**OFFICE OF THE SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION**

# REFURBISHMENT OF THE KURDISTAN REGIONAL GOVERNMENT MINISTRY OF INTERIOR COMPLEX

## UNDER THE COMMANDER'S EMERGENCY RESPONSE PROGRAM

## ERBIL, IRAQ

**SIGIR PA-08-119**

**APRIL 17, 2008**

**SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION**

April 17, 2008

MEMORANDUM FOR COMMANDING GENERAL, MULTI-NATIONAL FORCES-IRAQ
COMMANDING GENERAL, MULTI-NATIONAL CORPS-IRAQ
COMMANDER, JOINT CONTRACTING COMMAND-IRAQ/AFGHANISTAN
COMMANDER, GULF REGION DIVISION, U.S. ARMY CORPS OF ENGINEERS
DIRECTOR, IRAQ TRANSITION ASSISTANCE OFFICE

SUBJECT: Report on Project Assessment of the Refurbishment of the Kurdistan Regional Government's Ministry of Interior Complex, Erbil, Iraq (Report Number SIGIR PA-08-119)

The Office of the Special Inspector General for Iraq Reconstruction is assessing projects funded under the Commander's Emergency Response Program to provide real-time relief and reconstruction information to interested parties to enable appropriate action, when warranted.

This report is being provided for your information and use. It addresses the current status of the refurbishment of the Kurdistan Regional Government's Ministry of Interior Complex, Erbil, Iraq and whether intended objectives will be achieved.

This report does not contain any negative findings or recommendations for corrective action. As a result, management comments on the draft report were not required. However, we received comments on a draft of this report from the Gulf Region Division of the United States Army Corps of Engineers which generally agreed with the facts and figures reported and offered no additional comments.

We appreciate the courtesies extended to our staff. If you have any questions please contact Mr. Brian Flynn at brian.flynn@iraq.centcom.mil or at DSN 318-343-9244. For public or congressional queries concerning this report, please contact SIGIR Congressional and Public Affairs at publicaffairs@sigir.mil or at 703-428-1100.

Stuart W. Bowen, Jr.
Inspector General

# Special Inspector General for Iraq Reconstruction

**SIGIR PA-08-119** **April 17, 2008**

# Refurbishment of the Kurdistan Regional Government Ministry of Interior Complex Erbil, Iraq

## Synopsis

**Introduction.** This project assessment was initiated as part of Special Inspector General for Iraq Reconstruction's continuing assessments of projects funded under the Commander's Emergency Response Program. The overall objectives were to determine whether Commander's Emergency Response Program-funded projects are 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.

**Project Objective.** The objective of this Commander's Emergency Response Program-funded project was to repair the Kurdistan Regional Government's Ministry of Interior complex, which was severely damaged by a vehicle-based incendiary explosive device on May 7, 2007. The original cost estimate for the project was $5.9 million. However, when the security building was later determined to be damaged beyond repair, the Kurdistan Regional Government provided an additional $1.5 million to cover the cost to demolish and reconstruct the building.

**Project Assessment Objectives.** The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties to enable appropriate action, when warranted. SIGIR conducted this limited scope assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an engineer/inspector and an auditor/inspector. Specifically, SIGIR answered these questions:

1. Were the project components adequately designed before construction or installation?
2. Did the construction or rehabilitation meet the standards of the design?
3. Were the contractor's quality control plan and the United States government's quality assurance program adequate?
4. Was the sustainability of the project addressed?
5. Were the project results consistent with the original objectives?

**Conclusions.** The assessment determined that:

1. Project components were adequately designed prior to construction or installation. Construction planning was adequate because the contract Statement of Work provided sufficient specificity and flexibility for the contractor to determine the work scope. Also, the United States Army Corps of Engineers, Gulf Region Division-North engineering team and the Kurdistan Regional Government Ministry of Interior worked closely with the contractor to review and approve

construction and quality control plans. Finally, the contractor had recently constructed the original complex (prior to its bombing) for the Kurdistan Regional Government and had detailed knowledge of the design, materials, and resources that were necessary to complete the refurbishment.

2. The quality of the workmanship and materials used in construction that SIGIR observed was adequate. The partnership between Gulf Region Division-North, the Kurdistan Regional Government, and the contractor provided an effective management team that resulted in quality contract execution and construction management.

3. The contractor's quality control plan and the United States government's quality assurance program facilitated quality refurbishment of the Ministry of Interior complex. The contractor's quality management plan described specific procedures, practices, organization structure, and the sequence of activities to be implemented by the contractor to execute the work in accordance with the contract requirements.

   The government's quality assurance program verified the effectiveness and accuracy of the contractor's quality control plan and procedures for producing the quality of work required.

4. During the year before the bombing, the Kurdistan Regional Government demonstrated successful management of the sustainability of the Ministry of Interior complex. Operations and maintenance will be under the management of the general director of local administration, currently occupied by an architectural engineer who has the appropriate staff and skills to operate and maintain the complex.

