use valid metrics to flag project challenges; and
- train contract managers on the proper use of the Contractor Performance Assessment Reporting System rating to reflect contractor's performance.

[15] "Improving Project Delivery," The Military Engineer, Volume 110, Number 712, January-February 2018.

HQUSACE

The USACE Deputy Commanding General for Military and International Operations directed the HQUSACE Programs Integration Division to conduct an independent assessment of the FBHR project. The assessment recommended several actions that we discuss in the following section. On March 16, 2018, the HQUSACE Chief, Military Programs Integration Division stated in an e-mail that HQUSACE was in the process of implementing the recommendations with the following actions.

- Improve technical expertise and discipline for medical infrastructure projects.
    - The USACE MX has expanded its role during the construction phase of major medical and medical research projects, including construction surveillance by USACE MX engineers and architects of medically-unique engineered systems. In addition, USACE MX will provide commissioning support and compliance reviews of post award design and construction submittals for engineered systems within the scope of the Unified Facilities Criteria.
    - HQUSACE is recertifying the mandatory medical center of expertise, which includes a review of the staffing, technical expertise, and center's support to USACE over the past 5 years. Through the recertification process, USACE will define the mandatory services for the MX and its role in supporting and developing technical expertise to support the engineering, design, and construction of medical and medical research facilities.
- Improve understanding of performance specifications and extensions of design and determine feasibility of a pre-proposal conference to amplify performance specification criteria.
    - USACE implemented a continuous process of educating and reinforcing positive behaviors and best practices while operating in an environment with constant personnel turnover. USACE is early in the process of following-up and implementing this recommendation and hopes to embed this subject material in its training courses.
- Determine if there are additional metrics or alternate leading indicators for forecasting a project at risk.
    - The Office of the Secretary of Defense has taken the lead and is working with USACE and Naval Facilities Engineering Command on developing metrics that could help identify potential problems early in the project.

USACE Fort Worth District

The USACE Fort Worth District took the following actions to mitigate problems after the issues with the FBHR project were apparent: replaced all management at the FBHR construction site (management reset), started bi-weekly Executive Leadership Team meetings, completed a design validation review, and completed a cost schedule risk analysis.

Management Reset

The USACE Southwestern Division Regional Business Director implemented the management reset. He stated that the management reset took place between March and May 2016. During a meeting in January 2016, management officials from the USACE Fort Worth District and the design and construction contractors agreed to replace their senior personnel at the FBHR construction site.

Executive Leadership Team

The Executive Leadership Team was in effect since January 31, 2012, according to the USACE Engineering and Construction Bulletin (ECB) 2012-2. USACE Fort Worth District officials stated that they implemented bi-weekly Executive Leadership Team meetings in July 2016 to mitigate problems.

The USACE ECB established and provides updated guidance on management controls for projects designated by the HQUSACE Director of Civil Works and the Director of Military Programs as "Mega Projects." The HQUSACE issued multiple revisions to this ECB throughout the FBHR construction project. The 2012 ECB established a three-tiered governance structure for mega projects to achieve accountability, visibility, understanding, and timely decision-making. The three levels of the governance structure assure effective communication and issue resolution at appropriate levels.

1. Senior level–Senior Executive Board. HQUSACE senior leaders and HQUSACE engineering and construction senior engineers serve in an oversight and advisory role to the mega project's senior project executive.
2. Mid-level–Executive Leadership Team. The senior leaders responsible and accountable for making decisions and applying resources to solve problems above the day-to-day management of the project.
3. Working level–Project Leadership Teams. The working level teams assigned to each major phase of the project that perform the typical day-to-day management and engineering work.

The ECB 2012-2 also stated that periodic design and construction evaluations would be completed by HQUSACE. According to ECB 2016-16, the HQUSACE, Engineering and Construction Division, and Construction Branch schedule the mega design and construction evaluations through coordination with other HQUSACE offices and with the Major Subordinate Command's Business Technical Division. The HQUSACE senior construction manager, who is supported by various USACE subject matter experts, including the contracting, safety, program, and project managers, normally leads the mega design and construction evaluation team. Major Subordinate Command-led evaluations of mega projects should be similarly coordinated, with an opportunity for HQUSACE personnel to attend.

HQUSACE completed design and construction evaluations in FYs 2014 and 2016 that included reporting on the FBHR project. The FY 2014 Design and Construction Evaluation reported on the Fort Hood and Fort Bliss hospitals; however, the FY 2016 Design and Construction Evaluation reported solely on the FBHR project. In the FY 2016 Design and Construction Evaluation, August 25, 2016, the HQUSACE reviewer stated that the middle level management, the Executive Leadership Team, had been somewhat disengaged but recently established bi-weekly meetings to further support the project leadership team.

In February 2018, the USACE Fort Worth District Project Manager provided a timeline of major project milestones for the FBHR project that stated the Executive Leadership Team was formed in 2016. In April 2018, the USACE Fort Worth District Project Manager stated that the Executive Leadership Team structure was in place from the beginning and that the quarterly in process reviews and principal meetings served as the formal meetings. However, the governance pyramid, which included the Executive Leadership Team was not mentioned in any of the in process reviews until July 2016. Even though the governance structure took effect in 2012, the USACE Southwestern Division and Fort Worth District did not follow this structure until 2016, specifically at the Executive Leadership Team level.

Cost Schedule Risk Analysis and Design Validation

The cost schedule risk analysis team conducted the first cost schedule risk analysis from August 8 through 10, 2016, which was used to quantify and qualify future risks to help establish the FY 2018 budget increase.

The design validation review occurred concurrently with the cost schedule risk analysis. The review was accomplished by a team of USACE enterprise personnel who led and participated in other hospital projects; MX; the commissioning team at Fort Bliss (mechanical engineers, electrical engineers, medical specific architects, and fire protection/life safety personnel); and third party architect-engineer specialists. The team also included the DHA, Army HFPA, the construction contractor, and the designer of record. The purpose of the design validation was to identify future issues not previously noted as cost and schedule impacts. The product from this review was a vetted list of risk issues allowing for the planning of funds for unknowns.

Lessons Learned

The USACE Fort Worth District Project Manager, the Fort Bliss Medical Construction Office COR, and the ACO all stated that, as of February 2018, there were no formal lessons learned or after action reports completed for the FBHR project. However, USACE Fort Worth District personnel stated that the USACE Fort Worth District would be completing a lessons learned report, as the USACE Fort Worth District does for all mega projects, once the project is complete.

The HQUSACE Engineering and Construction Division also updated the ECB guidance based on lessons learned from each mega project. The objective of the ECB was to provide initial guidance and solicit initial feedback and lessons learned. For example, ECB No. 2016-16, May 26, 2016, stated that the primary lessons learned from 4 years of mega projects implementation were that both the civil works and military programs benefit from the additional management efforts and focus that mega project tenets provide, and incremental improvements in management fosters project success.

FY 2018 NDAA Section 2823(b) Reporting Elements 3 and 4: Ongoing or Completed Proceedings or Investigation and Results of Such Proceedings or Investigation

Public Law 115-91, "National Defense Authorization Act for Fiscal Year 2018," section 2823, "Report on Design Errors and Omissions Related to the Fort Bliss Hospital Replacement Project," December 12, 2017, required the Inspector General of the Department of Defense to report on the design errors and omissions related to the hospital replacement project at Fort Bliss, Texas. The required elements of the report include:

(b)(3) A description of any ongoing or completed proceedings or investigation into a government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases, and the status of such proceeding or investigation; and

(b)(4) If any proceeding or investigation identified in paragraph (3) resulted in final judicial or administrative action, the following:

> (A) In the case of a judicial or administrative action taken against a government employee, the report shall identify the individual's organization, name, position within the organization, and the action taken against the individual.
>
> (B) In the case of a judicial or administrative action taken against a prime contractor, subcontractor, or non-governmental organization, the report shall identify the prime contractor, subcontractor, or non-governmental organization and the action taken against the prime contractor, subcontractor, or non-governmental organization.

DoD OIG Response to FY 2018 NDAA Section 2823 (b) Reporting Elements 3 and 4

During the performance of this audit, we did not identify any ongoing or completed proceedings or investigations into a Government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases.

FY 2018 NDAA Section 2823 (b) Reporting Element (5): Management and Oversight Practices

We examined the FY 2018 NDAA Section 2823 (b) 5 that required the DoD OIG to summarize changes the Inspector General believes may be required to the organizational structure, project management and oversight practices, policy, or authorities of a Government organization involved in military construction projects as a result of problems identified and lessons learned from this project.

DoD OIG Response to FY 2018 NDAA Section 2823 (b) Reporting Element 5

This audit focused solely on the FBHR project and not MILCON projects across the DoD. However, based on our observations and analysis of the FBHR project, we made recommendations that we believe will improve future MILCON projects across the DoD. Specifically, we made recommendations to the Assistant Secretary of Defense for Energy, Installations, and Environment; the Defense Health Agency Director; the U.S. Army Corps of Engineers Commander; and the U.S. Army Health Facility Planning Agency Commander.

In addition to the problems identified related to design errors and omissions discussed in report section 'DoD OIG Response to FY 2018 NDAA Section 2823 (b) Reporting Element 1,' we reviewed the requirements development, the design-bid-build contract award processes, design suitability, and oversight of contractor performance to determine any recommended changes. We completed site visits to the DHA, interviewed DHA officials, and examined supplemental documentation about the FBHR project requirement development and funding. We also completed site visits to HQUSACE, the USACE Fort Worth District, and the USACE Fort Bliss Medical Construction Office to interview USACE officials, project managers, the ACO, and the COR.

We assessed compliance with 10 U.S.C. § 2851 reporting requirements, which are requirements for each military construction project that has been specifically authorized by Congress. We reviewed USACE's processes for completing contractor performance assessment reports (CPARs) and reviewed the CPARs completed by the USACE Fort Worth District, USACE Huntsville Engineering and Support Center, and the USACE Fort Bliss Medical Construction Office for the FBHR design and construction contractors.

No DoD Guidance Exists for Implementing the 10 U.S.C. 2851 Reporting Requirements

The DoD did not establish guidance to implement the 10 U.S.C. § 2851 reporting requirements for MILCON projects authorized by Congress. Therefore, the DoD Components involved in the FBHR project did not know what information to report or the roles and responsibilities for reporting. DoD officials did not report all the contracts or task orders for the FBHR project on the 10 U.S.C. § 2851 report. As of January 2018, the 10 U.S.C. § 2851 report identified eight contracts, valued at $710.6 million.[16] However, during our audit, we identified an additional nine contracts, valued at $102.2 million that related to the FBHR project.[17] The title 10, section 2851, United States Code states that the DoD must maintain an internet site that will permit a person to access and view, on a separate page of the internet site, a document or other files containing the required information for each MILCON project that has been specifically authorized by Congress.[18] The title 10, section 2851, United States Code further states that the required information for each project shall be made available on the internet site not later than 90 days after the award of a contract or delivery order for the project. Because the DoD did not establish guidance to implement 10 U.S.C. § 2851, it was unclear whether the additional nine contracts, valued at $102.2 million should have been reported.

DHA, HQUSACE, and USACE Fort Worth District officials provided different rationales for which contracts to report for the 10 U.S.C. § 2851 requirement. For example, the DHA Branch Chief, Design and Construction, stated that DHA believes the additional contracts that we identified were related to design efforts and that the 10 U.S.C. § 2851 report did not require reporting design contracts. HQUSACE officials stated that only contracts that were for construction were reported on the 10 U.S.C. § 2851 report. And, USACE Fort Worth District officials stated that only MILCON-funded contracts as part of the authorized MILCON project were reported.

Additionally, the DoD Components involved with the FBHR project did not have a clear understanding of the roles and responsibilities for reporting in accordance with the 10 U.S.C. § 2851 requirement. For example, OASD (EI&E) Facilities Investment and Management officials stated that their responsibility for the 10 U.S.C. § 2851 reporting process has always been as a coordinating authority.

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[16] Contracts W9126G-13-C-0004; W9126G-11-P-0208; W9126G-12-C-0038; W9126G-12-P-0014; W9126G-13-C-0046; and W9126G-14-P-0150. Task Orders W9126G-09-D-0096-0002 and W9126G-09-D-0004-0008. We used the dollar value stated in the base contract or task order so any additional or deobligated funds from contract modifications or task order amendments that may have changed the dollar value were not considered.

[17] Contract W9126G-17-C-0062 and W911SG-14-C-0001. Task order W9126G-11-D-0016-0017; W9126G-12-D-0002-0004; W912DY-10-D-0006-DY01; W912DY-10-D-0004-0002; W912DY-13-D-0123-0004; W9126G-10-D-0017-0010, and W912DY-09-D-0067-0004. We used the dollar value stated in the base contract or task order so any additional or deobligated funds from contract modifications or task order amendments that may have changed the dollar value were not considered.

[18] 10 U.S.C. § 2851 reports are available at https://www.acq.osd.mil/eie/FIM/FIM_Library.html.

