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Monthly QA Report No. 1	Project: WO-LT0082AMD2 Sardar Kabuli Girls' High School Fire Door Replacement QA Services
Date: July 26, 2016	Report Duration: June 02, 2016 through June 26, 2016

PRESENTED TO

**United States Agency for International Development (USAID)
Office of Economic Growth and Infrastructure (OEGI)**

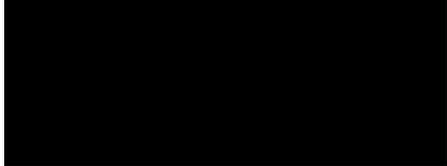
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Kabul, Afghanistan

PRESENTED BY

**Tetra Tech, Inc.
Afghanistan Engineering Support Program
Contract No. EDH-I-00-08-00027-00
Task Order No. 1**

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DISCLAIMER

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MAIN PROJECT ISSUES

The following is a summation of observations of work accomplished and problems encountered during the reporting period of June 2 through June 26, 2016.

During this period, there two weekly meetings held at site on June 11, 2016 and June 19, 2016 to discuss safety, work quality and progress, work schedule and communication between the QA team and the project staff.

- On May 26, 2016, the contractor started work at site after receiving approval from USAID. Tetra Tech recommended that the site work be delayed since many of the contractor's key submittals such as paint, fire stop material, epoxy glue, mix designs for concrete and CMU had been disapproved by Tetra Tech.
- Tetra Tech was informed by USAID that the Contractor initiated site work on May 26, 2016 and was directed by USAID to provide QA services as of June 2, 2016.
- All of the demolition work onsite occurred during the evening hours, so as to minimize disturbance to students.
- The contractor had poured the entire area on top of the door as an integrated lintel, however in the approved designed shop drawings, there is one layer of CMU above the placed lintel. Tetra Tech shared this concern with USAID to receive their approval for the changes occurred.
- The lintel beam of door (D-1) was cast on May 30, 2016, prior to establishment of onsite QA personnel. However, the forms were not removed until June 5, 2016. It should have been removed 24 hours after casting in order to ensure proper curing, instead it was removed seven days after.
- The waste material coming from demolition of existing doors was insignificant and was disposed of offsite.
- The Tetra Tech QA monitor observed that curing of CMU works and lintel beams was inconsistent. Therefore, he recommended the contractor continually spray water on CMU and lintels of all door's to aid in more consistent curing.
- Improper storage of removed previous doors frames, sashes and glass was observed at the project site. The Tetra Tech QA monitor recommended that the contractor find a safe location for all removed material and cover them with foam and/or plastic to prevent breakage.
- The installed fire rated doors frames were not cleaned after using cement mortar during CMU work. Tetra Tech QA monitor recommended that the contractor cover the frames with plastic sheeting to ensure the frames remain clean during future work. The dirty frames were cleaned by the contractor, per the recommendation of the Tt QA monitor.
- It was observed that plastering of the lintel beam and CMU on the third floor (D-1) was low quality due to the incorrect amount of cement being used, and poor curing techniques. The Tt QA monitor recommended the contractor follow the mix design accurately.
- The oil paint on the existing handrails in the stairwells was scraped off (damaged) in a few locations as removed doors from the three floors were transported out of the building. Tt QA monitor and the contractor agreed to repaint the existing handrails at the end of project.
- The Tt QA Monitor recommended the contractor to install one fire rated door as a mockup. This will be helpful to sort out subsequent installation problems and avoid repeated mistakes.

Design and Drawing Review

Submittals

11 construction submittals have been submitted to Tetra Tech for review and approval. Five of these submittals were rejected and recommended for resubmittal. These were resubmitted and received approval after the demolition works finished on the third floor of the school on June 2, 2016.

Field Observations / Site Visit Details

Tetra Tech provided a QA monitor who was present on site present on site who observes contractor's work and all site activities continually and reports it on daily basis to Tetra Tech.

The following is a summary of observations, work accomplished, and problems encountered during this inspection period:

- A- Demolition of all existing doors on all floors was completed.
- B- Frame installation and CMU work around the new door's openings for remaining doors on all floors was completed.
- C- Rebar installation and fixing (reinforcement) of lintel beams for new fire doors on all floors was completed.
- D- Formwork installation and sizing back check for all lintel beams on all floors
- E- Concrete pouring of lintel beams and their formwork removal and curing of all doors on all floors.
- F- Curing of CMU and the concrete lintel beams for all doors on all floor.
- G- Plastering and curing of plaster of lintel beams beginning from top of door (D-1) on third floor.

