

# **ANP District Headquarters Facilities in Helmand and Kandahar Provinces Have Significant Construction Deficiencies Due to Lack of Oversight and Poor Contractor Performance**



**October 27, 2010**



## OFFICE OF THE SPECIAL INSPECTOR GENERAL FOR AFGHANISTAN RECONSTRUCTION

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Lieutenant General James Mattis  
Commander, U.S. Central Command

General David Petraeus  
Commander, U.S. Forces-Afghanistan, and  
Commander, International Security Assistance Force

Lieutenant General Robert L. Van Antwerp  
U.S. Army Chief of Engineers and  
Commanding General of the U.S. Army Corps of Engineers

Lieutenant General William B. Caldwell, IV  
Commanding General, NATO Training Mission-Afghanistan/  
Combined Security Transition Command-Afghanistan

This report discusses the results of the Office of the Special Inspector General for Afghanistan Reconstruction's (SIGAR) review of a contract for the construction of six Afghanistan National Police district headquarters facilities in Helmand and Kandahar Provinces funded by the Combined Security Transition Command-Afghanistan and implemented by the U.S. Army Corps of Engineers (USACE). Based on the construction deficiencies identified by SIGAR, this report recommends that USACE evaluate the full range of facility repairs needed at the six project sites. This report includes an additional five recommendations designed to help USACE recoup costs from the contractor, as necessary, and prevent payment and performance problems on future construction projects.

A summary of this report is on page ii. This performance audit was conducted by the Office of the Special Inspector General for Afghanistan Reconstruction under the authority of Public Law No. 110-181 and the Inspector General Act of 1978, as amended.

John Brummet  
Assistant Inspector General for Audits  
Office of the Special Inspector General  
for Afghanistan Reconstruction



# SIGAR

Special Inspector General for Afghanistan Reconstruction

SIGAR Audit-11-3

October 2010

## ANP District Headquarters Facilities In Helmand and Kandahar Provinces Have Significant Deficiencies Due to Lack of Oversight and Poor Contractor Performance

### What SIGAR Reviewed

One objective of coalition efforts in Afghanistan is to build the country's capacity to provide for its own security by housing, training, and equipping up to 134,000 Afghanistan National Police by September 2011. The Combined Security Transition Command-Afghanistan (CSTC-A) provided \$5.9 million to the U.S. Army Corps of Engineers (USACE) to construct seven District Headquarters facilities in Bughram (later de-scoped from the contract), Garm Ser, Nad Ali, Nahri Saraj in Helmand Province and Takhta Pul, Spin Boldak, and Zeheli in Kandahar Province. USACE awarded this firm fixed-price contract to Basirat Construction, an Afghan firm, in May 2007. USACE's Afghanistan Engineer District-South (AED-S) was responsible for providing program management, contract administration, and oversight of construction activities. This report assesses (1) contract schedule and cost, (2) construction outcomes, and (3) oversight of the project. To accomplish these objectives, we reviewed relevant contract documents and USACE quality assurance guidelines, interviewed officials from USACE and the contractor, and performed site inspections at all six project sites during the months of May and June of 2010. We conducted our work in Kabul and in the Kandahar and Helmand Provinces of Afghanistan from May 2010 to September 2010, in accordance with generally accepted government auditing standards.

### What SIGAR Found

Originally scheduled for completion by January 9, 2009, the project's completion has been delayed due to three key factors: (1) an extension of the project completion date by 500 days to May 24, 2010, due to a contract modification affecting one of the six project sites; (2) confusion between USACE and Basirat Construction regarding project design issues, and (3) two suspension letters issued by USACE, one due to security concerns. Identified by USACE to be approximately 90 percent complete as of August 2010, one site has been turned over to the ANP and another site has been cleared for turnover to the ANP. The contractor has made nominal progress on another site, and the other three sites remain idle. While the scheduled payments that the government has made to the contractor do not exceed the modified contract amount of \$5.5 million, it is unlikely the contractor will complete the remaining five sites with the remaining contract funds given the numerous construction deficiencies that need to be repaired. While the contractor is liable for correcting deficient work, it is not clear whether this will happen. In particular, almost all performance payments have been paid out and minimal funds were withheld from contractor payments to cover deficient work. In addition, Basirat Construction has limited incentive to comply with the contract's terms since it is unlikely that it will receive future USACE contract awards given its performance on this and other USACE projects.

Project construction at each site failed to meet the requirements as established in the contract documents and approved construction documents. The level of non-compliance at each site varied, but overall the construction was poor. Problem areas identified by SIGAR included low quality concrete and inadequate roofing installations. For example, inadequate concrete and foundation work calls into question the structural integrity of the buildings and raises the risk of collapse. SIGAR also identified several cases of product substitution where lower grade materials were used instead of the quality specified in the contract. For example, poor quality residential-grade windows were used instead of commercial-grade windows that are thermally insulated and tempered.

USACE and Basirat Construction developed project-specific quality assurance and quality control plans to ensure oversight for the project; however, these plans were not implemented effectively. Specifically, required quality assurance testing, quality control testing, three-phase inspections of definable features of work, and daily site visit reports were generally not performed. USACE staff attributes the lack of adequate project oversight, in part, to security concerns. In light of this, it is even more important to obtain contractor-prepared daily quality control reports and station USACE's local national quality assurance representatives (LNQARs) at the project sites to submit daily quality assurance reports to staff in USACE's office in Tombstone, Helmand Province. SIGAR found both the contractor and LNQARs failed to provide an adequate level of daily reporting on work progress at job sites. Further, USACE staff did not appear to take full advantage of its security contractor and local resources, such as security resources at forward operating bases, which could have facilitated on-site project oversight.

### What SIGAR Recommends

To address the construction deficiencies, this report recommends that the Commanding General, USACE, in coordination with USFOR-A and CSTC-A, evaluate the full range of facility deficiencies at the six project and direct the contractor to make the required repairs. This report includes an additional five recommendations designed to help USACE make necessary repairs and recoup costs from the contractor, as necessary; improve oversight; and, prevent payment and performance problems on future construction projects. In commenting on a draft of this report, USACE concurred with the majority of the recommendations. Based on USACE's comments, we revised wording in two of our recommendations.

*For more information contact: SIGAR Public Affairs at (703) 602-8742 or [PublicAffairs@sigar.mil](mailto:PublicAffairs@sigar.mil)*

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## ACRONYMS

AED-N	Afghanistan Engineering District-North
AED-S	Afghanistan Engineering District-South
ANP	Afghanistan National Police
ANSF	Afghanistan National Security Forces
COR	Contracting Officer Representative
CSTC-A	Combined Security Transition Command-Afghanistan
DFOW	Definable Feature of Work
DLQAP	District Level Quality Assurance Plan
FAR	Federal Acquisition Regulation
FOB	Forward Operating Base
LNQAR	Local National Quality Assurance Representative
QAR	Quality Assurance Report
USACE	U.S. Army Corps of Engineers



## **ANP District Headquarters Facilities in Helmand and Kandahar Provinces Have Significant Construction Deficiencies Due to Lack of Oversight and Poor Contractor Performance**

One of the main objectives of coalition efforts in Afghanistan is to build the country's capacity to provide for its own security by housing, training, and equipping the Afghanistan National Security Forces (ANSF), which consists of the Afghanistan National Army (ANA) and the Afghanistan National Police (ANP). From a reported size of 95,000 personnel in December 2009, the ANP is expected to grow to almost 134,000 personnel by October 2011. To meet the infrastructure needs of this growing force, the Combined Security Transition Command-Afghanistan (CSTC-A) funds a country-wide building program to support the national, regional, and district-level operations of ANSF. The U.S. Army Corps of Engineers (USACE) through its two district offices,<sup>1</sup> is responsible for awarding, monitoring, and ensuring successful delivery of the majority of these construction projects.<sup>2</sup>

USACE's Afghanistan Engineering District awarded Basirat Construction, an Afghan firm, a single contract in the amount of \$5.9 million to construct seven ANP district headquarters in Helmand and Kandahar Provinces.<sup>3</sup> This report (1) identifies whether the ANP project sites are being constructed within the schedule and cost terms of the contract, (2) determines whether the construction is in accordance with approved construction plans and specifications, and (3) evaluates the nature and adequacy of USACE contract administration and construction oversight. This report is one in a series of performance audits by the Office of the Special Inspector General for Afghanistan Reconstruction (SIGAR) to examine contract cost, schedule, outcome, and oversight of reconstruction efforts in Afghanistan.

To accomplish these objectives, we reviewed relevant contract files including statements of work, modifications, available construction plans and specifications, and quality assurance/quality control plans and reports. We examined criteria and guidance defined in the Federal Acquisition Regulation (FAR) and USACE's Afghanistan Engineering District-South (AED-S) District-Level Quality Assurance Plan for Construction. We interviewed officials from USACE's AED-S, Afghanistan Engineering District-North (AED-N), Basirat Construction, and Global Strategies,<sup>4</sup> and conducted inspections of the Garm Ser, Nad

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<sup>1</sup> AED-South was established as a separate district on August 3, 2009, in response to a growing workload that AED headquarters in Kabul could not manage alone. Afghanistan Engineer District-North is based in Kabul and Afghanistan Engineer District-South is based in Kandahar.

<sup>2</sup> USACE maintains a Memorandum of Agreement with CSTC-A to perform these services for an agreed upon percentage of the overall construction cost. According to AED-S personnel, the current billing rate for supervision and administration is 9 percent of construction costs. At that rate, the fee USACE will charge CSTC-A for this contract is approximately \$530,000.

<sup>3</sup> USACE unofficially refers to these types of contracts as "bundled contracts" meaning that one contract is awarded to a firm for construction of multiple identical projects. According to USACE officials, this was a commonly used approach for several years; however, they are no longer awarding these types of contracts. See FAR 7.103(s)(2). The Department of Defense recently published an interim rule amending the DFAR, effective July 13, 2010, to discourage bundling of contracts. 75 FR 40714. USACE was unable to supply SIGAR with the number of these types of contracts that have been awarded.

<sup>4</sup> AED-S contracted with Global Strategies to provide security for its personnel.

Ali, and Nahri Saraj sites in Helmand Province, and the Spin Boldak, Takha Pul, and Zeheli sites in Kandahar Province. We conducted our work in Kabul and in the Afghanistan provinces of Kandahar and Helmand from May 2010 to September 2010, in accordance with generally accepted government auditing standards. Appendix I presents a more detailed discussion of our scope and methodology.