The sponsoring components, which have direct project funding and supervision roles, retain the reporting authority and responsibility to provide complete project data as required by Congress.[19] OASD (EI&E) Facilities Investment and Management officials stated that they do not verify the monthly 10 U.S.C. § 2851 MILCON report that includes contracts or task orders for any MILCON project. OASD (EI&E) Facilities Investment and Management officials stated that they would be unaware of missing project information, as they rely on the sponsoring component, and stated that the DHA, as the project sponsor, was responsible for any contract data missing in the 10 U.S.C. § 2851 report. A USACE Fort Worth District medical project manager also stated that the DHA was responsible for including all contracts on the 10 U.S.C. § 2851 report. OASD (EI&E) Facilities Investment and Management and USACE Fort Worth District officials asserted that the DHA was ultimately responsible for ensuring all contracts were included in the 10 U.S.C. § 2851 report, while the DHA and HQUSACE officials thought it was the USACE Fort Worth District's responsibility.

Without guidance to implement 10 U.S.C. § 2851, the DoD Components involved in the FBHR project may not have accurately reported and tracked the contracts awarded for the FBHR project to meet the intent of the statutory requirement.

Contractor Performance Assessment Reports

FBHR Design Contract Task Orders

USACE officials at Fort Worth District and USACE Huntsville Engineering and Support Center completed CPARs on five of the nine design task orders. The USACE Fort Worth District was responsible for six task orders on the design contract for the FBHR project.[20] The USACE Huntsville Engineering and Support Center was responsible for three task orders on the design contract for the FBHR project.[21]

A USACE Fort Worth District project manager stated that his district did not prepare CPARs for three of the six task orders but did not provide a reason why CPARs were not completed. However, all three task orders without a CPARs were above the FAR dollar threshold and required CPAR.[22]

[19] According to the Deputy Assistant Secretary of Defense, Facilities Investment and Management, his office considers DHA to be the sponsoring component for the FBHR project.

[20] The USACE Fort Worth District task orders on the design contract that related to the FBHR project included: W912DY-09-D-0067-DY01, W912DY-09-D-0067-DY02, W912DY-09-D-0067-DY03, W912DY-09-D-0067-DY04, W912DY-09-D-0067-DY05, and W912DY-09-D-0067-DY07.

[21] The USACE Huntsville Engineering and Support Center task orders on the design contract that related to the FBHR project included: W912DY-09-D-0067-0004, W912DY-09-D-0067-0009, and W912DY-09-D-0067-0010.

[22] FAR 42.1502(f) requires agencies to prepare an evaluation of contractor performance for each architect–engineer service contract of $30,000 or more.

In November 2015, a USACE Fort Worth District project manager completed a CPAR on the overall design contract and stated that he would recommend the design contractor for similar work in the future.[23] However, in January 2018, the same USACE Fort Worth District project manager completed the final CPAR on a design contract task order and stated that he would not recommend the design contractor for similar work in the future.[24] The USACE Fort Worth District project manager also stated that, overall, the design contractor's performance was considered unsatisfactory based on the numerous design issues throughout the construction period, which resulted in schedule delays and increased cost. Therefore, sometime between November 2015 and January 2018, the USACE Fort Worth District project manager no longer thought the design contractor performed well.

Other than task order W912DY-09-D-0067-DY03, previously discussed above, the only other CPARs that USACE personnel prepared on the FBHR design contract task orders were on task orders W912DY-09-D-0067-DY02, W912DY-09-D-0067-0004, W912DY-09-D-0067-0009, and W912DY-09-D-0067-0010. The task orders were for various services and received overall satisfactory CPARs. The task orders were:

- Task order W912DY-09-D-0067-DY02: To provide medical facilities architect-engineer services in support of the FBHR project campus infrastructure.
- Task order W912DY-09-D-0067-DY03: To provide design services to develop the design of the FBHR project.
- Task order W912DY-09-D-0067-0004: To obtain construction phase services to support the construction of the FBHR project.
- Task order W912DY-09-D-0067-0009: To provide services for updating figures and descriptions to incorporate the required modifications.
- Task order W912DY-09-D-0067-0010: To provide commissioning services for the FBHR project based on the drawings and specifications dated October 2012.

FBHR Construction Contract

In January 2013, a USACE Fort Worth District contracting officer awarded the construction contract for $648.9 million.[25] In June 2017, the USACE Fort Bliss ACO, appointed in March 2016, completed a CPAR on the construction contractor for the performance period of June 2016 through June 2017. According to the ACO, the previous ACO was responsible from the beginning of the construction contract

[23] Design Contract W912DY-09-D-0067.
[24] Task order W912DY-09-D-0067-DY03.
[25] Construction contract W9126G-13-C-0004.

until he started in March 2016. However, there were no other CPARs completed on the construction contractor. The previous USACE Fort Bliss ACO stated that he prepared a 14-page interim CPAR on the construction contract but was not sure whether it was uploaded into the system. The USACE Fort Worth District Chief of Engineering and Construction stated that the previous USACE Fort Bliss ACO performed an interim CPAR in late 2015 on issues with the construction contractor's management, quality, and schedule.

The USACE Fort Worth District Chief of Engineering and Construction stated that in November 2015 he met with the two leaders of the construction contractor to discuss contractor performance issues. At that time, the construction contractor leaders proposed a 90-day pause on issuing the interim CPAR to allow them to address the USACE Fort Worth District's concerns. The USACE Fort Worth District Chief of Engineering and Construction stated that this meeting resulted in the Government requesting the construction contractor to provide a "get-well plan" for improvement, which was received in December 2015. The USACE Fort Worth District Chief of Engineering and Construction stated that the construction contractor started to address the concerns in early 2016, which was about the same time as the management reset and the introduction of new jobsite leadership. As a result, the 14-page interim CPAR that the previous USACE Fort Bliss ACO performed was not uploaded into the Past Performance Information Retrieval System.[26] The USACE Fort Bliss Medical Construction Office should have completed an accurate and timely CPAR that summarized and documented the contractors' performance to protect the Government.

Management Comments on the Findings and Our Response

The U.S. Army Corps of Engineers Commander, provided the following comments on the findings for FY 2018 NDAA Section 2823 (b) reporting elements 1 and 3.

U.S. Army Corps of Engineers Comment on Finding in FY 2018 NDAA Section 2823 (b), Reporting Element 1

The U.S. Army Corps of Engineers Commander stated that USACE does not agree with the statement found in the Documentation for Design Changes section of the DoD OIG report, which stated that "Collectively, USACE personnel could not provide the documentation that showed the sources of any of the 23 engineering

[26] The Past Performance Information Retrieval System is where officials report CPARs.

changes because the documentation was not readily accessible in one central location." The Commander stated that USACE believes the information provided to the DoD OIG electronically includes all available documentation for the changes reviewed. The Commander stated that the technical analysis of specific design errors and omissions associated with several of these changes and the quantification of these costs are being completed as part of USACE's efforts in pursuing Architect and Engineering contract liability.

Our Response

We agree the USACE Fort Worth District and the USACE Fort Bliss Medical Construction Office provided the DoD OIG with the documentation available for the 23 engineering changes reviewed; however, the documentation reviewed did not provide sufficient information to support the necessity of the engineering changes. We revised the sentence on report page 40 to state, "Collectively, USACE personnel could not provide documentation that showed the sources of any of the 23 engineering changes." The examples stated in the report showed that USACE could not provide substantiating analyses to demonstrate that the existing design was in error for some changes or provide documentation identifying the codes that were violated or that the revised design was correct for other changes. For example, we requested an analysis from USACE Fort Bliss Medical Construction Office personnel on the applicability of the ultraviolet resistant vapor barrier in the central utility plant and justification as to why that could not be used on the main hospital. USACE Fort Bliss Medical Construction Office personnel were not able to provide analysis or justification. Additionally, we requested that the USACE Fort Worth District and USACE Fort Bliss Medical Construction Office provide documentation that described the specific reason or origin of the changes contained in an ASI for building revisions for several National Fire Prevention Association code violations. However, USACE could not identify the specific requirements of the National Fire Prevention Association code that had been violated.

U.S. Army Corps of Engineers Comment on Finding in FY 2018 NDAA Section 2823 (b), Reporting Element 3

The U.S. Army Corps of Engineers Commander stated that USACE does not agree with the statement found in the Results in Brief section, which stated, "We determined that as of March 2018, there were no ongoing or completed proceedings or investigations related to the FBHR project." The Commander stated that the DoD OIG report recognizes that HQUSACE Directorate of Military Program senior leaders directed an independent diagnostic assessment to determine the cause of cost growth and delays on the project, including whether the proper actions were taken to address the situation. The assessment was completed and findings documented in a report dated June 21, 2017. USACE initiated actions based on the investigations recommendations.

Our Response

We determined that the independent diagnostic assessment did not answer the FY 2018 National Defense Authorization Act, Reporting Element 3, which required the Inspector General of the Department of Defense to report on any ongoing or completed proceedings or investigations into a government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases.

A memorandum for record, dated August 18, 2017, signed by the HQUSACE Chief, Programs Integration Division, Directorate of Military Programs, stated "the objectives of the assessment were to ensure an understanding of the facts and root causes for the unprecedented cost and schedule growth of the project by evaluating the management tactics, techniques, and processes utilized in the delivery of the project." Therefore, the objective of the assessment was not a proceeding or investigation specific to a government employee, prime contractor, subcontractor, or non-governmental organization that may be responsible for the delay and cost increases, but rather an overall assessment of processes. We appropriately included the independent assessment in the FY 2018 NDAA Section 2823 (b), Reporting Element 2, which required a description of the specific actions taken to prevent further schedule delays and cost increases on this project as well as lessons learned that will be applied to future hospital projects.

Recommendations, Management Comments, and Our Response

Revised Recommendation

As a result of management comments, we revised draft Recommendation 1.b.i to add and clarify areas of the specific guidance needed to improve facility construction projects.

Recommendation 1

We recommend that the Assistant Secretary of Defense for Energy, Installations, and Environment:

a) Develop guidance to:

i. Establish, in writing, the title 10, section 2851, United States Code reporting process.

ii. Define the roles and responsibilities for personnel involved in the section 2851 reporting process, such as the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment, the resource sponsor, and the design and construction agent.

b) Issue guidance to:

i. Identify the roles, responsibilities, and deciding officials for key segments of a facility construction project, including but not limited to, the project development, budgetary submissions, design reviews, planning, construction management, and assessment of contractor performance.

ii. Establish metrics that include financial risk management parameters and triggers, including, but not limited to, threshold changes to scope, cost, or timeline; emerging issues; dispute resolution; and statutory reporting requirements when higher headquarters engagement is required.

Assistant Secretary of Defense for Energy, Installations, and Environment Comments

The Assistant Secretary of Defense for Energy, Installations, and Environment, agreed with the recommendation, stating that the planned completion for all four actions associated with the recommendation will be within 1 year from the publication of the final report.

Our Response

Comments from the Assistant Secretary of Defense for Energy, Installations, and Environment met the intent of the recommendation; therefore, the recommendation is resolved but will remain open. We revised Recommendation 1.b.i to clarify the guidance that the Assistant Secretary of Defense for Energy, Installations, and Environment plans to issue related to roles and responsibilities for key segments of a facility construction project. We will close the recommendation once we verify that the guidance was developed and issued and confirm that the guidance included all aspects outlined in the four parts of the recommendation.

Recommendation 2

We recommend that the Director, Defense Health Agency, review the actions of the individuals involved in the Fort Bliss Hospital Replacement project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold the individuals accountable as appropriate.

Defense Health Agency Comments

The Defense Health Agency Deputy Director, responding for the Defense Health Agency Director, agreed with the recommendation stating that the DHA, in conjunction with the U.S. Army Health Facility Planning Agency Commander, will conduct a joint review to implement the recommendation, as both DoD Components received the same recommendation. The Deputy Director stated that actions will include interviews and a correspondence review. Additionally, actions will include assessing process timeliness, actions related to design reviews, and change management during both design and construction phases of the project. Lastly, the Deputy Director stated that the DHA estimated that the internal review will require 12 weeks to perform initial discovery, conduct interviews, review documentation, and assess, report, adjudicate, and implement accountability where appropriate.

Our Response

Comments from the Defense Health Agency Deputy Director addressed all specifics of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we verify that the review is complete and verify whether any actions to hold individuals accountable were taken.

Recommendation 3

We recommend that the Commander, U.S. Army Corps of Engineers:

a. Review the actions of the individuals involved in the Fort Bliss Hospital Replacement project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold the individuals accountable as appropriate.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers Commander, agreed with the recommendation, stating that administrative actions have been taken in accordance with USACE internal management controls and business processes to identify accountability for actions. The Commander also stated that the actions will continue through construction completion.

