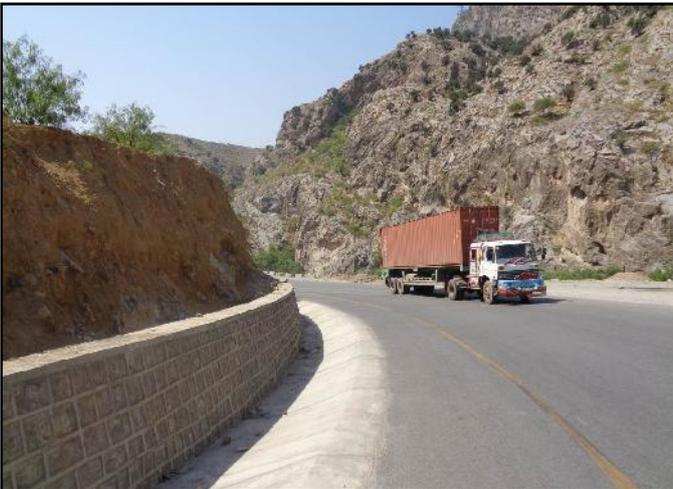




USAID
FROM THE AMERICAN PEOPLE

PAKISTAN

CONSTRUCTION MONITORING & EVALUATION PROGRAM
(Strengthening & Improvement of Peshawar – Torkham Road, Khyber Agency)



MONTHLY PROGRESS REPORT # 33

DECEMBER 2015

TABLE OF CONTENTS

| | |
|---|-----------|
| EXECUTIVE SUMMARY | 1 |
| 1. PROJECT BACKGROUND..... | 4 |
| 1.1 SCOPE OF WORK..... | 5 |
| 1.2 PROJECT STAFF | 5 |
| 2. PHYSICAL PROGRESS (PIL 05 & PIL 06) | 8 |
| 2.1 SECTION-IV (KM 19+000 TO KM 21+100 & KM 22+400 TO KM 24+000 & LOOP # 02)..... | 8 |
| 2.2 SECTION-V (KM 21+100 - 22+400 & 24+000- 29+000) | 9 |
| 2.3 SECTION-VI (KM 29+000 - 33+000) | 10 |
| 2.4 BRIDGE AT KM 18+475..... | 11 |
| 2.5 BRIDGE AT KM 27+000..... | 11 |
| 2.6 BRIDGE AT KM 27+250 | 12 |
| 2.7 BRIDGE AT KM 2+200..... | 12 |
| 2.8 BRIDGE AT KM 11+560..... | 12 |
| 2.9 BRIDGE AT KM 21+320..... | 13 |
| 2.10 SECTION-VII (KM 33+000 TO KM 37+000) | 14 |
| 2.11 SECTION-VIII (KM 37+000 TO KM 41+000)..... | 15 |
| 2.12 SECTION-IX (KM 41+000 – KM 43+465 & LOOP 3)..... | 16 |
| 2.13 FORECASTED COMPLETION PIL 05, 06 & 07 | 17 |
| 3. FINANCIAL PROGRESS (BUDGET / ACCRUED / ACCRUALS) | 18 |
| 4. M&E ACTIVITIES DURING THE REPORTING PERIOD | 19 |
| 4.1 FIELD INSPECTIONS | 19 |
| 4.2 IPCs CERTIFICATIONS | 19 |
| 4.3 CONSTRUCTION ACTIVITIES MONITORED | 19 |
| 4.4 FIELD OBSERVATIONS & FOLLOW UP | 20 |
| 4.5 MEETINGS..... | 20 |
| 4.6 LABORATORY TESTS..... | 21 |
| 5. ENVIRONMENTAL COMPLIANCE..... | 21 |
| 6. SECURITY SITUATION..... | 21 |

Annexes

| | |
|------------|---------------------------------|
| Annex-I: | Environmental Monitoring Report |
| Annex-II: | Security Report |
| Annex-III: | Photographs |

DISCLAIMER

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of AGES Consultant and do not necessarily reflect the views of USAID or the United States Government.

EXECUTIVE SUMMARY

Both flexible and rigid pavements of 45.5 km out of *46 km length have been substantially completed and are open for traffic. Total physical progress is 96% with accruals of US\$ 80,767,125 out of US\$ 84,364,699. The total amount certified by the end of this month was US\$ 69,466,707.

PIL wise progress is as follows:

- **PIL 01** (*Section-I km 0+000 – km 9+000*):
100% completed, and all milestones certified with accrued expenditure of US\$ 9,978,082
- **PIL 02** (*Section-II km 9+000 – km 14+000*):
100% completed, and all milestones certified with accrued expenditure of US\$ 9,383,484
- **PIL 03** (*Section-III km 14+000 – km 19+000*):
100% completed, and all milestones certified with accrued expenditure of US\$ 9,512,705
- **PIL 04** (*Bridges at km9+560 & km23+750; Multi cell culverts at km11+190 & km22+925*):
100% completed, and all milestones certified with accrued expenditure of US\$ 3,668,533
- **PIL 05** (*Section-IV km 19+000 km 21+100 & km 22+400- km 24+000 & Loop # 02; Section-V km 21+100 - 22+400 and 24+000 - 29+000; Section-VI km 29+000- 33+000; Construction of Bridges at km 18+475, km 27+000 & km 27+250; Rehabilitation of Bridges at km 2+200, km 11+560 & km 21+320*):
Progress achieved during the reporting month was 0.24% attaining total physical progress 95.46% with accrued expenditure of US\$ 21,679,941 out of US\$ 25,444,269.
- **PIL 06** (*Section-VII km 33+000 - km 37+000; Section-VIII km 37+000 - km 41+000*):
Progress achieved during the reporting month was 2% attaining total physical progress 90% with accrued expenditure of US\$ 10,703,430 out of US\$ 17,626,462.
- **PIL 07** (*Section-IX km 41+000 - km 43+465 & Loop -3*):
Progress achieved during the reporting month was 2% attaining total physical progress 92% with accrued expenditure of US\$ 4,540,534 out of US\$ 8,751,166.

Construction activities on additional works, including Jamrud By pass, Landikotal Bazar & culverts were also monitored. PIL for these additional items is yet to be constituted.

*Note: In Contract 46 Km is given however as per site without loop = Km 43.465; With Loop = Km 48.479

MATTERS REQUIRING ATTENTION

1. Constitution of Remaining PILs

As per activity agreement, US\$ 87,000,000 has been obligated for the PTR project. However US\$ 84,364,699 consisting of 07 number PILs has been approved till reporting month. The constitution of remaining PIL for additional work is under way. Work is monitored by AGES and reported to USAID accordingly.

2. New Commanding Officer of FWO

A new CO of FWO has taken over the charge: Lt Col Kaiser Khan. He seems to be a team player and has taken a few drastic actions to improve the quality of work and to address some of the concerns of USAID and AGES. We believe his actions would give positive results, especially in the Bhagiari Check Post.

3. Incomplete Works at Bhagiari Check Post, Road Side Drains and Backfill

Workmanship, quality issues and as-built drawings of the Bhagiari Check Post are yet to be addressed. Moreover, proper inlets and outlet finishing details of the roadside drains have yet to be completed, and none of the Cascades for culverts given in the drawing is site-specific, a case in point is loop 3. It may be noted that the cascades are very important for the sustainability of the road. Payment of roadside drains would be deferred until backfilling on both sides of the drawing is completed. There is no site specific design, nor profile drawing for the roadside drain as such in some places the invert level of drain is lower than the level of outfall; in some stretches of the road, the top level of the road side drain wall is higher than the shoulder level thus preventing the surface runoff into the drain. Altogether the above reflects very badly on the professional abilities and performance of FWO/NESPAK.

4. Quality of Stone Masonry

The Quality of Stone masonry was not up to the mark. Efforts are being made to improve it.

5. Rigid Pavement

The materials for the joint sealant used in the rigid pavement are not as per specifications. If timely corrective measures are not undertaken this may delay the certifications of the rigid pavement. The CO has given assurance to improve the application of the sealant and would call the supplier to the site.

