



INSTALLATION REPORT OF AUDIT

F2010-0011-FBL000

**American Recovery and Reinvestment Act
Air National Guard Military Construction
190th Air Refueling Wing
Kansas Air National Guard
Forbes Field, Topeka KS**

Midwest Area Audit Office

30 October 2009

INTRODUCTION

On 17 February 2009, the President signed the American Recovery and Reinvestment Act (Recovery Act) into law. The purpose of the Recovery Act is to stimulate the economy and create or retain jobs. The 190th Air Refueling Wing received \$4.1 million of Recovery Act funds to repair and add to the base fire station. We issued a separate report to the United States Property and Fiscal Office for Kansas that addresses contracting responsibilities related to this Recovery Act project.

OBJECTIVES

The overall objective of this centrally directed audit was to evaluate whether 190th Air Refueling Wing personnel properly managed Recovery Act military construction requirements. Specifically, we determined whether wing personnel properly:

- Justified Recovery Act projects.
- Conducted environmental studies for Recovery Act projects.
- Scoped the project and supported the facility cost estimate.
- Prepared an economic analysis.

CONCLUSIONS

Overall, installation personnel effectively managed Recovery Act military construction requirements. Specifically, civil engineering personnel properly justified and conducted environmental studies for the fire station project. However, personnel did not properly:

- Scope the fire station project. Although personnel accurately calculated space requirements, they did not fully support the facility cost estimate. Maintaining supporting documentation for the programmer's cost estimate provides reasonable assurance that estimated costs are accurate. (Tab A, page 1)
- Prepare an economic analysis or obtain a certificate of exception releasing the base from the requirement. An economic analysis or a certificate of exception provides Air Force officials with information necessary to support military construction decisions and ensure limited resources are optimally used to obtain required facilities. (Tab B, page 2)

RECOMMENDATIONS We made two recommendations to improve the overall effectiveness of the military construction planning process. (Reference the individual tabs for specific recommendations.)

MANAGEMENT'S RESPONSE Management officials agreed with the overall audit results and recommendations in this report. The corrective actions taken are responsive to the issues. Therefore, this report contains no disagreements requiring elevation for resolution.



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BACKGROUND

Civil engineer programmers plan or “scope” military construction projects. Part of scoping a project requires the programmer to develop space requirements and cost estimates and record the data on the Department of Defense (DD) Form 1391, *Military Construction Project Data*. Accurate project cost estimates are essential to successful military construction project development and execution. Cost estimates must be closely scrutinized by the major command (MAJCOM) to ensure estimates are in-line with Department of Defense and Air Force guidance or other fully justifiable cost data. The MAJCOM Civil Engineer Programmer is required to review and document that the DD Form 1391 primary and supporting facility costs have been validated.

AUDIT RESULTS 1 – COST ESTIMATE

Condition. Civil engineering personnel accurately sized the fire station project; however, they did not fully support the \$4.1 million cost estimate. Discussions with 190th Civil Engineering Squadron and National Guard Bureau (NGB) Civil Engineering personnel and review of the DD Form 1391 and supporting documents identified the following.

- **Square Footage Requirements.** Civil Engineer programmers accurately identified square footage requirements. A review of supporting documentation and recalculation of square footage requirements indicated the facility was accurately sized at 19,178 square feet, within allowed square footage.
- **Primary and Supporting Facility Costs.** Review of the DD Form 1391 and supporting documentation consisting of Architect-Engineering firm cost estimates, as well as discussions with the Base Civil Engineer and NGB Facility Programmer, indicated the DD Form 1391 line item costs could not be traced to supporting documentation.

Cause. This occurred because the NGB Facility Programmer made unsupported adjustments to the DD Form 1391. Specifically, the programmer stated he adjusted the Architect-Engineering firm estimates using his engineering judgment to determine the DD Form 1391 line item costs.

Impact. Maintaining supporting documentation for the programmer’s cost estimate provides reasonable assurance that estimated costs are accurate.

Audit Comment. Because the NGB Facility Programmer developed the cost estimate, the lack of detailed support cannot be addressed at the installation level. This issue will be forwarded to the audit control point for possible inclusion in the Air Force report of audit.

BACKGROUND

While the purpose of the Recovery Act is to quickly infuse money into the United States economy, civil engineers must ensure military construction projects are properly planned. Effective planning establishes facility requirements critical for mission accomplishment and proposes the most effective and economical means of satisfying those requirements. A formal economic analysis must support every Air Force project above \$2 million. Economic analysis is performed where more than one alternative exists and is designed to confirm which alternative is in the best interest of the Air Force. A certificate of exception or waiver from the economic analysis may be requested if only one option will meet the requirement.

AUDIT RESULTS 2 – ECONOMIC ANALYSIS

Condition. Civil engineering personnel did not obtain an economic analysis or certificate of exception for the \$4.1 million fire station project. Specifically, discussions with civil engineering, financial management, and National Guard Bureau (NGB) personnel indicated an economic analysis was not accomplished. The Department of Defense Form 1391, *Military Construction Project Data*, stated alternatives were considered but no other options could meet mission requirements, therefore an economic analysis was not required or needed. However, a certificate of exception (waiver) was not available releasing the base from the requirement.