5. If the site supervisor continues the current level of oversight, the Kurdistan Regional Government's Ministry of Interior complex, when completed, should meet and be consistent with the original contract objectives. The completed project should result in a functioning government complex. Acceptance of the complex by the Kurdistan Regional Government will involve completing the formal turnover process established by Gulf Region Division-North.

**Recommendations and Management Comments.** This report contains no negative findings or recommendations for corrective action; therefore, management comments are not required. The results of this assessment were discussed in detail with the Resident Engineer, Gulf Region Division-North and briefed to Multi-National Corps-Iraq office when the field work was completed. SIGIR provided formal exit conferences to the Gulf Region Division Audit Liaison Office on 4 March 2008 and to Multi-National Corps-Iraq on 5 March 2008.

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# 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 to enable appropriate action, when warranted. We conducted this limited scope assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an engineer/inspector and an auditor/inspector. Specifically, SIGIR determined whether:

1. Project components were adequately designed prior to construction or installation;
2. Construction or rehabilitation met the standards of the design;
3. The contractor's quality control (QC) plan and the U.S. government's quality assurance (QA) program were adequate;
4. Project sustainability was addressed; and
5. Project results were consistent with original objectives.

## Background

### Project Objectives

The objective of the project was to refurbish the Kurdistan Regional Government's (KRG) Ministry of Interior (MOI) complex which was severely damaged by a vehicle-borne incendiary explosive device (VBIED) on 7 May 2007.

The MOI complex had recently been built with KRG funds and occupied for approximately one year at the time of the VBIED attack. The MOI complex consists of five buildings:

- ministry building
- ministry services building
- conference hall
- workers building
- security building located across the street from the complex

The VBIED was a dump truck filled with high grade explosives. At approximately 8:00 a.m. on 7 May 2007, the VBIED attempted to gain access to the service entrance at the northeastern part of the MOI complex. When the truck failed to stop at the guards' command, the guards fired on the driver who detonated the explosives outside the perimeter wall. The blast killed the guards, destroyed the guardhouse, and severely damaged the ministry, services and conference buildings.

Damage to the main complex was mitigated by two factors: (1) the VBIED detonated next to another dump truck that absorbed part of the blast, and (2) the complex's reinforced concrete perimeter wall withstood the blast and provided a significant degree of protection to the main complex buildings. Nevertheless, the blast caused major damaged to MOI complex buildings and irreparable damage to the security building

located across the street from the complex. Because it was early morning, most MOI employees had not arrived and loss of life was limited to the guards and passengers in passing vehicles. Figure 1 illustrates the layout and detonation point. Site Photos 1 through 3 show examples of damage to the three major buildings.