6. Expiry PIL 05 (Section IV, V, VI and 06 Bridges)

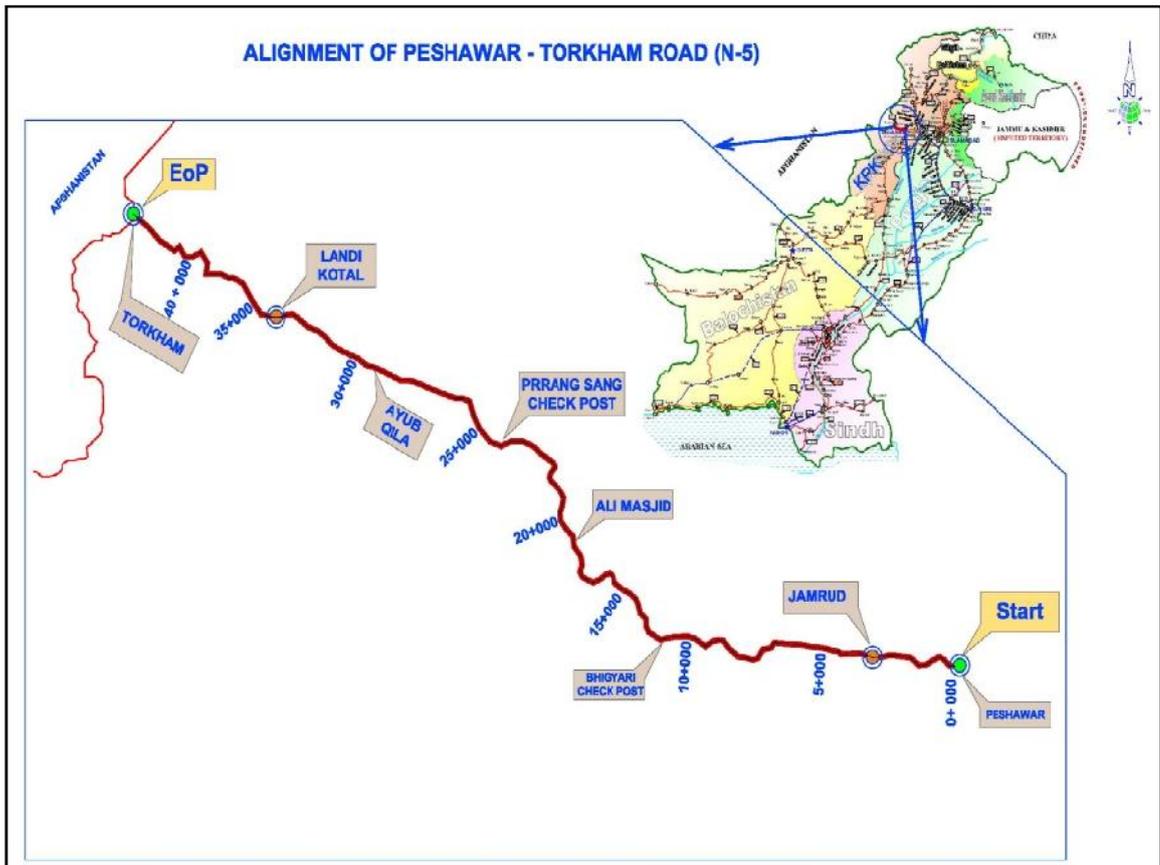
The aforementioned sections have been substantially completed, and minor / ancillary works are in progress. PIL signed for these sections have expired on December 31, 2015. However, as per para (c) of the attachment titled "Fixed Amount Reimbursement" to the respective PIL, reimbursement requests can be entertained up to three months.

Though the final reimbursement request has been submitted prior to December 31, 2015, but FWO needs to complete the punch lists.

7. AGES has some reservations on the Project sign boards. The CO has assured AGES to address this issue.

1. PROJECT BACKGROUND

The Peshawar–Torkham road is an integral part of National Highway (N-5), a vital piece of the nation’s infrastructure, which connects Pakistan with Afghanistan at Torkham border and plays an important role in the economic activities as well as providing timely logistic support to the security agencies deployed in Khyber Agency. In order to strengthen and improve Peshawar road an Activity Agreement between FATA Secretariat & US Agency of International developments was signed on September 18, 2012 obligating US\$ 67,000 Million for the project.



The project is implemented by FATA Secretariat and executed through Frontier Works Organization (FWO) under the FARA contracting mode of USAID. FWO is also fully responsible for the design and construction of the project in conformity with the NHA’s specifications and standard engineering practices .NESPAK is providing design and control services to FWO. While AGES Consultants has been entrusted with the Construction Monitoring and Evaluation Services, including Quality Assurance and Environmental Monitoring of the project on behalf of the USAID Pakistan Mission by signing agreement on September 30, 2012. Construction activities by the contractor started on October 15, 2012. Agreed project completion date is December 31, 2014

1.1 Scope of Work

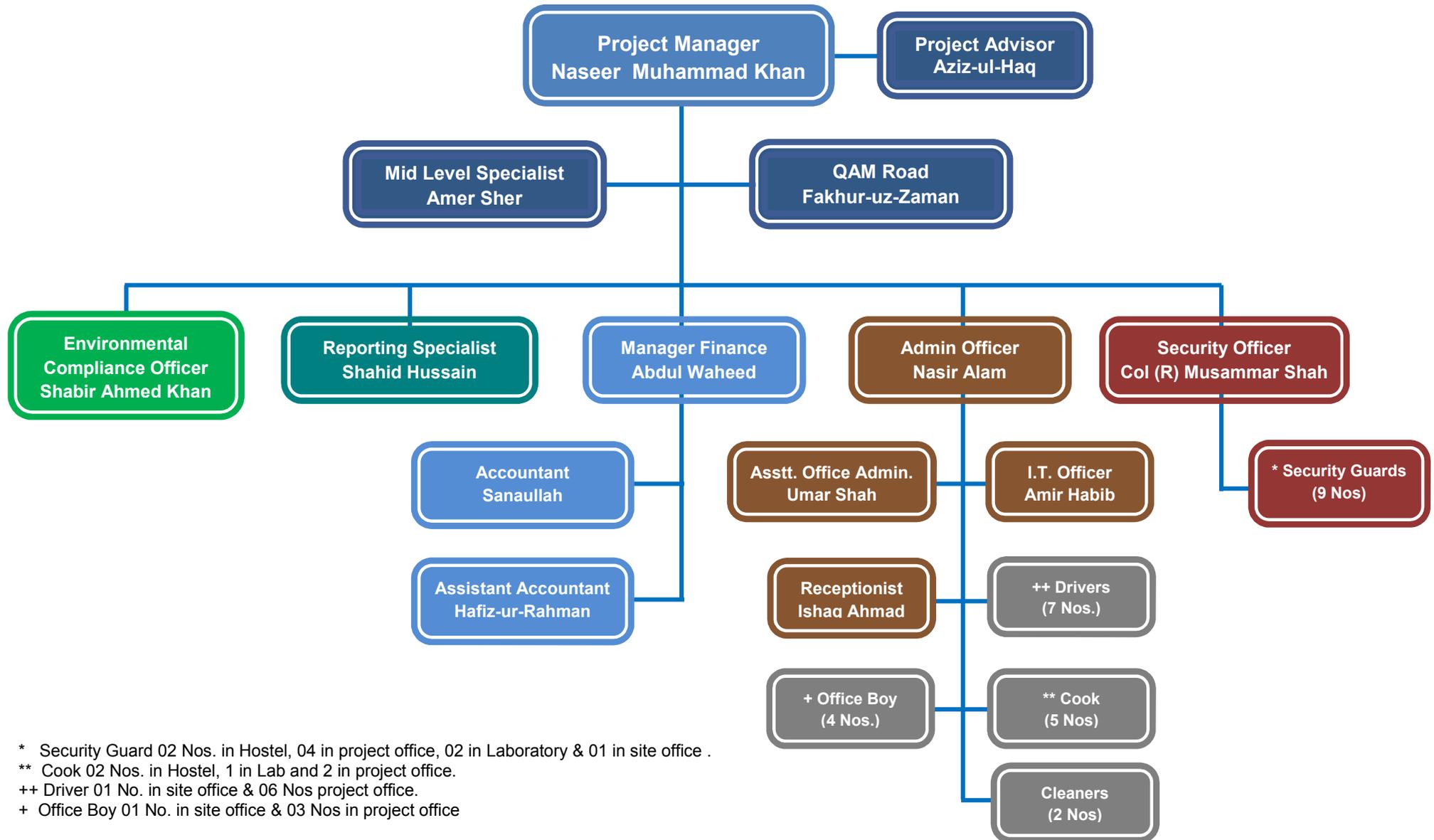
As per activity agreement the 46 km Peshawar – Torkham road has been split into multiple sections for designing / construction purposes. PIL wise detail is given in the table below:

| PIL No | Components | Allocated Amount US\$ | PIL Signing Date | PIL Expiry Date |
|--------|---|-----------------------|------------------|-----------------|
| PIL 01 | a) Section-I (km 0+000 - km 9+000) | 9,978,082 | Jan 10, 2013 | Dec 31, 2014 |
| PIL 02 | a) Section-II (km 9+000 - km 14+000) | 9,383,484 | Dec 18, 2013 | Dec 31, 2014 |
| PIL 03 | a) Section-III (km 14+000 - km 19+000) | 9,512,705 | Feb 04, 2014 | Dec 31, 2014 |
| PIL 04 | a) Construction of Bridge at km 9+560 b) Construction of Bridge at km 23+750 c) Multi cell Culvert at km 11+190 d) Multi cell Culvert km 22+925 | 3,668,533 | Jan 27, 2014 | Dec 31, 2014 |
| PIL 05 | a) Section-IV (km 19+000 – km 21+100 & km 22+400 – km 24+000 & Loop # 02) b) Section-V (km 21+100 - km 22+400 & km 24+000 – km 29+000) c) Section-VI (km 29+000 – km 33+000) d) Construction of Bridge at km 18+475 e) Construction of Bridge at km 27+000 f) Construction of Bridge at km 27+250 g) Repair of Bridge at km 2+200 h) Repair of Bridge at km 11+560 i) Repair of Bridge at km 21+320 | 25,444,269 | April 06, 2015 | Dec 31, 2015 |
| PIL 06 | a) Section-VII (km 33+000 – km 37+000) b) Section-VIII (km 37+000 - km 41+000) | 17,626,462 | Sep 22, 2015 | Dec 31, 2015 |
| PIL 07 | a) Section-IX (km 41+000 – km 43+465 & Loop3) | 8,751,166 | Nov 02, 2015 | Jun 30, 2016 |