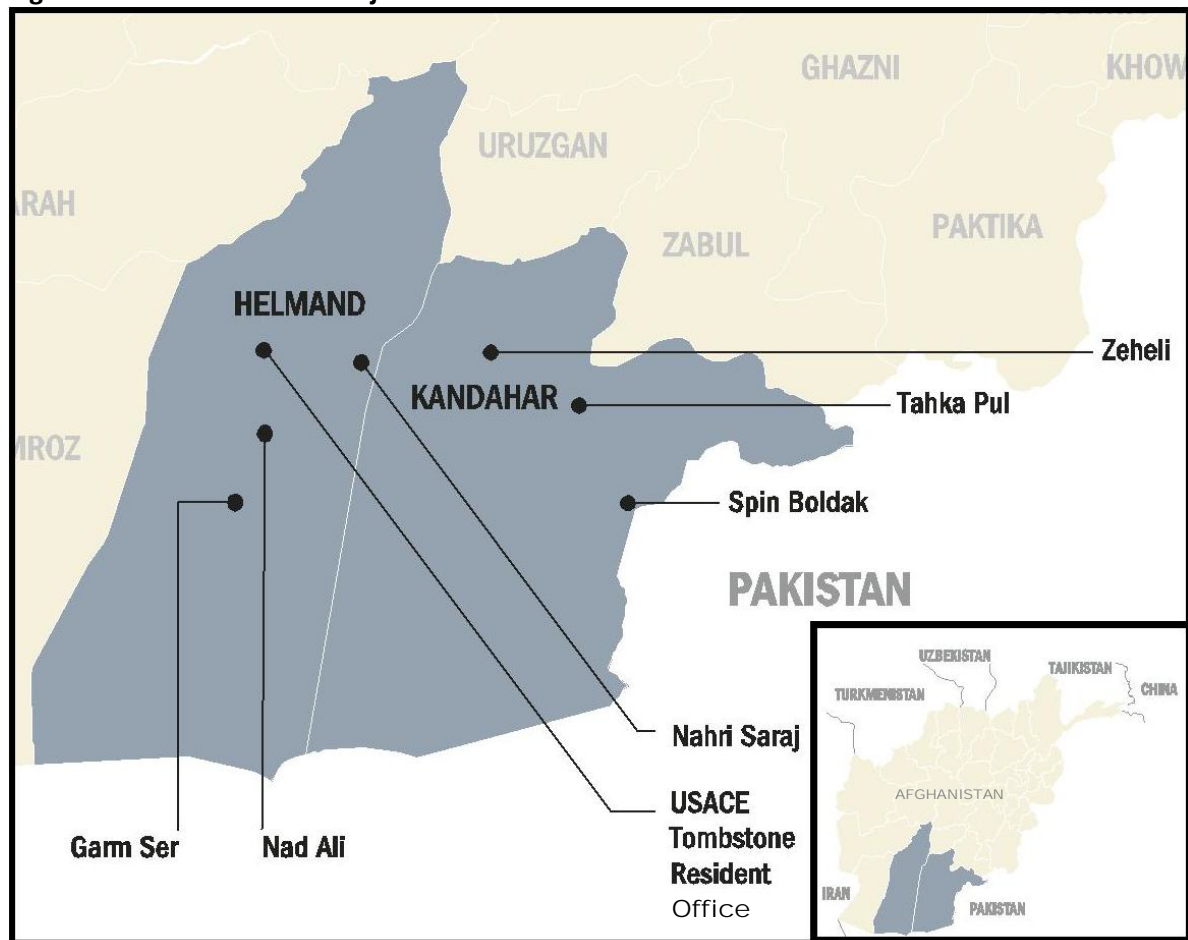
## **BACKGROUND**

Funded at a total original cost of approximately \$5.9 million by CSTC-A, this firm fixed-price contract (W917PM-07-C-0039) to build seven ANP District headquarters was managed and overseen by USACE through its Tombstone Resident Office in Helmand Province.<sup>5</sup> Once completed, these compounds will support approximately 120 police personnel each. On May 9, 2007, the contract was awarded to Basirat Construction, an Afghan-owned company based in Kabul, which began construction in October 2007 in Helmand and Kandahar provinces. Basirat sub-contracted the Kandahar sites to AWCC and the Helmand sites to AMBCC, both Afghan-owned firms. Although the contractor performance period expired on May 24, 2010, the final completion date for construction of the remaining project sites is not known. According to USACE records, the total project was approximately 90 percent complete as of August 2010. Figure 1 shows the location of the six project sites and USACE's Tombstone Resident office.

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<sup>5</sup> The USACE Tombstone Resident Office provided oversight for this construction project and its personnel included a Resident Engineer, Project Engineer, and Quality Assurance Representatives.

**Figure 1: Location of ANP Project Sites and USACE's Tombstone Resident Office**



Source: SIGAR.

According to the contract documents, each completed compound should contain a central headquarters building that includes prisoner holding cells, administrative offices, billeting areas, food preparation and dining facilities, latrines with showers, and an armory. Each compound should also have a perimeter wall, four guard towers, a well house, water storage tank, and fuel storage for both diesel and propane. Photo 1 shows one completed facility at Nahri Saraj.



**Photo 1: Nahri Saraj ANP District Headquarters**



Source: SIGAR, June 24, 2010.

## **PROJECT IS BEHIND SCHEDULE AND INCREASED PROJECT COSTS WILL LIKELY RUN OVER BUDGET**

The project for the construction of the 6 ANP facilities is behind schedule and will likely run over budget due to the significant costs associated with correcting construction deficiencies estimated to be as much as \$1 million. Originally scheduled for completion by January 9, 2009, the project's completion date has been delayed due to three key factors: (1) the project completion date was extended by 500 days to May 24, 2010, due to a contract modification affecting one of the six project sites; (2) delays in construction that resulted from confusion between USACE and Basirat regarding project design issues; and (3) delays following the issuance of two suspension letters issued by USACE, one due to security concerns. While the scheduled payments that USACE has made to the contractor do not exceed the original contract amount, it is unlikely that the contractor can complete the five remaining sites with available contract funds given the costly repairs to correct the numerous construction deficiencies. Although Basirat is liable by contract for correcting deficient work, this may not happen because sufficient contract funds may not have been retained by USACE to correct deficiencies and Basirat may lack incentive due to the fact that they are unlikely to receive additional USACE contracts.

Table 1 shows the original and current award amounts for each site, percentage complete, and the amount of progress payments made as of May 10, 2010.

**Table 1: ANP Project Site Contract Amounts, Percentage Complete, and Progress Payments, as of May 10, 2010**

Construction Site	Original Award Amount	Current Contract Amount	Percentage Complete	Progress Payments
Bughran	\$839,299	\$50,000	Deleted	\$50,000.00
Garm Ser	\$839,299	\$883,729	80	\$703,892.20
Nad Ali	\$839,299	\$883,729	93	\$823,154.05
Nahri Saraj	\$839,299	\$883,729	100	\$881,209.00
Spin Boldak	\$839,299	\$883,729	99	\$881,689.00
Takha Pul	\$839,299	\$883,729	88	\$781,121.30
Zeheli	\$839,299	\$1,047,749	86	\$905,222.20

Source: SIGAR analysis of data provided by AED-S.

As of August 25, 2010, Nahri Saraj has been accepted and turned over to the ANP, Spin Boldak has been cleared for turnover to the ANP, Garm Ser has made nominal progress toward completion, and the other three sites remain idle.

### **Contract Modifications and Other Factors Have Delayed Project Completion**

A series of contract modifications reduced the total number of sites to 6, extended the total construction time by 500 days, and decreased the contract value from \$5.9 million to \$5.5 million. Table 2 provides a summary of these contract modifications.

**Table 2: Contract Schedule and Cost Changes**

Modification	Date	Contract Value Change	Schedule Change	Reason for Modification
P00001	Jan. 7, 2008	\$0.00	0 days	Administrative in nature; added a clause associated with contractor personnel accompanying armed forces personnel outside the U.S.
P00002	Sept. 27, 2008	\$25,089.20	0 days	Provided for additional demolition work necessary at the Spin Boldak and Zeheli sites
P00003	Nov. 18, 2008	\$138,931.00	500 days	Changed the coordinates of the Zeheli site, Impact discussed below
P00004	Apr. 19, 2009	(\$789,299.00)	0 days	Removed the Bughran site from the scope of work
P00005	Dec. 27, 2009	\$266,580.00	0 days	Modified the guard towers at all six sites; dollar amount covered design and materials costs for 24 towers
<b>TOTAL</b>		<b>(\$358,698.80)</b>	<b>500 days</b>	

Source: SIGAR analysis based on AED-S records.

The contract modification (modification P00003) changed the coordinates of the Zeheli site. This shift in coordinates required the contractor to move the project site to another location. While this relocation issue only applied to the Zeheli site, the modification extended the contract completion date for all sites by 500 days to May 24, 2010, and added almost \$140,000 to the total project cost. The reason for the shift in location is not specified in the modification, and AED personnel could not recall the circumstances requiring the change. Although the modification was based on an issue specific to one site, AED-S officials could not provide a reason for the extension of the project completion date by 500 days for all six projects. The same officials noted that, in retrospect, that this decision was a mistake causing the government to lose its leverage to push for the completion of the other project sites in a timely manner.

In addition to this modification, we determined that the USACE plan review process and two suspension letters issued by USACE further delayed completion of this contract. After nearly three years, USACE has not formally approved a single site design plan, including the two sites where construction has been completed. The contract required Basirat to “site adapt” the construction plans provided by USACE to the six different sites.<sup>6</sup> With the exception of the foundation, the contractor is not required to change any part of the building. While the contract did focus on the site adapt nature of the project, SIGAR found elements of the “design build”<sup>7</sup> approach to construction in both the contract and USACE’s review of the construction plans. For example, USACE staff created unnecessary work and delays by reviewing the plans for the interior of the headquarters building that Basirat was not required to design and asked them to make changes that they were not required to make.

<sup>6</sup>“Site adapt” refers to a process whereby the contractor is provided a complete set of construction drawings for a building that can be constructed anywhere with only slight adjustments to the foundation to suit local soil conditions

<sup>7</sup> Under a “design-build” approach to construction, the contractor is responsible for designing the entire project, including the building, then constructing it. See FAR 36.102.

In addition to the delays created by the review process, USACE issued two letters instructing Basirat to suspend work at three of the sites. On October 22, 2008, USACE directed that work be suspended at Garm Ser and Nad Ali due to security concerns. The contract files do not contain correspondence that indicates when the suspension was lifted. On May 29, 2008, another suspension letter was issued to Basirat for the Zeheli site. The letter does not specify the reason for the suspension. This suspension was lifted 124 days later, on September 30, 2008.