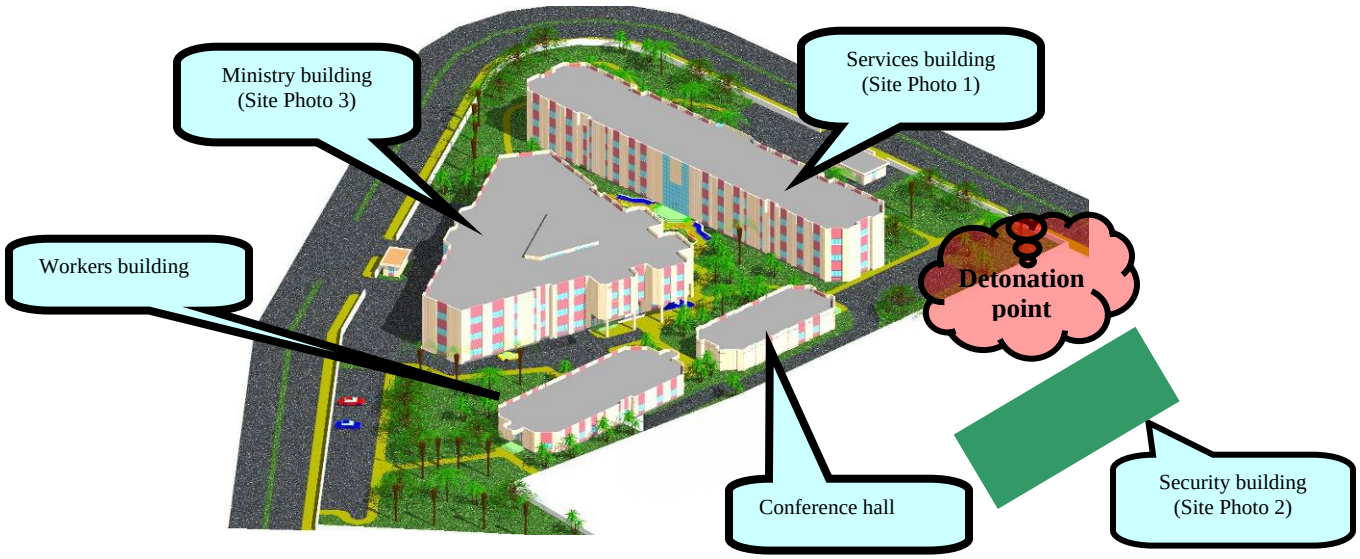



**Figure 1: Architectural layout of the MOI complex**


**Site Photo 1. Damage to the north side of the services building & perimeter wall. (Photo courtesy of USACE)**


**Site Photo 2. Security building damage (Photo courtesy of USACE)**


**Site Photo 3: Entryway to MOI building (Photo courtesy of KRG)**

Engineers from the U.S. Army Corps of Engineers' (USACE) Gulf Region Division-North (GRN) Erbil Resident Office, the contractor, and KRG assessed the structural integrity of the buildings after the bomb-blast. They evaluated the load bearing columns, beams and walls as well as the non-loading bearing elements. There was significant damage to the ceiling, finishes, doors, and windows. Some of the partition walls in the buildings were moved from their original position. The engineering team concluded the building structural frames were not damaged and did not need to be replaced. All windows were replaced with higher grade shatter proof materials and interior doors were replaced with industrial grade materials.

## Commander's Emergency Response Program

In May 2003, the Coalition Provisional Authority (CPA) formalized the Commander's Emergency Response Program (CERP) in Iraq. The program authorized U.S. field commanders to use available funds to respond to urgent humanitarian, relief, and reconstruction requirements within a commander's area of responsibility by executing programs that immediately assist indigenous populations and achieve "focused effects." CERP guidance directs commanders to focus funds on projects that improve water and sanitation, electricity, and civic cleanup and that employ the most Iraqis over an extended period of time.

Initial funding for CERP came from seized Iraqi assets and the Development Fund for Iraq. In August 2004 the United States began to appropriate U.S. dollars to CERP and by the end of December 2007, Congress had appropriated over $2.6 billion for the CERP program in Iraq

The Multi-National Corps-Iraq (MNC-I) is the overall program coordinator for CERP. MNC-I publishes *Money as a Weapon System* (MAAWS), a policies and procedures manual that directs program execution and establishes the goals for CERP funding. MNC-I currently consists of seven Major Subordinate Commands (MSC) headquartered throughout Iraq. The MSCs' purpose is to initiate and execute both reconstruction and non-construction projects in their areas of responsibility. In fiscal year 2007, the individual MSC areas of responsibilities were the following:

- Multi-National Division-Baghdad – U.S. Army forces
- Multi-National Division-Center South – Coalition forces (Poland)
- Multi-National Division-Center – U.S. Army forces
- Multi-National Division-North – U.S. Army forces
- Multi-National Division-Northeast – Coalition forces (Republic of Korea)
- Multi-National Division-Southeast – Coalition forces (British and Australian)
- Multi-National Force-West – U.S. Marine Corps forces

Incorporated in the MAAWS are the *Commander's Emergency Response Program Family of Funds Standard Operating Procedures* (SOP) that provide operating guidelines identifying allowable uses for CERP funds, proposing projects, awarding contracts, and managing projects.

## Contract, Costs and Payments

The refurbishment contract was funded with CERP and approved by MNC-I on 24 June 2007. The USACE GRN was responsible for awarding the contract and managing the construction work. The contract is a sole-source design-build, firm-fixed-price contract awarded on 4 August 2007 to a Turkish company, Tigris Muh Musavirlik Elektrik (Tigris). Tigris was the contractor that originally built the complex approximately one year before the attack. The sole-source justification was based on Tigris' detailed knowledge of the facility and the company's successful prior construction, which would enable Tigris to complete the project in an efficient manner at the lowest cost.

The estimated time to complete the refurbishment was 210 days from the start date of 1 September 2007. The initial contract was $5,896,000 firm-fixed-price broken down into the following general categories:

| | |
|---|---|
| Refurbish MOI complex | $ 4,760,000 |
| Refurbish security bldg complex | 1,136,011 |
| **Total** | **$ 5,896,011** |

**Scope of Work**

This project consisted of the repair and reconstruction of the KRG MOI building complex and the old security building. The KRG MOI building complex consists of:

- ministry building
- service building
- conference building
- workers building
- control point building and boundary wall
- security building located across the street from the MOI complex

The design-build contract provided the flexibility to assess the damage and prioritize the necessary repairs to stay within the funding limitations. The requirements document provided 85 detailed tasks for the contractor to assess the damage and to make the necessary repairs. For example, section 2.1.6.1 required the contractor to install blast proof windows in the MOI office area. The windows were required to meet or exceed the pressure of 2.0 bar equivalent 150-kilogram (kg) at 18 meters (m) and conform to six U.S. and international standards. Section 2.1.8 required the contractor to identify damage to the boundary wall and control point building, reconstruct the damaged areas, and install concrete T-walls along the 60-meter road to increase force protection for the complex.