1.2 Project Staff

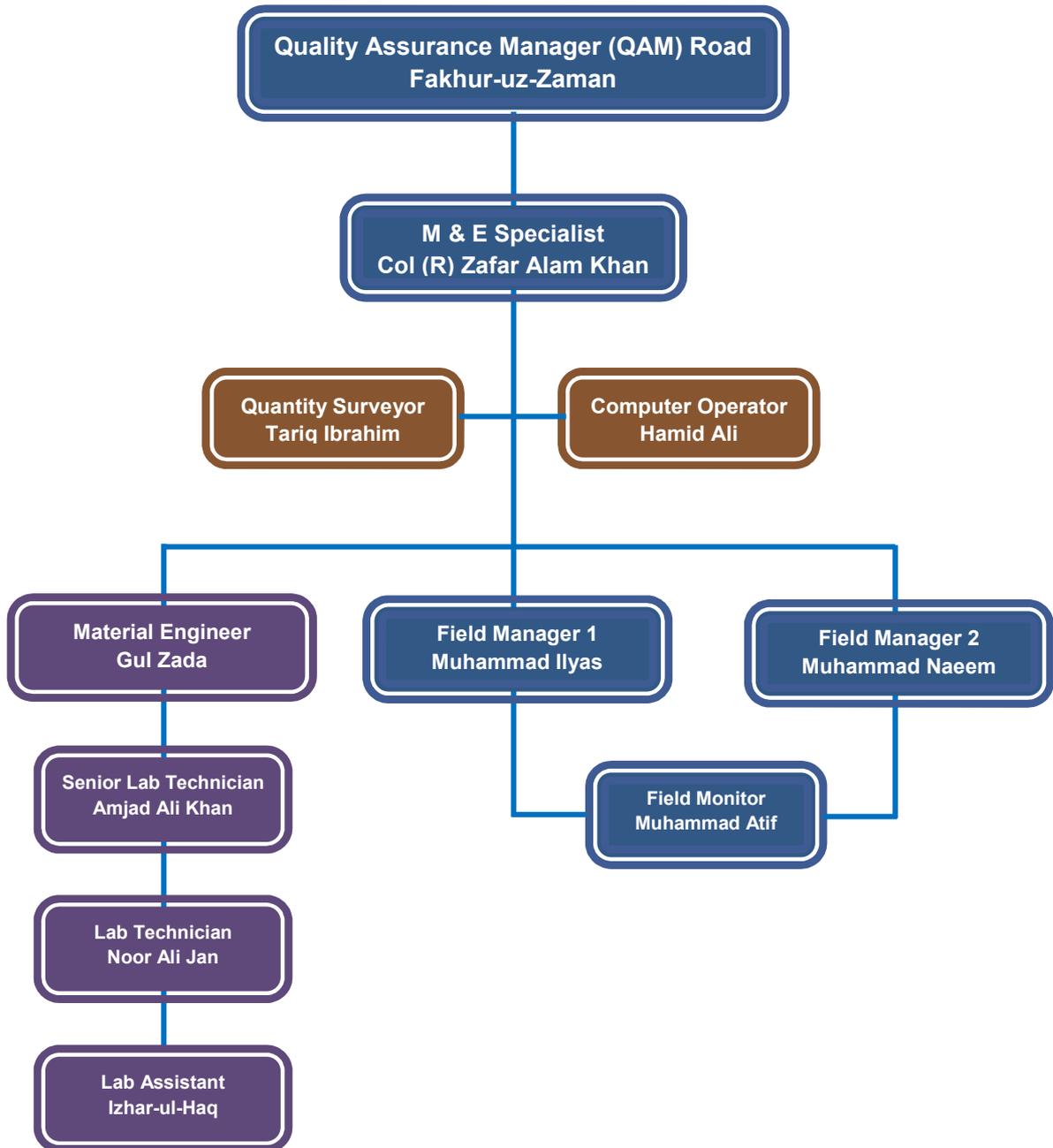
Following 51 Staff members (Technical = 14 & Non-Technical = 37) are currently working on the project. During the reporting month 07 project staff (03 Lab staff, 03 Field monitors & 01 CAD Operator) members were released from the project as per phase out plan.

Organization Chart for CMEP Office, Peshawar



* Security Guard 02 Nos. in Hostel, 04 in project office, 02 in Laboratory & 01 in site office .
 ** Cook 02 Nos. in Hostel, 1 in Lab and 2 in project office.
 ++ Driver 01 No. in site office & 06 Nos project office.
 + Office Boy 01 No. in site office & 03 Nos in project office

Organization Chart for Road Component of CMEP Project



2. PHYSICAL PROGRESS (PIL 05 & PIL 06)

2.1 Section-IV (Km 19+000 to Km 21+100 & Km 22+400 to Km 24+000 & Loop # 02)

| Sr No. | Section IV (Km 19+000 to Km 21+100 & Km 22+400 to Km 24+000 & Loop # 02) | Total No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Earth work | 10.32 | 10.32 | 100% | - | - | 10.32 | 100% |
| 2 | Sub base & base course | | | | | | | |
| a | Granular sub base | 10.32 | 10.32 | 100% | - | - | 10.32 | 100% |
| b | Water bound macadam | 7.08 | 7.08 | 100% | - | - | 7.08 | 100% |
| c | Asphaltic base course | 7.08 | 7.08 | 100% | - | - | 7.08 | 100% |
| 3 | Surface courses and pavement | | | | | | | |
| a | Asphaltic concrete for wearing course & allied activities | 7.08 | 7.08 | 100% | - | - | 7.08 | 100% |
| b | Rigid pavement (Half Pavement Width) | 6.48 | 6.48 | 100% | - | - | 6.48 | 100% |
| 4a-i | Retaining wall (RW-2) Total L = 4025 m | | | | | | | |
| a | Retaining wall : H= 1.00 m ; L= 500m | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| b | Retaining wall : H= 1.5 m ; L= 900m | 3.00 | 3.00 | 100% | - | - | 3.00 | 100% |
| c | Retaining wall : H= 3.0 m ; L= 50m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Retaining wall : H= 3.5 m ; L= 575m | 5.75 | 3.49 | 61% | 0.00 | 0% | 3.49 | 61% |
| e | Retaining wall : H= 4.0 m ; L= 875m | 8.75 | 7.04 | 80% | 0.00 | 0% | 7.04 | 80% |
| f | Retaining wall : H= 5.0 m ; L= 125m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| g | Retaining wall : H= 6.0 m ; L= 750m | 15.00 | 14.30 | 95% | 0.00 | 0% | 14.30 | 95% |
| h | Retaining wall: H= 8.0 m ; L= 250m | 5.00 | 5.00 | 100% | - | - | 5.00 | 100% |
| 4a-ii | Breast wall - 325m | 3.25 | 3.18 | 98 % | 0.07 | 2% | 3.25 | 100 % |
| 4b-i | Construction of New culverts-Flexible pavement | | | | | | | |
| i | 1 x 2 x 2.5 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | 1 x 2 x 2.5 (20 deg skew) | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| iii | 1 x 2 x 2.5 (20 deg skew) - loop # 2 | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| 4b-ii | Construction of New culverts (replacement of old) -Flexible pavement | | | | | | | |
| i | 2 x 3 x 2.5 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | 2 x 3 x 2.0 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| iii | 1 x 2 x 3 - loop # 2 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| iv | 1 x 2 x 3 (15 deg skew) - loop # 2 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| v | 1 x 2 x 2.5 - loop # 2 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4b-iii | Construction of new culverts (replacement of old) rigid pavement 1 x 2 x 2.5 - loop # 2, 1 x 2 x 3 loop #2, Service ducts | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 5a | Drainage & erosion works (road side drain) | | | | | | | |
| i | Drain type D-1 covered (150 m) | 1.00 | 0.24 | 24% | 0.00 | 0% | 0.24 | 24% |
| ii | Drain type D-1a uncovered (400 m) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| iii | Drain type D-2 covered (225 m) | 1.00 | 0.85 | 85% | 0.00 | 0% | 0.85 | 85% |
| iv | Drain type D-2a uncovered (200 m) | 1.00 | 0.65 | 65% | 0.00 | 0% | 0.65 | 65% |
| v | Drain type D-4 (700 m) | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| vi | Drain type D-3 (3511 m) | 7.02 | 6.66 | 95% | 0.00 | 0% | 6.66 | 95% |
| 5b | Road protection works : Metal guard rail (50m) , Barrier (200m) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 6 | Ancillary works(traffic road signs, pavement marking / studs & km posts) | 1.00 | 0.75 | 75% | 0.05 | 5% | 0.80 | 80% |
| 7 | Diversion | 5.16 | 5.16 | 100% | - | - | 5.16 | 100% |
| TOTAL | | 124.30 | 117.69 | 97.0% | 0.12 | 0.5% | 117.81 | 97.5% |

