SPECIAL WEAPONS AND TACTICS (SWAT) POLICE STATION HILLA, IRAQ

SIGIR PA-05-018
JANUARY 30, 2006

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
30 JAN 2006		**00-00-2006 to 00-00-2006**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Special Weapons and Tactics (SWAT) Police Station Hilla, Iraq	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Office of the Special Inspector General for IRAQ Reconstruction,400 Army Navy Drive,Arlington,VA,22202-4704**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**33**	

SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

January 30, 2006

MEMORANDUM FOR COMMANDER, GULF REGION DIVISION, U.S. ARMY CORPS OF ENGINEERS AND DIRECTOR, PROJECT AND CONTRACTING OFFICE
COMMANDER, JOINT CONTRACTING COMMAND-IRAQ/AFGHANISTAN
DIRECTOR, IRAQ RECONSTRUCTION MANAGEMENT OFFICE

SUBJECT: Report on Project Assessment of the Special Weapons and Tactics (SWAT) Police Station in Hilla, Iraq (Report Number SIGIR-PA-05-018)

We are providing this project assessment report for your information and use. We assessed the in-process construction work being performed at the Special Weapons and Tactics (SWAT) Police Station in Hilla, Iraq, to determine its status and whether intended objectives will be achieved. This assessment was made to provide you and other interested parties with real-time information on a relief and reconstruction project underway and in order to enable appropriate action to be taken if warranted. The assessment team included an engineer and an auditor.

We discussed the results of this project assessment with representatives of the Project and Contracting Office, Gulf Region Division of the U.S. Army Corps of Engineers, and Joint Contracting Command-Iraq/Afghanistan, all of whom concurred with our conclusions. This report includes no recommendations that required management comments.

We appreciate the courtesies extended to our staff. This letter does not require a formal response. If you have any questions please contact Mr. Brian Flynn at (703) 343-9149 or brian.flynn@iraq.centcom.mil or Mr. Michael Stanka, P.E., at (703) 343-9149 or michael.stanka@iraq.centcom.mil.

Stuart W. Bowen, Jr.
Inspector General

Special Inspector General for Iraq Reconstruction

SIGIR PA-05-018 **January 30, 2006**

Special Weapons and Tactics (SWAT) Police Station Hilla, Iraq

Synopsis

Introduction. This project assessment was initiated as part of our continuing assessments of selected sector reconstruction activities for Facilities and Transportation. The overall objective was to determine whether selected sector reconstruction contractors were complying with the terms of their contracts or task orders and to evaluate the effectiveness of the monitoring and controls exercised by administrative quality assurance and contract officers. We conducted this project assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer and an auditor.

Project Assessment Objectives. The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties in order to enable appropriate action, when warranted. Specifically, we determined whether:

1. Project results were consistent with original objectives;
2. Project components were adequately designed prior to construction or installation;
3. Construction or rehabilitation met the standards of the design;
4. The Contractor's Quality Control plan and the U.S. Government's Quality Assurance program were adequate; and
5. Project sustainability and operational effectiveness were addressed.

Conclusions. This assessment determined that:

1. The completed project was consistent with original task order objectives. Specifically the contract's objectives of demolition and removal of existing damaged facilities, renovation of existing facilities, and the construction of the office and training buildings will be met. This occurred primarily because the USACE project engineer and Quality Assurance Representative (QAR) effectively managed the project. Consequently, the SWAT Police Station project resulted in an operational police station.

2. This project consisted of renovation work and new construction. The contract required submission and approval of design drawings and specifications for the new construction. Based on the review of U.S. Army Corps of Engineers (USACE) project files, the design submitted was neither complete nor adequately detailed. This contributed to poor quality construction. This occurred because the contractor did not prepare a completely designed facility and the drawings were approved by USACE.

3. The construction of the SWAT Police Station does not currently meet contract and design standards. Numerous areas of poor quality construction were documented during the site assessment. The project was interrupted because SWAT personnel moved into the facility before construction was 100-percent complete, which contributed to construction deficiencies not being corrected.

4. The Hilla[1] SWAT Police Station contract specified a requirement for a Contractor Quality Control plan. The contractor did not submit a Quality Control (QC) plan to the U.S. Government. The contractor did provide QC daily reports, test results, and invoices; however, the invoices lacked a detailed cost breakdown to the U.S. Government. The Quality Assurance (QA) program was adequate due to the Quality Assurance Representative being on-site during rehabilitation and reconstruction events, monitoring field activities, and completing daily Quality Assurance reports which were sufficiently complete and included project specific information.

5. Sustainability was adequately addressed in the contract and its compliance contributed to a functioning police station. The contract included the turnover of the operation maintenance manuals, technical training of ten police station personnel, a one-year warranty for all equipment and operations, and providing spare repair parts for one year. A review of the Hilla SWAT Police Station showed that it was operating in accordance with the Scope of Work's specific objective for a functional police station.

Recommendations. The Commander, Gulf Region Division, United States Army Corps of Engineers should:

1. Develop and implement stringent design reviews for construction projects.
2. Identify all current discrepancies and require the contractor to correct before final payment.
3. Ensure contract QC program requirements are complied with on all projects.

Management Comments. The Commander, Gulf Region Division, concurred with our conclusions and recommendations and provided the following comments, "At the time of the SIGIR team visit, work at the Hilla SWAT was not complete. The USACE QAR had documented numerous quality problems that USACE was addressing with the contractor to correct. The contractor has corrected many of the items. Two large items have not been corrected."