### **Basirat Is Unlikely to Cover the Cost of Correcting Construction Deficiencies and Repairs**

Final construction costs will likely exceed current contract amounts due to the numerous construction deficiencies identified at the sites, discussed later in this report.<sup>8</sup> The full extent of construction deficiencies and total repair costs remains to be determined; however, USACE's early estimate of repair costs indicates that the deficiencies we identified may require as much as \$1 million to correct. Basirat is contractually required to address any material deficiencies in construction. However, there is a risk that Basirat may not comply with its obligations for the following reasons:

- As of May 10, 2010, Basirat has been paid just under \$5 million or over 90 percent of the contract value. Because there is less than 10 percent of the contract left to be paid, Basirat has a reduced incentive to continue with construction and correct known deficiencies.
- USACE has largely ignored or poorly executed the mechanism in the contract that enables the government to recoup monies for deficient work. As a result, Basirat has received payment for almost the entire amount of the contract, with little to lose if the company abandons the project.<sup>9</sup> The Federal Acquisition Regulation (FAR)<sup>10</sup> allows the government to withhold a maximum of 10 percent from each pay application submitted by the contractor until a contracting officer's representative can verify satisfactory completion of the work. Despite issuing several letters to the contractor during 2009 that threatened to withhold the maximum retainage allowed by the FAR, due to deficient work and chronic schedule delays, USACE retained only \$27,000,<sup>11</sup> or approximately 0.5 percent of the total contract amount, as of May 10, 2010. According to a USACE contracting officer's representative, retainage was released during a portion of the project because the work had been satisfactorily completed.
- Basirat is unlikely to address identified deficiencies since it might not obtain contract awards from USACE in the future. Since the award of the ANP facilities contract, Basirat abandoned, or has been terminated for default, on the four other contracts awarded by USACE.<sup>12</sup> Additionally, on August 26, 2010, Basirat and Al Watan Construction Company, one of the two major

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<sup>8</sup> Project costs will also increase due to the early occupation of the Nad Ali site by ANSF personnel. In December 2008, a group of ANP personnel forcibly occupied the site, which stopped work. We observed that the ANP occupation caused significant damage to the project including the partial demolition of the roof as well as trash, food scraps, and human waste scattered across the site and inside the buildings.

<sup>9</sup> The contract contains a provision for liquidated damages, to be assessed against the contractor, totaling nearly \$2,000 for each day the project exceeds the final completion date of May 24, 2010. USACE decided to refrain from assessing liquidated damages in "the spirit of partnering and in an effort to avoid any future delay."

<sup>10</sup> See FAR 52.232-5(e), applicable to fixed-price construction contracts such as the Basirat contract.

<sup>11</sup> According to the provisions in the FAR, USACE could have withheld up to 10 percent of each payment to Basirat as retainage. If USACE had done this it would have held nearly \$500,000, as of May 10, 2010, to pay for deficient work.

<sup>12</sup> According to the owner of Basirat, USACE had awarded Basirat a total of 4 contracts, in 2007 and 2008 to construct ANP District Headquarters.

subcontractors working on this project, received suspension letters from the U.S. government based on allegations of illegal activity involving U.S. government construction contracts.

## **ALL SIX SITES FAILED TO MEET REQUIREMENTS OF CONSTRUCTION PLANS AND SPECIFICATIONS**

Our inspection found that construction at each of the six sites failed to meet requirements as established in the contract documents, construction plans, and specifications. The level of non-compliance at each site varied, but overall, our assessment found that the construction can be characterized as poor. Most significantly, we observed structural issues that cast doubt on the facilities' ability to withstand an earthquake, as required by the contract. In addition, metal roofing at all six sites was improperly installed, resulting in large gaps that allow water to seep through and will likely result in subsequent damage to the roof substructure and insulation. Lower-grade materials were substituted for the product specified in the contract documents. For example, residential-grade single-pane, non-tempered, non-laminated windows were used in all headquarters buildings, rather than the required commercial-grade windows that are thermally insulated, tempered, and laminated. AED-S estimates it will cost up to \$1 million alone, to correct the construction deficiencies we identified.

### **Significant Construction Deficiencies Were Common to Multiple Sites**

During our site inspections, we found significant construction deficiencies at multiple sites. Some deficiencies were specific to an individual site, but we also observed similar deficiencies at a number of, and sometimes at all, sites. We also observed numerous cases of product substitution. With regard to poor quality of construction, we observed that substandard in-place concrete and the absence of quality assurance and quality control testing meant that the structures did not meet building code requirements as required in the contract. For example, USACE failed to require foundation designs for 4 of the 6 sites. As a result, USACE lacks adequate assurance that the constructed facilities will not collapse during an earthquake or even under normal loads.

#### Concrete at All Project Sites Appeared to Be of Poor Quality

The contract documents contain detailed information pertaining to the proper preparation, placement, and finishing of reinforced concrete.<sup>13</sup> The requirements pertaining to concrete slump tests,<sup>14</sup> compressive strength, and steel reinforcement placement and concrete coverage must be followed to ensure the structural integrity of the completed facility. We observed poor quality concrete at all sites and found no evidence of quality control testing records to verify that the concrete used in foundations, columns, beams, stairs, and slabs was either mixed or placed properly.

As part of our analysis, we reviewed several photographs submitted by Local National Quality Assurance Representatives (LNQARs) of slump tests being performed and of concrete being placed in the structures. The photos we reviewed revealed that the thin concrete mixture placed in the structure did

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<sup>13</sup> Concrete consists of water, Portland cement, and aggregates in the form of sand and gravel. Different proportions of these ingredients, particularly water and cement, yield concrete of different strengths. Reinforced concrete has steel bars that run through it.

<sup>14</sup> Slump refers to a specific test of a concrete sample to determine the workability and consistency between batches of concrete. A sample of concrete is placed in an inverted steel cone, the cone is removed, and the distance the concrete sample falls or "slumps" is then measured. This test is used to ensure consistent ratios of cement, water, and aggregate between batches, which roughly correlates to consistent concrete strength.

not appear to meet slump test standards, indicating weak concrete. Photo 2 shows a construction worker pouring a watery concrete mixture, not likely to meet concrete test standards, for a roof slab at one of the six sites. Photo 3 shows poor concrete at what appears to be a slab-on-grade at the Garm Ser site.

**Photo 2: Placement of Watery Concrete Mix**



Source: AED-S, no date provided.

**Photo 3: Poor Concrete Slab-on-Grade with No Reinforcement at Garm Ser Site**



Source: SIGAR, June 27, 2010.

The absence of any quality control test results for the in-place concrete, discussed later in the report, creates questions regarding the structural integrity of the entire building. We observed areas of poorly consolidated concrete at each of the six sites. Because the buildings are covered in a stucco coat, many other areas that may contain unconsolidated concrete could not be observed.

Improper installation of steel reinforcement bars within concrete work also posed a significant risk to the structural integrity of some completed buildings. The contract documents provided details on where steel reinforcement should be placed within a concrete structure. For example, on the roof slab, the contract documents indicated that two perpendicular grids of steel reinforcing bars should be placed in the top and bottom portions of the slab and covered with a minimum amount of concrete. At several locations we observed randomly placed reinforcement bars protruding through the roof slab. Randomly placed steel bars do not provide the required structural capacity for the building and exposed steel will corrode and weaken the structure. Photo 4 shows randomly placed steel reinforcement on the concrete roof slab at the Garm Ser site, in breach of contract specifications.



**Photo 4: Exposed Randomly Placed Steel Reinforcing in Concrete Roof Slab at Garm Ser Site**



Source: SIGAR, June 27, 2010.

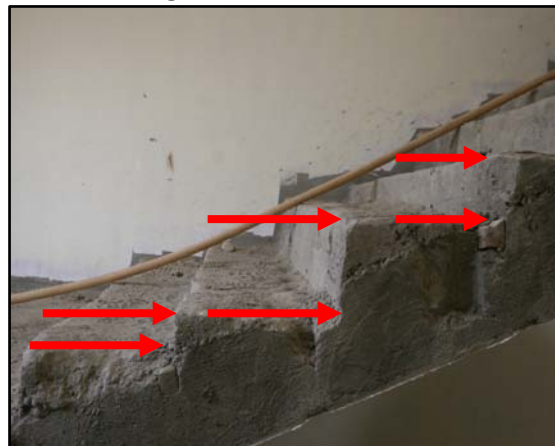
Our inspections found concrete stairs at facilities that were poorly formed, improperly constructed, and comprised of poor concrete with questionable strength. The cast-in-place concrete stairs at all six sites did not conform to the construction drawings either structurally or architecturally. The plans indicated that the stairs were intended to be monolithically cast-in-place reinforced concrete with a curved metal wearing strip embedded at the edge of each step and sealed with a chemical sealant. The treads and risers of the stairs we observed were of varying dimensions. We also observed that the steps were formed separately from the sloped base of the stairs, creating a weakened section that could fail under normal use. Photographs 5 and 6 shows poorly consolidated concrete and improperly formed stairs at Garm Ser.

**Photo 5: Poorly Formed and Consolidated Concrete Stairs at Garm Ser Site**



Source: SIGAR, June 27, 2010.

**Photo 6: Crumbling Concrete Stairs of Different Heights at Garm Ser Site**



Source: SIGAR, June 27, 2010.

## Roof Construction Failed to Meet Contract Requirements

Our inspection of the sites found that the roofing materials and their installation were poor at all sites. Each site where roofing had been installed contained insufficient and improperly constructed framing, lack of flashing,<sup>15</sup> and improper roof panel installation that did not properly weatherproof the structure and could be blown off in high winds. The contract documents and the specifications<sup>16</sup> submitted by the contractor and approved by USACE, require that flashing be installed at all locations where the roof line intersects with a vertical surface or where pipes or vents are installed. Additional requirements include the proper lapping and securing of metal roof panels. We observed deficiencies including a complete lack of proper flashing on the roof, the presence of holes and other damage to the roof panels, improper overlap of roof panels, and large gaps between roof panels. We observed poor timber framing for roof support on all buildings at each site, poorly constructed roof access assemblies on the main headquarters buildings, and poorly constructed pump access hatches on the well houses.

Photograph 7 shows a large gap between the metal roof and the exterior wall at Nahri Saraj that will allow water to penetrate the sub-structure. Photograph 8 shows a damaged roof panel with improperly installed flashing.

**Photo 7: Gap Between Roof Panels and Exterior Wall at Nahri Saraj Site**



Source: SIGAR, June 29, 2010.

**Photo 8: Damaged Roof Panels and Improper Flashing Installation at Spin Boldak Site**



Source: SIGAR, May 16, 2010.

At the Nad Ali site, an ANP unit forcibly occupied the site, demolishing approximately half of the completed roof structure. The remaining portion was poorly constructed, sagging significantly when weight was applied. Photo 9 shows the partially demolished roof at Nad Ali.

<sup>15</sup> Flashing is a thin impervious material used in construction to prevent water penetration and/or provide water drainage, such as between a roof and wall, and over exterior door openings and windows.

<sup>16</sup> Specifications, submitted with construction drawings, are project-specific supplemental documents that provide more technical and precise guidance regarding acceptable materials, procedures, and product performance than the construction drawings alone.



**Photo 9: Partially Demolished Roof at Nad Ali Site**



Source: SIGAR, June 22, 2010.