Our Response

Comments from the U.S. Army Corps of Engineers Commander, met the intent of the recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we receive documentation showing that USACE reviewed whether any actions of individuals involved in the FBHR project resulted in the cost and time increase related to design errors and omissions, and that actions were taken in accordance with USACE internal management controls and business processes to identify and hold individuals accountable as appropriate. We request the Commander provide us with documentation supporting any actions taken once construction is completed.

b. Issue guidance to improve technical expertise and discipline for medical infrastructure projects and improve understanding of performance specifications and extensions of design, and performance metrics for projecting a project at risk.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers Commander, agreed with the recommendation, stating that policy and training are regularly reviewed, updated, and applied to sustain and advance expertise. The Commander stated that Engineering Pamphlets, Engineering Regulations, and Engineering and Construction Bulletins related to engineering and construction quality management and reporting of

projects at risk is an established and on-going process. The Commander provided the following examples of current and future actions by USACE:

- The Engineering and Construction Bulletin 2017-20, Quality Management Plan Guide, issued on September 19, 2017.
- A revision of the Engineering and Construction Bulletin 2016-16, Updated USACE Mega Projects Guidance, due out in September 2018.
- The Engineering and Construction Bulletin 2018-XX for Mandatory Agency Technical Review of Medical Projects, to be published in November 2018.
- A revision of the Engineering Regulation 1110-345-721 Engineering and Design USACE Medical Facilities Mandatory Center of Expertise, due out in August 2018.

The Commander also stated that HQUSACE Memorandum dated July 28, 2017, "Interim Guidance on the Implementation of the Military Missions Lessons Learned Share Point Site," provides for a policy update guidance on capturing and sharing after action reviews and lessons learned for military programs' lines of business. In addition, HQUSACE will recertify the USACE Mandatory Medical Center of Expertise by August 2018, in accordance with Engineering Regulation 1110-1-8158.

Our Response

Comments from the U.S. Army Corps of Engineers Commander met the intent of our recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we receive the updated policy and training guidance and review and evaluate them to verify they contain policies and procedures that improve technical expertise and discipline for medical infrastructure projects and improve understanding of performance specifications and extensions of design, and performance metrics for projecting a project at risk.

c. Complete an after action review following the construction of the Fort Bliss Hospital Replacement project.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers Commander agreed with the recommendation, stating that USACE will conduct an after action report within 180 days of construction completion. The current construction completion date is September 2019.

Our Response

Comments from the U.S. Army Corps of Engineers Commander addressed all specifics of the recommendations; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we verify that USACE conducted an after action report within 180 days of construction completion.

d. Issue guidance directing contracting personnel to issue annual past performance evaluations for contractors in the Contractor Performance Assessment Reporting System as required by Federal Acquisition Regulation Subpart 42.15.

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers Commander agreed with the recommendation, stating that USACE will issue interim guidance for Engineering Regulation 415-1-17, "Construction Contractor Performance Evaluations," dated January 24, 2012, within 90 days in accordance with the Federal Acquisition Regulation Subpart 42.15 requirements. In addition, the Commander included an action completed that USACE issued Engineering and Construction Bulletin 2014-13 on May 22, 2013, directing transition to the Contractor Performance Assessment Reporting System for architect-engineer and construction contractor evaluations.

Our Response

Comments from the Commander, U.S. Army Corps of Engineers, met the intent of our recommendation; therefore, the recommendation is resolved but will remain open. We will close the recommendation once we verify that USACE issued interim guidance for Engineering Regulation 415-1-17, "Construction Contractor Performance Evaluations," dated January 24, 2012, within 90 days in accordance with the Federal Acquisition Regulation subpart 42.15 requirements.

Recommendation 4

We recommend that the Commander, U.S. Army Health Facility Planning Agency review the actions of the individuals involved in the Fort Bliss Hospital Replacement project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold the individuals accountable as appropriate.

U.S. Army Health Facility Planning Agency

The Chief of Staff, Office of the Surgeon General and U.S. Army Medical Command, responding for the U.S. Army Health Facility Planning Agency Commander, disagreed with the recommendation, stating that the U.S. Army Health Facility Planning Agency responsibility for the FBHR project was limited to managing and monitoring the functional, medical aspects of the project. The Chief of Staff also stated that the Army HFPA personnel reviewed change orders, construction

contract modifications, and coordinated medical and functional needs. The Chief of Staff stated that neither the U.S. Army Medical Command–Office of the Surgeon General nor the Army HFPA had the necessary scope of responsibility or authority for the FBHR project to implement this recommendation. The Chief of Staff further stated that his office would not have sufficient information and documentation to perform such a review. The Chief of Staff stated that the report findings show no indication that the Army HFPA actions contributed to the design errors and omissions involved in the FBHR project.

However, the Chief of Staff stated that the Army HFPA will conduct an inquiry to examine its MILCON processes, management of project sites, and interactions with stakeholders to refine its current procedures. In addition, the Chief of Staff stated that the findings will be reviewed and implemented on future projects to the greatest extent possible. Furthermore, the Chief of Staff stated that the Army HFPA will assist the DHA and USACE, as necessary, with any reviews they may undertake as a result of this report and its findings. Lastly, the Chief of Staff stated that the review of the Army HFPA processes will be completed by January 1, 2019.

Our Response

Although the Chief of Staff, Office of the Surgeon General and U.S. Army Medical Command, disagreed with our recommendation, the planned actions to conduct an inquiry and review and implement the inquiry's findings on future projects met the intent of the recommendation, and no further comments are required. We appreciate the Chief of Staff acknowledging that the Army HFPA will assist the DHA and USACE, as necessary, with any reviews they may conduct as a result of this report and its findings. Therefore, the recommendation is resolved but will remain open. We will close the recommendation once we verify that the inquiry is complete and, as necessary, confirm the assistance that the Army HFPA may have provided on any DHA and USACE reviews.

As the Chief of Staff stated, the findings in this report did not reflect the Army HFPA's involvement on the design errors and omissions. However, we did not conduct an extensive review on the Army HFPA's involvement in the FBHR project because we performed this audit to address the FY 2018 NDAA Section 2823, reporting elements, that Congress required. Additionally, even though the Chief of Staff stated that his office could not perform the review that we recommended, the Army HFPA were the subject matter experts for the DoD Components involved in the FBHR project. Specifically, as the Chief of Staff stated above, the Army HFPA's involvement included managing and monitoring the functional, medical aspects of the project; reviewing change orders and construction contract modifications; and coordinating medical and functional needs. Therefore, during the FBHR project, DoD officials made decisions based on the Army HFPA's expertise, which affected the project.

Appendix A

Scope and Methodology

We conducted this performance audit from January through May 2018 in accordance with generally accepted government auditing standards except for evaluating internal controls, information systems controls, and the reliability of computer processed data. Because of time constraints, we did not make a determination of the adequacy of the internal controls over the Fort Bliss Hospital Replacement project. Furthermore, we did not examine information systems controls for any of the computer systems used to obtain information throughout the audit.[27] In addition, we did not test the reliability of computer processed data obtained from U.S. Army Corps of Engineers Resident Management System or the Design Review and Checking System (DrChecks). Generally accepted government auditing standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Revised Announced Audit Objective

We revised the announced audit objective for the "Audit of the Fort Bliss Hospital Replacement Construction Project." (Project No. D2018-D000CG-0078.000) because of time constraints set forth in the Public Law 115-91, "National Defense Authorization Act for Fiscal Year 2018," section 2823, "Report on Design Errors and Omissions Related to Fort Bliss Hospital Replacement Project," December 12, 2017. Public Law 115-91 required the Inspector General of the Department of Defense to submit a report on the design errors and omissions related to the Fort Bliss Hospital Replacement Project no later than 180 days from enactment.

Announced Audit Objective

The announced audit objective on January 8, 2018, was to determine whether the DoD effectively managed the Fort Bliss Hospital Replacement construction project. Specifically, we were to review the requirements development, the design-bid-build contract award processes, design suitability, and contractor performance.

Revised Audit Objective

We performed this audit in accordance with Public Law 115-91, "National Defense Authorization Act for Fiscal Year 2018," section 2823, "Report on Design Errors and Omissions Related to the Fort Bliss Hospital Replacement Project." Section 2823

[27] Specifically, we did not determine what was known about the data and the systems that processed and produced the data; the general, system, and application controls; or identify and evaluate the general and application controls.

requires the DoD Office of Inspector General to report on five elements relating to the design errors and omissions related to the hospital replacement project at Fort Bliss, no later than June 10, 2018.

Criteria and Guidance Reviewed

We reviewed the following relevant criteria and guidance from the United States Code, and Federal, DoD, Army, Unified Facilities Criteria, and USACE regulations and policies. Specifically, we reviewed:

- Section 1551, Title 31, United States Code (31 U.S.C. § 1551 [2015])
- Section 1102, Title 40, United States Code (40 U.S.C. § 1102 [2011])
- Section 2851, Title 10, United States Code (10 U.S.C. § 2851 [2010])
- DoD Financial Management Regulation (DoD FMR), Volume 2B, Chapter 6, "Military Construction/Family Housing Appropriations"
- DoD FMR, Volume 3, Chapter 7, "Reprogramming of Military Construction and Family Housing Appropriated Funds"
- DoD FMR, Volume 3, Chapter 10, "Accounting Requirements for Expired and Closed Accounts"
- Federal Acquisition Regulation (FAR) Part 9, "Contractor Qualifications"
- FAR Part 36, "Construction and Architect-Engineer Contracts"
- FAR Part 42, "Contract Administration and Audit Services"
- FAR Part 43, "Contract Modifications"
- FAR 52.236-23, "Responsibility of the Architect-Engineer Contractor"
- FAR 52.236-24, "Work Oversight in Architect-Engineer Contracts"
- FAR 52.243-4, "Changes"
- Defense Federal Acquisition Regulation Supplement 252.232-7007, "Limitation of Government's Obligation"
- Unified Facilities Criteria 4-510-01, "Design: Military Medical Facilities"
- Army Regulation 420-1, "Army Facilities Management"
- DoD Directive 4270.5, "Military Construction"
- USACE Engineering and Construction Bulletin (ECB) 2012-2, "Additional Engineering and Construction Management Controls for USACE Mega-Projects"
- USACE ECB 2013-11, "USACE Mega-Project Management: Additional Project, Engineering and Construction Management Controls"
- USACE ECB 2014-14, "USACE Mega-Project or Program Management: Additional Program, Project Engineering and Construction Management Controls"
- USACE ECB 2016-16, "Updated USACE Mega Projects Guidance"
- USACE Engineer-Regulation 11-1-321, Change 1, "Value Engineering"

Interviews

From January through April 2018, we interviewed the following Government officials and personnel from multiple Government agencies involved in the FBHR project to gain an understanding of each DoD components' roles and responsibilities.

Office of the Assistant Secretary of Defense for Energy, Installations, and Environment

- Deputy Assistant Secretary of Defense, Facilities Investment and Management
- Defense-Wide MILCON Program Analyst, OASD (EI&E)

Defense Health Agency

- Branch Chief, Program and Budget, DHA
- Branch Chief, Design and Construction, DHA
- Program Manager, DHA

U.S. Army Health Facility Planning Agency

- Commander, Army HFPA
- Deputy Commander, Army HFPA
- Director, Planning Support Division, Army HFPA
- Director, Project Execution Division, Army HFPA
- On-site Fort Bliss Medical Construction Office, Program Manager, Army HFPA

USACE Headquarters

- Senior Policy Advisor and Technical Lead for Geotechnical Engineering, HQUSACE
- Medical National Program Manager, HQUSACE

USACE Southwestern Division

- Regional Business Director, USACE Southwestern Division
- Former Commander and Division Engineer, USACE Southwestern Division
- Regional Chief Engineering and Construction, USACE Southwestern Division

USACE Engineering and Support Center, Huntsville

- Chief, Medical Center of Expertise (MX), USACE Huntsville
- Project Directors, MX, USACE Huntsville

USACE Fort Worth District

- Chief Engineering and Construction, USACE Fort Worth District
- Office Counsel, USACE Fort Worth District
- Chief Administrative Office, USACE Fort Worth District
- Medical Project Manager, USACE Fort Worth District
- Senior Project Manager, USACE Fort Worth District
- Procuring Contracting Officer, USACE Fort Worth District
- Contracting Officer's Representative (COR), USACE Fort Worth District

USACE Fort Bliss Medical Construction Office

- Administrative Contracting Officers, USACE Fort Bliss
- CORs, USACE Fort Bliss
- Head of the ICE Breaker Team, USACE Fort Bliss

U.S. Army Installation Management Command

- Deputy, Directorate of Public Works, Fort Bliss
- Director, Directorate of Public Works, Fort Bliss
- Chief of Master Planning, Directorate of Public Works, Fort Bliss

Modifications Reviewed

We queried the Federal Procurement Data System–Next Generation to determine the design contract and the construction contract for the FBHR project by querying each of the contractor's names and then querying by product or service code description. For the construction contract, we also used the Federal Procurement Data System–Next Generation contract detail report to identify contract modifications awarded by USACE Fort Worth District contracting personnel for the medical complex construction contract. The contracting personnel awarded 355 modifications with total exercised value of $229.8 million on the construction contract for the medical complex.

We also obtained from the USACE Fort Bliss Medical Construction Office a Change Request Register report from a USACE Resident Management System (RMS) query as of March 15, 2018, showing all contract changes along with each modification awarded for the medical complex construction contract. The Change Request Register showed 978 contract change requests, valued at $271.2 million and 806 days added to the medical complex construction contract as of March 15, 2018.[28]

[28] The Change Request Register showed 132 of the 978 change requests were cancelled.