2.2 Section-V (Km 21+100 - 22+400 & 24+000- 29+000)

| Sr No. | Section V (Km 21+100 - 22+400 & 24+000- 29+000) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|--|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Earth work | 12.600 | 12.60 | 100% | - | - | 12.60 | 100% |
| 2 | Sub base & base course | | | | - | - | | |
| a | Granular sub base | 12.600 | 12.60 | 100% | - | - | 12.60 | 100% |
| b | Water bound macadam | 10.472 | 10.47 | 100% | - | - | 10.47 | 100% |
| c | Asphaltic base course | 10.472 | 10.47 | 100% | - | - | 10.47 | 100% |
| 3 | Surface courses and pavement | | | | - | - | | |
| a | Asphaltic concrete for wearing course & allied activities | 10.472 | 10.47 | 100% | - | - | 10.47 | 100% |
| b | Rigid pavement (Half Pavement Width) | 2.900 | 2.90 | 100% | - | - | 2.90 | 100% |
| 4a-i | Retaining wall (RW-2) Total L = 3375 m | | | | | | | |
| a | Retaining wall : H= 1.00 m ; L= 925m | 3.083 | 3.08 | 100% | - | - | 3.08 | 100% |
| b | Retaining wall : H= 2.5 m ; L= 350m | 2.000 | 2.00 | 100% | - | - | 2.00 | 100% |
| c | Retaining wall : H= 3.0 m ; L= 925m | 3.083 | 3.083 | 100% | - | - | 3.083 | 100% |
| d | Retaining wall : H= 3.5 m ; L= 300m | 2.000 | 2.00 | 100% | - | - | 2.00 | 100% |
| e | Retaining wall : H= 4.0 m ; L= 350m | 2.000 | 2.00 | 100% | - | - | 2.00 | 100% |
| f | Retaining wall : H= 4.5 m ; L= 50m | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| g | Retaining wall : H= 5.0 m ; L= 50m | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| h | Retaining wall: H= 6.0 m ; L= 325m | 3.250 | 3.25 | 100% | - | - | 3.25 | 100% |
| i | Retaining wall: H= 7.0 m ; L= 100m | 1.000 | 0.70 | 70% | 0.00 | 0% | 0.70 | 70% |
| j | Parapet walls : L = 925 m | 5.000 | 3.00 | 60% | 0.00 | 0% | 3.00 | 60% |
| k | Retaining wall (PCC): H= 3.0 m; L= 400m | 3.000 | 3.00 | 100% | - | - | 3.00 | 100% |
| 4a-ii | Breast wall - 455m | | | | - | - | | |
| a | Breast wall (RW-3) H=2.0 m , L=55 m | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Breast wall (RW-3) H=3.0 m , L= 400 m | 2.000 | 2.00 | 100% | - | - | 2.00 | 100% |
| 4b-i | Construction of New culverts-Flexible pavement | | | | - | - | | |
| i | 1 x 2 x 2.5 | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | 1 x 3 x 2.5 | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4b-ii | Construction of New culverts (replacement of old) -Flexible pavement | | | | - | - | | |
| i | 1x 2 x 2.5 (20 deg skew) | 3.000 | 3.00 | 100% | - | - | 3.00 | 100% |
| ii | 1 x 3 x 2 | 2.000 | 2.00 | 100% | - | - | 2.00 | 100% |
| iii | 1 x 3 x 2.5 | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| iv | 3 x 3 x 4 (20 deg skew) | 1.000 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| v | 2 x 3 x 3 (20 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| vi | 2 x 3 x 2.5 (45 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| vii | 3 x 3 x 2.5 (20 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| viii | 1 x 3 x 4 (25 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| ix | Service ducts (17 Nos) | 17.000 | 17.00 | 100% | - | - | 17.00 | 100% |
| 4b-iii | Construction of causeways L = 234.00 m | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 5a | Drainage & erosion works (road side drain) | | | | - | - | | |
| i | Drain type D-1 covered (800 m) | 4.000 | 2.89 | 72% | 0.00 | 0% | 2.89 | 72% |
| ii | Drain type D-1a uncovered (1600 m) | 4.000 | 4.00 | 100% | - | - | 4.00 | 100% |
| iii | Drain type D-2 covered (1225 m) | 3.063 | 1.95 | 64% | 0.00 | 0% | 1.95 | 64% |
| iv | Drain type D-2a uncovered (2240 m) | 4.978 | 4.98 | 100% | - | - | 4.98 | 100% |
| v | Drain type D-4 (475 m) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| vi | Drain type D-3 (225 m) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 6 | Ancillary works(traffic road signs, pavement marking / studs & km posts) | | | | - | - | | |
| i | Traffic signs / Km Posts | 1.000 | 0.50 | 50% | 0.25 | 25% | 0.75 | 75% |
| ii | Pavement Markings / Studs | 1.000 | 0.95 | 95% | 0.00 | 0% | 0.95 | 95% |
| 7 | Diversion | 6.300 | 6.30 | 100% | - | - | 6.30 | 100% |
| TOTAL | | 146.273 | 140.20 | 96% | 0.25 | 0.05 | 140.45 | 96.05% |

2.3 Section-VI (Km 29+000 - 33+000)

| Sr No | Section VI (Km 29+000 – 33+000) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Earth work | 8.000 | 8.00 | 100% | - | - | 8.00 | 100% |
| 2 | Sub base & base course | | | | | | | |
| a | Granular sub base | 8.000 | 8.00 | 100% | - | - | 8.00 | 100% |
| b | Water bound macadam | 6.030 | 6.03 | 100% | - | - | 6.03 | 100% |
| c | Asphaltic base course | 6.030 | 6.03 | 100% | - | - | 6.03 | 100% |
| d | Earthen dowel | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 3 | Surface courses and pavement | | | | | | | |
| a | Asphaltic concrete for wearing course & allied activities | 6.030 | 6.03 | 100% | - | - | 6.03 | 100% |
| b | Rigid pavement (Half Pavement Width) | 2.880 | 2.88 | 100% | - | - | 2.88 | 100% |
| 4a | Retaining wall (RW-2) Total L = 1175 m | | | | - | - | | |
| a | Retaining wall : H= 2.5 m ; L= 275m | 2.750 | 2.29 | 83% | 0.00 | 0% | 2.29 | 83% |
| b | Retaining wall : H= 3.0 m ; L= 450m | 4.500 | 4.50 | 100% | 0.00 | 0% | 4.50 | 100% |
| c | Retaining wall : H= 3.5 m ; L= 100m | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Retaining wall : H= 4.0 m ; L= 100m | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| e | Retaining wall : H= 4.5 m ; L= 250m | 2.500 | 2.39 | 96% | 0.00 | 0% | 2.39 | 96% |
| 4b-i | Construction of New culverts-Flexible pavement 1 x 2 x 3.5 (40 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4b-ii | Construction of New culverts (replacement of existing) -Flexible pavement | | | | | | | |
| i | 1x 2 x 4.5 (20 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | 1 x 2 x 3 (25 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| iii | 2 x 3 x 5 (25 deg skew) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4b-iii | Construction of New culverts on W&S road | | | | | | | |
| i | 1 x 2 x 2 (14.70 m length) | 2.000 | 0.90 | 45% | 0.10 | 10% | 1.00 | 50% |
| ii | 1 x 2 x 2 (12.00 m length) | 1.000 | 0.90 | 90% | 0.10 | 10% | 1.00 | 100% |
| iii | Service ducts | 13.000 | 13.00 | 100% | - | - | 13.00 | 100% |
| 4c | Construction of causeways L = 265.00 m | 1.000 | 0.92 | 92% | 0.00 | 0% | 0.92 | 92% |
| 5a | Drainage & erosion works (road side drain) | | | | | | | |
| i | Drain type D-1 covered (625 m) | 1.250 | 1.09 | 87% | 0.00 | 0% | 1.09 | 87% |
| ii | Drain type D-1a uncovered (2400 m) | 4.800 | 4.80 | 100% | - | - | 4.80 | 100% |
| iii | Drain type D-2 covered (450 m) | 1.000 | 0.61 | 61% | 0.00 | 0% | 0.61 | 61% |
| iv | Drain type D-2a uncovered (1225 m) | 2.450 | 2.45 | 100% | - | - | 2.45 | 100% |
| v | Drain type D-4 (525 m) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| vi | Drain type D-3 (100 m) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| vii | Drain type D-3 (225 m) W&S Road | 1.000 | 0.00 | 0% | 1.00 | 100% | 1.00 | 100% |
| 5b | Road Protection works | | | | | | | |
| i | Stone Pitching (350 m) W&S Road | 1.000 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| ii | Gabion (300m) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 6 | Ancillary works(traffic road signs, pavement marking / studs & km posts) | | | | | | | |
| i | Traffic signs / Km Posts | 1.000 | 0.50 | 50% | 0.25 | 25% | 0.75 | 75% |
| ii | Pavement Markings / Studs | 1.000 | 0.75 | 75% | 0.00 | 0% | 0.75 | 75% |
| 7 | Diversion | 4.000 | 4.00 | 100% | - | - | 4.00 | 100% |
| 8a | Monuments & Weigh Station | | | | | | | |
| i | Weight Station (2Nos) | 1.000 | 0.50 | 50% | 0.00 | 0% | 0.50 | 50% |
| ii | Monuments (01 Nos) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| 8b | Relocation of Buildings | | | | | | | |
| i | Relocation of Boundary walls | 1.000 | 0.80 | 80% | 0.00 | 0% | 0.80 | 80% |
| ii | Relocation of Buildings | 1.000 | 0.75 | 75% | 0.00 | 0% | 0.75 | 75% |
| 8c | Relocation of MES Water Supply line (Km 30+700 to 33+850) | 1.000 | 1.00 | 100% | - | - | 1.00 | 100% |
| TOTAL | | 96.220 | 90.12 | 90% | 1.45 | 1% | 91.57 | 91% |