### **Instances of Product Substitution Were Common to All Six Sites**

All six sites of the project were affected by product substitution. We observed multiple cases of product substitution where the contractor used materials that were inferior to those required by the contract. The most notable example of product substitution pertained to the substitution of window products, at all sites, both in the headquarters buildings and the guard towers. In addition, we observed instances of substitution of plumbing fixtures, including faucets, lavatory sinks, and kitchen sinks.

#### Window Substitutions and Improper Installation Were Common

The contract requirements indicated that the windows in the headquarters buildings should be commercial-grade, insulated windows with laminated glass and exterior insect screens. The installed windows in the headquarters buildings at all six sites were not as specified. We found inferior, residential-grade window frames that operated with difficulty and appeared to be easily damaged. Many window frames did not contain glass and, if glass was installed, it was single-pane, non-laminated glass. In addition, none of the required insect screens were installed at any of the six sites. At 4 of the 6 sites, the windows were not only lesser quality, but many were smaller than required. At 3 of the 6 sites, window installation was poor with large gaps between the rough openings in the wall and the installed window frame. One window at Garm Ser was installed with a gap so large that the window had to be supported by rocks (see photo 10).

**Photo 10: Poorly Installed Window  
Supported by Rocks at Garm Ser Site**



Source: SIGAR, June 28, 2010.

Left in place, these inferior windows and the poor installation will create significant problems for the facilities in the future, including excessive energy use and replacement demands. AED-S estimated the cost of correcting this deficiency at more than \$120,000. Photo 11 shows a poorly fitted window typical of the installation at Takha Pul.

**Photo 11: Poorly Installed Window at  
Takha Pul Site**



Source: SIGAR, May 16, 2010.

**Photo 12: Ballistic Glass Shattered by  
Bullet at Nahri Saraj Site**



Source: SIGAR, June 24, 2010.

The contract requirements further state that the windows in all the guard towers and guard shacks must be of ballistic quality. With the exception of one location where windows were installed, we observed inferior, residential-grade, single-pane windows in place of the required ballistic glass. At Nahri Saraj, the only site where ballistic glass was installed, one window had been shattered by the impact of a bullet (see photo 12).<sup>17</sup> At the Spin Boldak site the window opening was filled with concrete blocks, which eliminated the ability to see that avenue of approach when he is inside the guard tower.

#### Plastic Faucets Will Break Over Time

The contract required that all faucets be chrome-plated brass with a single mixing lever. We found that at the four sites where faucets were installed, none met the specification requirements. At two of the sites, dual-handle residential-grade plastic faucets were installed. Chrome-plated faucets were installed at the other two sites, but they appeared to be residential grade and also had two handles. At all four sites, the installed faucets did not appear to be able to withstand the heavy use expected at this type of facility. Photo 13 shows the plastic, "goose-neck" faucets that do not meet contract requirements, installed at Takha Pul.

**Photo 13: Residential Grade "Goose-Neck" Faucets at Takha Pul Site**



Source: SIGAR, May 16, 2010.

#### Undersized Scullery Sinks Found at Three Sites

At 3 of the 6 sites, the scullery sinks installed did not meet contract requirements or specifications. The contract and specifications required stainless-steel, free-standing sinks capable of accommodating a 3-foot diameter pot. None of the sinks we inspected met either of these specifications. Instead, the sinks installed were counter mounted and appeared to be approximately 6 to 9 inches deep and of residential quality. At the Nahri Saraj site, SIGAR observed ANP kitchen staff preparing food in pots approximately 2 feet in diameter. Photo 14 shows the substituted, undersized scullery sink at the Nad Ali site.

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<sup>17</sup> It is unclear if the ballistic glass installed met the 16-millimeter specification contained in the contract.

**Photo 14: Residential Grade Undersized Scullery Sink at Nad Ali Site**



Source: SIGAR, June 22, 2010.

#### Pedestal Sinks Rather than Trough-Style Sinks Were Installed at Four Sites

The contract and construction documents specify that sinks throughout the project are to be trough-type sinks constructed of concrete blocks with a tile exterior; however, at 4 of the 6 sites, residential-grade porcelain sinks were substituted. AED estimated that it will require approximately \$30,000 to correct this deficiency. According to USACE officials, Afghan men often stand or sit on the sink to wash their feet, frequently breaking the porcelain pedestal sinks installed in ANP facilities. Photo 15 shows an unauthorized residential-grade porcelain sink and photo 16 shows a properly constructed trough-style sink at Nad Ali.

**Photo15: Unauthorized Pedestal Sink at Nad Ali Site**



Source: SIGAR, June 22, 2010.

**Photo16: Properly Constructed Trough-Style Sink at Nad Ali Site**



Source: SIGAR, June 22, 2010.

#### Hand-Washing Sinks Were Omitted from All Six Facilities

According to contract requirements, trough-style hand-washing stations were to be located in the vestibule of the dining area. This requirement was overlooked by both the contractor and USACE. None of the construction drawings indicated hand-washing stations, and all six projects were constructed without this feature. The lack of sinks could lead to poor hygiene and the spread of illness throughout the police unit.

#### **Each Site Has Additional Specific Construction Deficiencies, Substitutions, and Omissions**

In addition to identified deficiencies and substitutions at multiple sites, we observed significant construction deficiencies, product substitutions, and omissions unique to individual sites. Construction deficiencies ranged from make-shift connections for ladders on the guard towers to air conditioner hoses pulled through broken windows. Instances of product substitution ranged from the use of multiple smaller gas cylinders in lieu of one 5500-liter tank, to the use of windows smaller than those indicated on the plans. Omissions include approximately 1,400 linear feet of concrete channel, required to control seasonal flooding at Spin Boldak, to required landscaping. Table 3 provides a list of site-specific key deficiencies we identified during our site visits.

**Table 3: Site-Specific Deficiencies**

Site	Deficiency
<u>Garm Ser</u>	<ul style="list-style-type: none"> <li>Plumbing installed on top of second-story slab and back filled with unknown material.</li> <li>Masonry walls on the pump and well houses not plumb.</li> </ul>
<u>Nad Ali</u>	<ul style="list-style-type: none"> <li>Kitchen layout and counters not according to construction drawings, with the cook top constructed on an interior wall with no place to run the exhaust vent.</li> <li>Lack of tamper-proof plumbing fixtures in prisoner holding cells.</li> <li>Cracks in masonry walls throughout the project.</li> <li>Interior gas-line hanging unsupported across a room.</li> </ul>
<u>Nahri Saraj</u>	<ul style="list-style-type: none"> <li>Electrical wiring run into a building through a knocked-out hole in the exterior wall.</li> <li>Under-sized and poorly constructed storm water outlet structures.</li> <li>Inadequate exhaust hood, approximately 1/8<sup>th</sup> of the required size, powered by an extension cord. Cooking area with propane cylinders located in the kitchen. Cook top constructed on the wrong wall.</li> <li>Per contract requirement, the contractor provided, and the USACE reviewed and approved a detailed landscape plan that included trees, grass, shrubs, and sidewalks. However, the project was accepted and turned over with no landscaping installed.</li> </ul>
<u>Spin Boldak</u>	<ul style="list-style-type: none"> <li>Plastic plumbing pipe exposed in bathrooms.</li> <li>Gas-fired heaters and gas supply piping with hand valves in prisoner cells.</li> <li>Omission of approximately 1400 linear feet of concrete channel for storm water runoff.</li> <li>Substitution of 30 portable propane cylinders for the required single 5500 liter tank.</li> <li>No landscaping installed as required by the contract.</li> </ul>
<u>Takha Pul</u>	<ul style="list-style-type: none"> <li>Plastic plumbing pipe exposed in bathrooms.</li> <li>Electrical manholes with no conduit run to them.</li> <li>Large gaps under exterior doors.</li> <li>Windows intentionally broken to run air conditioning hoses out of the building.</li> <li>Downspouts mounted to the side of the guttering rather than the bottom.</li> </ul>
<u>Zeheli</u>	<ul style="list-style-type: none"> <li>Gaps and warping of fascia and soffit.</li> <li>Poor masonry work on north perimeter wall.</li> <li>Trench drain in kitchen area omitted.</li> <li>Large sections of concrete missing from roof perimeter.</li> <li>Poorly consolidated cast-in-place concrete septic tank with cold joints.</li> <li>Poorly constructed diesel fuel tank support cradles with rebar protruding.</li> </ul>

Source: SIGAR observations at six sites.

Normally, there are two options available to address these deficiencies. First, USACE could insist that the contractor correct the deficiencies at its own cost as required by the contract. Second, USACE could accept the substandard work and reduce the contractor's payment or bill for the difference. USACE officials stated it is unclear whether either of these options will be available because Basirat has little financial incentive to correct the deficiencies and USACE has limited ability to require that the repairs be made.

We were unable to determine the full extent of the construction deficiencies at all six sites. An in-depth engineering analysis of each site will be needed to reveal additional construction deficiencies beyond those observed during our site visits. Such an assessment would determine the full extent and severity of the identified structural issues at each site and provide conclusions regarding the structural integrity of each facility, including its ability to meet the seismic standard specified in the contract. These facilities do not meet the contract requirements concerning building code compliance, specifically earthquake codes, and a determination will need to be made to either turn over a structurally deficient and non-code compliant facility or to demolish it and start over. The results of an in-depth engineering evaluation would provide the needed information to make such a determination.

In commenting on a draft of this report, USACE reported that site visits were conducted at three of the project sites between September 27 and October 11, 2010. USACE provided information in its comments on the status of the site-specific deficiencies. These comments are reproduced in appendix III.

## **PROJECT OVERSIGHT DID NOT COMPLY WITH USACE STANDARDS IN PART DUE TO SECURITY CONCERNS**

Our analysis revealed numerous instances where both USACE and Basirat failed to meet the oversight requirements, in part due to the volatile security condition around each site. Project oversight is a collaborative effort by the contracting agency and the contractor. Basirat was required by the contract to implement certain quality control measures. As the contracting agency, USACE was required to implement quality assurance measures designed to verify that the contractor's quality controls were properly implemented. Appendix II provides a detailed description of USACE's quality assurance policies and procedures and its expectations regarding contractor-developed quality control systems. Our analysis revealed that Basirat generally failed to implement required quality control measures such as quality control testing, three-phase inspections of definable features of work,<sup>18</sup> and daily quality control reporting. Further, USACE generally failed to comply with its quality assurance procedures, including the requirement to conduct periodic quality assurance testing, file daily quality assurance reports, and review and approve pay applications on the basis of adequate evidence of job progress. This general lack of quality assurance oversight can be attributed to security conditions at each site; limited site visits and poor training provided to LNQARs; and AED's reorganization, which led to staffing and organizational issues that hampered project oversight efforts.

### **Project Oversight Deficient in Several Areas**

Proper oversight is the government's key safe guard to ensuring that U.S. tax dollars are not put at risk. Although oversight measures were developed by both USACE and Basirat, in accordance with USACE policy, the measures were not effectively implemented and oversight was not performed properly. We attribute the construction deficiencies to Basirat's negligence in provide oversight of their subcontractors, USACE staff's poor project oversight, and LNQARs lack of training and inability to visit sites regularly.