- "Helicopter Pad. After reviewing site conditions, it was determined that the helicopter pad would not meet minimum clearance requirements due to nearby existing buildings and power lines. A settlement was negotiated converting the pad to a parking area and providing a credit to the government."

[1] Due to the various spellings for cities in Iraq, and in an effort to achieve standardization in SIGIR reports, Al Hillah, as noted in project documentation will henceforth be referred to as Hilla.

- "Perimeter Wall. The perimeter wall was not a sandwich wall as specified in the contract. The contractor constructed a single wall instead of a double wall. A settlement was negotiated providing a credit to the government."

"The modification includes several other changes and is currently being prepared for the contractor's signature. Execution of the modification is expected by the end of January 2006."

"To improve quality (and safety) on future projects, the Fort Area Office is working to provide training in these areas. Initial efforts are to train the Local National Engineers in specific safety and quality topics. The goal is then to expand the training to contractors utilizing our Local National Engineers as the instructors (train the trainer). Classes have already begun at several of the Resident Offices**."**

Evaluation of Management Comments. Management comments address the issues raised in our conclusion and actions taken should correct the deficiencies.

Table of Contents

Introduction

Objective of the Project Assessment

The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties in order to enable appropriate action, when warranted. Specifically, we determined whether:

1. Project results are consistent with original objectives;
2. Project components were adequately designed prior to construction or installation;
3. Construction or rehabilitation met the standards of the design;
4. The Contractor's Quality Control (CQC) plan and the U.S. Government's Quality Assurance (QA) program were adequate; and
5. Sustainability and operational effectiveness were addressed.

Pre-Site Assessment Background

Contract, Task Order, and Costs

The Hilla SWAT Police Station project was completed under Contract W916QW-05-D-0012-0002. Contract W916QW-05-D-0012-002, dated 26 December 2004, was a firm fixed price contract not to exceed (NTE) $1,995,092. The contract was between the Gulf Regional Division (GRD) and Abdullah Aljiburi General Construction Company, Baghdad, Iraq. There are currently two modifications to the contract.

- Modification # 01, issued 9 February 2005, extended the contract performance period 30 days due to delays beyond the Contractor's control. The modification does not increase or decrease the total amount of the contract.
- Modification # 02, issued 15 July 2005, called for the construction of a security wall (320 pieces of security T-wall at $825 each, including leveling) around the Hilla SWAT facility and the expansion of the contract period of performance to 28 July 2005. As a result of the added work, the contract was increased by $264,000, from $1,955,092 to $2,219,092. All other terms and conditions remain unchanged.

Project Objective

According to the contract, the objective of the project consists of demolition and removal of existing damaged facilities, renovation of existing facilities, and the design and construction of the office and training buildings. The facilities will be used by an Iraqi SWAT Team for housing and operations. In addition, the project is to provide additional security that includes perimeter controls, stand-offs, blast protection, and interior controlled entry and passage.

Description of the Facility (preconstruction)

The description of the facility (preconstruction) was based on information obtained from the contract and the U.S. Army Corps of Engineers (USACE) project file. The Hilla

SWAT Police Station is located across the Shatt Hilla River, downtown from Hilla, Iraq, and approximately 100 kilometers south from Baghdad, Iraq. The contract stated:

> *The Hilla SWAT compound area is a rectangular area (12 meters (M) by 70 M) surrounded by paved roads on each side. The compound contained many buildings, some in acceptable condition that can be easily renovated, while others are beyond repair. The perimeter of the compound is a 12-centimeter thick wall with fine brick as covering with a height of 2 M. Many parts of the perimeter wall are open. The compound has three main entrances without gates.*

Scope of Work of the Contract

Based on the initial Scope of Work (SOW) included in the 26 December 2004 contract and additional contract modifications, the work was to be accomplished in three phases. The initial phase included the demolition of damaged buildings and structures, and the removal of demolition materials and other debris from the site. The second phase was the renovation of the remaining buildings to temporarily house SWAT personnel. The final phase was the design and construction of the new facilities. The following are the significant construction tasks required in the contract's SOW.

- Demolition of facilities
  - any damaged buildings attached to the main building
  - damaged concrete tiles in front of and on the side of the main building
  - the ceramic tile fountain beside the main building
  - the guard building
  - damaged portions of the perimeter wall
- Renovation
  - perimeter security wall
  - internal wall
  - renovation of remaining buildings
- New Construction
  - two story sleeping quarters building
  - jail facility (visitor's center)
  - transportation office (vehicle affairs building)
  - weapons store and armory
  - dining facility and fitness facility additions to the main building
  - car parking areas, both open and covered
  - installation of generator unit

Current Project Design and Specifications

The contract's SOW required the following:

> *The contractor will submit a 30 percent design package to GRS for review. The contractor will continue to develop the plans and specifications while the review of the 30 percent is underway. The*

contractor will adjust design based on review comments and provide a 95 percent design package to GRS for final review and approval.

Designs were required for the two-story sleeping quarters building, jail facility, transportation office, weapons store and armory, dining facility and fitness facility additions to the main building, and car parking areas, both open and covered. In addition, the SOW required the contractor to provide a complete design package illustrating all existing and proposed work for the facilities to include:

- road network,
- water and distribution system (where required),
- complete electrical distribution system,
- electrical power distribution system,
- electrical power generator, and
- mechanical systems and structures on the installation.

In addition, the SOW required the following:

- overall sidewalk plan,
- design sanitary sewer system for the entire facility, and
- comprehensive site storm water management and drainage plan.