The contract was modified on 14 January 2008 to extend the period of performance to September 2008. This was done to accommodate demolishing and reconstructing the security building after it was determined to be irreparably damaged from the attack. The KRG requested that the building be replaced and agreed to share in funding the new building by adding $1.5 million dollars to the $1.1 million of CERP funding already allocated to the building. The work scope was separated so that GRN and KRG could avoid co-mingling funds. Each party was responsible for their individual scope, including oversight and payment. A general breakdown of the separate responsibilities is summarized below in Table 1.

| Item | CERP Funds | KRG Funds | Total |
|---|---|---|---|
| Site work | $ 131,800 | | $ 131,800 |
| Entrance building | 105,440 | | 105,440 |
| Landscaping | 26,360 | | 26,360 |
| Civil | 695,799 | | 695,799 |
| Architectural | 105,440 | 869,880 | 975,320 |
| Mechanical | 32,950 | 237,240 | 270,190 |
| Electrical | 38,222 | 284,936 | 323,158 |
| Design | | 107,960 | 107,960 |
| Subtotal security building | $ 1,136,011 | $ 1,500,016 | $ 2,636,026 |
| MOI complex | 4,760,000 | | 4,760,000 |
| **Total cost** | **$ 5,896,011** | **$ 1,500,016** | **$ 7,396,026** |

**Table 1. Breakdown of the separate funding responsibilities**

# Site Assessment

A SIGIR inspection team consisting of an auditor/inspector and an engineer/inspector made two visits to the complex on 29 January 2008 and 5 February 2008, respectively. The objective of the site visits was to ascertain the current status and quality of construction work by observing and photographing significant work completed in the MOI complex.

## Work Completed

At the time of our site visit, the project was estimated by the GRN Erbil Resident Engineer (RE) to be 80% complete. The MOI complex was approximately 95% complete and was partially occupied. The security building had not yet been demolished. The GRN Erbil RE indicated that rebuilding the security building should be completed by November 2008. SIGIR concurred with the RE's assessment of the completed percentage. We also concluded that the work completed to date was adequate and will meet the contract objectives.

## Work In Progress

The northern side of the services building was extensively damaged from the blast. All of the windows were blown out and most of the granite siding shattered and fell to the ground posing significant danger to anyone standing near the building. The granite siding was replaced with a stucco finish to eliminate the threat of it falling during any future attack. Site Photos 4 and 5 show the destroyed and repaired building.

Site Photos 4 through 9 contrast the damage from the explosion to the completed repairs.


**Site Photo 4: Damage to the services building and perimeter wall (Photo courtesy of KRG)**

**Site Photo 5: Refurbished services building**

The VBIED detonated at the northeast entry gate, destroying the guard shack and severely damaging the perimeter wall. The guard shack was rebuilt, the perimeter wall repaired, and T-walls were erected along the "60-Meter" road that passes the complex. Site Photos 6 and 7, taken from the roof of the services building show the destruction and completed repairs.


**Site Photo 6: Damage to the perimeter wall, services building and security building. (Photo courtesy of KRG)**


**Site Photo 7: Repaired wall, installed T-walls and reconstructed guard shack. Photo taken from the roof of the services building.**

The MOI main entrance is located at the southwest part of the complex. The blast carried through the building interior and blew out the entrance doors, windows, and ceiling. The

granite siding was not damaged and was retained in the new construction. Site Photos 8 and 9 show the destruction and completed repairs.


**Site Photo 8: The MOI entrance was located at the opposite side of the complex from the blast which carried through the building interior. (Photo courtesy of KRG)**


**Site Photo 9: Repaired MOI entrance**

The contract required that the site be properly graded to allow for positive drainage toward any adjacent roads. As we moved about the grounds of the complex, we

photographed the landscaping and noticed the general slope of the grounds. It had recently rained and there was no evidence of water pooling. There was an efficient network of manholes, culverts and piping to collect and convey runoff water offsite. At the garage entrance, a culvert captured water that drained down the driveway and a sump pump moved the water vertically up the driveway wall to the upper road and into the drainage ditch. Site Photos 10 and 11 show two water drainage components.

**Site Photo 10. Roadside drainage ditch emptying into a manhole**

**Site Photo 11. Garage culvert with a sump pump that moves water vertically to the roadway approximately three meters above the driveway**

The contract required installation of one 250 kilovolt amp (kVA) and one 400-kVA transformer. The work included providing poles for 11-kV high-voltage lines with all accessories to be energized. Site Photos 12 and 13 show both transformers were installed and connected to power lines adjacent to the complex.

**Site Photo 12. 400-kVA Transformer (Photo courtesy of GRN)**

**Site Photo 13. 250-kVA Transformer**

The contractor assessed circuit breakers, electrical fixtures, and lights for damage and made necessary replacements. Our observation showed that circuit breaker panels, electrical outlets, and light fixtures were operating, in good repair and constructed with adequate materials. Site Photos 14 through 18 show the condition of the electrical components.