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<sup>18</sup> USACE construction projects are broken down into definable features of work that provide the key elements of construction at each project site. Typical examples of DFOWs for a project such as this are site utility installation, reinforced concrete construction, electrical installation, and roof construction, to name a few. Three-phase inspections are required for all definable features of work and consist of a preparatory, initial, and follow-up inspection.



#### Basirat Failed to Perform Quality Control Testing as Required

Although the contract required that Basirat develop a quality control plan and conduct quality control testing throughout the project, Basirat did not comply with the plan or perform adequate quality control testing. Required tests include soil density tests, compressive strength tests of concrete and mortar, and radiographic weld tests. Basirat personnel supplied SIGAR with 31 copies of transmittal forms which indicate QC test results were entered into the USACE Quality Control System (QCS). However, no evidence of the actual test results could be produced by either Basirat or USACE. Basirat attributed the lack of testing, in part, to the remote nature of some of the sites and the fact that no laboratory existed in the area.

#### Basirat Failed to Conduct Required Three-Phase Inspections

Both the contractor's quality control plan and the supplemental quality assurance plan prepared by USACE identify 38 DFOWs for each site. In total, 684 inspections should have been performed under the three-phase approach. However, the data supplied to SIGAR by USACE did not contain a single completed inspection. The absence of three-phase inspections limits USACE's knowledge of quality control testing performed and quality of the work.

#### Basirat Failed to File Daily Quality Control Reports

The contractor quality control plan requires that the contractor file daily quality control reports with USACE. These report forms identify what activities occurred on the site for any given day and lists what quality control tests were performed. Our analysis revealed that these reports had not been filed since the early months of 2008 for some sites and not at all for other sites. Without these reports, USACE has little to no basis for knowing what progress has been made or what tests have been completed on any given project, leaving little assurance that the contractor met the contract requirements.

#### USACE Failed to Perform Quality Assurance Testing

The supplemental quality assurance plan states that "Government testing of material will be performed as needed to ensure contract compliance or to verify questionable quality control test results," and identifies 10 areas of work that require quality assurance testing. This means that when the LNQR is not satisfied with the contractor's quality control testing frequency or results, he can require the laboratory to perform additional tests at no cost to the government. However, USACE did not perform any required quality assurance tests. Therefore, USACE had no way of knowing if the concrete used in a building met compressive strength requirements, if the water or gas lines would leak, or if the welds on the propane or diesel tanks would hold.

#### USACE Failed to Consistently File Daily Quality Assurance Reports

Daily USACE prepared quality assurance reports were not consistently filed or were of low quality. USACE operated without on-going progress reports that provide the basis for identifying and remedying construction problems as they occur. These reports also provide a key means for monitoring and ensuring that required quality assurance testing, quality control testing, and three-phase inspections are carried out. According to the USACE supplemental quality assurance plan, when LNQRs are used to provide oversight, the Chief Quality Assurance Representative is required to ensure that the U.S. government is represented a minimum of 80 percent of the time at the three-phase inspections preparatory meetings for projects. However, USACE had no documentation that any such representation occurred at any of the sites. During SIGAR site visits, Garm Ser, the only site where



construction was underway, did not have an LNQAR present or assigned to the job. Table 4 represents the limited number of daily quality assurance reports filed by LNQARs. A quality assurance report should have been filed every day of the month.

**Table 4: Daily Quality Assurance Reports Submitted by Month and Project Site**

	Month																																		
Site	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Total Number of reports submitted	% of required number of reports submitted
Nahri Saraj	0	0	0	0	0	0	0	2	3	4	2	0	0	0	0	0	0	0	0	0	0	0	15	6	27	17	23	24	6	1	0	1		131	21.10%
Nad Ali	0	0	0	0	0	0	0	6	0	1	6	2	0	0	0	4	0	0	0	0	8	3	3	3	4	4	1	3	3	4	4	0	1	60	9.22%
Garmsir	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.31%
Spin Boldak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	8	0	0	13	12	13	13	24	0	18	24	22	23	22	18	0	230	35.33%
Tahkapul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	5	0	0	0	0	5	0	18	2.76%
Zeheli	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	31	0	49	7.53%	

Source: SIGAR Analysis of USACE quality assurance reports for the 6 ANP sites.

#### USACE Approved Pay Applications Without Sufficient Evidence that Work Was Satisfactory

USACE processed pay applications and made payments without sufficient evidence that work had been satisfactorily completed. According to the USACE District Level Quality Assurance Plan (DLQAP), one of the responsibilities of the Area Engineer and the Resident Engineer is to “ensure that all payments to contractors are fair and justified by actual product received by the government, realizing that default by contractors in theater (Afghanistan) happens frequently.” However, pay applications were processed based on incomplete or non-existent quality assurance reports and progress photographs submitted by the LNQARs and the contractor. Several of the photographs, which are required to be date-stamped, had dates that were digitally altered or erased. In September 2010, we alerted AED-S to the existence of these altered photos. According to AED-S officials, an investigation has been initiated to determine the source and nature of the photographs. In several cases, payments were made despite photographs submitted by LNQARs that called attention to deficient work.

#### **Security, Unqualified LNQARS, and Reorganization Contributed to Poor Oversight**

Three key factors contributed to the poor level and quality of USACE oversight: (1) lack of security at the sites, which hindered USACE personnel, and at times LNQARs, from conducting extended inspections or prevented travel to the site; (2) the performance and training of the LNQARs assigned to the sites was both inconsistent and inadequate; and (3) AED’s reorganization into AED-N and AED-S, led to organizational and staffing issues that affected USACE’s ability to provide adequate oversight.

#### Security Concerns Cited as the Main Challenge to the Execution of Proper Oversight

USACE staff identified security concerns as the overriding factor limiting their ability to provide comprehensive oversight; however, SIGAR found that security assets available to USACE staff could have been used to provide a greater level of project oversight. Historically, Helmand and Kandahar Provinces have seen the highest concentrations of insurgent activity since the start of the war in 2001. Indirect fire—in the form of mortars and rockets, small arms fire, improvised explosive devices, car bombs, suicide bombers, kidnappings, and hijackings—have all remained constant threats throughout both provinces.

According to USACE personnel, the inherent security risks associated with operating in a contingency environment affected the ability of USACE personnel to perform regular site visits; restricted the contractor's ability to receive regularly scheduled shipments of building materials, and, at times, affected the LNQAR's ability or willingness to perform their duties for fear of their personal safety. At the time of our site visits to Zeheli and Nad Ali, AED-S personnel had not visited the two sites in nearly one year. The other four sites had not been visited in more than 4 months. Although USACE does not have a policy that dictates the number of times staff are required to visit a construction site, there is an expectation at USACE to conduct enough visits to meet the standards of oversight discussed in USACE guidance and quality assurance plans.

If the available resources for secure movement had been used, the number of visits by USACE staff to project sites could have been increased. Since January 2009, USACE has maintained a contract with Global Strategies to provide protection and transportation for USACE personnel.<sup>19</sup> On a daily basis, Global Strategies personnel determine what level of effort would be involved to move safely around the country. Once the risk is assessed, a decision is made on the assets needed to safely conduct a mission. According to Global Strategies personnel, while the security threat level may prevent the execution of a particular mission, which they stated rarely happens, they have never reached the limit of their operational capacity to move or protect USACE personnel when requested.<sup>20</sup>

In addition, three of the construction sites, Garm Ser, Nad Ali and Zeheli, are located adjacent to coalition force forward operating bases (FOBs). A fourth site, Nahri Saraj, is located within 2 kilometers of a FOB. Coalition force rotary wing aircraft make regular flights to many of the FOBs and coalition force personnel located at the FOBs adjacent to two of the sites expressed a willingness to assist in any way possible to ensure the completion of the projects. In one case, U.S. Marine forces offered to provide security for USACE site visits and provide in-person validation of construction progress when needed. AED-S personnel confirmed that no attempt had been made during the project to use local coalition force personnel for support. ISAF guidance, outlined in the counterinsurgency (COIN) contracting guidance, directs commanders to "know what contracting activity is occurring in their battlespace and who benefits from those contracts."<sup>21</sup> The guidance further directs commanders to "integrate contracting activity into intelligence, plans, and operations to exert positive influence and to better accomplish our campaign objectives."

#### LNQARs Failed to Provide Adequate Oversight Due to a Lack of Training and Security Concerns

The generally low quality or quantity of training received by the assigned LNQARs affected their ability to provide adequate oversight. USACE did not begin to document the training received by LNQARs until August 2010; however, according to USACE officials, the experience and knowledge of the LNQARs was insufficient to adequately oversee the projects. Former Resident and Area Engineers associated with this project indicated that LNQAR safety also played a role in their ability to provide proper oversight. It is not uncommon for Taliban forces to target individuals who have been identified as working for coalition force entities. USACE personnel indicated that being in possession of a digital camera or laptop computer can be enough to warrant harassment, kidnapping, or death. A former USACE Area Engineer attributed the limited number of pictures taken by one LNQAR to his fear of being seen with a camera. According to AED-S personnel, because LNQARs are contracted, they are not afforded security by

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<sup>19</sup> Prior to this time, coalition force support alone met USACE's security requirement.

<sup>20</sup> According to Global Strategies personnel, the only two situations that would raise the threat level high enough to prevent the execution of a mission would be insurgent occupation of the project, or coalition force enemy engagements around the vicinity.

<sup>21</sup> Battlespace is a commander's geographic area of responsibility.

USACE. Rather, as one USACE personnel stated, “they travel on their own, surviving on their own wits and good judgment.”

#### AED Reorganization Contributed to Oversight Challenges

Another factor contributing to the lack of oversight was the August 2009 split of AED into AED-N and AED-S. According to AED-S officials, the reorganization of AED into two districts contributed to project management and oversight problems in part because certain oversight responsibilities and program files had to be transferred from AED-N to AED-S. AED-S staffing in August 2009 was about 40 individuals compared with an authorized staffing of 299. As of August 2010, AED-S had approximately 235 staff, and according to USACE officials, contract management and oversight have improved as a result.

### **CONCLUSION**

Significant challenges to the completion of the USACE project to construct 6 ANP facilities in Helmand and Kandahar Provinces included the award of a project to an inexperienced Afghan firm, the location of project sites in relatively remote and less secure locations, and constraints on the movement and deployment of USACE staff that resulted in the provision of limited oversight over the past 36 months of construction. Security concerns posed significant challenges; however, available security assets, including local coalition force units, were not fully utilized. In addition, USACE authorized payments without sufficient justification and failed to retain adequate project funds as a hedge against poor contractor performance. As a result of poor contractor performance and USACE’s failure to implement its own quality assurance procedures, the U.S. government may be responsible for at least \$1 million in repair costs to address the construction deficiencies we identified. These deficiencies were both extensive and unacceptable from a structural and safety standpoint. As the United States continues to implement its policy of awarding more construction contracts to Afghan firms in remote or insecure areas, USACE will need to ensure that adequate oversight is conducted to safeguard U.S. reconstruction funds and provide suitable facilities for ANSF troops.