The designs and specifications were required to be in accordance with the following codes and standards:

- International Building Code,
- International Plumbing Code,
- National Electric Code,
- International Electromechanical Commission, and
- International Mechanical Code.

The contract stated that the

Contractor shall provide outline specification for each system to be provided under this contract. Specifications shall indicate applicable design standards and criteria followed, standards that the selected equipment and material shall comply with, method of equipment installation, and other construction requirements that the designer may see fit.

Additionally, the contract required "catalog cuts" to be provided for installation of all types of equipment under this contract. Cuts shall include the manufacturer's name, address, telephone number, rating, and physical size of the equipment.

Evaluation of the design and specifications were based on the contract requirements, the site assessment team's review of the design drawings and specifications, and discussions with the USACE Area Engineer, Resident Engineer, and Quality Assurance Representative (QAR). The contractor prepared design submittals to the USACE

Resident Engineer, who approved the design submittals authorizing the start of building construction on 31 January 2005.

Not included in the contractor's design submittal were design drawings illustrating existing and proposed work for the road network, water and distribution systems, sanitary sewer collection systems, electrical power distribution systems, electrical power generator, and mechanical systems. Additionally, the overall sidewalk plan, the design of the sanitary sewer system for the entire facility, and a comprehensive site storm water management plan were not included in the contractor's design submittal.

Design drawings for the new construction of six buildings were included in the contractor's design submittal. The design drawings included basic architectural, electrical, reinforced foundation, and roof slab drawings; however, the design drawings did not include specific details for stairwells, handrails, electrical circuit breaker panels, water distribution, wastewater collection, roof tiles, floor tiles, fixtures, lights, or fans.

Although the contract required specifications for this project, they were not included in the design package. The USACE Engineering Regulation (ER) 1110-2-1200 states the following:

> *Technical specifications shall be clear, concise, and complete to ensure that neither the included part manufacturer or construction firms experience undue difficulty in preparing bids, and that the most probable questions arising during the performance of the contract can be determined and settled by reference to the contract documentation.*

The USACE resident engineer stated that Iraqi contractors usually incorporate the specification on the design drawings. Limited specifications were noted on the design drawings.

Based on the contract requirements, the design drawings and the technical specifications submitted by the contractor were incomplete.

Reported Project Work Completed and Pending

Prior to the site visit, we determined the project's status through discussions with the USACE Resident Engineer and QAR, and a review of the contract. The Project and Contracting Office (PCO) database listed the overall project as 90% complete on 10 September 2005. The USACE QAR reported that although the facility was not completed, the SWAT team members have moved into the newly constructed building because of security issues at the former location. Early occupancy disrupted the contractor and has delayed the completion of the project.

Project site work reported completed (100%):

- Demolition of facilities
  - any damaged buildings attached to the main building
  - damaged concrete tiles in front of and on the side of the main building

- the ceramic tile fountain beside the main building
- the guard building
- damaged portions of the perimeter wall

Project site work reported in progress:

- Renovation
  - perimeter security wall
  - internal wall
  - renovation of remaining buildings

- New Construction
  - two story sleeping quarters building
  - visitor's center
  - vehicle affairs building
  - operation's room
  - dining facility
  - officer's dining facility and fitness facility
  - car parking areas
  - helicopter landing area
  - install generator unit
  - installation of T-walls

Project site work pending:

All work was reported to be either completed or is currently underway.

Site Assessment

On 24 and 25 September 2005, we performed an on-site assessment at the Hilla SWAT Police Station. The assessment covered work completed and work in progress.

Work Completed

Demolition of facilities

The contract required the demolition of damaged existing facilities located at the Hilla SWAT facility. Specifically, the demolition of any damaged buildings attached to the main building, damaged concrete tiles located adjacent to the main building, the ceramic tile fountain, guard building, and damaged portions of the perimeter wall. Debris from the demolition activities as well as other on-site debris were required to be removed from the compound and disposed of in an appropriate disposal area. During the site visit, we observed no significant debris piles or damaged buildings. The ceramic tile fountain was still intact. The USACE QAR stated that the SWAT Police Chief wanted to retain the fountain; therefore, the fountain was not demolished. Demolition activities appeared to be complete and demolition debris removed from the site. We noted no discrepancies regarding the demolition of the facilities.

Work In-Progress

Two-story sleeping quarters building

The contract and design required the construction of a two-story facility with reinforced concrete footings, reinforced concrete slab, reinforced concrete columns and beams, and stucco over block exterior. The building design required a 28.78 M (94 feet (ft)) by 13.66 M (50 ft) facility with two external stairways, one on each end of the building. Each floor included three large open rooms and a common lavatory. The contract required the facilities to include A/C units. The site visit verified the building was constructed and currently occupied. We observed the A/C, lights, and fans to be operational. For an illustration of the external front of the two-story sleeping quarters building, see Site Photo 1.

Site Photo 1. Exterior Front of Two-Story Sleeping Quarters Building

During the site visit, we identified discrepancies in the construction of the handrails on the external staircases and the finishing of the concrete sidewalks. For example, the handrails lower cross member was imbedded in the concrete stairs. The lower member should be located above the concrete stairs with anchoring points imbedded into the concrete. Detail design drawings were not included in the design package, which would have clarified proper installation of the handrails. See Site Photos 2 and 3 for illustrations of the external stairwell and a close up of the lower rail imbedded into the concrete steps, respectively. Surface finishing of the concrete sidewalk and access areas was of poor quality. The surface was rough and uneven with the appearance that the finishing was not completed. For an illustration of the surface finishing near the sleeping quarters building, see Site Photo 4.