**Site Photo 14. Circuit breaker panel**

**Site Photo 15. Electrical outlets**

**Site Photo 16. Outside walkway light**

**Site Photo 17. Outside floodlight**

**Site Photo 18: Interior lighting (Photo courtesy of GRN)**

We observed fire alarm sensors and fire fighting equipment and found them to be in good condition. We also tested the alarm system in the services building by holding a burning piece of cardboard to a sensor. The first test did not work and they discovered the system

had been turned off by an employee who was performing maintenance in the control room. When the system was re-energized, the test with the burning cardboard passed. The GRN RE noted that the system should not be that easy to deactivate and added a punch list item securing the system from being deactivated unless authorized. Site Photos 19 and 20 show sample fire extinguishers and the system test.


**Site Photo 19. Fire extinguisher and fire hose**

**Site Photo 20. Fire alarm test**

We observed and photographed a number of security cameras around the facility perimeter and visited the security control room to observe the camera monitors. Twelve newly installed Sony monitors provide good resolution and coverage of the entire complex. The system includes telephoto capability that allows close-ups adequate to read license plates on vehicles traveling along the perimeter roads. We also observed and photographed the backup system of batteries and uninterrupted power supply systems located in the room. Site Photos 21 through 23 show a security camera and control room equipment.

**Site Photo 21. 360° Camera located on the services building**

**Site Photo 22. Twelve monitors in the security control room**

**Site Photo 23. Backup power supply in the security control room**

We rode one elevator in the MOI building to the third floor. The ride was smooth and the elevator started and stopped, level with the floor, without jerking. Site Photo 24 shows the elevator condition at the time of our site visit.

**Site Photo 24. Elevator in MOI building**

The contractor assessed the state of the heating and cooling system after the bomb-blast. Damaged chillers and fan coil units were replaced and retained for spare parts. The heating and cooling system design facilitated independent temperature controls for different zones in the buildings, which enabled systems in unoccupied offices to be turned off. We noted that the temperatures throughout the buildings were consistent and well regulated. Site Photo 25 through 27 show the rooftop heating and cooling equipment on the services building.

**Site Photo 25. New chiller units located on the roof of the services building**

**Site Photo 26. New instant water heater located on the roof of the services building**

**Site Photo 27. New boiler located on the roof of the services building**

We observed and photographed the plumbing in a number of bathrooms including the basement of the ministry and services buildings. The plumbing and fixtures were of good quality and functioned properly. Site Photos 28 and 29 show the material quality and workmanship in sample bathrooms.

**Site Photo 28. New sinks and tile in a MOI bathroom**

**Site Photo 29. New eastern toilet in a MOI bathroom**

Fresh water is provided by the city waterline and from a deep-water well located at a secured property across the street from the MOI. Water comes in through the perimeter wall into two separate locked tanks where it is treated and then pumped to rooftop tanks for distribution within the facility. With the exception of the rooftop tanks, the domestic water supply had minimal damage to the outside supply system. We observed and photographed the incoming lines to the storage tanks and noted the access covers were secured with locks to prevent tampering. We found the system to be adequate and functioning. Site Photos 30 and 31 show the rooftop tank and secured treatment tanks.

**Site Photo 30. Rooftop water supply tank**

**Site Photo 31. Secured access covers to fresh water treatment tanks**

The sewage system includes a number of sump pumps that transfer wastewater through a system of pipes which drain into septic tanks located near the perimeter walls. The system was operating and there were no apparent leaks anywhere throughout the system. Site Photos 32 and 33 show the sump pump in the ministry basement and the outside septic tank covers.

**Site Photo 32. Sump pump located in the basement of the MOI building**

**Site Photo 33. Septic tanks located near the south side perimeter wall**

The contractor's assessment concluded that stronger doors and shatter proof windows would have significantly mitigated damage from the blast. The current contract required industrial grade doors and hardware installed throughout the facility to prevent the level of destruction experienced when the other doors and windows collapsed from the blast.

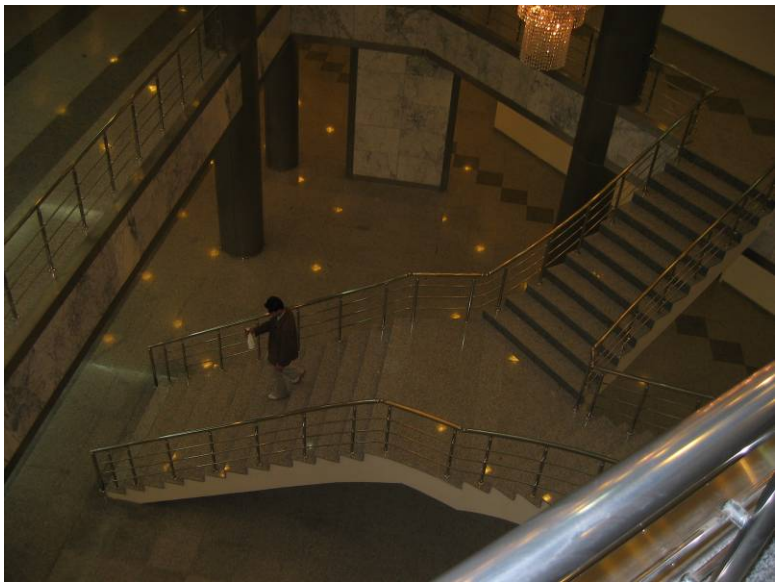
We observed and photographed a crosscut section of a new door (Site Photo 34) and tested a sample of doors which operated properly.