2.4 Bridge at Km 18+475

| Sr No | Bridge at Km 18+475 | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Raft foundation , cut off wall , abut wall , abutment seal & wing wall | | | | | | | |
| a | Raft foundation , cut off wall | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Granular sub base | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 2 | Construction of Deck Slab | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 3 | Dismantling, Structural Excavation, Backfilling , Drainage & Erosion , Rigid pavement & Ancillary works | | | | | | | |
| a | Dismantling, | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Structural Excavation, Backfilling , | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| c | Drainage & Erosion , Rigid pavement & Ancillary works | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Ancillary works | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| TOTAL | | 7.0 | 7.00 | 100% | - | - | 7.00 | 100% |

2.5 Bridge at Km 27+000

| Sr No | Bridge at Km 27+000 | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Construction of Piles | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 2 | Pile caps , abutment walls, Pier Shaft , Wing walls & Transom | | | | | | | |
| a | Pile caps | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Abutment walls, Pier Shaft , Wing walls & Transom | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 3 | Casting & Launching of precast panels | | | | - | - | | |
| a | Construction of Pre-cast panels | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Launching of Pre-cast Panels | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4 | Construction of Deck Slab | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 5 | Structural Excavation, Dismantling Backfilling , Earth work, surface course & pavement , drainage & Erosion & Ancillary works | | | | | | | |
| a | Excavate surplus common material , Dismantling of structures | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Surface course & pavement | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| c | Structures excavation & back fill | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Approach slabs | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| e | Drainage & Erosion works | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| f | Ancillary works | 1.0 | 0.67 | 67% | 0.00 | 0% | 0.67 | 67% |
| TOTAL | | 12.0 | 11.67 | 99.97% | 0.00 | 0% | 11.67 | 99.97% |

2.6 Bridge at Km 27+250

| Sr No | Bridge at Km 27+250 | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|--|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Pile load test & Construction of Piles | | | | | | | |
| a | Pile load test | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Construction of Piles | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 2 | Pile caps , abutment walls, Pier Shaft , Wing walls & Transom | | | | | | | |
| a | Pile caps | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Abutment walls, Pier Shaft , Wing walls & Transom | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 3 | Casting & Launching of precast panels | | | | | | | |
| a | Construction of Pre-cast panels | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Launching of Pre-cast Panels | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4 | Construction of Deck Slab | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 5 | Structural Excavation, Dismantling Backfilling , Earth work , surface course & pavement , drainage & Erosion & Ancillary works | | | | | | | |
| a | Excavate surplus common material, Dismantling of structures | 1.0 | 0.50 | 50% | 0.25 | 25% | 0.75 | 75% |
| b | Surface course & pavement | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| c | Structures excavation & back fill | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Approach slabs | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| e | Drainage & Erosion works | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| f | Ancillary works | 1.0 | 0.67 | 67% | 0.00 | 0% | 0.67 | 67% |
| TOTAL | | 13.0 | 12.17 | 97% | 0.25 | 1% | 12.42 | 98% |

2.7 Bridge at Km 2+200

| Sr No. | Bridge at Km 2+200 | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Dismantling of Existing Expansion joint , concreting of new expansion joint & Installation of New Expansion joint | | | | | | | |
| a | Dismantling of Existing Expansion joint | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | Concreting of new expansion joint | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| c | Installation of New Expansion joint | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| TOTAL | | 3.0 | 3.00 | 100% | - | - | 3.00 | 100% |

2.8 Bridge at Km 11+560

| Sr No | Bridge at Km 11+560 | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|
| | | | No of Milestones Achieved | Percentage Accomplished | No of Milestones Achieved | Percentage Accomplished | No of Milestones Achieved | Percentage Accomplished |
| 1 | Dismantling of Existing Expansion joint , concreting of new expansion joint & Installation of New Expansion joint | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 2 | Construction of PCC Protection wall & Random Rubble masonry wall | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| TOTAL | | 2.0 | 2.00 | 100% | - | - | 2.00 | 100% |

2.9 Bridge at Km 21+320

| Sr No | Bridge at Km 21+320 | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Roll Pointing | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 2 | Dismantling of existing railing , Construction of new steel railing as per dwg , poly urethane paint on existing steel girders | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 3 | Pressure grouting of existing abutments | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4 | Scarification of existing road pavement , surface course & pavement, drainage & erosion works , Ancillary works | | | | | | | |
| a | Scarification of existing road pavement | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | surface course & pavement | 1.0 | 1.00 | 100% | - | - | 1.00 | 100% |
| c | drainage & erosion works | 1.0 | 0.85 | 85% | 0.00 | 0% | 0.85 | 85% |
| d | Ancillary works | 1.0 | 0.50 | 50% | 0.00 | 0% | 0.50 | 50% |
| TOTAL | | 7.0 | 6.35 | 91% | 0.00 | 0% | 6.35 | 91% |