Site Photo 2. Sleeping Quarter's External Staircase

Site Photo 3. Close-Up of Stairwell

Site Photo 4. Concrete Surface Adjacent to Sleeping Quarters Building

Dining Facility

The contract and design required the construction of a one-story facility with reinforced concrete footings, reinforced concrete slab, reinforced concrete columns and beams, and stucco over block exterior. The building design required a 16.93 M (55.5 ft) by 16.61 M (54.5 ft) facility. The building included one large area for dining, one room for food preparation, two rooms for storage, and a common lavatory. The contract required the facility to include A/C units. During the site visit, we verified the building was constructed and used as a dining facility. For an illustration of the exterior front of the dining facility, see Site Photo 5. For an illustration of the dining facility's interior dining room, see Site Photo 6. We observed A/C, lights, and fans to be operational.

Site Photo 5. Exterior View of Dining Facility

Site Photo 6. Interior of Dining Area

During the site visit, we noted discrepancies, including the quality of appliances in the food preparation area. The contract required "catalog cuts" for all types of equipment installed under this contract. The contract stated, "[c]uts shall include the manufacturers name, address and telephone number, rating and physical size of equipment." The contractor did submit catalog cuts in the design submittal but the equipment currently installed in the kitchen does not match the equipment listed in the catalog cuts. Currently there is a small sink, worktable, and cooking stove located in the food preparation room. For an illustration of the dining facility's interior food preparation room, see Site Photo 7.

Site Photo 7. Interior of Kitchen Area

During the site visit, we observed standing water in the corner of the food storage room. For an illustration of the standing water collecting in the corner of the food storage room, see Site Photo 8. A drain was not located in the corner where we observed the standing water in the food storage room. The contract required drawings show approximate locations of all plumbing equipment, piping floor plans, control accessories, plumbing riser plans, and equipment schedules along with enlarged (1:50 scale) plans and sections for the lavatories, kitchen, and other congested areas. The contractor did not submit plumbing or piping designs as part of the design submittal.

Site Photo 8. Standing Water Located in the Corner of the Dining Facility's Food Storage Room

Helicopter Pad and External Area Lighting

The contract's SOW did not specifically address the requirement for a helicopter pad; however, a 26 January 2005, USACE Memorandum for Record stated, "The contractor was aware of the requirement for a heli [helicopter] pad and included it in the initial bid for the project." At the time of the site visit, the helicopter pad was in place, but was of poor quality. The construction of the pad consisted of a concrete base overlaid by an asphalt surface. For illustrations of the helicopter pad area with vehicles parked on top of the pad and the edge of the helicopter pad surface, see Site Photos 9 and 10, respectively. The edge of the pad shows that concrete has broken away from the pad. The USACE Area Engineer stated he is in discussions with the contractor to repair or replace the helicopter pad.

Site Photo 9. Helicopter Pad Area with Non-Plumb Light Poles

Site Photo 10. Edge of Helicopter Pad

The contract required that the contractor provide a complete design illustrating all existing and proposed new work for the outward oriented perimeter lighting and exterior lighting system. The contractor did not submit lighting plans as part of the design submittal. During the site visit, we noted that the light posts around the helicopter pad were not plumb, and the bases of the lighting poles were not flush with the concrete footings. For an illustration of the light pole concrete footing and light pole base, see Site Photo 11.

Site Photo 11. Concrete Footing and Light Post Base

Operations Room

The contract and design required the construction of a two-story facility with reinforced concrete footings, reinforced concrete slab, reinforced concrete columns and beams, and stucco over block exterior. The building design required a 5.99 M (19.7 ft) by 14.51 M (47.6 ft) facility with one external staircase. The contract required the facility to include A/C units. During the site visit, we verified the building was constructed; however, we did not assess the interior of the facility. For an illustration of the exterior wall of the Operations Room facility and the external staircase, see Site Photo 12. During the site visit, we noted discrepancies in the construction of the handrails of the external staircases. The handrails discrepancies of the Operations Room facility are identical to those of the Sleeping Quarters facility. For an illustration of the external stairwell, and a close-up of the lower rail embedded into the concrete steps, see Site Photo 13.

Site Photo 12. Exterior of Operations Room Building

Site Photo 13. Lower Stairwell Railing of Operations Room

Vehicle Affairs Building

The contract and design required the construction of a one-story facility with reinforced concrete footings, reinforced concrete slab, reinforced concrete columns and beams, and stucco over block exterior. The building design required a 4.75 M (15.6 ft) by 12.25 M (40.2 ft) facility consisting of a small office, lavatory, and three-open vehicle bays. During the site visit, we verified the building was constructed. For an illustration of the exterior of the Vehicle Affairs building, see Site Photo 14. During the site visit, we noted that the concrete sidewalk adjacent to the Vehicles Affairs building was cracked. For an illustration of the cracks in the sidewalk at the Vehicle Affairs building, see Site Photo 15.

Site Photo 14. Vehicle Affairs Building

Site Photo 15. Sidewalk of Vehicle Affairs Building

Car Parking Areas

The contract and design required the construction of two covered areas for automobile parking: one 16-bay and one 10-bay carport. During the site visit, we verified that four covered metal-framed carports were located on site, all of which appeared to be new construction. A single eight-bay carport was located adjacent to the Vehicle Affairs building, and another eight-bay carport was located adjacent to the main entrance. Two additional carports were also located near the front entrance. During the site visit, we noted no discrepancies of the carport steel frame construction. For an illustration of the eight-bay carport located adjacent to the main entrance, see Site Photo 16.