In addition, the team of engineers from the Technical Assessment Directorate (TAD), Office of the Deputy Inspector General for Policy and Oversight, selected and further reviewed 23 modifications from the medical complex construction contract. See the Use of Technical Assistance section of our report.

Documents Reviewed

We reviewed documentation related to the Fort Bliss Hospital Replacement obtained from Government officials and personnel from multiple Government agencies involved in the FBHR project to complete our analysis and respond to each element from the FY 2018 NDAA requirement. Documentation reviewed includes contracts, contract modifications, task orders, task order amendments, statements of work, Price Negotiation Memorandums and Pre-negotiation Objective Memorandums, Determination and Findings report, Change Request Register, DD Forms 1391, design authorizations, current working estimates, congressional notifications, project management plans, 2851 reports, contractor performance assessment reports, COR monthly reports, snapshots of design submittal reviews, value engineering study report, DrChecks Conference meeting minutes, design submittal checklists, DrChecks' Comment Reports, design and construction evaluation reports, in process review briefings, Commander's Critical Information Requirements Reports, Stakeholder Monthly Reports, Cost and Schedule Risk Reports, Project Status Reports, and budget request documentation.

Use of Computer-Processed Data

We relied on computer-processed data to prepare Appendix B, which lists all modifications with engineering changes, coded 1, in the USACE RMS.[29] We obtained a Change Request Register report from a USACE Fort Bliss Medical Construction Office project engineer who ran a query, as of March 15, 2018, showing all contract changes along with each contract modification awarded for the medical complex construction contract.[30] The Change Request Register showed 978 contract change requests, valued at $271.2 million, and 806 days added to the medical complex construction contract.[31] We reviewed the Change Request Register to determine the engineering changes designated by RMS code 1 and the associated contract modification. Engineering changes are identified by RMS code 1; however, these engineering changes are not exclusively for changes that resulted in design errors or omissions for the FBHR project.

[29] RMS was a comprehensive system for the management of construction contracts through tracking and documenting all aspects of a contract by USACE field offices and contractors.

[30] Contract W9126G-13-C-0004.

[31] The Change Request Register showed 132 of the 978 change requests were cancelled.

We used the Change Request Register as a starting point to identify the contract modifications that were for engineering changes code 1 and to determine whether time or cost was affected on the FBHR project. We then obtained and reviewed the contract modifications from the Electronic Document Access System to identify the change request number, effective date, and description of the change. We also obtained the dollar value for the change from the contract modification when possible. In some instances, the contract modifications combined numerous changes without identifying the individual costs for each change, so we relied on the dollar value listed in the Change Request Register from RMS.

We could not determine the reliability of the Change Request Register from RMS, which caused an exception to generally accepted government auditing standards.[32] To assess the reliability of the RMS Change Request Register report, DoD OIG Technical Assessment Directorate engineers sampled 23 change requests listed on the register. For each item sampled, the Technical Assessment Directorate team requested that the USACE Fort Worth District and the USACE Fort Bliss Medical Construction Office provide the specific reason or origin of the change. Collectively, USACE personnel could not provide the documentation that showed the sources of the changes. To verify the reliability of the Change Request Register, the Technical Assessment Directorate team also reviewed Requests for Information, an Architect's Supplemental Instruction report, contract modifications, meeting minutes, basic change document, and a HQUSACE memorandum. However, the documentation reviewed often lacked any discussion of how the change originated, if the change was necessary per a regulation, or if the change corrected the deficiency identified. Therefore, we could not determine whether the information on the Change Request Register was accurate or complete.

Although we relied on the Change Request Register to prepare Appendix B and make general statements in the report about the number of changes and dollar value, our reliance did not affect the overall findings, conclusions, or recommendations. For example, the FY 2018 NDAA Section 2823 (b) (1): Reasons for Design Errors and Omissions, section of the report only states the overall number of changes and dollar value for the changes from the Change Request Register.

In addition, we could not determine the reliability of the snapshot reports from DrChecks, which caused an exception to generally accepted government auditing standards.[33] We relied on computer-processed data from DrChecks that supported

[32] GAO-12-331G, "Government Auditing Standards," 2011 Revision, December 2011. Generally Accepted Government Auditing Standard 6.66, Appropriateness.

[33] GAO-12-331G, "Government Auditing Standards," 2011 Revision, December 2011. Generally Accepted Government Auditing Standard 6.66, Appropriateness.

our findings and conclusions. Other than a walkthrough of DrChecks that we obtained while on site at USACE Fort Worth District, we did not obtain access to DrChecks so we could not test, corroborate, or verify the data in the DrChecks snapshot reports against the manually entered data into DrChecks. Therefore, we could not determine whether the information in the DrChecks snapshot reports were accurate or complete. Since we relied on the DrChecks snapshot reports to determine whether all review comments had been addressed or closed, there may be a potential for inaccurate or incomplete data within the "Design Oversight," portion of the report, which could affect the report users' perception of design oversight.

All other parts of the report section were supported by sufficient, appropriate evidence obtained and reviewed during the course of the audit in accordance with generally accepted government auditing standards.

Use of Technical Assistance

Technical Assessment Directorate

The team of engineers from the Technical Assessment Directorate, Office of the Deputy Inspector General for Policy and Oversight, assisted with this audit. Specifically, the team of engineers assisted in obtaining a detailed description of design errors and omissions for 23 modifications from the construction contract.

A general engineer accompanied the audit team to the USACE Fort Worth District and the Fort Bliss Medical Construction Office in February 2018. The general engineer reviewed the Modification List provided by the USACE Fort Worth District and selected 23 modifications related to engineer changes that resulted from design errors and omissions in the construction contract for further analysis. A team of engineers visited the USACE Fort Bliss Medical Construction Office in March 2018 to obtain supplemental documentation to complete their analysis of the engineer changes related to the 23 modifications. The documentation obtained from the Fort Worth District and the Fort Bliss Medical Construction Office that was reviewed by the team of engineers included the Change Request Register, Request for Information Report, contract modifications, and Basic Change Orders.

Defense Criminal Investigative Services

An investigative analyst from the Defense Criminal Investigative Services, Office of the Deputy Inspector General, assisted with this audit. Specifically, the investigative analyst assisted in providing the audit team with any open or closed investigations related to 34 Government officials and personnel names as well as 15 company names of contractors involved in the FBHR project.

Administrative Investigations

The Office of the Deputy Inspector General for Administrative Investigations assisted with this audit. Specifically, the Administrative Investigations team assisted in providing the audit team with any administrative investigations for 34 Government officials and personnel names as well as 15 company names of contractors involved in the FBHR project.

Prior Coverage

During the last 5 years, the DoD Office of Inspector General (DoD OIG) issued one report discussing contractor performance assessment reports at USACE. Unrestricted DoD OIG reports can be accessed at http://www.dodig.mil/reports.html/.

DoD OIG

Report No. DODIG-2016-112, Army Officials Did Not Consistently Comply With Requirements for Assessing Contractor Performance, July 25, 2016

> The audit objective was to determine whether Army officials completed comprehensive and timely contractor performance assessment reports for nonsystems contracts as required by Federal and DoD policies. National Guard Bureau; USACE, Engineering Support Center, Huntsville; Army Contracting Command–Aberdeen Proving Ground; Army Contracting Command–Redstone Arsenal; and Army Contracting Command–Warren officials did not consistently comply with requirements for evaluating contractor past performance when preparing 56 performance assessment reports. The auditors recommended that Army officials develop, implement, or update procedures for preparing performance assessment reports within 120 days and require that assessors take training for writing performance assessment reports, evaluating performance assessment reports for quality, or registering contracts. They also recommended that Army officials prepare 21 overdue performance assessment reviews.

Appendix B

Medical Complex Contract Modifications Coded 1, Engineering Changes

There were no time extensions in these modifications for the Fort Bliss Hospital Replacement project. Any time extensions required will be subject to a future modification. Contract modifications signed by the administrative contracting officer (ACO) are coded "A" and those signed by the procurement contracting officer (PCO) are coded "P".

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK018	A00001	3/24/2014	Canopy Details	*$0*
MK020	A00001	3/24/2014	Administrative - Elevator Pit Foundation	*0*
MK022	A00001	3/24/2014	Hospital & Clinic Infill & Framing	*0*
MK024	A00001	3/24/2014	Hospital - Grease Waste Heat Trace	*0*
MK030	A00001	3/24/2014	Vent Riser	*3,570*
MK033	A00002	4/1/2014	Oil Interceptor Ambulance Shelter	11,372
MK001	A00004	4/10/2014	Building Revisions	296,506
MK017	A00005	4/28/2014	Canopy Wind Screen Foundations	*5,260*
MK049	A00005	4/28/2014	Miscellaneous Clinical Investigation Building Mechanical Updates	*0*
MK051	A00005	4/28/2014	Administrative - Building Air Flow Adjustment	*0*
MK007	A00006	5/6/2014	Hospital - Storm Drain Line Revision	44,254
MK036	A00007	5/21/2014	Storm Piping Revisions Site	*10,000*
MK042	A00007	5/21/2014	LEED Updates	*22,521*
MK046	A00007	5/21/2014	Hospital Elevator Machine Room Revision	*0*
MK058	A00007	5/21/2014	Fitness, Kiosk, Bus Stop Clarification	*0*
MK059	A00007	5/21/2014	Central Utility Plant Stairs	*3,633*
MK043	A00008	6/9/2014	Clinic Miscellaneous Framing	*20,300*
MK062	A00008	6/9/2014	Hospital Partition Wall Changes	*500*
MK025	A00009	6/12/2014	Miscellaneous Structural Revisions (All Building)	29,215
MK037	A00010	6/24/2014	Hospital - Gravity Piping Revision	11,887

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK035	A00011	7/3/2014	Cooling Tower Water Tanks	35,253
MK034	A00012	7/11/2014	Structural Revision (Various Buildings)	9,861
MK026	A00013	7/25/2014	Structural Revisions (Various Buildings)	17,785
MK050	A00014	8/1/2014	Clinical Investigation Building Mechanical/Structural Updates	*9,085*
MK057	A00014	8/1/2014	Miscellaneous Clinical Investigation Building Mechanical Updates	*0*
MK065	A00014	8/1/2014	LEED - Additional Shuttle Bus Stop	*0*
MK077	A00014	8/1/2014	Water Piping to Terrace	*0*
MK047	A00015	8/11/2014	Canopy Sunshades at Canopy K	10,553
MK060	A00016	8/12/2014	Miscellaneous Civil & Hospital Equipment	*14,032*
MK070	A00016	8/12/2014	Terra-cotta Rain Screen System	*0*
MK074	A00016	8/12/2014	Administrative - Pneumatic Chutes	*1,400*
MK048	A00017	8/14/2014	Hospital - Basement H3 Cable Tray Reduction	*7,000*
MK056	A00017	8/14/2014	Reflected Ceiling Plan, Lighting	*2,000*
MK069	A00017	8/14/2014	Metal Loggia	*14,665*
MK041	A00018	8/15/2014	Miscellaneous Revisions in Area B	17,895
MK009	A00019	8/20/2014	Deletion of Canopy Piers	(183,000)
MK028	A00020	8/27/2014	Interior Utility Revisions	49,193
MK066	A00021	9/4/2014	Hospital Fire Hose Valve Cabinets	3,900
MK080	A00022	9/5/2014	Hospital - Food & Beverage Plumbing	77,069
MK068	A00023	9/11/2014	Miscellaneous Structural Items	36,804
MK071	A00024	9/17/2014	Clinic - Miscellaneous Steel Changes	38,834
MK100	A00025	9/22/2014	Hospital - Connection at Area H2	30,635
MK014	A00026	9/24/2014	Ceiling Service Panels	149,989
MK015	A00027	9/30/2014	Fourth Floor Mechanical Walls	57,217
MK038	A00028	10/14/2014	Miscellaneous Structural Revisions	*31,916*
MK052	A00028	10/14/2014	Hospital - Sprinkler System at Dock	*1,335*

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK008	A00029	10/17/2014	Bracing & Connections (All Buildings)	56,904
MK031-2	A00030	11/3/2014	Definitize Mod P00003 for Central Utility Plant-Gravity Piping Revision	(105,264)
MK016	A00031	11/5/2014	Fourth Floor Mechanical Room Drains	*21,100*
MK089	A00031	11/5/2014	Underground Natural Gas Line	*13,515*
MK093	A00032	11/19/2014	Miscellaneous Structural	88,288
MK027	A00033	11/20/2014	Piping Deletion & Reconfiguration	27,957
MK044	A00034	11/24/2014	Miscellaneous Structural Revision	10,205
MK053	A00035	11/26/2014	Miscellaneous Plumbing and Civil Revision	*(58,590)*
MK063	A00036	12/3/2014	Miscellaneous Issue Corrections	214,504
MK064	A00037	12/9/2014	Clinical Investigation Building Canopy, Stairs, Parapet	24,516
MK072	A00038	12/12/2014	Interior Door Auto Operators	80,086
MK078	A00039	12/16/2014	Universal X-ray Room	*50,000*
MK082	A00039	12/16/2014	Miscellaneous Civil & Plumbing Revisions	*5,000*
MK088	A00039	12/16/2014	Tunnel Drainage	*95,000*
MK105	A00039	12/16/2014	Civil-Electrical Manholes Correction	*(7,069)*
MK101-1	A00040	12/19/2014	Request for Information Implementation - July 2014	112,755
MK085	A00041	12/19/2014	Electrical Coordination with Pneumatic Tube System	127,334
MK096	A00042	12/30/2014	Miscellaneous Items	*33,722*
MK097	A00043	1/16/2015	Hospital Sanitary and Plumbing	*3,040*
MK110	A00043	1/16/2015	Clinic - Structure Double Angles	*8,200*
MK067	A00044	1/29/2015	Electrical Power to Vestibule Auto Doors	20,000
MK081	A00045	2/9/2015	Additional LEED Issues	65,063
MK075	A00046	2/17/2015	LEED Issues	132,000
MK086	A00047	3/9/2015	Miscellaneous Structural Changes - Part 4	163,134
MK054	A00049	4/10/2015	Hospital & Clinic - Tunnel Utilities	*55,000*