**Site Photo 34. Cross section of an upgraded interior wooden door**

Aluminum doors were installed at the building entrances and bathrooms. The new materials were 30 percent thicker (2 centimeters (cm) vs. 1.5-cm) than those used in the previous construction. Handrails were repaired or replaced with the same quality material as before. We observed, photographed, and tested the operations of a sample of doors in the ministry and services buildings and found them to function properly. The handrails were stable and well anchored. Site Photos 35 through 37 show examples of the new aluminum doors and refurbished handrails.

**Site Photo 35. Aluminum entry door**

**Site Photo 36. Hand rails at services building entrance**



**Site Photo 37. Handrails and staircases in MOI entrance**

Window Glass

a. The contract required installation of blast proof windows in the minister's office, reception room, and secretary's office. We observed, photographed, and measured the blast proof windows installed in the minister's reception room and adjacent secretary's and entry rooms.

b. The windows in the remaining parts of the complex were replaced with thicker aluminum frames {(2.0-cm vs. 1.5-cm) (Site Photo 38)} and double paned glass with a vacuum sealed space between. The interior glass was coated with 21-mil (equals 0.021 inches) protective film (Site Photo 39) to prevent shattering in the event of another blast.

**Site Photo 38. MOI blast resistant window**

**Site Photo 39. Protective film was installed on interior side of windows to prevent shattering**

We observed and photographed the exterior and interior walls in the services, ministry, guard, and conference buildings and found them to be adequately plastered/stuccoed and painted. Site Photo 40 shows an example of a refurbished interior wall.

**Site Photo 40: Example of a finished interior wall**

**Work Pending**

At the time of our site visit, approximately 20 percent of the work required to complete the contract for refurbishment of the KRG's MOI complex remained. For the most part this involved finish work such as plastering and painting. However, work on the security building on the opposite side of the street was just getting underway.

# Project Quality Management

**Contractor Quality Control**

The contract required the contractor to submit a quality control (QC) plan to GRN for approval. The approved plan described specific procedures, practices, organization structure, and the sequence of activities to be implemented by the contractor in order to execute the work in accordance with the contract requirements. The plan covered:

- procedures for scheduling, reviewing, certifying, and managing submittals
- the process for reviewing and submitting plans and designs
- construction control
- organizing material orders and approval
- planning inspection and examination tests
- site organization
- implementing work safety and health requirements

Section 1.3 of the project's general requirements mandated that all materials be approved by the contractor's QC representative and submitted to GRN for review and approval before proceeding. We reviewed the submittal log, testing results, daily reports, and the contractor's material log. Our review of GRN's submittal registration log indicated that the project management team reviewed product data submitted for materials and components including mortar mix, plastering material and mix proportions, paints, ceiling panels, lamps, and lighting fixtures. There were also submittals for fire alarm and security camera systems. The project engineers reviewed product data for mechanical units such as chillers and fan coil units.

Test data provided by the GRN Erbil RE for the bullet-proof glass installed in the minister's offices indicated that a bullet fired from a .44-caliber magnum pistol at three meters would not penetrate the glass. According to the GRN Erbil RE, the test satisfied the DIN 52290[1] standard which is equivalent to the specifications cited in the contract calling for pressure 2-bar equivalent explosive 150-kg at 18-m. The RE noted that product and test documentation supporting the blast-proof windows and the shatter-proof covering was not sufficient and added a requirement to obtain an adequate documentation package to the punch list.

The contractor used a three-phased QC protocol requiring assessments at three different stages during a definable construction task: the preparatory phase, the initial phase, and the follow-up phase. The preparatory phase was designed to review applicable specifications, drawings, testing, and monitoring procedures before a definable construction task was started. The initial phase established a monitoring checklist and metrics for a sample of the construction work to determine if it met specifications. Once the sampled work was completed the follow-up phase facilitated monitoring on a continuous basis to validate compliance with metrics.

**Government Quality Assurance**

The purpose of quality assurance (QA) is to verify the effectiveness and accuracy of the contractor's control for producing the quality of work required. The GRN Resident Office prepared a QA plan in conjunction with the KRG MOI. Key components of the plan included:

1. Submittals. The primary responsibility for overall management and control of submittals was with the contractor. The QA team enforced submittal requirements and ensured that the contractor's QC system was complying with project specifications.
2. Quality assurance testing. The GRN construction representative in conjunction with KRG representatives monitored the contractor's QC testing program, observed procedures and results, and collected reported results.