Site Photo 16. Eight–Bay Carport Located Adjacent to Main Entrance

Exterior T-walls

Contract Modification # 02, dated 15 July 2005, required the acquisition and installation of 320 T-walls (3 M height) for force protection around the perimeter of the facility. During the site visit, we verified that T-walls were in place around the perimeter of the facility. A survey of the entire perimeter was not conducted and the actual quantity of T-walls on-site was not determined.

Generator

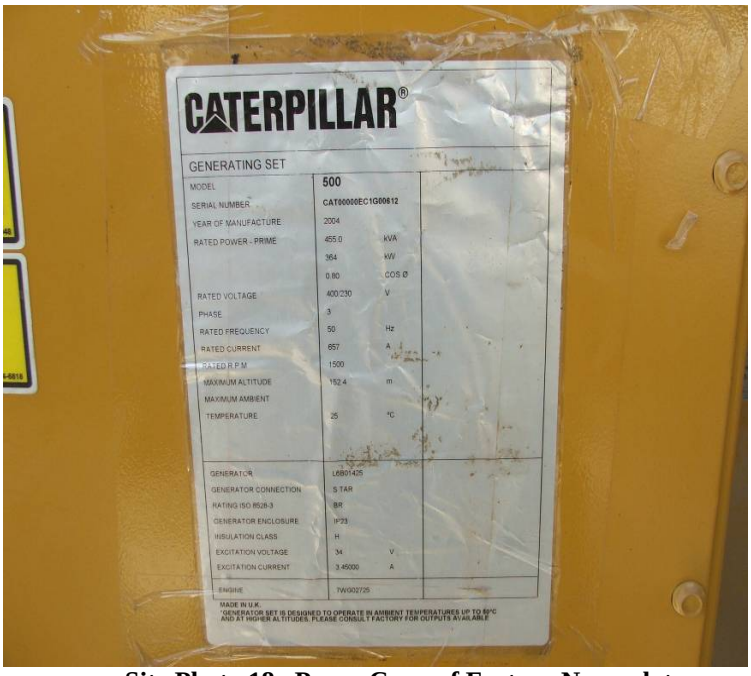
The contract required that the contractor design, select, and provide a complete electrical power generator system. The contractor submitted a design drawing for the concrete pad of the electrical power generator but did not submit design specifications for the electrical generator and catalog cuts. During the site visit, we verified an installed generator surrounded by a wire mesh enclosure. For an illustration of the exterior of the generator enclosure and the generator unit, see Site Photo 17. A paper copy of the factory nameplate was attached to the generator unit with the following information:

- Company – Caterpillar, Model 500
- Serial Number – CAT0000EC1G00612
- Year of Manufacture – 2004

- Rated Power – 455.0 kilo-volts-amps (kVA)
- Rated voltage 400/230
- Rated current – 657 Amps (A)
- Generator Serial Number L6B01425
- Engine Serial Number – 7WG02725

The engine block factory nameplate showed the Engine Serial Number as 7WG02725, although the engine block serial number was partially painted over. For illustrations of the paper copy of the generator nameplate and the engine block factory nameplate, see Site Photos 18 and 19, respectively.

Site Photo 17. Generator Unit with Mesh Enclosure



Site Photo 18. Paper Copy of Factory Nameplate

Site Photo 19. Engine Block Factory Nameplate

Visitors Center and Officer Dining and Gym Facility

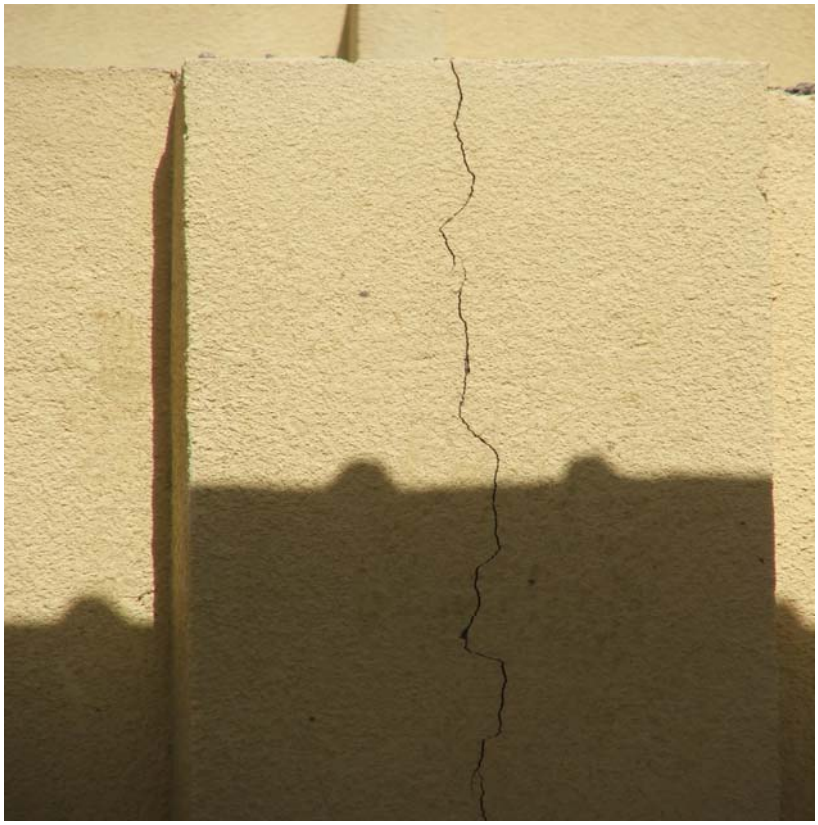
The contract and design required the construction of a Visitor's Center and an Officer's Dining and Gym facility. Both building designs required reinforced concrete footings, reinforced concrete slab, reinforced concrete columns and beams, and stucco over block exterior. The Visitor's Center design required a two-story, 9.66 M (31.7 ft) by 16.93 M (55.5 ft) facility, with an enclosed exterior holding area. The Officer's Dining and Gym Facility design required a two-story, 9.42 M (30.9 ft) by 16.93 M (55.5 ft) facility. We verified the buildings were constructed but did not evaluate either building as part of the site visit.