Cause. No economic analysis was done because the project was originally established as two separate projects, one military construction project valued at \$1.3 million and a Sustainment, Restoration, and Modernization project estimated at \$2.6 million. Civil engineering personnel were not aware all projects over \$2 million required an analysis. Further, when the projects were combined, the NGB Facility Programmer did not believe an economic analysis was necessary, stating common sense indicated renovation was the best alternative.

Impact. An economic analysis or a waiver provides Air Force officials with information necessary to support military construction decisions and ensure limited resources are optimally used to obtain required facilities.

Recommendations. The Base Civil Engineer should:

- **Recommendation B.1.** Request an economic analysis or certificate of exception to release the installation from performing the analysis.
- **Recommendation B.2.** For all future projects exceeding \$2 million, request an economic analysis or, if circumstances permit, request a certificate of exception to release the installation from performing the analysis.

Management Comments. The 190th Air Refueling Wing Commander concurred with the audit results and recommendations and approved the following management comments.

- **Recommendation B.1.** “The Base Civil Engineer requested a certificate of exception to release the installation from performing the economic analysis. (CLOSED)
- **Recommendation B.2.** “The Base Civil Engineer will request an economic analysis or certificate of exception for all future projects exceeding \$2 million. (CLOSED)”

Evaluation of Management Comments. Management comments addressed the issues identified in the audit result and corrective actions taken should resolve the issues.

AUDIT SCOPE

Audit Coverage. To determine whether officials properly managed Recovery Act military construction requirements, we interviewed applicable personnel and reviewed documentation dated between November 2004 and August 2009. We conducted the audit from August to September 2009 and provided management a draft report on 24 September 2009. We conducted this audit in accordance with generally accepted government auditing standards and included such tests of internal controls as considered necessary under the circumstances. Specifically, we evaluated internal controls related to documentation of transactions, document retention, and management oversight. To evaluate Recovery Act military construction requirements, we conducted the following audit tests.

- To determine whether Wing personnel properly justified the fire station project, we discussed the project with civil engineer personnel and reviewed the project Department of Defense (DD) Form 1391, *Military Construction Project Data*, and other project documentation.
- To determine whether civil engineer personnel conducted an environmental assessment for the project, we obtained and reviewed environmental assessment documentation and discussed the assessment with civil engineering personnel.
- To determine whether civil engineer programmers properly scoped and supported the facility cost estimate, we compared space requirements and unit costs estimates identified on the DD Form 1391 with guidance requirements and supporting documentation. Additionally, we discussed cost development with base and command level civil engineer personnel.
- To determine whether Wing personnel prepared an economic analysis or certificate of exception, we discussed the economic analysis with installation and National Guard Bureau personnel.

Criteria. We used the following criteria to accomplish this audit:

- Public Law 111-5, *The American Recovery and Reinvestment Act of 2009*, 19 February 2009.
- Office of Management and Budget Memorandum M-09-15, *Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009*, 3 April 2009.
- Air Force Instruction (AFI) 65-501, *Economic Analysis*, 10 November 2004.
- AFI 32-1021, *Planning and Programming Military Construction (MILCON) Projects*, 24 January 2003.

- Air National Guard Handbook (ANGH) 32-1084, *ANG Standard Facility Requirements*, 24 April 2006 (Working Draft).

Sampling Methodology. The Department of Defense Inspector General (DoDIG) developed the sample based on predictive analysis of critical risk factors (a form of judgmental sampling). The audit control point received a sample of 13 military construction transactions, including the fire station project for Forbes Field, Topeka KS. We did not use computer assisted auditing tools and techniques to complete this audit.

Data Reliability. We did not rely on computer-generated data to support audit conclusions.

Auditing Standards. We conducted this performance audit in accordance with generally accepted government auditing standards. Those 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.

Discussion with Responsible Officials. We discussed and/or coordinated this report with the 190th Air Refueling Wing Commander; the 190th Air Refueling Wing Vice Commander; the 190th Mission Support Group Commander; and other interested officials. We advised management this audit was part of an Air Force-wide evaluation, American Recovery and Reinvestment Act, Air National Guard Military Construction, Project F2009-FD1000-0659.000. Therefore, selected data not contained in this report, as well as data contained herein, may be included in a related Air Force and/or Air National Guard Report of Audit. Management's comments were received on 28 October 2009 and are included in this report.

PRIOR AUDIT COVERAGE

Our review of audit files and contact with the audit focal point disclosed no other audit reports were issued to the 190th Air Refueling Wing by any audit agency during the past 5 years that related to our audit objectives.

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PROJECT NUMBER

We accomplished this audit under project number F2009-FD1000-0659.004.

FREEDOM OF INFORMATION ACT

The disclosure/denial authority prescribed in AFPD 65-3 will make all decisions relative to the release of this report to the public.