Findings:

- The concrete lintel beam for door (D-1) was poured on May 30, 2016, prior to establishment of onsite QA personnel.
- The material for mix designs, RC bars, forms and all required material need on site was delivered to the material laydown yard and there was no safe space considered for them.
- The Tt QA engineer inspected the form works and rebar bending works of lintel beams for remaining doors, and recommended the concrete pour be delayed until resolution of rebar issues has been confirmed.
- The Tt QA engineer observed that the forms around lintel beam of door (D-1) that was cast on May 30, 2016 was not removed until June 5, 2016. Therefore, the QA Engineer recommended removal of the forms to cure the beams properly.
- The construction activities were beginning at approximately 5:00 AM, but QA and technical staff were not on site until 7:00 AM. Tetra Tech QA monitor recommended that the contractor provide QC and supervise the entire activity period to reduce quality control deficiencies.
- The cement mixing machine was not used. Laborers were mixing cement mortar by hand with improper method, not mixing the mixture continually and adding insufficient amounts of water were the main concerns. The Tt QA monitor recommended them to use a mixing machine.
- Improper storage of removed previous doors frames, sashes and glass was observed at the project site. The Tt QA monitor recommended that the contractor find a safe location for all stored material and cover them with foam and/or plastic to prevent breakage.
- The installed fire rated doors frames were not cleaned after using cement mortar during CMU work. The Tt QA monitor recommended that the contractor cover the frames with plastic sheeting to ensure the frames remain clean. The dirty frames were cleaned by contractor, per the recommendation of the Tt QA monitor.
- The Tt QA monitor observed that the curing of CMU works and lintel beams was inconsistent. Therefore, he recommended the contractor to continually spray water on CMU and lintels of all door's better curing.
- It was noted that the contractor performed work on Friday (June 10, 2016) without any prior notice and without informing the QA Engineer, therefore the Tt QA monitor was not observant of the activities tool place on this day.
- The oil paint of existing handrails around stairways was scraped off (damaged) in few locations during transportation of doors frames relocating from third, second and first floors to outside building.

- Honeycomb was noted in the concrete of lintel beam for door (D-7) on the third floor. The Tt QA Monitor advised the contractor to use the vibrator properly, remix the concrete mixture while transferring from mixer to the building prior to pouring, as well as tapping the formwork with a rubber hammer to avoid honeycomb occurrence in future.

Problems:

- A reduced workforce performing construction activities, storage and housekeeping concerns were observed onsite by the Tetra Tech QA monitor.
- The removed garbage material from construction work was dumped outside of the building in the school area. The contractor is required to move this garbage material out of school area to a suitable location to avoid any environmental problems.

Contractor Staffing Levels

Average manpower during this reporting period is shown below

Date	PM	QCM	QC & HSE	Skilled labor	Unskilled labor	Foreman	Surveyor/Helper	Others
4/02- 4/26	0.3	1	1	3.6	5.3	0.8	0	0.87

Quality Control Procedure Review

Non-Conformance Reports (NCRs)

There were no NCRs generated during this reporting period.

Observation Reports (OBSRs)

There were no OBSRs generated during this reporting period.

Health and Safety Oversight

The Tt QA monitor recommended the contractor follow approved safety precautions including:

- Barricades restricting access to materials.
- Housekeeping after each construction process to avoid any incidents on the project site.
- Use of proper personal protective equipment (PPE) for laborers onsite.

Security

There were no security issues noted during this reporting period.

Delays

During this reporting period, no delays were reported.

Environmental

No environmental issues were noted during this reporting period.

Schedule Review

The contractor's baseline schedule was approved on May 26, 2016 outlining project start and finish dates as March 30, 2016 and August 30, 2016 respectively.

The Tetra Tech QA monitor requested the contractor submit the two week look-ahead definable activities schedule on June 9, 2016, in order to evaluate that the status of project versus the time noted in the schedule. The schedule had not been received by June 26, 2016.

Invoice Verification

The scope of work approved for Tetra Tech did not cover the invoice verification for the project. However, Tetra Tech is looking forward to receiving the invoice to process as it is part of Tt QA responsibilities in alignment with USAID's request. Tetra Tech has verified the progress percentage of the contractor's completed works compared to their request for invoice payment, however this was the only document Tt received to verify.

APPENDICES

APPENDIX A – ACRONYMS

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ACRONYMS

ACI	American Concrete Institute
ACOR	Assistant Contracting Officer's Representative
AESP	Afghanistan Engineering Support Program
ASTM	American Society for Testing and Materials
CA	Corrective Action
CAR	Corrective Action Report
CM	Construction Manager
CMC	Construction Management Contractor
COP	Chief of Party
COR	Contracting Officer's Representative
DC	Direct Current
Dept.	Department
HS	Health and Safety
HSE	Health, Safety and Environment
ID	Identification
IEC	International Electro technical Commission
IEEE	Institute of Electrical and Electronics Engineers
IT	Information Technology
ITU	International Telecommunications Union
kV	Kilo Volts
LA	Lead Auditor
LT	Long Term
MIS	Management Information System
NCR	Non-Conformance Report
OBR	Observation Report
OBS	Observation
OEGI	Office of Economic Growth and Infrastructure
OIG	Office of the Inspector General
PE	Project Engineer
PMP	Project Management Plan
PQA	Project Quality Auditor
QA	Quality Assurance
QAP	Quality Assurance Plan

QC	Quality Control
PE	Project Engineer
Reachback	Staffing in the USA that supports this project
RFP	Request for Proposal
SM	Security Manager
SME	Subject Matter Expert
SOP	Standard Operating Procedure
SPM	Support Manager
STM	Senior Technical Manager
TL	Technical Lead
Tt	Tetra Tech, Inc.
TtRB	Tetra Tech Reachback
TT	Type Test
USAID	United States Agency for International Development
WO	Work Order