Documentation supporting the contractor's compliance with the QC plan as well as GRN and KRG's oversight is in the form of periodic site reports prepared by both organizations. The contractor submitted 162 daily site reports from the time the work started on 15 August 2007 until 22 January 2008. The reports provided the following information:

- number of employees on site
- materials delivered
- tests performed
- activities performed
- description of potential problems
- safety problems

Details of the work performed were shown in daily work logs and reports that included the work breakdown structure for each major building. The logs and reports indicated the work that was underway that day and provided an adequate reference for the reviewer to comprehend the status of the job.

[1] DIN is a non-governmental organization established to promote the development of standardization and related activities in Germany and related markets.

In addition to the daily site reports, the contractor provided pictures showing examples of the construction activity that was underway.

The GRN and KRG QA procedures required submission of site visit reports. From the start of the project on 15 August 2007 through the time of our site visits, GRN prepared 42 site reports containing the following significant information:

- workforce breakdown
- contractor employees on site at the time of the visit
- equipment being used
- inspections held
- materials received
- test performed
- safety issues identified
- pictures illustrating key activities underway that day

The site reports submitted by the contractor, GRN, and KRG provided an adequate record of activity that was underway at the project site. They provided sufficient information to monitor activity and recognize potential problems in time for resolution.

# Sustainability

The KRG demonstrated its ability to sustain the MOI complex by successfully managing the complex in the year prior to the VBIED attack. The MOI RE is working closely with the GRN to oversee the construction and has a detailed knowledge of the facility's operating requirements. Operations and maintenance will be under the management of the general director of local administration. This position is presently occupied by an architectural engineer who has the appropriate skill-set to operate and maintain the complex of buildings.

**Turnover**

The MOI complex was nearly complete and largely occupied at the time of our assessment but the complex had not been transferred to the KRG. Official partial occupancy will start when the contractor, the USACE, and the KRG sign the transfer documents. Warranties will become effective as individual construction components are completed and accepted by the KRG. Operation and maintenance manuals will be available at handover for any newly purchased equipment and the KRG will be required to sign for them. Training will also be completed prior to handover. Training for operating and maintaining heating, ventilating and air conditioning systems, fire alarm systems, and security camera systems will also be provided.

The KRG has been cooperative in accepting completed projects funded by the U.S. government. Generally, the process includes a formal ceremony presenting the project to the KRG Governor and appropriate minister. GRN uses a checklist to ensure required documents are completed for the turnover. These include:

- as-built drawings, signed by the recipient acknowledging their receipt and acceptance
- final "punch list", including a notice that all items on the punch list have been completed and accepted
- contractor's final invoice
- contractor's release of claims

- acceptance memorandum, signed by representatives from the KRG, USACE and contractor
- operation and maintenance manuals, spare parts, and post construction guides
- final inspection and completion letter

# Conclusions

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

1. Project components were adequately designed prior to construction or installation. Construction planning was adequate because the contract Statement of Work provided sufficient specificity and flexibility for the contractor to determine the work scope. Also, the USACE, Gulf Region Division-North engineering team and the Kurdistan Regional Government Ministry of Interior worked closely with the contractor to review and approve construction and quality control plans. Finally, the contractor had recently constructed the original complex (prior to its bombing) for the KRG and had detailed knowledge of the design, materials, and resources that were necessary to complete the refurbishment.

2. The quality of the workmanship and materials used in construction that SIGIR observed was adequate. The partnership between GRN, the KRG, and the contractor provided an effective management team that resulted in quality contract execution and construction management.

3. The contractor's quality control plan and the U.S. government's quality assurance program facilitated quality refurbishment of the MOI complex. The contractor's quality management plan described specific procedures, practices, organization structure, and the sequence of activities to be implemented by the contractor to execute the work in accordance with the contract requirements.

   The government's quality assurance program verified the effectiveness and accuracy of the contractor's quality control plan and procedures for producing the quality of work required.

4. During the year before the bombing, the KRG demonstrated successful management of the sustainability of the Ministry of Interior complex. Operations and maintenance will be under the management of the general director of local administration, currently occupied by an architectural engineer who has the appropriate staff and skills to operate and maintain the complex.

5. If the site supervisor continues the current level of oversight, the KRG's MOI complex, when completed, should meet and be consistent with the original contract objectives. The completed project should result in a functioning government complex. Acceptance of the complex by the KRG will involve completing the formal turnover process established by GRN.

# Recommendations and Management Comments

This report contains no negative findings or recommendations for corrective action; therefore, management comments are not required. The results of this assessment were discussed in detail with the Resident Engineer, Gulf Region Division-North and briefed to Multi-National Corps-Iraq office when the field work was completed. SIGIR provided formal exit conferences to the Gulf Region Division Audit Liaison Office on 4 March 2008 and to Multi-National Corps-Iraq on 5 March 2008.