2.10 Section-VII (Km 33+000 to Km 37+000)

| Sr No | Section VII (Km 33+000 – 37+000) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|-------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Earth work | 8.00 | 7.65 | 96% | 0.35 | 4% | 8.00 | 100% |
| 2 | Sub base & base course | | | | | | | |
| a | Granular sub base | 8.00 | 7.65 | 96% | 0.35 | 4% | 8.00 | 100% |
| b | Water bound macadam | 6.50 | 6.15 | 95% | 0.35 | 5% | 6.50 | 100% |
| c | Asphaltic base course | 6.50 | 6.15 | 95% | 0.35 | 5% | 6.50 | 100% |
| 3 | Surface courses and pavement | | | | | | | |
| a | Asphaltic concrete for wearing course & allied activities | 6.50 | 6.10 | 94% | 0.40 | 6% | 6.50 | 100% |
| b | Rigid pavement | 3.00 | 3.00 | 100% | - | - | 3.00 | 100% |
| 4a | Retaining wall (RW-2) Total L = 1225 m | | | | | | | |
| a | Retaining wall : H= 1.00 m ; L= 300m | 2.00 | 1.04 | 52% | 0.00 | 0% | 1.04 | 52% |
| b | Retaining wall : H= 1.50 m ; L= 50m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| c | Retaining wall : H= 2.00 m ; L= 40m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Retaining wall : H= 2.50 m ; L= 80m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| e | Retaining wall : H= 3.00 m ; L= 250m | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| f | Retaining wall : H= 3.50 m ; L= 200m | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| g | Retaining wall : H= 4.00 m ; L= 50m | 1.00 | 0.60 | 60% | 0.00 | 0% | 0.60 | 60% |
| h | Retaining wall : H= 6.00 m ; L= 225m | 3.00 | 1.93 | 64% | 0.53 | 18% | 2.46 | 82% |
| i | Retaining wall : H= 8.00 m ; L= 30m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4b-i | Construction of New culverts-Flexible 90 cm pipe culvert | 1.00 | 0.90 | 90% | 0.00 | 0% | 0.90 | 90% |
| 4b-ii | Construction of New culverts (replacement of existing) -Flexible pavement | | | | | | | |
| i | 1x 2 x 2 (15 deg skew) | 1.00 | 0.95 | 95% | 0.00 | 0% | 0.95 | 95% |
| ii | 1 x 2 x 5.5 (30 deg skew) box culvert | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| iii | 1 x 2 x 5.5 (30 deg skew) landikotal | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| iv | 2 x 3 x 6 (20 deg skew) | 1.00 | 0.95 | 95% | 0.00 | 0% | 0.95 | 95% |
| v | 1 x 3 x 5 (25 deg skew) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| vi | 1 x 2 x 2.5 (25 deg skew) | 1.00 | 0.85 | 85% | 0.00 | 0% | 0.85 | 85% |
| Vii | Service ducts | 14.00 | 14.00 | 100% | - | - | 14.00 | 100% |
| Viii | Service Duct KM 37+000 – 41+000 | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4c | Construction of causeways L = 38.0 m | 1.00 | 0.92 | 92% | 0.00 | 0% | 0.92 | 92% |
| 5a-1 | Drainage & erosion works (road side drain) Km 33+000 – Km 37+000 | | | | | | | |
| I | Drain type D-1 covered (2400 m) | 6.00 | 4.00 | 67% | 0.50 | 8% | 4.50 | 75% |
| li | Drain type D-1 covered Dep (800 m) | 2.00 | 1.00 | 50% | 0.00 | 0% | 1.00 | 50% |
| iii | Drain type D-1a uncovered (950 m) | 2.00 | 2.00 | 100% | - | - | 2.00 | 100% |
| iv | Drain type D-2a covered (200 m) | 1.00 | 0.90 | 90% | 0.10 | 10% | 1.00 | 100% |
| v | Drain type D-3 (800 m) | 1.00 | 0.93 | 93% | 0.07 | 7% | 1.00 | 100% |
| vi | Drain type D-4 (200 m) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 5a-2 | Drainage & erosion works (road side drain) Km 37+000 – Km 41+000 | | | | | | | |
| i | Drain type D-3a (Lean Concrete) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | Drain type D-4 (925 m) | 6.17 | 1.85 | 30% | 0.80 | 13% | 2.65 | 43% |
| 5b | Road Protection works) Km 37+000 – Km 41+000 | | | | | | | |
| i | Jersey barrier | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 6a | Ancillary works Km 33+000 – 37+000 | | | | | | | |
| i | Traffic signs / Km Posts | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| ii | Pavement Markings / Studs | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| 6b | Ancillary works Km 37+000 – 41+000 | | | | | | | |
| i | Traffic signs / Km Posts | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| ii | Pavement Markings / Studs | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| 7a | Diversion Km 33+000 – 37+000 | 4.00 | 3.80 | 95% | 0.20 | 5% | 4.00 | 100% |
| 7b | Diversion Km 37+000 – 41+000 | 4.00 | 4.00 | 100% | - | - | 4.00 | 100% |

| Sr No | Section VII (Km 33+000 – 37+000) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|--|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 8a | Relocation of Buildings Km 33+000 – Km 37+000 | | | | | | | |
| i | Relocation of Boundary walls | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | Relocation of Buildings | 1.00 | 0.80 | 80% | 0.00 | 0% | 0.80 | 80% |
| 8b | Relocation of Buildings Km 37+000 – Km 41+000 | | | | | | | |
| i | Relocation of Buildings | 1.00 | 0.20 | 20% | 0.10 | 10% | 0.30 | 30% |
| 9 | Utilities Shifting / Relocation | | | | | | | |
| i | MES Water Supply | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| ii | PHE Water Supply | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| iii | OFC Cable | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| iv | Copper Cable | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| v | OFC Cable | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| vi | HT/LT Lines Km 9+00 – 35+00 | 2.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| vii | HT /LT Lines Km 35+00 – 38+00 | 3.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| TOTAL | | 121.67 | 95.32 | 80% | 4.10 | 3% | 99.42 | 83% |

2.11 Section-VIII (Km 37+000 to Km 41+000)

| Sr No | Section VIII (Km 37+000 – 41+000) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|-------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Earth work | 8.00 | 8.00 | 100% | - | - | 8.00 | 100% |
| 2 | Sub base & base course | | | | | | | |
| a | Granular sub base | 8.00 | 8.00 | 100% | - | - | 8.00 | 100% |
| b | Water bound macadam | 1.70 | 1.70 | 100% | - | - | 1.70 | 100% |
| c | Asphaltic base course | 1.70 | 1.70 | 100% | - | - | 1.70 | 100% |
| 3 | Surface courses and pavement | | | | | | | |
| a | Asphaltic concrete for wearing course & allied activities | 1.70 | 1.70 | 100% | - | - | 1.70 | 100% |
| b | Rigid pavement | 12.60 | 12.60 | 100% | - | - | 12.60 | 100% |
| 4a-i | Retaining wall (RW-2) Total L = 2495 m | | | | | | | |
| a | Retaining wall : H= 1.50 m ; L= 1225m | 6.13 | 4.62 | 75% | 0.73 | 12% | 5.35 | 87% |
| b | Retaining wall : H= 2.00 m ; L= 275m | 1.80 | 1.80 | 100% | - | - | 1.80 | 100% |
| c | Retaining wall : H= 2.50 m ; L= 75m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | Retaining wall : H= 3.50 m ; L= 40m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| e | Retaining wall : H= 4.00 m ; L= 340m | 3.40 | 2.98 | 88% | 0.00 | 0% | 2.98 | 88% |
| f | Retaining wall : H= 6.00 m ; L= 350m | 3.50 | 2.44 | 70% | 0.93 | 26% | 3.37 | 96% |
| g | Retaining wall : H= 8.00 m ; L= 50m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| h | Retaining wall : H= 10.00 m ; L= 140m | 1.00 | 0.94 | 94% | 0.00 | 0% | 0.94 | 94% |
| i | Retaining wall : H= 10.00 m ; L= 140m Class B Concrete | 1.00 | 0.94 | 94% | 0.00 | 0% | 0.94 | 94% |
| 4a-ii | Breast Wall (RW-3) = 485 M | | | | | | | |
| a | Breast Wall H = 2.00 m ; L = 50 m | 1.00 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% |
| b | Breast Wall H = 3.00 m ; L = 360 m | 3.00 | 1.79 | 60% | 0.90 | 30% | 2.69 | 90% |
| c | Breast Wall H = 4.00 m ; L = 75 m | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| 4b-i | Culverts (New Culverts) | | | | | | | |
| a | 1 x 2 x 3 (Additional lane) New | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| b | 1 x 2 x 2.5 (25 deg skew) New | 1.00 | 0.95 | 95% | 0.00 | 0% | 0.95 | 95% |
| c | 2 x 2 x 3 (25 deg skew) Replacement | 1.00 | 0.95 | 95% | 0.05 | 5% | 1.00 | 100% |
| d | 1 x 3 x 4.5 (35 deg skew) Additional cut | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| e | 2 x 3 x 5 (35 deg skew) Box Culvert | 1.00 | 0.90 | 90% | 0.05 | 5% | 0.95 | 95% |
| f | 1 x 2 x 2.5 Repair existing slab Culvert | 4.00 | 3.10 | 78% | 0.30 | 7% | 3.40 | 85% |
| g | 1 x 2 x 2.5 (20 deg skew) New | 1.00 | 0.95 | 95% | 0.05 | 5% | 1.00 | 100% |
| h | 1 x 2 x 2.5 (22 deg skew) New | 1.00 | 0.90 | 90% | 0.10 | 10% | 1.00 | 100% |
| i | 1 x 2 2.5 (12.81 deg skew) New | 1.00 | 0.90 | 90% | 0.00 | 0% | 0.90 | 90% |

| Sr No | Section VIII (Km 37+000 – 41+000) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 4b-ii | Pipe Culverts | | | | | | | |
| a | 1.5 m dia 0 deg skew New | 3.00 | 2.85 | 95% | 0.00 | 0% | 2.85 | 95% |
| b | 1.5 m dia 0 deg skew Replacement | 1.00 | 0.80 | 80% | 0.10 | 10% | 0.90 | 90% |
| c | 1.5 m dia 15 deg skew Replacement | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| d | 1.5 m dia 20 deg skew Replacement | 2.00 | 1.60 | 80% | 0.00 | 0% | 1.60 | 80% |
| e | 1.5 m dia 20 deg skew New | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| f | 1.5 m dia 20 deg skew New with cascade | 2.00 | 1.85 | 93% | 0.05 | 3% | 1.85 | 93% |
| g | 1.5 m dia 25 deg skew New with channel | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| h | Service ducts | 4.00 | 2.00 | 50% | 0.00 | 0% | 2.00 | 50% |
| 5a | Drainage & erosion works (road side drain) | | | | | | | |
| l | Drain type D-2 covered (150 m) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| v | Drain type D-3 (3125 m) | 8.928 | 7.75 | 87% | 0.25 | 3% | 8.00 | 90% |
| 5b | Crash Barrier (200m) | 1.00 | 1.00 | 100% | - | - | 1.00 | 100% |
| TOTAL | | 96.45 | 85.71 | 96% | 3.46 | 2% | 89.17 | 98% |