Renovation of Existing Facilities

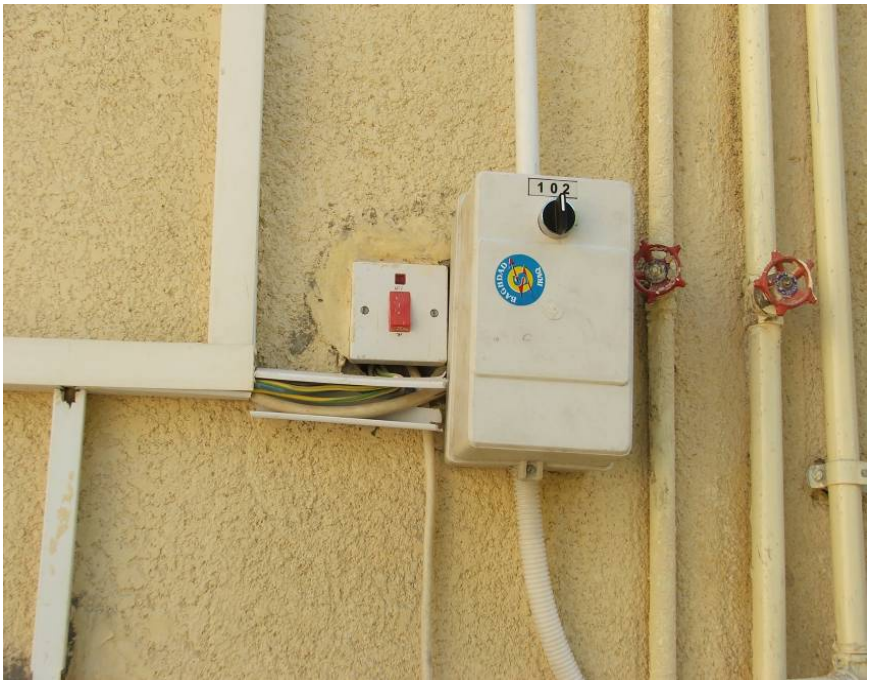
The contract's SOW required the renovation of the remaining buildings after the demolition of the damaged buildings. The SOW stated, "the second phase is the renovation of remaining buildings to temporarily house SWAT personnel as described in the attached Bill of Materials (BOM)." A complete assessment of the renovation of the existing facilities was not completed, although we conducted a walk through of the renovated buildings. Observations of cracks in the new side walks, cracks in the stucco exterior of the building, improperly installed stairwell railings (similar installation to the sleeping quarter and operations room facility), and cracks in the interior security walls are signs of poor workmanship during the rehabilitation of the facilities. For illustrations of the cracks in the front of renovated building #2 and in the interior security walls behind the Vehicle Affairs building, see Site

Photos 20 and 21, respectively. Site Photo 22 illustrates exposed electrical wires located in the exterior of renovated building 10.

Site Photo 20. Cracks in Concrete Sidewalks of Renovated Building #2



Site Photo 21. Cracks in Stucco of Interior Security Wall



Site Photo 22. Renovated Building 10, Exterior Electrical Switches

Work Pending

All work was reported to be either completed or is currently underway.

Project Quality Management

The Hilla SWAT Police Station contract stated that the contractor is responsible for establishing and maintaining an effective quality control (QC) program. The QC program should consist of plans, procedures, and organization necessary to produce an end product that complies with contractual requirements. In addition, the QC program should include the qualifications of the QC personnel, the responsibilities of the QC System Manager (employed by the prime contractor), and procedures for tracking deficiencies from identification through corrective action. After receiving the Notice to Proceed, the contract required the contractor to provide a QC plan to the Government. During the site visit, we conducted interviews with the USACE Area Engineer, Resident Engineer (RE), and QAR, who stated that the contractor did not provide a QC plan. Since the Government did not receive a QC plan, there is no accurate way to determine: whether the contractor hired adequate personnel to obtain the quality specified; the QC System Manager's responsibilities; and the procedures for tracking and correcting any deficiencies noted.

The Hilla SWAT Police Station contract stated that the contractor must complete a daily QC report for each day that work activities occurred on-site. The daily report covers both conforming and deficient features and includes a statement that equipment and materials incorporated in the work and workmanship comply with the contract. In addition, the daily report shall be furnished to the Resident/Project Engineer daily within 24 hours after the date covered by the report. After a review of the QC daily reports and site visit interviews with the USACE Resident Engineer and

QAR, we noted that the contractor did provide QC daily reports. However, the QC daily reports did not cover deficient items.