# Appendix A. Scope and Methodology

This project assessment was performed from January through March 2008 in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an engineer/inspector and an auditor/inspector.

In performing this Project Assessment SIGIR:

- Reviewed contract documentation to include the following: the contract, scope of work, acquisition plan, and pre-construction conference minutes;
- Reviewed the design package (drawings and specifications), the quality control plan, and quality control and quality assurance reports;
- Conducted discussions with KRG officials, GRN Erbil Resident Engineer, GRN Erbil Deputy Resident Engineer, and quality assurance representatives, and contractor personnel on-site;
- Conducted on-site assessments on 29 January 2008 and 5 February 2008;
- Briefed the results of fieldwork with the GRN Erbil Resident Engineer, and officials from Engineering and Comptroller sections of MNC-I upon completion of fieldwork; and
- Briefed this report to GRD and MNC-I officials on 4 March 2008 and 5 March 2008 respectively.

# Appendix B. Acronyms

| | |
|---|---|
| CERP | Commander's Emergency Response Program |
| cm | Centimeters |
| CPA | Coalition Provisional Authority |
| GRD | Gulf Region Division |
| GRN | Gulf Region North |
| kg | Kilogram |
| KRG | Kurdistan Regional Government |
| KVA | Kilovolt Amps |
| m | Meter |
| MAAWS | Money as a Weapons System |
| MNC-I | Multi-National Corps-Iraq |
| MOI | Minister of Interior |
| MSC | Major Subordinate Command |
| QA | Quality Assurance |
| QC | Quality Control |
| RE | Resident Engineer |
| SIGIR | Special Inspector General for Iraq Reconstruction |
| SOP | Standard Operating Procedure |
| USACE | United States Army Corps of Engineers |
| VBIED | Vehicle Born Incendiary Explosive Device |

# Appendix C. Report Distribution

## Department of State

Secretary of State
- Senior Advisor to the Secretary and Coordinator for Iraq
- Director of U.S. Foreign Assistance/Administrator, U.S. Agency for International Development
  - Director, Office of Iraq Reconstruction
- Assistant Secretary for Resource Management/Chief Financial Officer, Bureau of Resource Management

U.S. Ambassador to Iraq
- Director, Iraq Transition Assistance Office
- Mission Director-Iraq, U.S. Agency for International Development

Inspector General, Department of State

## Department of Defense

Secretary of Defense
Deputy Secretary of Defense
Under Secretary of Defense (Comptroller)/Chief Financial Officer
- Deputy Chief Financial Officer
- Deputy Comptroller (Program/Budget)

Deputy Assistant Secretary of Defense-Middle East, Office of Policy/International Security Affairs
Inspector General, Department of Defense
Director, Defense Contract Audit Agency
Director, Defense Finance and Accounting Service
Director, Defense Contract Management Agency

## 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)
- Commanding General, Joint Contracting Command-Iraq/Afghanistan

Assistant Secretary of the Army for Financial Management and Comptroller
Chief of Engineers and Commander, U.S. Army Corps of Engineers
- Commanding General, Gulf Region Division
- Chief Financial Officer, U.S. Army Corps of Engineers

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 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, Department of Health and Human Services
Inspector General, U.S. Agency for International Development
President, Overseas Private Investment Corporation
President, U.S. Institute for Peace

## Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

### U.S. Senate

Senate Committee on Appropriations
- Subcommittee on Defense
- Subcommittee on State, Foreign Operations, and Related Programs

Senate Committee on Armed Services
Senate Committee on Foreign Relations
- Subcommittee on International Development and Foreign Assistance, Economic Affairs, and International Environmental Protection
- Subcommittee on International Operations and Organizations, Democracy and Human Rights
- Subcommittee on Near Eastern and South and Central Asian Affairs

Senate Committee on Homeland Security and Governmental Affairs
- Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security
- Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia
- Permanent Subcommittee on Investigations

### U.S. House of Representatives

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

House Committee on Armed Services
- Subcommittee on Oversight and Investigations

House Committee on Oversight and Government Reform
- Subcommittee on Government Management, Organization, and Procurement
- Subcommittee on National Security and Foreign Affairs

House Committee on Foreign Affairs
- Subcommittee on International Organizations, Human Rights, and Oversight
- Subcommittee on the Middle East and South Asia

# Appendix D. Gulf Region Division Comments

**COMMAND REPLY**
**SIGIR Draft Assessment Report**
**Refurbishment of the Kurdistan Regional Government Ministry of Interior Complex, Erbil, Iraq**
**SIGIR Report No. PA-08-119**

GRD reviewed the report and generally agrees with the facts and figures; therefore, GRD has no additional comments.

# Appendix E. 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 member who contributed to the report were:

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