2.12 Section-IX (Km 41+000 – Km 43+465 & Loop 3)

| Sr No | Section IX (Km 41+000 – Km 43+465 & Loop 03) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|-------|---|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| 1 | Earth work | 8.506 | 8.506 | 100% | - | - | 8.506 | 100% |
| 2 | Sub base & Base course | | | | | | | |
| a | Granular Sub Base | 8.506 | 8.506 | 100% | - | - | 8.506 | 100% |
| b | Water Bound Macadam | 0.900 | 0.900 | 100% | - | - | 0.900 | 100% |
| c | Asphaltic Base Course | 2.560 | 2.560 | 100% | - | - | 2.560 | 100% |
| 3 | Surface Courses & Pavement | | | | | | | |
| a | Asphaltic Concrete Wearing Course | 2.710 | 2.710 | 100% | - | - | 2.710 | 100% |
| b | Rigid Pavement | 14.752 | 14.612 | 99% | 0.000 | 0% | 14.612 | 99% |
| 4a-i | Retaining wall (RW-2) - 1680m | | | | | | | |
| a | H= 1.50 m, L= 425m | 2.833 | 2.833 | 100% | - | - | 2.833 | 100% |
| b | H= 2.00 m, L= 570m | 3.800 | 3.120 | 82% | 0.140 | 4% | 3.260 | 86% |
| c | H= 2.50 m, L= 175m | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| d | H= 3.00 m, L= 40m | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| e | H= 4.00 m, L= 75m | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| f | H= 5.00 m, L= 185m | 1.000 | 0.550 | 55% | 0.000 | 0% | 0.550 | 55% |
| g | H= 5.50 m, L= 50m | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| h | H= 6.00 m, L= 10m | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| i | H= 8.00 m, L= 150m | 2.000 | 2.000 | 100% | - | - | 2.000 | 100% |
| 4a-ii | Breast wall (RW-3) - 625 m | | | | | | | |
| a | H= 1.50 m, L= 25m | 1.000 | 0.000 | 0% | 0.000 | 0% | 0.000 | 0% |
| b | H= 2.50 m, L= 75m | 1.000 | 0.000 | 0% | 0.000 | 0% | 0.000 | 0% |
| c | H= 3.00 m, L= 400m | 2.000 | 1.650 | 83% | 0.350 | 17% | 2.000 | 100% |
| d | H= 4.00 m, L= 125m | 1.000 | 0.480 | 48% | 0.520 | 52% | 1.000 | 100% |
| e | RCC cut off wall (50m length) | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| f | PCC cut off wall (50m length) | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| 4b-i | Structures (Culverts) | | | | | | | |
| a | 1 x 2 x 2.5 | 4.000 | 3.750 | 94% | 0.000 | 0% | 3.750 | 94% |
| b | 1 x 2 x 2.5 (15 deg skew) | 1.000 | 0.950 | 95% | 0.000 | 0% | 0.950 | 95% |
| c | 2 x 3 x 3 (35 deg skew) | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| d | 1 x 2 x 2.5 (25 deg skew) | 1.000 | 0.950 | 95% | 0.000 | 0% | 0.950 | 95% |
| e | 1 x 2 x 2.5 (35 deg skew) | 1.000 | 0.950 | 95% | 0.000 | 0% | 0.950 | 95% |
| f | 2 x 3 x 4 (35 deg skew) | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| 4b-ii | Pipe Culverts | | | | | | | |

| Sr No | Section IX (Km 41+000 – Km 43+465 & Loop 03) | No of Milestones | Till Previous Month | | Current Month | | Total | |
|--------------|--|------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | | | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed | No of Milestones Achieved | Percentage Completed |
| a | 1.50 m dia with 20 deg skew New | 1.000 | 0.800 | 80% | 0.000 | 0% | 0.800 | 80% |
| b | 1.50m dia with 20 deg skew with Casade | 2.000 | 1.600 | 80% | 0.000 | 0% | 1.600 | 80% |
| c | 1.50 m dia with 15 deg skew with cascade | 1.000 | 0.800 | 80% | 0.000 | 0% | 0.800 | 80% |
| d | 1.50 m dia with 30 deg skew New | 2.000 | 1.850 | 93% | 0.050 | 2% | 1.900 | 95% |
| e | 1.50 m dia with 20 deg skew Rep of existing | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| f | 0.9 m dia.30m length | 1.000 | 0.400 | 40% | 0.000 | 0% | 0.400 | 40% |
| g | 0.9 m dia Additional | 1.000 | 0.800 | 80% | 0.000 | 0% | 0.800 | 80% |
| 4c | Structures Causeways | | | | | | | |
| | Causeway (Length = 75.0m) | 1.000 | 0.920 | 92% | 0.000 | 0% | 0.920 | 92% |
| 4d | Structures (expansion joints, railing on bridges/Multicell culverts) | | | | | | | |
| i. | Steel railing on Multicell culvert at km 22+925(length=72m) | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| ii. | RCC railing on bridge at km 20+750 (length = 70m) | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| iii. | Expansion joint on bridges | 1.000 | 1.000 | 100% | - | - | 1.000 | 100% |
| 5a | Drainage & Erosion works (road side drain) | | | | | | | |
| i. | Drain type D-1 covered (600m) | 3.000 | 2.500 | 83% | 0.000 | 0% | 2.500 | 83% |
| ii. | Drain type D-1 covered depressed(100m) | 1.000 | 0.500 | 50% | 0.250 | 25% | 0.750 | 75% |
| iii. | Drain type D-2 covered (725m) | 3.625 | 2.030 | 56% | 0.970 | 27% | 3.000 | 83% |
| iv. | Drain type D-3 (2950m) | 5.900 | 5.250 | 89% | 0.000 | 0% | 5.250 | 89% |
| v. | Drain type D-4 (100m) | 1.000 | 0.800 | 80% | 0.200 | 20% | 1.000 | 100% |
| 5b | Road protection works | | | | | | | |
| i. | Gabion wall at km 26+250 (length=150m) | 1.000 | 0.500 | 50% | 0.500 | 50% | 1.000 | 100% |
| ii. | New jersey barrier (dual carriageway median) length =200m. | 1.000 | 0.000 | 0% | 0.000 | 0% | 0.000 | 0% |
| iii. | Crash barrier (length=2000m) | 4.000 | 2.500 | 63% | 0.750 | 18% | 3.250 | 81% |
| iv. | Metal guard rail (2500m) | 5.000 | 0.800 | 16% | 0.000 | 0% | 0.800 | 16% |
| 6 | Ancillary works | | | | | | | |
| i. | Traffic signs / km posts | 1.000 | 0.000 | 0% | 0.000 | 0% | 0.000 | 0% |
| ii. | Pavement markings / studs | 1.000 | 0.000 | 0% | 0.000 | 0% | 0.000 | 0% |
| iii. | Gantries (02 nos) | 1.000 | 0.000 | 0% | 0.000 | 0% | 0.000 | 0% |
| 7 | Diversion | 1.500 | 1.500 | 100% | - | - | 1.500 | 100% |
| TOTAL | | 111.592 | 92.574 | 90% | 3.730 | 2% | 95.304 | 92% |

2.13 Forecasted Completion PIL 05, 06 & 07

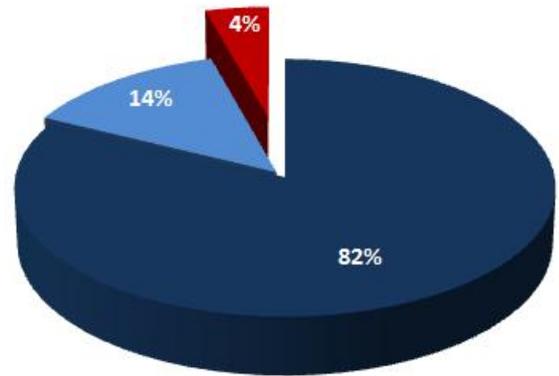
*The following table shows the forecasted completion of in progress activities.

| | Remaining Works | Year 2015 - 2016 | | |
|--------|--|----------------------|-----|-----|
| | | Dec | Jan | Feb |
| PIL 05 | Section –IV (19+000 to Km 21+100 & 22+400 to 24+000 & Loop # 02) | ████████████████████ | | |
| | Section –V (Km 21+100 - 22+400 and 24+000 - 29+000) | ████████████████████ | | |
| | Section –VI (Km 29+000- 33+000) | ████████████████████ | | |
| | Construction of Bridge at Km 21+320 | ████████████████████ | | |
| | Construction of Bridge at Km 27+000 | ████████████████████ | | |
| | Construction of Bridge at Km 27+250 | ████████████████████ | | |
| PIL 06 | Section –VII (Km 33+000 - Km 37+000) | ████████████████████ | | |
| | Section –VIII (Km 37+000 – Km 41+000) | ████████████████████ | | |
| PIL 07 | Section –IX (Km 41+000 – 43+465 & Loop # 3) | ████████████████████ | | |

*Note: FWO has not provided the construction schedule; the above table is based on assumptions keeping the current progress, weather condition and construction sequence of sub activities.