## RECOMMENDATIONS

We are making 6 recommendations to the USACE Commanding General to address the full range of construction deficiencies and help USACE prevent payment and performance problems on future construction projects.

To help ensure that construction complies with applicable contract and construction standards, SIGAR recommends that the USACE Commanding General, in coordination with CSTC-A and USFOR-A, direct AED-S to:

1. Perform complete engineering evaluations of each of the six ANP project sites to determine the required level of reconstruction and repair needed to comply with the requirements of the contract.
2. Pursue all available options to obtain necessary repairs by Basirat or recoup costs if the repairs are not made.

To help ensure that identified construction deficiencies in future projects will be paid for by the responsible contractor, instead of the U.S. government, we recommend that the USACE Commanding General, in coordination with CSTC-A and USFOR-A:

3. Require that the maximum amount of retainage allowable by the FAR (10 percent) be withheld from each payment for projects where information on the construction progress and quality is obtained primarily through the contractor or LNQRs and where the contracting officer determines that satisfactory progress has not been made.
4. Institute a requirement for USACE personnel to conduct site visits and verify payments for construction progress if the completed work has only been verified by photographs taken by the contractor or where the information provided by the LNQR does not meet USACE quality assurance reporting standards.

To improve the management and oversight of similar USACE construction projects, we recommend that the USACE Commanding General, in coordination with CSTC-A and USFOR-A:

5. Ensure compliance with USACE quality assurance standards on this and related projects, by directing AED-S to require quality assurance representatives to file daily quality assurance reports, ensure three-phase testing is implemented, and perform and record quality control testing.
6. Direct AED-S to develop a process and procedure for coordinating with local coalition force units to (a) help confirm construction progress claims, and (b) determine the feasibility of using coalition force assets to supplement security and transportation needs.

## COMMENTS

USACE provided written comments on a draft of this report. These comments are included in appendix III. In its comments, USACE provided updated information on the project's construction progress. It concurred with the majority of the recommendations, but expressed concerns with two recommendations. USACE agreed that construction had not met requirements; however, it does not share our concerns regarding the ability of the facilities to withstand earthquakes. It also agreed to take action to repair the poor construction and to improve its oversight. However, it stressed that security conditions have made it very difficult to perform visits to construction sites.

USACE did not concur with our recommendation to recoup costs from the contractor, claiming that the contractor was making necessary repairs and that some of the construction had been damaged by hostile fire and was not the fault of the contractor. However, based on our work, it is clear that much of the necessary repairs are due to poor construction. Based on its comments, we amended our recommendation to focus on requiring the contractor to make all repairs and to use all available options to recoup the costs if the repairs are not made. To avoid waste and abuse, SIGAR maintains that U.S. agencies must hold contractor accountable for results.

USACE also did not concur with our recommendation to withhold payments until verification that construction has been completed according to contract requirements. USACE said that this would negatively affect Afghan firms. SIGAR continues to believe that withholding payments until it has been determined and verified that the contractor has met requirements is a prudent measure to protect the U.S. taxpayer and meet reconstruction objectives, and prevent waste and abuse of U.S. reconstruction dollars. However, we have changed the wording of our recommendation to emphasize the importance of withholding final payments when USACE has concerns that contractor performance and progress may not be satisfactory.

CENTCOM, USFOR-A, and CSTC-A did not comment on a draft of this report.

## APPENDIX I: SCOPE AND METHODOLOGY

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This report provides the results of the Office of the Special Inspector General for Afghanistan Reconstruction's review of a contract funded by the Combined Security Transition Command-Afghanistan (CSTC-A) and implemented by the U.S. Army Corps of Engineers (USACE) to complete six Afghan National Police district headquarters in Helmand and Kandahar Provinces. This report assesses (1) whether the project is being constructed within the schedule and cost terms of the contract; (2) if the construction is being completed in accordance with the approved plans and specifications; and (3) the nature and adequacy of USACE contract administration and construction oversight.

To examine whether the project was being completed within the schedule and cost terms of the contract, and if construction was being completed in accordance with approved plans and specifications, we met with officials from Afghanistan Engineer District South (AED-S), the prime contractor, Basirat Construction Firm, and Global Strategies Group. We reviewed the final contract documents including statements of work, notices to proceed, and modifications. We conducted site inspections of all six sites between May 16, 2010, and June 29, 2010. We inspected the interior and exterior of all buildings as well as the grounds within the perimeter wall against the requirements outlined in the contract and supporting documents. Site inspections were documented with video and still photography. We used computer-processed data from the U.S. Army Corps of Engineers' Resident Management System to determine the progress and payments made to date. In addition, the Resident Management System provided information on issues and challenges for each site. We reviewed electronic project files provided by AED-S.

To examine the contracting process and project oversight, we met with officials from AED-S. We reviewed criteria and guidance in the FAR and the AED-S District Level Quality Assurance Plan (DLQAP) for construction to determine if the contracting process and oversight of the contract met requirements. Additionally, we reviewed AED guidance to determine the roles and responsibilities for AED personnel. We reviewed the quality assurance and quality control plans and compared them to DLQAP guidance for compliance with USACE standards. We reviewed all related quality assurance and quality control reports supplied by AED-S for adherence with standards. Finally, we reviewed whether three-phase inspections were conducted for each definable feature of work listed for each project site.

This report is one in a series of SIGAR performance audits focused on reconstruction contract outcomes, costs, and oversight. We conducted work in Kabul, Spin Boldak, Garm Ser, Takha Pul, Zeheli, Nahri Saraj, Nad Ali, Forward Operating Base Tombstone, and Kandahar, Afghanistan, from May 2010 to September 2010 in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The audit was conducted by the Office of the Special Inspector General for Afghanistan Reconstruction under the authority of Public Law No. 110-181, and the Inspector General Act of 1978, as amended.

### Use of Computer-Processed Data

We used computer processed data from the USACE's Resident Management System to determine the progress and payments made to date for each contract we reviewed. In addition, the Resident Management System provided information on issues and challenges for each contract. We were unable to verify information in the system with hard-copy contract files because only electronic files exist.

## **Internal Controls**

In conducting the audit, we assessed certain internal controls pertinent to the audit objectives regarding the administration and oversight of the project. Specifically, we identified and reviewed internal and management control procedures required by the FAR and the AED-S's District Level Quality Assurance Plan for Construction, dated December 15, 2008. We relied on available documents in the contract files and analyzed these documents to determine if the internal controls for this project were adequate. The specific results of our review are contained in the body of the report.



## APPENDIX II: OVERVIEW OF USACE QUALITY ASSURANCE SYSTEM

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USACE's quality assurance system centers on the district-level quality assurance plan (DLQAP) for construction that each of USACE's district offices prepares using a common model. AED-S issued its DLQAP on December 15, 2008, to mark its creation as a separate district office. Prior to the creation of AED-S, the plan developed by USACE's district office in Kabul was in effect. Key oversight requirements described in these plans include the need for:

- Supplemental quality assurance and quality control plans for each construction project prepared by USACE and contractor staff, respectively;<sup>22</sup>
- Quality assurance and quality control reports that are typically prepared on a daily basis by USACE and contractor staff;
- Quality assurance and quality control testing;
- Three-phase inspections conducted by contractor staff and overseen by USACE quality assurance staff to ensure that each project's definable features of work (DFOW)<sup>23</sup> meet all statement-of-work and technical requirements.<sup>24</sup> Quality assurance reports, quality control reports, and USACE's Resident Management System database provide the key means for determining whether planned oversight actions, as detailed in the supplemental quality assurance plans and quality control plans, were implemented.

Each district within the USACE maintains a DLQAP. The DLQAP is a broad-scoped, umbrella plan that identifies chain of command responsibilities from the District Commander down to the Quality Assurance Representative. In addition to personnel responsibilities, the DLQAP outlines each quality assurance measure which the USACE implements such as a general description of definable features of work, quality assurance reports, quality assurance testing, three-phase inspections, deficiency tracking, and contractor quality control testing and daily reporting. The DLQAP also defines programmatic measures associated with the project, which covers submittal procedures, contract administration, standardized file structure, scheduling, completion, turn-over, and sustainment of projects.

The Supplemental Quality Assurance Plan is a project-specific version of the DLQAP that describes in detail specific personnel responsibilities, definable features of work, scheduling, and testing.

The Contractor's Quality Control Plan describes how the contractor will implement a quality control system to guide construction activities throughout the life of the project. Its main purpose is to ensure all construction activities comply with the requirements of the scope of work and technical specifications. The DLQAP says that the USACE resident office must review and approve the quality control plan before construction work is initiated. The plan should include (1) the contractor's quality control organization, (2) personnel listing, (3) details on the submittal process, (4) testing plan, (5) three-

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<sup>22</sup> The purpose of a quality assurance system and plans is to verify the effectiveness and accuracy of the contractor's control over the quality of work required by the contract. The project engineer has the responsibility for proper implementation of the quality assurance program, which ensures that the quality control system is effectively serving this purpose.

<sup>23</sup> A DFOW is a task that is separate and distinct from other tasks and has separate control requirements.

<sup>24</sup> Other elements of USACE's quality assurance system include contractor work order submittals, contractor invoice submissions, payment requests based on percentage of work completed, contractor performance assessments, and a "lessons learned" tracking system.



phase inspection plan, (6) details on the construction and design deficiencies tracking system, (7) reporting procedures, and (8) a list of DFOWs.

As described in the DLQAP, USACE quality assurance representatives should visit the construction sites as often as practical. Each visit must be documented with a quality assurance report following a prescribed “checklist” format to ensure that a series of data fields are addressed even if the answer is “not applicable.” Key data fields that should be addressed include the contractor’s quality control activities, developments that may lead to a change order, disagreements with the quality control report, progress of work and the cause/extent of delays, results of quality assurance inspections and testing, and Quality Assurance Representative (QAR) comments relating to specific DFOWs.

Two of the key quality assurance elements are the list of DFOWs and the associated three-phase inspection process. The list of DFOWs is generated by USACE as part of the Supplemental QAP. DFOWs are project specific activities necessary for the proper completion of any given project. The supplemental QAP for this project identified 42 DFOWs ranging from de-mining activities, to electrical wiring installation, to road and parking lot construction. For each DFOW, a three-phase inspection is required to be performed by the contractor and observed by the QAR. The three-phase inspection process requires that a preparatory, initial, and follow-up phase be performed for each inspection. The preparatory phase is designed to verify that the contractor is prepared to perform the DFOW. The QAR ensures that the contractor has the proper equipment, materials, and personnel onsite prior to commencement. Additionally, he ensures that the contractor understands what the DFOW is and how it is to be performed. The initial phase consists of the QAR performing an early inspection of the work completed to ensure that the contractor understood and is properly executing what was discussed in the preparatory phase. The follow-up phase is an ongoing effort to ensure that the DFOW is performed properly through completion.