The contract required the contractor to perform testing procedures. The contractor's tests were to verify that control measures were adequate and provided a product which conformed to contract requirements. In addition, the contractor was to record all test results taken, both passing and failing tests, in the CQC report. After a review of the documents provided to the USACE Resident Engineer and QAR, we noted that the contractor provided all test results to the USACE Resident Engineer and QAR.

The PCO Standard Operating Procedure (SOP) CM-101 provides guidance for reviewing and approving the contractor's invoices. The PCO SOP CM-101, states that the contractor shall prepare invoices in accordance with the contract. During the review, we noted that the contractor provided invoices; however, the contractor's invoices did not have a detailed cost breakdown. Detailed cost breakdowns are essential to ensure that the PCO only pays for reasonable and allowable costs.

The USACE Engineering Regulation (ER) 1110-1-12 and PCO SOP CN-100 specify requirements for a Government QA program. The USACE QA program was adequate. The USACE QARs were on-site during rehabilitation and reconstruction events. The USACE QARs monitored field activities and completed daily QA reports. The USACE QAR forwarded the daily QA reports to the USACE Resident Engineer for review and verification of progress completed for payment approval. In addition, the USACE QAR reports were sufficiently complete, accurate, and timely. The USACE QARs also maintained the QA deficiency logs. The procedures in-place ensured that potential construction deficiencies were detected and evaluated.

Project Sustainability and Operational Effectiveness

Sustainability

Reviewing the contract file and specification submittals and discussions with the USACE Area Engineer, Resident Engineer, and QAR disclosed that the U.S. Government does not plan to operate or maintain the Hilla SWAT Police Station after construction completion and the turnover to the Hilla SWAT Chief of Police. The contract addressed sustainability by requiring the contractor to provide: the operation and maintenance manuals, which include all generator and equipment information; electrical single line diagrams; schematics; and maintenance information. The contract required the Hilla SWAT Police Station technical training for up to ten personnel from the contractor prior to the final acceptance of the project. The contract provides a one year (12 month) warranty for all equipment which includes any mechanical, electrical and/or electronic devices and all operations after the issuance of the Completion Document. In addition, the contractor will provide spare repair parts for one complete year of operation. After a review of the contract file, the site visit, and discussions with the USACE Resident Engineer and QAR, the Hilla SWAT Police Station was and continues to be an operating facility.

Operational Effectiveness

A review of the Hilla SWAT Police Station contract and the work completed showed that the police station was operating in accordance with the SOW's specific objective for a functional police station.

Conclusions

Based upon the results of our site visit, we reached the following conclusions for assessment objectives 1, 2, 3, 4, and 5. Appendix A provides details pertaining to Scope and Methodology.

1. Determine whether project results are consistent with original objectives.

   The completed project was consistent with original task order objectives. Specifically the contract's objectives of demolition and removal of existing damaged facilities, renovation of existing facilities, and the construction of the office and training buildings will be met. This occurred primarily because the USACE project engineer and QAR effectively managed the project. Consequently, the SWAT Police Station project resulted in an operational police station.

2. Determine whether project components were adequately designed prior to construction or installation.

   This project consisted of renovation work and new construction. The contract required submission and approval of design drawings and specifications for the new construction. Based on the review of USACE project files, the design was not complete or adequately detailed. This lack of detail in design contributed to poor quality construction. This occurred because the contractor did not prepare a completely designed facility and because the drawings were subsequently approved by USACE.

3. Determined whether construction or rehabilitation met the standards of the design.

   The construction of the SWAT Police Station does not currently meet the standards of the contract and design. Numerous areas of poor quality construction were documented during the site assessment. The project was interrupted because SWAT personnel moved into the facility before construction was 100% complete, which contributed to construction deficiencies not being corrected.

4. Determine whether the Contractor's Quality Control plan and the Government Quality Assurance Program were adequate.

   The Hilla SWAT Police Station contract specified a requirement for a CQC plan. The contractor did not submit a CQC plan to the U.S. Government; therefore there is no accurate way to determine whether the contractor hired adequate personnel to obtain the quality specified, the QC program manager's responsibilities, and the procedures for tracking and correcting any deficiencies noted. However, the contractor did provide QC daily reports and test results to the U.S. Government.

The USACE ER 1110-1-12 and the PCO SOP CN-100 specified requirements for a Government QA program. The USACE QA program was adequate. The USACE QAR was on-site during construction. The USACE QAR monitored field activities and completed daily QA reports. The USACE QAR forwarded the daily QA reports to the USACE Resident Engineer for review and verification of progress completed for payment approval. The procedures in-place ensured that potential construction deficiencies were detected and evaluated.

5. Determine if project sustainability and operational effectiveness were addressed.

   Sustainability and operational effectiveness were adequately addressed in this project. Specifically, the U.S. Government does not plan to maintain or operate the Hilla SWAT Police Station after construction completion and the turnover to the Hilla SWAT Chief of Police. Sustainability was addressed in the contract by requiring the contractor to provide the operation and maintenance manuals, electrical single line diagrams, schematics, and maintenance information. Technical training was required by the contractor for up to ten personnel, and the contract provides a one year (12 months) warranty for all equipment and all operations. In addition, the contractor will provide spare repair parts for one complete year of operation.

   A review of the Hilla SWAT Police Station contract and the work completed showed that the police station was operating in accordance with the SOW's specific objective for a functional police station.