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK108	A00049	4/10/2015	Request For Information Implementation, August 2014 & Clinic Switchgear	(1,350)
MK106	A00054	6/8/2015	Sterilizer Revisions Rooms HB412 & HB301	256,257
MK119	A00054	6/8/2015	Vault Construction	73,108
MK128	A00055	6/11/2015	Clinic Ceiling Modification	15,945
MK129	A00056	6/16/2015	Clinical Investigation Building Wall Modifications	5,000
MK132	A00057	6/19/2015	Scheduled Water Flow Values	3,864
MK137	A00059	6/26/2015	Column Encasement & Request For Information 1971	6,000
MK155	A00059	6/26/2015	Expansion Joint at Central Utility Plant and Request For Information Hospital Smoke Damper Conflict	12,844
MK156	A00059	6/26/2015	Hospital - Plumbing Riser	3,650
MK166	A00059	6/26/2015	Central Utility Plant - Change Equipment Pads	7,195
MK167	A00059	6/26/2015	Central Utility Plant - Fire Damper in General Room	(15,331)
MK121	A00060	7/6/2015	Request For Information Implementation October 2014	53,979
MK130	A00061	7/15/2015	LEED No Smoking Signs	5,900
MK134	A00061	7/15/2015	Americans with Disabilities Act/Architectural Barriers Act Clarifications	1,203
MK157	A00061	7/15/2015	Heat Recovery Unit Clarification	0
MK171	A00061	7/15/2015	Clinic - Cantilevered	710
MK159	A00062	7/23/2015	Clinic - Pass Thru Cabinets	3,440
MK120	A00063	8/6/2015	Request For Information Implementation	276,947
MK194-1	A00064	9/2/2015	Column Splice Runoff Tab Removal	110,705
MK180	A00065	9/8/2015	Air Terminal Unit Schedule Changes	49,000
MK136	A00067	9/14/2015	Deletion of Steam Systems	(12,061)
MK165	A00067	9/14/2015	Administrative Level 3 & 4 Terminal Units	0
MK168	A00067	9/14/2015	Clinic - Miscellaneous Metal and Railing	0

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK145	A00068	9/16/2015	Clinic - Grab-n-Go Kitchen Piping	*31,024*
MK164	A00068	9/16/2015	Administrative Conference Room Mechanical	*18,400*
MK175	A00068	9/16/2015	Clinical Investigation Building - Air Control Valve Schedule	*11,016*
MK169	A00069	9/22/2015	Clinic - Transition Weld	*4,700*
MK170	A00069	9/22/2015	Hospital - Increased Pier Cap Size	*8,611*
MK177	A00069	9/22/2015	Wall Mounted Camera	*1,450*
MK178	A00069	9/22/2015	Delete Steam or Storm Pipe	*(19,412)*
MK126	A00070	10/21/2015	Trap Primer Update	345,006
MK101-2	A00071	10/28/2015	Request For Information Implementation - July 2014	175,000
MK188	A00072	10/29/2015	Central Utility Plant - Elevator Floor to RF - 4	*0*
MK205	A00072	10/29/2015	Hospital - Telecom Changes	*1,380*
MK206	A00072	10/29/2015	Wall Change from Type A5 to A8	*0*
MK215	A00073	11/16/2015	Central Utility Plant - Turndown Adjacent to Trench	500
MK182	A00074	11/30/2015	Hospital - AHU Power	*38,677*
MK200	A00074	11/30/2015	Clinical Investigation Building - Boom Circuits & Slab Penetrations	*9,783*
MK214	A00074	11/30/2015	Clinic - Column & Metal Panel Wrap	*5,941*
MK099	A00075	1/6/2016	Conformance Drawing Variations - Review Only	130,676
MK146	A00076	2/10/2016	Expansion Joint between Rotunda and Clinic	31,902
MK176	A00079	3/10/2016	Hospital - UPS & Battery Room Floor Framing	*71,449*
MK199	A00079	3/10/2016	Clinical Investigation Building - Animal Feed Cooler	*87,372*
MK198	A00080	3/11/2016	Central Utility Plant - Missing Circuitry and Power Require	*26,283*
MK201	A00080	3/11/2016	Clinical Investigation Building - OH Door Operator Opening CB1328	*3,713*
MK239	A00080	3/11/2016	Hospital - H2 Depressed SOMD	*8,257*
MK148	A00081	3/22/2016	Gas Pressure Reducing Valve	*109,484*
MK191	A00081	3/22/2016	Door Hardware changes	*(1,268)*

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK203	A00081	3/22/2016	Clinical Investigation Building - Fume Hood L2200 Services	(6,577)
MK217	A00081	3/22/2016	Hospital - Vestibule H1535 Security	13,500
MK139	A00083	4/5/2016	Medical Piping Revisions	108,399
MK143	A00084	5/26/2016	Mechanical 8th Floor Penthouse	192,800
MK190	A00085	6/3/2016	Bicycle Racks	7,800
MK230	A00085	6/3/2016	LEED Car Pool Signage Change	26,231
MK235	A00085	6/3/2016	Administrative - D4 S-502	20,712
MK124	A00086	6/7/2016	Request For Information - Implementation Nov. 2014	353,941
MK195	A00087	6/10/2016	Central Utility Plant - Generator Intake Duct-Rated Wall	250,479
MK202	A00087	6/10/2016	Hospital - Door HW and Security	24,333
MK194-2	A00088	6/17/2016	Definitize Mod A00064 Runoff Tab Removal	103,297
MK152	A00089	7/6/2016	Hospital - Heat Exchangers	148,496
MK231	A00089	7/6/2016	Miscellaneous Items & Request For Information 3048/3446 Wall Change	16,470
MK211-1	A00090	7/7/2016	Administrative - Levels 1&2 Heating, Ventilation, and Air Conditioning Modifications	100,000
MK187	A00092	7/8/2016	Pneumatic Tube System	55,037
MK207	A00092	7/8/2016	West Clinic Shaft Opening	24,839
MK208	A00092	7/8/2016	Pipe Insulation Thickness Revision	0
MK196	A00093	7/8/2016	Heating, Ventilation, and Air Conditioning Duct Ceiling Conflicts East	34,363
MK197	A00094	7/20/2016	Central Utility Plant - Power Requirements	12,785
MK243	A00094	7/20/2016	Central Utility Plant - Lobby Stair Wall	2,728
MK278	A00095	7/21/2016	Clinical Investigation Building - Duct Bank Interference	2,876
MK284	A00095	7/21/2016	Clinical Investigation Building - Trench Reinforcement	1,713
MK287	A00095	7/21/2016	Clinical Investigation Building Kicker Braces at LD Canopy	3,528
MK296-1	A00096	7/22/2016	Add Seismic Fire Sprinkler	245,000

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK274-1	A00097	7/22/2016	Cable Tray Changes	125,000
MK213	A00098	7/25/2016	Central Utility Plant - Fuel Oil System Power Coordination	*21,007*
MK264	A00098	7/25/2016	Central Utility Plant - Site Groundwater	*58,656*
MK275	A00098	7/25/2016	Sink Change/Return Air	*10,501*
MK288	A00098	7/25/2016	Administrative - Level 3 Heating, Ventilation, and Air Conditioning Revisions	*4,422*
MK174	A00100	8/24/2016	Clinical Investigation Building Mechanical Floor, Roof & Dunnage	*38,000*
MK250	A00100	8/24/2016	Hospital - Relocation of 4 Comm.	*23,604*
MK263	A00100	8/24/2016	Administrative - Changes to Door Hardware	*4,110*
MK272	A00100	8/24/2016	Clinical Investigation Building RG-RR Grille	*11,711*
MK276	A00100	8/24/2016	Clinical Investigation Building - Concrete Wall Elevation	*6,618*
MK269	A00101	8/25/2016	Central Utility Plant/Tunnel Expansion Joint & Partnering	25,343
MK246	A00102	8/25/2016	Fire Damper Locations	*68,626*
MK298	A00102	8/25/2016	Steel for Window Monorail	*16,081*
MK183	A00103	8/26/2016	Americans with Disabilities Act/Architectural Barriers Act Clarifications	*20,741*
MK204	A00103	8/26/2016	Point Supported Glazing at Hospital	*14,100*
MK209	A00103	8/26/2016	Welds at Side Plate Connections	*42,012*
MK254	A00103	8/26/2016	Roof Expansion Joint Change	*(3,757)*
MK281	A00103	8/26/2016	Request For Information's 1276 & 1277 & 2017 Changes	*35,414*
MK216	A00104	8/26/2016	Metal Panel Design Changes	*9,694*
MK223	A00104	8/26/2016	Missing Post at Level 6 West Clinic	*5,117*
MK241	A00104	8/26/2016	Double Acting STC Door Change	*0*
MK149	A00105	8/29/2016	Relocation of Helipad Equipment	327,152
MK299	A00106	8/29/2016	Administrative - Modify Column Baseplate	*1,260*
MK301	A00106	8/29/2016	Administrative - Screen Wall Clash at Side	*3,098*

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK300	A00107	8/29/2016	Clinic - Edge of Slab Dimension	8,217
MK251	A00108	8/30/2016	Elapse Time Clock Power	*5,700*
MK310	A00108	8/30/2016	Hospital - Endoscopy Added Circuits	*3,500*
MK248	A00109	9/9/2016	Hospital - Card Reader Additions	59,176
MK315	A00110	9/13/2016	Central Utility Plant - Add Electrical Circuits for Generator	7,570
MK297	A00111	9/19/2016	East Clinic Level 3 Panel Schedule	*6,616*
MK302	A00111	9/19/2016	Request For Information-1968/ Request For Information-1991	*5,320*
MK211-2	A00112	9/30/2016	Administrative - Levels 1&2 Heating, Ventilation, and Air Conditioning Modifications	182,152
MK236	A00113	10/3/2016	Hospital - Level 2 Overhead Coordination	*16,274*
MK268	A00113	10/3/2016	Central Utility Plant - Cooling Tower Flow Met	*0*
MK283	A00113	10/3/2016	Clinical Investigation Building - ANTE Room Exhaust	*2,800*
MK219	A00114	10/3/2016	Administrative - Missing Posts & P&G Dimension	*21,500*
MK238	A00114	10/3/2016	Clinical Investigation Building Ceiling Modifications	*42,111*
MK244	A00114	10/3/2016	Hospital - Level 2-RA Discrepancy	*61,750*
MK255	A00114	10/3/2016	Hospital - Dental Suite EF	*22,000*
MK307	A00114	10/3/2016	Clinic - Exhaust Hood	*1,000*
MK212	A00115	10/5/2016	Administrative - Levels 3&4 Heating, Ventilation, and Air Conditioning Modifications	213,044
MK339	A00118	10/25/2016	Global Issue Resolution Group 2	360,823
MK340	A00119	10/27/2016	Global Issue Resolution Group 3	347,970
MK247	A00120	10/28/2016	Revert ECP 136, 136R1, 139 & 164	*10,500*
MK279	A00120	10/28/2016	Clinical Investigation Building - Various Changes: Request For Information1985, 1812, 1900	*45,130*
MK324	A00120	10/28/2016	Site - Request For Information2773 and Waterline Conflict	*(3,555)*
MK308	A00121	11/8/2016	Hospital & Central Utility Plant Miscellaneous Steel Additions	72,234