Key elements of USACE oversight are daily quality assurance reports. The DLQAP requires that daily reports be filed, which identify several key elements of construction activity. The QAR is required to submit a daily report that includes information such as narratives on the contractor’s quality control activities, controversial matters, developments that may lead to change orders, disagreements with the contractor’s daily quality control report, construction activity, visitors who come to the site, and safety inspection results. These reports are the project engineer’s only link to daily developments on the site.

In addition the daily quality assurance reports, the contractor is required to file daily quality control reports. These reports should contain information related to the three-phase tests, quality control tests, and general construction activity. Quality control tests are critical to ensure that the contractor is complying with the performance terms of the contract and not cutting corners. Tests that verify concrete slump and compressive strength are particularly crucial when concrete and concrete masonry units are produced by the contractor on site. Without these tests, it is nearly impossible to verify if a structure will even remain standing after a seismic event. Additional quality control tests such as water and gas system pressure tests, to determine if pipes leak, soil density tests, to ensure that settlement of roads or buildings does not occur, or radiographic weld tests, to ensure that fuel tanks do not fail, are all critical elements of a good quality control program.

## APPENDIX III: COMMENTS FROM U.S. ARMY CORP OF ENGINEERS



DEPARTMENT OF THE ARMY  
U.S. Army Corps of Engineers  
441 G Street, NW  
Washington DC 20314-1000

REPLY TO  
ATTENTION OF:

CEMP-TAD

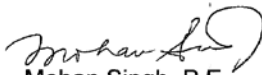
19 2010

MEMORANDUM FOR Office of the Special Inspector General for Afghanistan Reconstruction,

SUBJECT: U.S. Army Corps of Engineers (USACE) Response to the Draft Report ANP District Headquarters Facilities in Helmand and Kandahar Provinces Contain Significant Construction Deficiencies Due to Lack of Oversight and Poor Contractor Performance.

1. The U.S. Army Corps of Engineers (USACE) welcomes the opportunity to review the draft report.
2. USACE concurs with the majority of the recommendations in the report and understands the intent of the remaining recommendations. However, USACE considers that certain recommendations would be impractical to implement without exceptions for certain projects in select locations, and in one case the recommendation would be inconsistent with U.S. capacity development and counterinsurgency (COIN) goals.
3. The Enclosure provides some general USACE comments, responses to the specific recommendations, and the current status of site-specific deficiencies identified in the report.
4. My point of contact for these comments is Mr. John Daley (202) 761-5844.

Enclosure

  
Mohan Singh, P.E.  
Chief, Gulf Regional Team, SES  
Directorate of Military Programs

## ENCLOSURE

### GENERAL COMMENTS

There are many challenges to designing and constructing quality facilities in this overseas contingency operational environment, and USACE is working hard to correct the construction contract quality management problems cited in the draft report. However, USACE believes that the draft report does not give sufficient consideration to security problems as the root cause of the construction quality problems cited in the report. Many of the Afghan National Security Forces (ANSF) development projects that USACE-AES directly supports are located in areas with high levels of insurgent activity. Both the insurgent activity and battlespace owners' mission priorities change on a frequent basis, making regular, recurring access to military security and some geographic areas difficult. This is particularly the case for many of the Afghan National Police (ANP) development sites. Unlike most of the permanent Afghan National Army (ANA) projects that are strategically located in direct proximity of Coalition Forces (CF), the majority of the ANP sites are in areas that do not have CF Battle Space Owners and are not being held by U.S. combat forces. The six sites covered in the draft report are located throughout the consistently kinetic Provinces of Kandahar and Helmand. It is important to note that currently there are two major clearing operations being conducted in the exact vicinity of two of the six projects sites highlighted in this audit. Thus, almost three years after the award date of this contract, offensive counterinsurgency (COIN) clearing operations are still required while building the facilities necessary for creating stability in Afghanistan. The lack of security in these areas puts USACE civilians and the hired contractors at significant risk, and this is a key reason for the construction quality problems cited in the report.

### SIGAR FINDINGS

1. "What SIGAR Found" Page ii, Section. "Project construction at each site failed to meet the requirements as established in the contract documents and approved construction documents. The level of non-compliance at each site varied, but overall the construction can be characterized as poor and unsatisfactory. Problem areas identified by SIGAR included low quality concrete and inadequate roofing installations. For example, inadequate concrete and foundation work calls into question the structural integrity of the buildings and raises the risk of total building collapse in the event of a significant earthquake with potential injury or loss of life."

USACE Response: USACE concurs that construction at each site did not meet all contract requirements however corrective actions are underway. The contractor is committed to correcting all deficient work and completing the remaining facilities. USACE will continue to monitor progress and quality of completed work. USACE does not agree with the finding regarding structural integrity and the AED-S lead structural engineer is confident the facilities will not fail during a seismic event based on a review of the design and physical inspection of the structures at Takha Pul site.

All project sites required construction of the Two Story UP District HQs design that was prepared in 2007. The designer of record used seismic factors from the International Building Code (IBC) in lieu of the factors indicated in the United Facilities Criteria (UFC). The seismic factors in the IBC actually exceed those in the UFC and are considered by the designer of record to be excessive for sites in Helmand and Kandahar Provinces. The designs that were prepared in 2007 used a high factor of safety in the structural design to account for concerns in contractor quality control and limited access to the sites by USACE personnel.

A technical review by the USACE AES structural engineer of the two story administrative building design indicates gravity loads are not an issue. Comparing this design to other designs reveals the tributary area to the supporting members is 25% to 50% less than similar type structures. The structural members are also about 50% larger than these similar structures, thus the stresses in the beam reinforcement and column concrete are only a small fraction of allowable stresses.

From a lateral force perspective it is clear that seismic forces govern the design. The design was prepared using seismic force design requirements that cover all of Afghanistan. For the applicable structure type the seismic response coefficient ( $C_s$ ) is 0.1375. The six sites are located in the Kandahar and Helmand provinces where the seismic design factors are less, as described in UFC 3-301-01. The worst of the six sites is the Spin Boldak site.  $C_s$  for the Spin Boldak site per the UFC is 0.0787. The next worst site is 0.0267.

From a structural member perspective, as described above with respect to gravity loads, the structural member design sizes are much greater than if they were sized to just exceed the minimum requirements of the code. The detailing for the columns and beams is based upon requirements for special reinforced concrete members. This results in the lower  $C_s$  value but requires strategically placed additional reinforcement. As shown above, the actual design forces for these sites are significantly less than the original design forces, therefore if the concrete and/or the reinforcement were not up to design standards this deficiency is easily offset by the excessive site specific design forces. In addition, the members themselves are significantly larger than required. For example most of the seismic force resistance must be carried by the stiffness of the columns. The columns in similar structures are 400mm square. The columns in this structure are 600mm square. This 50% increase in cross-section size of the column equates to 5 times the stiffness.

In summary, the lack of adequate quality concrete and possible poor placement of reinforcement is most likely offset by the reduction in site specific forces. In addition, the original oversizing of the members equates to a structure with significant capacity to withstand anticipated loads/forces likely to be encountered in an earthquake event anticipated by the design data for the areas.

On 11 October 2010, after a review of the structural plans of the ANP District Headquarters project at Takha Pul, the AED-SA Helmand Area Officer in Charge and AED-S lead structural engineer made a site visit. The site visit confirmed that none of the structural beams and columns in the structure had design, materials or construction



deficiencies that exceed the appropriate definition of 'minor deficiency'. The columns and beams of the two-story structures were constructed plumb and square. Considering the significant concrete structures, there were no observed concrete construction deficiencies that were considered to be less than adequate for the for the Takha Pul facility. The site visit also confirmed that the facility is safe from seismic collapse risks considered in the initial design analysis for this facility.

The structural engineer identified two structural issues that need to be corrected:

- The attachment of the stairs to the Guard Towers. The perimeter structure of the guard tower second floor balcony has been damaged significantly in order to attach the steel stairs at the top.
- The generator Sun Shade is not properly brace to resist lateral forces in one of the two directions.

All the other structures at the Takha Pul site are single story structures and appeared to be properly constructed.

USACE will continue to evaluate the specific engineering design and construction issues cited in the draft report to identify the appropriate remedial actions for the work in this challenging operational environment.

2. SIGAR Site-Specific Deficiencies, page 17 bottom of page: Under normal circumstances, USACE would have two options to address these deficiencies. First, USACE could insist that the contractor correct the deficiencies at their own cost as required by the contract. Second, USACE could accept the substandard work and reduce the contractor's payment or bill for the difference. USACE officials stated it is unclear whether either of these options will be available because Basirat has little financial incentive to correct the deficiencies and USACE has limited ability to require that the repairs be made.

USACE Comment: Basirat is committed to correct all deficient work and complete the remaining facilities. USACE will continue to monitor progress and quality of completed work.

#### **SIGAR RECOMMENDATIONS**

**(1) Perform complete engineering evaluations of each of the six ANP project sites to determine the required level of reconstruction and requirements of the contract.**

**Response:** USACE concurs with comment. AED-S field personnel will conduct final inspections for contract compliance and will request assistance from Engineering as required when there appear to be serious deficiencies. The AED-S lead Structural Engineer will conduct a site visit to perform an engineering assessment of the Garmier site within the next two weeks and provide a complete evaluation of structural integrity. This evaluation will also include a recommendation for any forensic analysis or non-destructive testing that may further support the evaluation. As previously stated, the

design used seismic factors that actually exceed those in the UFC and are excessive for sites in Helmand and Kandahar Provinces. However, if the engineering evaluation at the Gamsier site indicates the existence of structural integrity issues, further testing will be conducted at other sites. Limited destructive testing of some sample structural connections and members will be considered.

The six sites are in the process of being completed and turned over to the ANP. Local National Quality Assurance Representatives (LNQARs) visit each site daily and are communicating with the Administrative Contracting Officer (ACO) as frequently as security conditions will allow. In advance of completion, the facilities are inspected by USACE personnel, and deficiencies are being documented. The contractor is committed to completing all six of these facilities to the satisfaction of the USACE (ACO) and in compliance with the contract terms.

The following is a status summary of each site:

Spin Boldak: Facility has been completed and accepted by the customer to their satisfaction.

Nahri Saraj: Facility has been completed and accepted by the customer to their satisfaction.

Nad Ali: Facility is 90% complete. USACE personnel and the LNQAR conducted an inspection on 23 September 2010 and identified deficiencies to include minor corrections such as pedestal sinks to be replaced with trough sinks, the correct glass placed in the windows, and the septic system completed. Upon completion, a pre-final inspection documenting punch list items for correction will be provided to the contractor. A decision will be made at that time on a date for final inspection and transfer of the facility to the customer.