Recommendations

The Commander, Gulf Region Division, United States Army Corps of Engineers should:

1. Develop and implement stringent design reviews for construction projects.
2. Identify all current discrepancies and require the contractor to repair or replace before final payment.
3. Ensure contract QC program requirements are complied with on all projects.

Management Comments

The Commander, Gulf Region Division, concurred with our conclusions and recommendations and provided the following comments.

> "At the time of the SIGIR team visit, work at the Hilla SWAT was not complete. The USACE QAR had documented numerous quality problems that USACE was addressing with the contractor to correct. The contractor has corrected many of the items. Two large items have not been corrected."
>
> - "Helicopter Pad. After reviewing site conditions, it was determined that the helicopter pad would not meet minimum clearance requirements due to nearby existing buildings and power lines. A settlement was negotiated converting the pad to a parking area and providing a credit to the government."

- "Perimeter Wall. The perimeter wall was not a sandwich wall as specified in the contract. The contractor constructed a single wall instead of a double wall. A settlement was negotiated providing a credit to the government."

"The modification includes several other changes and is currently being prepared for contractor's signature. Execution of the modification is expected by the end of January 2006."

"To improve quality (and safety) on future projects, the Fort Area Office is working to provide training in these areas. Initial efforts are to train the Local National Engineers in specific safety and quality topics. The goal is then to expand the training to contractors utilizing our Local National Engineers as the instructors (train the trainer). Classes have already begun at several of the Resident Offices**."**

Evaluation of Management Comments

Management comments address the issues raised in our conclusion and actions taken should correct the deficiencies.

Appendix A. Scope and Methodology

We performed this project assessment from September through December 2005, in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer and an auditor.

In performing this Project Assessment we:

- Reviewed contract documentation to include the following: Contract, Contract Modifications, Scope of Work, and Independent Government Estimate.
- Reviewed the design package (drawings and specifications), Quality Assurance Plan, Quality Control Plan, Contractor's daily Quality Control Reports, and Quality Assurance Reports;
- Interviewed the U.S. Army Corps of Engineers Area Engineer, Resident Engineer, Quality Assurance Representative, and the Hilla SWAT Chief of Police.
- Conducted an on-site assessment and documented results at Hilla SWAT Police Station in Hilla, Iraq.

Appendix B. Acronyms

A/C	Air Conditioning
BOM	Bill of Materials
BOQ	Bill of Quantity
CQC	Contractor Quality Control
ER	Engineering Regulation
FT	Feet
GRS	Gulf Region Division – Southern District of the U. S. Army Corps of Engineers
IDIQ	Indefinite Delivery Indefinite Quantity
kVA	Kilo-Volt Amp
LNTP	Limited Notice to Proceed
M	Meter
PCO	Project and Contracting Office
PE	Professional Engineer
QA	Quality Assurance
QAR	Quality Assurance Representative
QC	Quality Control
SOP	Standard Operating Procedures
SOW	Scope of Work
TO	Task Order
USACE	United States Army Corps of Engineers

Appendix C. Report Distribution

Department of State

Secretary of State
    Senior Advisor to the Secretary and Coordinator for Iraq
U.S. Ambassador to Iraq
    Director, Iraq Reconstruction Management Office
Inspector General, Department of State

Department of Defense

Deputy Secretary of Defense
    Director, Defense Reconstruction Support Office
Under Secretary of Defense (Comptroller)/Chief Financial Officer
    Deputy Chief Financial Officer
    Deputy Comptroller (Program/Budget)
Inspector General, Department of Defense

Department of the Army

Assistant Secretary of the Army for Acquisition, Logistics, and Technology
    Principal Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology
    Deputy Assistant Secretary of the Army (Policy and Procurement)
    Director, Project and Contracting Office
    Commanding General, Joint Contracting Command – Iraq/Afghanistan
Assistant Secretary of the Army for Financial Management and Comptroller
Auditor General of the Army

U.S. Central Command

Commanding General, Multi-National Force – Iraq
    Commanding General, Multi-National Corps – Iraq
    Commanding General, Multi-National Security Transition Command – Iraq
    Commander, Joint Area Support Group – Central

Other Defense Organizations

Director, Defense Contract Audit Agency

Other Federal Government Organizations

Director, Office of Management and Budget
Comptroller General of the United States
Inspector General, Department of the Treasury
Inspector General, Department of Commerce
Inspector General, Health and Human Services
Inspector General, U.S. Agency for International Development

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

U.S. Senate

Senate Committee on Appropriations
- Subcommittee on Defense
- Subcommittee on Foreign Operations

Senate Committee on Armed Services
Senate Committee on Foreign Relations
- Subcommittee on Near Eastern and South Asian Affairs
- Subcommittee on International Operations and Terrorism

Senate Committee on Homeland Security and Governmental Affairs
- Subcommittee on Government Efficiency and Financial Management
- Subcommittee on Financial Management, the Budget, and International Security

U.S. House of Representatives

House Committee on Appropriations
- Subcommittee on Defense
- Subcommittee on Foreign Operations, Export Financing and Related Programs

House Committee on Armed Services
House Committee on International Relations
- Subcommittee on Middle East and Central Asia

House Committee on Government Reform
- Subcommittee on Government Efficiency and Financial Management
- Subcommittee on National Security, Emerging Threats and International Relations

Appendix D. Project Assessment Team Members

The Office of the Assistant Inspector General for Inspections, Office of the Special Inspector General for Iraq Reconstruction, prepared this report. The principal staff members who contributed to the report were:

Michael Stanka, P.E.

Angelina Johnston