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK304	A00122	12/5/2016	Overhead Coiling Security Grille	23,121
MK305	A00122	12/5/2016	Retraction of ECP 182.1	0
MK320	A00123	12/6/2017	Clinical Investigation Building Hot Water System Exchanger	138,048
MK237	A00124	12/6/2016	Clinic - Shaft Opening Discrepancies	12,000
MK303	A00126	12/8/2016	Hospital - Added Utilities in H7758	24,069
MK337	A00126	12/8/2016	Administrative - Heat Exchanger Piping	37,745
MK350	A00126	12/8/2016	Hospital - Add Light at XH4030A	3,181
MK328	A00127	12/8/2016	Hospital - Ground Bus Connection	14,112
MK326	A00128	12/19/2016	Clinic Blood Draw Room Curtains	0
MK332	A00128	12/19/2016	Wall, Refuge Phone and Elevator	39,000
MK346	A00128	12/19/2016	Clinic - Select Door Revisions	4,100
MK252	A00130	1/24/2017	Central Utility Plant- Modify Loading Dock	299,202
MK306	A00131	1/24/2017	Hospital - Pneumatic Tube in Room H1211	36,799
MK220	A00132	1/24/2017	Wet wall Interior Coating Spec	315,000
MK259	A00133	1/25/2017	Hospital - Add Fan Coil Unit in Mechanical Room HB664	69,964
MK331	A00133	1/25/2017	Hospital - Add Exhaust Duct	3,938
MK291	A00134	1/26/2017	Clinical Investigation Building Revise Station and Piping	258,513
MK222	A00135	1/27/2017	Security Hardware Updates	239,000
MK384-1	A00136	1/27/2017	Light Fixture Revisions	250,000
MK316	A00137	1/30/2017	Administrative - Elevator Shaft Revision	88,000
MK360	A00137	1/30/2017	Revise Hydraulic Elevator Feeder Size	31,821
MK261	A00138	2/9/2017	Powered Chute System Sound Dampening	86,726
MK266	A00139	3/1/2017	PMRS-2 Revision	15,852
MK312	A00140	3/1/2017	Double Backer Rod and Sealant	71,535
MK327	A00140	3/1/2017	Emergency Room Isolation Exam Room Door Change	10,396
MK344	A00141	3/1/2017	Hospital - New Door Heights	7,999
MK221	A00142	3/1/2017	Wall Type Clarification	168,059

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK296-2	A00144	3/1/2017	Add Seismic Fire Sprinkler Definitization	56,175
MK323	A00145	3/2/2017	Hospital - Heat Exchanger Revision	*25,724*
MK348	A00145	3/2/2017	Hospital - Duct Laundry Filter	*2,250*
MK375	A00146	3/3/2017	Central Utility Plant - Flashing at Head	3,574
MK365	A00147	3/3/2017	Building Exterior Testing Clarification	109,472
MK336	A00148	3/3/2017	Hospital - Plumbing	31,662
MK233	A00149	3/3/2017	G60 (coating class for galvanized steel) Decking Standards	(33,858)
MK313	A00150	3/16/2017	Hospital - Duress Button Locations	*32,964*
MK290	A00151	3/17/2017	Clinical Investigation Building - Header Change and Room Walls	*9,982*
MK333	A00151	3/17/2017	Hospital -I/A Lockdown Button and Zones	*8,365*
MK352	A00152	3/17/2017	Central Utility Plant - Foundation Design 0.26MG Water Tank	18,530
MK355	A00153	3/17/2017	Hospital - Resurgent Laboratory	9,826
MK391	A00154	3/20/2017	Hospital - Nitrogen Control Panels	*17,197*
MK399	A00154	3/20/2017	Revision Curtain Wall Stud	*21,750*
MK285	A00155	3/21/2017	SITE - Canopy Galvanizing to Prime	(21,682)
MK370	A00156	4/26/2017	Clinic - Wall Revisions at Elevator Shafts	33,407
MK311	A00157	5/2/2017	Medical Gas Piping	28,059
MK425	A00158	5/3/2017	Request For Information 4055, 3654 - SH2 Arrangement	120,406
MK325	A00159	5/3/2017	Hospital - Revised System	80,063
MK398	A00160	5/4/2017	Clinical Investigation Building - Mechanical Roof Miscellaneous Changes	25,411
MK363	A00162	5/5/2017	Hospital - Electrical Circuit Changes	*0*
MK395	A00162	5/5/2017	Hospital - Add Aux Disconnects for Elevators	*17,352*
MK424	A00162	5/5/2017	Clinic - Elimination of Ledge	*5,707*

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK435-1	A00163	5/5/2017	Hospital - Medical Air and Medical Vac	125,000
MK262	A00164	5/5/2017	Infant Protection System Additions	14,442
MK442	A00165	5/8/2017	Stair Support Angle	*7,400*
MK443	A00165	5/8/2017	Clinic - SOG Curtain Wall Support	*50,945*
MK444	A00165	5/8/2017	Hospital L8 Eyebrow Roof	*16,077*
MK445	A00165	5/8/2017	Fire Rating of Miscellaneous Open	*19,744*
MK436-1	A00166	5/8/2017	Hospital Magnetic Resonance Imagining Heating, Ventilation, and Air Conditioning Changes	30,000
MK439-1	A00168	5/9/2017	Non-Rated Items in Rated Walls	70,000
MK286	A00169	7/5/2017	Central Utility Plant - Revisions	14,512
MK410-1	A00171	7/10/2017	Hospital Electrical Validation	150,000
MK429-1	A00172	7/11/2017	Hospital: L3 Plumbing Boxes	*3,000*
MK446-1	A00172	7/11/2017	Hospital: Loading Dock Canopy	*12,000*
MK426-1	A00173	8/25/2017	Hospital - 4th Floor Steam Pipe Expansion Loop	*96,000*
MK454-1	A00173	8/25/2017	Window Configuration	*12,000*
MK354	A00174	8/25/2017	Hospital - Clinic Room Ceiling	*50,932*
MK422	A00174	8/25/2017	Hospital CT Room - Power Changes	*6,576*
MK362	A00176	8/28/2017	Site - Canopy E & G Lighting	347,351
MK349	A00177	8/28/2017	Omni Directional Antenna Repeater	*23,983*
MK409	A00178	8/28/2017	Clinical Investigation Building - Animal Holding Room Changes	5,176
MK413	A00179	8/28/2017	AHU Flashing	21,928
MK381	A00180	8/29/2017	Hospital - Medical Gas Piping, Room H2411	29,814
MK274-2	A00181	8/29/2017	Cable Tray Changes Definitization	1,766
MK335	A00182	8/29/2017	AHU Floor Sinks	172,215
MK472-1	A00183	8/29/2017	Hospital-Behavioral Health Ward	200,000
MK403	A00184	8/30/2017	Hospital - Request for Information	(8,376)
MK473-1	A00185	8/30/2017	Hospital: BSL-3	120,000
MK179-2	A00186	8/30/2017	Engineer Change Package, Hospital: Control Alarm Room	161,609

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK466	A00188	8/30/2017	Delete Acoustical Testing	(116,231)
MK429-2	A00190	8/31/2017	Hospital: L3 Plumbing Boxes	8,467
MK406	A00192	8/31/2017	Hospital-Slide Strainer L8585M	27,447
MK436-2	A00193	8/31/2017	Hospital Magnetic Resonance Imagining Heating, Ventilation, and Air Conditioning Changes	(2,380)
MK319	A00195	9/1/2017	Request For Information 1717 and 1913 Clinical Investigation Building Trench Drain	20,531
MK374	A00195	9/1/2017	Clinical Investigation Building Trench Drain and MK374 Clinical Investigation Building - Toilet Partition Supports	16,000
MK493-1	A00196	9/1/2017	ECP 165.1 Hybrid OR	300,000
MK478	A00198	9/1/2017	Clinic - L6 East TV Circuitry	1,963
MK450	A00199	9/5/2017	Magnetic Resonance Imagining Additional Request	5,500
MK417	A00200	9/5/2017	Common Room Lighting	126,155
MK447	A00200	9/5/2017	Administrative - FCU Revisions	(644)
MK488	A00200	9/5/2017	Clinic - Trap Primer	8,294
MK462	A00201	9/5/2017	Fiber Optic Changes	0
MK476	A00201	9/5/2017	BSL Fixture Requirements	18,642
MK407	A00202	9/5/2017	Duct Humidifier Drain	84,356
MK257-1	A00203	9/5/2017	Clinic - Oncology Pharmacy	225,000
MK490-1	A00204	9/5/2017	Revisions to Wall F and Medical Garden	46,651
MK412	A00205	9/6/2017	Hospital - Security Duct Penetration	40,995
MK503	A00205	9/6/2017	Hospital - D4 Wall	5,931
MK499	A00206	9/6/2017	Clinic - Weatherproof Outriggers	99,090
MK504	A00206	9/6/2017	Light Pole Bases Conflict w/ Sitewall East	15,012
MK463	A00207	9/6/2017	Hospital: L5 Boom Equip Medical Lines	0
MK477	A00207	9/6/2017	Partition Changes	3,714
MK505	A00207	9/6/2017	Clinic - Shadow Boxes	6,338
MK507	A00207	9/6/2017	Hospital: Neutral Conductor	19,573
MK260	A00208	9/7/2017	Clinic - Roof Duct Enclosures	84,951

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK494	A00208	9/7/2017	L12 Head Flashing Details	*23,543*
MK439-2	A00210	9/7/2017	Non-Rated Items in Rated Walls	19,083
MK318	A00211	9/7/2017	Administrative - Added Balancing Valves	162,440
MK317	A00213	9/8/2017	Clinic - Door Hardware and Security	*127,889*
MK416	A00213	9/8/2017	Central Utility Plant - Fluid Waste Tanks & Stoop Sidewalk	*100,215*
MK404	A00214	9/8/2017	Hospital: Clearance Conflict	*10,360*
MK142-2	A00215	9/8/2017	Definitize Stop Work Seismic Bracing - Administrative Building	(256,076)
MK140-3	A00216	9/11/2017	Definitize Stop Work Seismic Bracing - Central Utility Plant	(167,618)
MK418	A00217	9/11/2017	Fire Alarm/Mass Notification Strobes Clarifications	*91,126*
MK495	A00217	9/11/2017	Clinic/Administrative-Changes	*13,577*
MK420	A00218	9/11/2017	Clinical Investigation Building-Elevator Sump Pump Discharge	*4,803*
MK423	A00218	9/11/2017	Stainless Steel Cabinet & Utility Chase	*13,934*
MK593-1	A00219	9/18/2017	Hospital or Exhaust H2402 & H2439	51,000
MK253	A00220	9/19/2017	East and West Clinic Fire Damper Access	*131,642*
MK353	A00220	9/19/2017	Wall Finishes	*2,995*
MK537	A00220	9/19/2017	Clinic - Lasers Relocate	*20,387*
MK456	A00221	9/20/2017	Central Utility Plant - Water Blending System	33,020
MK357-1	A00222	9/22/2017	Security Redesign	93,000
MK577-1	A00223	9/22/2017	Hospital/Central Utility Plant Electrical	46,925
MK524-1	A00224	9/26/2017	Shade Pocket Lip Changes	*60,000*
MK574-1	A00225	9/21/2017	Ceiling for Surgery Lights	65,000
MK314	A00226	10/12/2017	Hospital - Door Hardware and Security	258,755
MK454-2	A00227	10/12/2017	Window Configuration	3,270
MK433-1	A00228	10/12/2017	Roller Shade Control	125,000
MK461	A00229	10/17/2017	Install Additional Studs H3526	*5,802*

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK509	A00229	10/17/2017	Administrative - Relocate Post & Girt	8,001
MK573	A00229	10/17/2017	Administrative - Shadow Box Wall	17,821
MK173	A00230	10/20/2017	Central Utility Plant Fuel Oil Trench Cover	100,000
MK614	A00231	10/20/2017	Administrative - L1 Operable Partition	21,521
MK653- 1	A00232	10/23/2017	Hospital - Decon Exhaust	83,438
MK655-1	A00233	10/24/2017	Hospital 208V Power to Operating Rooms	42,000
MK468-1	A00234	10/25/2017	Hospital - Imaging Room Changes	72,357
MK649-1	A00235	10/27/2017	Wireless Access Points	100,000
MK426-2	A00236	11/13/2017	Hospital - 4th Floor Steam Pipe Expansion Loop	21,117
MK511	A00237	12/6/2017	Clinic - Missing Steel	11,177
MK482	A00238	12/12/2017	Install Ceiling Bulkhead	4,021
MK500	A00238	12/12/2017	Hospital: Steel Support Grilles	22,576
MK560	A00238	12/12/2017	Central Utility Plant - Valve/ Vibration Switch Power	26,727
MK589	A00238	12/12/2017	Engineer and Install Stud Frame	9,000
MK613	A00238	12/12/2017	Clinic - PH1 Partition Change	277
MK448	A00239	12/18/2017	Hospital: Isolation Room Pressure	42,548
MK639	A00240	12/18/2017	Clinic - Therapy Pool Changes	31,000
MK543	A00241	12/19/2017	Hospital - Autopsy Table Backing	20,352
MK624	A00241	12/19/2017	Hospital - Helipad Regulators	5,215
MK660	A00241	12/19/2017	Hospital - Increase Plumb Chase	0
MK430	A00242	12/19/2017	Clinical Investigation Building- Miscellaneous Electrical & Architectural	6,000
MK553	A00242	12/19/2017	Hospital - Location/Wall Pocket	18,529
MK615	A00243	12/20/2017	Clinic - CJ in Spine Stone Wall	5,480
MK483	A00245	1/10/2018	Clinic - Washer Plumbing Add	27,162
MK529	A00245	1/10/2018	Weatherproof Structure Attachment	2,999
MK607	A00245	1/10/2018	Hospital-Level 3 Added Post & Girt	21,438