Zeheli: Facility is 90% complete. The LNQAR will coordinate a site visit with USACE personnel to conduct an inspection and document remaining deficiencies required to be corrected in advance of a pre-final inspection. Once these items are complete the site will be ready for a pre-final inspection at which time punchlist items will be documented. A decision will be made at that time on date for final inspection and transfer of the facility to the customer.

Gamsier: Facility is 76% complete. Construction on this facility is behind schedule but progressing. USACE personnel and the LNQAR conducted an inspection on 27 September 2010 and identified deficiencies to the contractor. The noted deficiencies, to include the installation of the correct window glass and sink, will be corrected by the contractor prior to project turnover.

Takhta Pul: Facility is 82% complete. USACE personnel conducted a site visit 11 October 2010. Deficiencies were noted and given to the contractor for correction.

**(2) Pursue all available options to recoup all costs from Basirat**

**Response:** USACE does not concur with this recommendation. The contractor is committed to completing all of these facilities to the satisfaction of the USACE ACO in accordance with the contract. Several of these facilities were damaged as a result of insurgent hostile fire and other deteriorating security situations, factors beyond the control of the contractor. The damages caused by the hostile fire have been identified and a contract modification is being negotiated with the contractor to repair these deficiencies. No payment will be processed for this modification until all contract deficiencies as well as these repairs are completed and the facilities turned over for beneficial occupancy.

**(3) Require that the maximum amount of retainage allowable by the FAR be withheld from each payment for projects where construction progress and quality information is obtained primarily through the contractor or LNQRs.**

**Response:** USACE does not concur with this recommendation. USACE understands the intent of the recommendation; however implementation of a blanket policy could negatively impact local Afghan firms. Withholding retainage from contractor progress payments is typically based on project progress status and quality of work. The withholding of critical funds needs to be satisfactorily justified regardless of whether or not USACE personnel have an opportunity to visit the site. Every contract and contractor performing construction in Afghanistan presents unique challenges. A uniform policy of maximum retainage may in fact increase chances of project failure. In many instances, smaller Afghan contractors have very little capitalization available and an indiscriminate retainage policy may actually create failure to pay subcontractors and material suppliers and result in project site abandonment. While increasing retainage will be considered in future projects as an available course of action, USACE cannot agree with applying it as a matter of course. Retainage is one of many tools the Contracting Officer has at their disposal and should be used as the situation dictates.

**(4) Institute a requirement for USACE personnel to conduct site visits and verify payments for construction progress if the completed work has only been verified by photographs taken by the contractor or where the information provided by the LNQR does not meet USACE quality assurance standards.**

**Response:** USACE concurs with the recommendation to the extent that security conditions permit. The goal is for USACE personnel to visit all project sites at least monthly, or more frequently, as the security situation allows. However, the security and safety of USACE personnel is the District Commander's primary concern. The District routinely conducts a risk assessment each time an employee goes outside the Forward Operating Base (FOB). Our leaders address the risks and attempt to mitigate to a manageable level (medium or below). If the risk cannot be mitigated from high, the District Commander will not jeopardize the safety of his employees. Due to the location of many of the ANSF project sites, the kinetic situation will not allow site visits by USACE personnel. There is active combat in many of these areas. In lieu of USACE personnel, trained LNQRs will continue to be staffed on site daily and will provide QAR



reports that identify not only acceptable work but also deficient work. USACE has been steadily implementing technological QA systems to include Buckeye surveillance and aerial imagery, and is currently working with ISAF and CSTC-A to develop metrics that will significantly improve the successful execution of the FY11 and FY12 construction projects. The variables that need to be addressed and obtained in advance of these contract awards include: well defined Scope of Work, funds, approved location, availability of water, adequate security situation (control by the battle space owner and freedom of movement for contractor personnel), and accessibility to the project site (roads). The incorporation of all of these factors in the pre-award phase will greatly enhance USACE's ability to conduct more frequent site visits on future contracts and improve contractor success.

**(5) Ensure compliance with USACE quality assurance standards on this project and related projects, by directing AED-S to require quality assurance representatives to file daily quality assurance reports, ensure three-phase testing is implemented, and perform and record quality assurance testing.**

**Response:** USACE concurs. Every effort will be made for coordinated site visits by USACE construction quality assurance representatives; however, the security situation at the time will dictate the availability of combat / maneuver assets and actual ability to access the sites. To mitigate this risk, the LNQARs will be sufficiently trained by USACE personnel and provide timely and accurate LNQAR reports. The LNQARs have been provided adequate QA training and are required to report construction status daily. The Area Offices have instituted monthly LNQAR training classes where the LNQARs come to the respective office to review their reports in an effort to improve the quality of the reports. Additionally, the ACO presents a pertinent block of instruction to correct any deficiencies or misunderstandings to the LNQAR to ensure complete understanding and expectations. The LNQAR submits a weekly download of daily reports upon return to the nearest internet site. In rare cases when the security situation is very poor, LNQARs are not able to send a regular report because the Taliban may be watching the internet locations. For these sites, the ACO will rely on reports from the battle space units for verification or USACE site visits. While regular quality assurance testing is not feasible at many of the remote sites and reliance is more on the contractor QC testing and visual inspections by LNQARs and USACE personnel inspections.

**(6) Direct AED-S to develop a process and procedure for coordinating with local coalition force units to a) help confirm progress claims, and b) determine the feasibility of using coalition force assets to supplement security and transportation needs.**

**Response:** USACE concurs. AED-S will continue to use either internal, RSSS security contract assets or support from the battle space owners for visits to these sites. In advance of conducting these visits, a security assessment is conducted to determine the risk to personnel. Relationships are currently in place with all of the battle space owners for these sites and other ongoing projects. About half of the ANP sites are located adjacent to coalition FOBs. For these sites, USACE may rely on reports from the units on those FOBs to verify progress. These same units also provide security



personnel for site visits subject to availability of resources and competing mission priorities. Verification of construction progress is a low priority for battle space owners and typically must receive great command emphasis to occur. Security support for remote sites is more of a challenge due to the fact that the battle space owners are resource constrained with their own missions and that providing additional support for a visit is not guaranteed.

As was stated in AED-S observations above; "It is important to note that currently (OCT 2010) there are two major clearing operations being conducted in the exact vicinity of two of the six projects sites highlighted in this audit." Construction site visits during combat missions are not a priority for combatant commanders at this time.

**Current Status of Site-Specific Deficiencies as listed on Table 3 page 17**

**Garm Ser**

- Plumbing installed on top of second story slab and backfilled with unknown material.
- Masonry walls on the pump and well houses were not plumb

USACE Comment: A site visit was conducted on 27 September 2010. All deficiencies have been noted and are in the process of being corrected in advance of facility turnover.

**Nad Ali**

- Kitchen layout and counters not according to construction drawings, with the cook top constructed on an interior wall with no place to run the exhaust vent.
- Lack of tamper-proof plumbing fixtures in prisoner holding cells.
- Cracks in masonry walls throughout the project.
- Interior gas line hanging unsupported across a room for approximately 12 feet.

USACE Comment: A site visit was conducted on 23 September 2010. All deficiencies have been noted and are in the process of being corrected in advance of facility turnover.

**Nahri Saraj**

- Electrical wiring runs into building through a knocked out hole in the exterior wall.
- Under sized and poorly constructed storm water outlet structures.
- Inadequate exhaust hood, approximately 1/8th of the required size, powered by an extension cord. Cooking area with propane cylinders located in the kitchen. Cook top constructed on the wrong wall.
- Per contract requirement, the contractor provided, and the USACE reviewed and approved a detailed landscape plan that included trees, grass, shrubs, and sidewalks. However, the project was accepted and turned over with no landscaping installed.

USACE Comment: All deficiencies have been corrected and the facility has been turned over for use.



Figure 1 Nahri Saraj

#### **Spin Boldak**

- Plastic plumbing pipe exposed in bathrooms.
- Gas fired heaters and gas supply piping with hand valves in prisoner cells.
- Approximately 1400 linear feet of concrete channel for storm water runoff omitted.
- Substitution of 30 portable propane cylinders for the required single 5500 liter tank.
- The project has been accepted with no landscaping installed as required by the contract.

USACE Comment: All deficiencies have been corrected and the facility has been turned over for use.



Figure 2 Spin Boldak

**Takha Pul**

- Plastic plumbing pipe exposed in bathrooms.
- Electrical manholes with no conduit run to them.
- Large gaps under exterior doors
- Windows intentionally broken to run air conditioning lines into the building.
- Downspouts mounted to the side of the guttering rather than the bottom.

USACE Comment: A site visit was conducted on 11 October 2010. All deficiencies have been noted and are in the process of being corrected in advance of facility turnover.

**Zeheli**

- Gaps and warping of fascia and soffit.
- Very poor masonry work on north perimeter wall.
- Trench drain in kitchen area omitted.
- Large sections of concrete missing from roof perimeter.
- Poorly consolidated cast-in-place concrete septic tank with cold joints.
- Poorly constructed diesel fuel tank support cradles with rebar protruding.

USACE Comment: A site visit will be scheduled to document all deficiencies which will be corrected in advance of facility turnover.

(This report was conducted under the audit project code SIGAR-024A).

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**SIGAR's Mission**

The mission of the Special Inspector General for Afghanistan Reconstruction (SIGAR) is to enhance oversight of programs for the reconstruction of Afghanistan by conducting independent and objective audits, inspections, and investigations on the use of taxpayer dollars and related funds. SIGAR works to provide accurate and balanced information, evaluations, analysis, and recommendations to help the U.S. Congress, U.S. agencies, and other decision-makers to make informed oversight, policy, and funding decisions to:

- improve effectiveness of the overall reconstruction strategy and its component programs;
- improve management and accountability over funds administered by U.S. and Afghan agencies and their contractors;
- improve contracting and contract management processes;
- prevent fraud, waste, and abuse; and
- advance U.S. interests in reconstructing Afghanistan.

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**Obtaining Copies of SIGAR Reports and Testimonies**

To obtain copies of SIGAR documents at no cost, go to SIGAR's Web site ([www.sigar.mil](http://www.sigar.mil)). SIGAR posts all released reports, testimonies, and correspondence on its Web site.

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To help prevent fraud, waste, and abuse by reporting allegations of fraud, waste, abuse, mismanagement, and reprisal contact SIGAR's hotline:

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- Phone Afghanistan: +93 (0) 700-10-7300
- Phone DSN Afghanistan 318-237-2575
- Phone International: +1-866-329-8893
- Phone DSN International: 312-664-0378
- U.S. fax: +1-703-604-0983

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**Public Affairs**

Public Affairs Officer

- Phone: 703-602-8742
- Email: [PublicAffairs@sigar.mil](mailto:PublicAffairs@sigar.mil)
- Mail: SIGAR Public Affairs  
400 Army Navy Drive  
Arlington, VA 22202