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK651	A00245	1/10/2018	Hospital: Patient Lift Power Requirement	47,922
MK550	A00247	1/12/2018	Hospital: L7 Concrete Curb Gutter	20,411
MK610	A00247	1/12/2018	Hospital: Revise Deck Edge	42,061
MK446-2	A00248	1/12/2018	Hospital: Loading Dock Canopy	53,148
MK470	A00249	1/12/2018	Hospital: Tunnel Lighting	5,627
MK501	A00249	1/12/2018	Hospital - Cart Wash Header	6,849
MK527	A00249	1/12/2018	Clinical Investigation Building - Soffit Above East Elevation	3,597
MK587	A00249	1/12/2018	Data Port to JSN M7300s	7,977
MK652	A00249	1/12/2018	Hospital: Krieger Door Hardware STC	10,363
MK659	A00249	1/12/2018	Hospital: Conflict with Panel	6,155
MK510	A00250	1/16/2018	Clinic - Stairwell Lights	27,875
MK608	A00250	1/16/2018	Hospital: Miscellaneous Steel Missed Scope	7,938
MK664	A00250	1/16/2018	Hospital - Roof Drains, West Canopy	10,766
MK460	A00251	1/17/2018	Site - Provide Telemetry for Lift Station	35,365
MK506	A00251	1/17/2018	Hospital/Clinic - Ceiling and Wall Shield	59,625
MK582	A00251	1/17/2018	Administrative - Plate for Top of CW	2,250
MK410-2	A00253	1/23/2018	Hospital Electrical Validation	322,832
MK558	A00254	1/26/2018	Central Utility Plant - Request For Information-4172, Request For Information-4487, Cooling Tower Ladder Concrete	9,600
MK623	A00254	1/26/2018	Storm Drain Piping Re-Routing	45,400
MK502	A00255	1/26/2018	Clinical Investigation Building - Curtain Wall Mullion Conflict	10,941
MK513	A00255	1/26/2018	Clinic - W1 L1 SOMD Penetration	22,770
MK515	A00255	1/26/2018	Clinic/Administrative - Slab Edge Frame Support	13,034
MK621	A00255	1/26/2018	ROT-Decorative Storefront Header	26,304
MK673	A00255	1/26/2018	ROT-Dimensions for Tube & Ang	4,733
MK697	A00255	1/26/2018	Gage Metal Pour Stop	15,449

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK496	A00256	1/26/2018	Washing Machine Drain Line	16,533
MK766	A00256	1/26/2018	Hospital: Equipment Change Missed	45,000
MK380	A00257	1/29/2018	Central Utility Plant - Miscellaneous Changes	14,760
MK528	A00257	1/29/2018	Site - Sill Plate at Canopies	31,873
MK542	A00258	1/29/2018	Site-Installation Ramps/Del Bollards at Electric Building	0
MK656-1	A00259	2/5/2018	Hospital - Pathology Core Lab Utilities	63,000
MK704-1	A00260	2/6/2018	Hospital - Medical Gas in HB310 & HB403	50,000
MK524-2	A00263	3/16/2018	Shade Pocket Lip Changes	358,305
MK282	A00264	3/27/2018	Nurse Call System Updates	118,069
MK676	A00265	3/27/2018	Additional Bolted Structural Glazing Specification Inspection Cost	16,533
MK101-4	Negotiated, Pending Modification		Request For Information Implementation - July 14 Definitization	317,594
MK433-2	Negotiated, Pending Modification		Roller Shade Control	217,672
MK435-2	Negotiated, Pending Modification		Medical Air and Medical Vac	157,936
MK455	Negotiated, Pending Modification		Emergency Fixture Strobes	241,924
MK480	Negotiated, Pending Modification		Bonding Cable Trays and Access Panels	98,796
MK498	Negotiated, Pending Modification		Clinic, Administrative, and CIB RCP vs RFS	11,597
MK538	Negotiated, Pending Modification		Form Light Boxes 3836	15,275
MK559	Negotiated, Pending Modification		Central Utility Plant - Landing Grind/Bush	7,077
MK565	Negotiated, Pending Modification		Hospital - Install 6" Chase	3,225
MK583	Negotiated, Pending Modification		Hospital - L4 Missing Electrical Requirement	9,871
MK601	Negotiated, Pending Modification		Hospital - Shower Solid Surface	21,649

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK677	*Negotiated, Pending Modification*		*Elevation for L13*	*7,754*
MK679	*Negotiated, Pending Modification*		*Hospital - Power for Glycol Make-Up*	*14,980*
MK687	*Negotiated, Pending Modification*		*Hospital Mosaic Tile Details*	*0*
MK696	*Negotiated, Pending Modification*		*Hospital - Mounting Locations*	*6,762*
MK699	*Negotiated, Pending Modification*		*Clinic - Wall Width 4" to 6"*	*8,645*
MK717	*Negotiated, Pending Modification*		*Slab Delamination Repair Epoxy*	*89,131*
MK857	*Negotiated, Pending Modification*		*Elevation Mid-Height Light*	*16,826*
MK031	P00003	12/13/2013	Central Utility Plant-Gravity Piping Revision	150,000
MK005	P00004	12/23/2013	Increase Pier Cap Thickness	2,300
MK012	P00007	2/5/2014	Hospital - Sanitary Piping, Area H1	*10,956*
MK021	P00007	2/5/2014	Hospital - Basement Floor Sink & Drains	*900*
MK023	P00008	2/13/2014	Clinic - Electrical Equipment Power	1,335
MK019	P00010	4/16/2014	Reverse Osmosis	*0*
MK029	P00010	4/16/2014	Drawing and Specifications Comparison	*12,723*
MK102-1	P00011	9/15/2014	Central Utility Plant - Chiller Feeder Changes	311,337
MK102-2	P00013	3/27/2015	Central Utility Plant - Chiller Feeder Changes	259,568
MK083	P00016	6/3/2015	Miscellaneous Request for Information Responses	477,599
MK131-1	P00018	11/5/2015	Water Storage Tank and Booster Pump	42,525
MK131-2	P00020	2/5/2016	Water Storage Tank and Booster Pump	259,625
MK172-1	P00021	2/26/2016	Administrative AHU Modifications	157,867
MK131-3	P00022	3/30/2016	Water Storage Tank and Booster Pump	200,000
MK141-1	P00023	4/25/2016	Seismic Bracing - Hospital	500,000

Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK172-2	P00025	4/13/2016	Definitize Mod P00021 for Administrative AHU Modifications	203,066
MK161	P00027	6/1/2016	Blood Irradiator Utilities	*14,716*
MK232	P00027	6/1/2016	Administrative - Bolts vs Studs Conflict	*3,792*
MK245	P00027	6/1/2016	Clinic - Level 6 Beam Camber	*3,791*
MK141-2	P00028	6/7/2016	Seismic Bracing - Hospital	500,000
MK162	P00029	6/20/2016	Horizontal Roof Drain Pipe Insulation	*823,828*
MK226	P00029	6/20/2016	Hospital AHU Split Coils	*1,228,422*
MK289	P00030	7/11/2016	Revise Lift Station Excavation Slope	1,713,761
MK131-4	P00031	7/5/2016	Definitize Water Tank/Booster Pump	682,624
MK101-3	P00032	7/18/2016	Request For Information Implementation - July 2014	462,245
MK270-1	P00033	7/26/2016	Exterior Stone Masonry	300,798
MK309-1	P00036	8/12/2016	Central Utility Plant - Seismic Mechanical Pipe - Thermal Expansion	500,000
MK140-1	P00037	8/19/2016	Seismic Bracing - Central Utility Plant	250,000
MK309-2	P00038	9/20/2016	Central Utility Plant - Seismic Mechanical Pipe - Thermal Expansion	1,000,000
MK140-2	P00039	9/23/2016	Seismic Bracing - Central Utility Plant	200,000
MK142-1	P00041	9/28/2016	Seismic Bracing - Administrative	500,000
MK234	P00042	11/9/2016	Site Wall Stone Veneers	614,204
MK341	P00043	12/20/2016	Global Issue Resolution Group 3A	39,702
MK368-1	P00044	1/4/2017	Project Wide - Revise Insulation Various Interior Walls	500,000
MK342	P00045	1/5/2017	Global Issue Resolution Group 4	1,800,000
MK334-1	P00047	1/11/2017	Project Wide - Revise Flooring Material	500,000
MK347-1	P00049	1/17/2017	Galvanized Steel Pipe Change	250,000
MK309-3	P00052	2/7/2017	Central Utility Plant Seismic Mechanical Pipe - Thermal Expansion	200,000

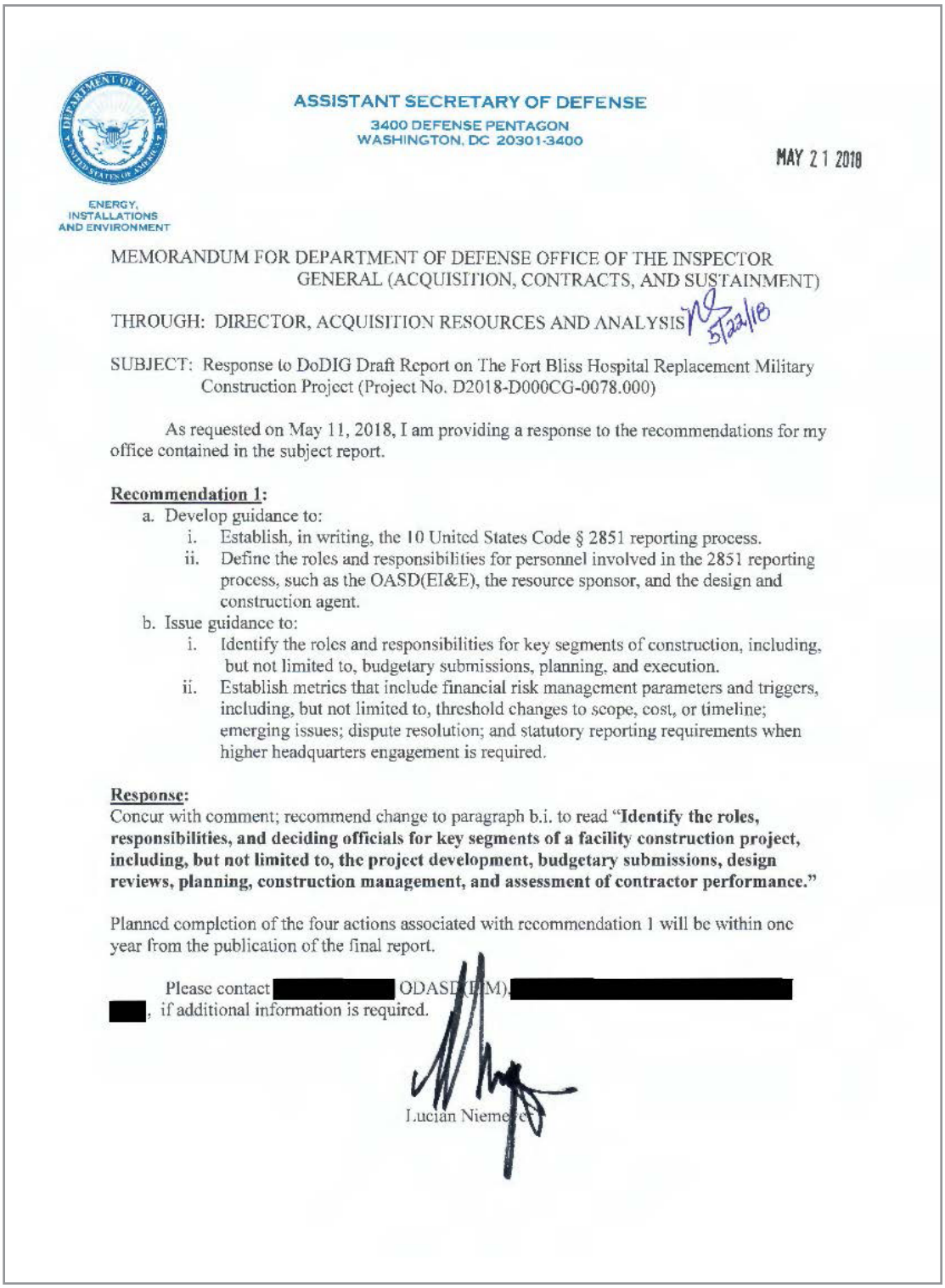
Medical Complex Contract Modifications Coded 1, Engineering Changes (cont'd)

Change Number	ACO and PCO Modification	Effective Date	Description	Cost Increase or Decrease
MK309-4	P00056	4/5/2017	Central Utility Plant-Seismic Mechanical Pipe-Thermal Expansion	400,000
MK270-2	P00058	3/23/2017	Exterior Stone Masonry Definitization	490,073
MK338-1	P00059	4/17/2017	Sitewall A&B Revisions	500,000
MK322	P00060	4/25/2017	PA Zoning Changes	577,744
MK334-2	P00061	5/8/2017	Project Wide Revise Flooring Material Definitization	968,799
MK457-1	P00063	5/22/2017	Support Steel	*250,000*
MK309-5	P00064	6/5/2017	Definitize Central Utility Plant-Seismic Mechanical Pipe - Thermal Expansion	1,275,017
MK384-2	P00065	6/13/2017	Light Fixtures and Ceiling Conflicts	500,000
MK347-2	P00069	7/28/2017	Definitize Central Utility Plant Galvanized Steel Pipe Change	635,207
MK479-1	P00070	8/4/2017	Door & Life Safety	500,000
MK457-2	P00072	8/14/2017	Hospital - Support Steel	250,000
MK368-2	P00073	10/10/2017	Insulation/Various Interior Walls	400,000
MK384-3	P00074	10/16/2017	Light Fixtures & Ceiling Conflicts	750,000
MK646-1	P00075	10/19/2017	ECP-416 Hospital-Data Center Power Changes	250,000
MK662-1	P00076	11/1/2017	Transponder System	250,000
MK702	P00077	11/3/2017	Cub Track Curtains	165,000
MK472-2	P00081	12/6/2017	Hospital-Behavioral Health Ward	443,502
MK384-4	P00082	3/1/2018	Light Fixtures and Ceiling Conflicts	500,000
Total				**$42,162,478**

Note: All information in italics and underline in Appendix B was information used from the Change Request Register document, dated March 15, 2018, provided by the U.S. Army Corps of Engineers Fort Bliss Medical Construction Office. This information was obtained from USACE's Resident Management System. All other information was obtained directly from the modifications or the Contract Detail Report from the Federal Procurement Data System-Next Generation.

Management Comments

The Assistant Secretary of Defense for Energy, Installations, and Environment Comments



ENERGY, INSTALLATIONS AND ENVIRONMENT

ASSISTANT SECRETARY OF DEFENSE
3400 DEFENSE PENTAGON
WASHINGTON, DC 20301-3400

MAY 21 2018

MEMORANDUM FOR DEPARTMENT OF DEFENSE OFFICE OF THE INSPECTOR GENERAL (ACQUISITION, CONTRACTS, AND SUSTAINMENT)

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS 5/22/18

SUBJECT: Response to DoDIG Draft Report on The Fort Bliss Hospital Replacement Military Construction Project (Project No. D2018-D000CG-0078.000)

As requested on May 11, 2018, I am providing a response to the recommendations for my office contained in the subject report.

Recommendation 1:

a. Develop guidance to:
   i. Establish, in writing, the 10 United States Code § 2851 reporting process.
   ii. Define the roles and responsibilities for personnel involved in the 2851 reporting process, such as the OASD(EI&E), the resource sponsor, and the design and construction agent.

b. Issue guidance to:
   i. Identify the roles and responsibilities for key segments of construction, including, but not limited to, budgetary submissions, planning, and execution.
   ii. Establish metrics that include financial risk management parameters and triggers, including, but not limited to, threshold changes to scope, cost, or timeline; emerging issues; dispute resolution; and statutory reporting requirements when higher headquarters engagement is required.

Response:

Concur with comment; recommend change to paragraph b.i. to read "**Identify the roles, responsibilities, and deciding officials for key segments of a facility construction project, including, but not limited to, the project development, budgetary submissions, design reviews, planning, construction management, and assessment of contractor performance.**"

Planned completion of the four actions associated with recommendation 1 will be within one year from the publication of the final report.

Please contact [redacted] ODASD(EPM), [redacted], if additional information is required.

Lucian Niemeyer

Final Report Reference

Revised Recommendation 1.b.i

Defense Health Agency Comments

DEFENSE HEALTH AGENCY
7700 ARLINGTON BOULEVARD, SUITE 5101
FALLS CHURCH, VIRGINIA 22042-5101

MAY 18 2018

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: The Fort Bliss Hospital Replacement Military Construction Project
(Project No. D2018-D000CG-0078.000)

The Defense Health Agency (DHA) agrees with the recommendation from your May 11, 2018 report recommending that the Director, DHA, "review the actions of the individuals involved in the Fort Bliss Hospital Replacement project to determine whether any actions resulted in the cost and time increase related to design errors and omissions and initiate action to hold them accountable as appropriate."

The DHA, in conjunction with the Commander, U. S. Army Health Facility Planning Agency, will conduct a joint review to implement the Inspector General's recommendation, as both Agencies received the same recommendation. Actions will include interviews and correspondence review, assessment of process timeliness, actions related to design reviews, and change management during both design and construction phases of the project.

The DHA estimates this internal process will require 12 weeks to perform initial discovery, conduct interviews, documentation review, assessment, reporting, adjudication and implementation of accountability where appropriate.

Thank you for your interest in the Military Health System and its beneficiaries. The DHA is proud to serve our Nation's military heroes and their families and is committed to providing them the best possible health care.

for R. C. BONO
VADM, MC, USN
Director

U.S. Army Corps of Engineers Comments

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

May 21, 2018

[redacted]
4800 Mark Center Drive
Alexandria, Virginia 22350-1500

Dear [redacted]:

Enclosed is the U.S. Army Corps of Engineers response to "The Fort Bliss Hospital Replacement Military Construction Project (Project No. D2018-D000CG-0078.000)" dated May 11, 2018.

USACE appreciates this opportunity to address the DoD IG recommendations and concurs with all four recommendations in the DoD IG report dated May 11, 2018. We will continue to take the necessary steps to address the recommendations.

USACE also appreciates the DoD IG efforts in completing the audit of a very complex design and construction project, on a very tight timeline. The DoD IG report recognizes HQUSACE Directorate of Military Program senior leaders directed an independent diagnostic assessment to determine the cause of cost growth and delays on the project, to include whether the proper actions were taken to address the situation. The assessment was completed and findings documented in a report dated 21 June 2017. USACE initiated actions based on the investigations recommendations. As such, USACE does not agree with the statement found in the Results in Brief section stating: "We determined that as of March 2018, there were no ongoing or completed proceedings or investigations related to the FBRH project."

USACE also does not agree with the statement found in the Documentation for Design Changes section of the DoD IG Report stating that "Collectively, USACE personnel could not provide the documentation that showed the sources of any of the 23 engineering changes because the documentation was not readily accessible in one central location." USACE believes the information provided to the DoD IG electronically includes all available documentation for the changes reviewed. The technical analysis of specific design errors and omissions associated with several of these changes and the quantification of these costs are being completed as part of our efforts in pursuing Architect and Engineering contract liability.

Final Report Reference

Revised Page 38

U.S. Army Corps of Engineers Comments (cont'd)

My point of contact for this DODIG report response at HQUSACE is [redacted]

Sincerely,

Todd T. Semonite
Lieutenant General, U.S. Army
Commanding General

2

U.S. Army Corps of Engineers Comments (cont'd)

DOD IG DRAFT REPORT DATED
MAY 11, 2018

Project No. D2018-D000CG-0078.000
The Fort Bliss Hospital Replacement
Military Construction Project

U.S. Army Corps of Engineers COMMENTS
TO THE DoD IG
RECOMMENDATIONS

a. RECOMMENDATION: Review the actions of the individuals involved in the Fort Bliss Hospital Replacement project to determine whether any actions resulted in the cost and time increase related to "design errors" and "omissions" and initiate action to hold them accountable as appropriate.

RESPONSE: CONCUR with comment. In fact these actions have been taken, and administrative actions have been in accordance with USACE internal management controls and business processes to identify accountability for actions. This will continue through construction completion.

b. RECOMMENDATION: Issue guidance to improve technical expertise and discipline for medical infrastructure projects and improve understanding of performance specifications and extensions of design, and performance metrics for projecting a project at risk.

RESPONSE: CONCUR with comment in that policy and training are regularly reviewed, updated, and applied to sustain and advance expertise.

1. Engineering Pamphlets (EP), Engineering Regulations (ER) and Engineering & Construction Bulletins (ECB) related to engineering and construction quality management and risk management and reporting of projects at risk is an established, on-going process. Following are examples:

Actions Completed

- ECB 2017-20 Quality Management Plan Guide issued 19 Sep 2017

Actions Underway

- ECB 2016-16 Updated USACE Mega Projects Guidance, revision due Sep 2018
- ECB 2018-xx Mandatory Agency Technical Review of Medical Projects, initial publication Nov 2018
- ER 1110-345-721 Engineering and Design USACE Medical Facilities Mandatory Center of Expertise, revision due Aug 2018

U.S. Army Corps of Engineers Comments (cont'd)

2. HQUSACE Memorandum dated 28 July 2017, Interim Guidance on the Implementation of the Military Missions Lessons Learned (MMLL) Share Point Site. This policy updated guidance on capturing and sharing After Action Reviews and Lessons Learned for Military Programs lines of business.
3. HQUSACE will recertify the USACE Mandatory Medical Center of Expertise (MX) by August 2018 in accordance with ER 1110-1-8158.

c. RECOMMENDATION: Complete an after-action review following the construction of the Fort Bliss Hospital Replacement project.

RESPONSE: CONCUR with comment. USACE will conduct an AAR within 180 days of construction completion. The current construction completion date is September 2019.

d. RECOMMENDATION: Issue guidance directing contracting personnel to issue annual past performance evaluations for contractors in the Contractor Performance Assessment Reporting System as required by Federal Acquisition Regulation Subpart 42.15.

RESPONSE: CONCUR with comment. USACE will issue interim guidance for Engineering Regulation 415-1-17 Construction Contractor Performance Evaluations dated 24 Jan 2012 within 90 days in accordance with the Federal Acquisition Regulation Subpart 42.15 requirements.

Actions completed:

- USACE issued ECB 2014-13 on 22 May 2013 directing transition to the Contractor Performance Assessment Reporting System for Architect-Engineer and Construction Contractor evaluations.

U.S. Army Health Facility Planning Agency Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE SURGEON GENERAL
7700 ARLINGTON BOULEVARD
FALLS CHURCH, VA 22042-5140

REPLY TO ATTENTION OF

22 MAY 2018

MCIR

MEMORANDUM FOR Department of Defense Inspector General, Contract Management and Payments, ATTN: [redacted], 4800 Mark Center Drive, Alexandria, VA 22350-1500

SUBJECT: Reply to DODIG Draft Report, Fort Bliss Hospital Replacement Military Construction Project (Project No. D2018-D000CG-0078.000)

1. Thank for you the opportunity to review this report. Our comments are enclosed for your consideration.

2. Our point of contact is [redacted]

FOR THE SURGEON GENERAL:

Encl

MARK S. DAVIS
Chief of Staff

U.S. Army Health Facility Planning Agency Comments (cont'd)

U.S. Army Medical Command (MEDCOM) and
Office of the Surgeon General (OTSG)

Comments on DODIG Draft Report
The Fort Bliss Hospital Replacement Military Construction Project
(Project No. D2018-D000CG-0078.000)

RECOMMENDATION 4: We recommend that the Commander, U.S. Army Health Facility Planning Agency review the actions of the individuals involved in the Fort Bliss Hospital Replacement project to determine whether any actions resulted in the cost and time increase related to "design errors" and "omissions" and initiate action to hold them accountable as appropriate.

RESPONSE 4: OTSG/MEDCOM non-concurs with this recommendation. As the report states, Health Facilities Planning Agency (HFPA) responsibility for the Fort Bliss Hospital Replacement is limited to managing and monitoring the functional medical aspects of the project. HFPA Staff reviewed mandatory change orders, construction contract modifications, and coordinated medical and functional needs.

Neither OTSG/MEDCOM nor HFPA has the necessary scope of responsibility or authority for the replacement project to implement this recommendation, nor would we have sufficient information and documentation to perform such a review. This is reflected in the DODIG's report findings, which show no indication that HFPA actions contributed to design errors and omissions involved in the project.

However, HFPA will conduct an inquiry to examine its Military Construction processes; management of project sites; and interactions with stakeholders to refine our current procedures. Findings will be reviewed and implemented on future projects to the greatest extent possible. HFPA will assist DHA and USACE as necessary with any reviews they may undertake as a result of this report and DODIG's findings.

The review of HFPA processes will be completed by 1 January 2019.

Encl

Acronyms and Abbreviations

ACO	Administrative Contracting Officer
ASI	Architectural Supplemental Instruction
BCOE	Biddability, Constructability, Operability, and Environmental
COR	Contracting Officer's Representative
CPARs	Contractor Performance Assessment Reports
DHA	Defense Health Agency
ECB	Engineering and Construction Bulletin
FAR	Federal Acquisition Regulation
FBHR	Fort Bliss Hospital Replacement
FMR	Financial Management Regulation
GAO	U.S. Government Accountability Office
HFPA	U.S. Army Health Facility Planning Agency
HQUSACE	U.S. Army Corps of Engineers Headquarters
MILCON	Military Construction
MX	U.S. Army Corps of Engineers Medical Facilities Mandatory Center of Expertise and Standardization
NDAA	National Defense Authorization Act
OASD	Office of the Assistant Secretary of Defense
OASD (EI&E)	Office of the Assistant Secretary of Defense for Energy, Installations, and Environment
OUSD	Office of the Under Secretary of Defense
PCO	Procurement Contracting Officer
RMS	Resident Management System
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code


INSPECTOR GENERAL
INTEGRITY
EFFICIENCY
DEPARTMENT OF DEFENSE

Whistleblower Protection
U.S. Department of Defense

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