3. FINANCIAL PROGRESS (BUDGET / ACCRUED / ACCRUALS)

Financial progress till end of reporting month was 82%. US\$ 7,891,226 was certified during the reporting month. Total Accrued expenditure is US\$ 69,466,707 out of US\$ 84,364,699. Total accruals till end of reporting month were US\$ 80,767,125 i.e. 96%.



■ Total Amount Certified = \$ 69,466,707
■ Work done amount not certified = \$ 11,300,418
■ Balance Work = \$ 3,597,574

PIL wise details are given in the table below:

Details of Accrued Expenditure and Accruals

| Sr No | PIL | Sub - Projects | | Sub-Project Cost | PIL Cost | Till Previous Month | | Current Month | | Accumulative | | Total Accruals | Balance Work |
|--------------|--------|----------------|--------------|---------------------|--------------|---------------------|---------------------|---------------------|------------------|---------------------|--------------------------------|---------------------|--------------------|
| | | Road | Bridges | | | Accrued Expenditure | Accruals | Accrued Expenditure | Accruals | Accrued Expenditure | Work done amount not Certified | | |
| 1 | PIL 01 | Sec I | - | \$9,978,081 | \$9,978,082 | \$9,978,081 | \$9,978,081 | - | - | \$9,978,082 | - | \$9,978,082 | - |
| 2 | PIL 02 | Sec II | - | \$9,383,483 | \$9,383,484 | \$9,383,483 | \$9,383,483 | - | - | \$9,383,484 | - | \$9,383,484 | - |
| 3 | PIL 03 | Sec III | - | \$9,512,705 | \$9,512,705 | \$9,512,705 | \$9,512,705 | - | - | \$9,512,705 | - | \$9,512,705 | - |
| 4 | PIL 04 | - | at Km 9+560 | \$1,225,965 | \$3,668,533 | \$1,225,965 | \$1,225,965 | - | - | \$1,225,965 | - | \$1,225,965 | - |
| | | - | at Km 23+750 | \$1,392,302 | | \$1,392,302 | \$1,392,302 | - | - | \$1,392,302 | - | \$1,392,302 | - |
| | | - | at Km 11+190 | \$604,551 | | \$604,551 | \$604,551 | - | - | \$604,551 | - | \$604,551 | - |
| | | - | at Km 22+925 | \$445,715 | | \$445,715 | \$445,715 | - | - | \$445,715 | - | \$445,715 | - |
| 5 | PIL 05 | Sec IV | - | \$7,663,172 | \$25,444,269 | \$6,997,177 | \$7,415,037 | \$168,073 | \$3,187 | \$7,165,250 | \$252,974 | \$7,418,224 | \$244,948 |
| | | Sec V | - | \$8,580,296 | | \$7,537,045 | \$8,272,102 | \$196,543 | \$3,742 | \$7,733,588 | \$542,256 | \$8,275,844 | \$304,452 |
| | | Sec VI | - | \$6,551,308 | | \$4,462,277 | \$5,939,157 | \$264,273 | \$34,945 | \$4,726,550 | \$1,247,552 | \$5,974,102 | \$577,206 |
| | | - | at Km 18+475 | \$218,068 | | \$184,034 | \$218,068 | \$34,034 | \$0 | \$218,068 | \$0 | \$218,068 | \$0 |
| | | - | at Km 27+000 | \$1,111,838 | | \$757,029 | \$1,111,451 | \$0 | \$0 | \$757,029 | \$354,422 | \$1,111,451 | \$387 |
| | | - | at Km 27+250 | \$1,073,617 | | \$875,900 | \$1,033,072 | \$0 | \$19,989 | \$875,900 | \$177,160 | \$1,053,060 | \$20,557 |
| | | - | at Km 2+200 | \$68,944 | | \$68,944 | \$68,944 | \$0 | \$0 | \$68,944 | \$0 | \$68,944 | \$0 |
| | | - | at Km 11+560 | \$105,296 | | \$37,579 | \$105,296 | \$67,717 | \$0 | \$105,296 | \$0 | \$105,296 | \$0 |
| 6 | PIL 06 | Sec VII | - | \$9,012,926 | \$17,626,462 | \$4,132,934 | \$7,178,104 | \$1,448,463 | \$303,745 | \$5,581,397 | \$1,900,452 | \$7,481,849 | \$1,531,077 |
| | | Sec VIII | - | \$8,613,536 | | \$3,979,760 | \$8,273,316 | \$1,142,273 | \$170,529 | \$5,122,033 | \$3,321,813 | \$8,443,846 | \$169,690 |
| 7 | PIL 07 | Sec IX | - | - | \$8,751,166 | \$0 | \$7,826,968 | \$4,540,534 | \$181,354 | \$4,540,534 | \$3,467,788 | \$8,008,322 | \$742,844 |
| Total | | | | \$84,364,699 | | \$61,575,481 | \$80,049,653 | \$7,891,226 | \$717,491 | \$69,466,707 | \$11,300,418 | \$80,767,125 | \$3,597,574 |

*Accrued Expenditure = Amount Certified
*Accruals = Work Done

4. M&E ACTIVITIES DURING THE REPORTING PERIOD

4.1 Field Inspections

During the reporting month, the following frequency of field inspections by AGES technical staff was carried out:

- Project Manager = 01
- Quality Assurance Manager = 03
- M & E Specialist = 02
- Field Managers = 10
- Environmental compliance officer = 04
- Field Monitors = 22
- Material Engineer / Laboratory Staff = 22

4.2 IPCs Certifications

During the reporting month the following Interim Payment Certificates (IPCs) were Verified & Certified against the approved PIL cost.

| PIL No | IPC No | Date of Certification | Amount Certified USD |
|--------|--------|-----------------------|----------------------|
| 05 | 05 | December 10 ,2015 | 759,957 |
| 06 | 02 | December 10 ,2015 | 2,590,736 |
| 07 | 01 | December 10 ,2015 | 4,540,534 |

4.3 Construction Activities Monitored

| Sr | Activity | Unit | During the reporting Month | | | | | | Completed till Previous Month | Completed in reporting month | Total Completed |
|----|-----------------------------------|------|----------------------------|-------|--------|---------|----------|--------|-------------------------------|------------------------------|-----------------|
| | | | Sec IV | Sec V | Sec VI | Sec VII | Sec VIII | Sec IX | | | |
| 1 | Asphaltic Concrete Wearing Course | Km | - | - | - | 0.23 | - | - | 31.11 | 0.23 | 31.34 |
| 2 | Asphaltic Concrete Base Course | Km | - | - | - | 0.18 | - | - | 31.16 | 0.18 | 31.34 |
| 3 | Water Bound Macadam | Km | - | - | - | 0.2 | - | - | 30.26 | 0.2 | 30.46 |
| 4 | Rigid Pavement | Km | - | - | - | - | - | - | 17.02 | 0 | 17.02 |
| 5 | Granular Sub base | Km | - | - | - | 0.17 | - | - | 47.44 | 0.17 | 47.61 |
| 6 | Earth Work | Km | - | - | - | 0.17 | - | - | 47.44 | 0.17 | 47.61 |
| 7 | Culverts | Nos | - | - | - | - | - | - | 128 | 0 | 128 |
| 8 | Retaining Walls | Km | 0.05 | - | - | 0.15 | 0.24 | 0.04 | 18.13 | 0.49 | 18.62 |
| 9 | Breast Wall | Km | - | - | - | - | 0.12 | 0.13 | 2 | 0.25 | 2.25 |
| 10 | Drains | Km | - | - | - | - | 0.38 | 0.2 | 51.19 | 0.58 | 51.77 |
| 11 | Utility Ducts | Nos | - | - | - | - | - | - | 83 | 0 | 83 |
| 12 | Cause ways | Nos | - | - | - | - | - | - | 11 | 0 | 11 |
| 13 | Metal Guard Rail | Km | - | - | - | - | - | - | 2.79 | 0 | 2.79 |
| 14 | Diversion | Km | - | - | - | 0.3 | - | - | 43.66 | 0.3 | 43.96 |

4.4 Field Observations & Follow up

| Sr. # | Findings | Follow up | Status |
|-------|--|--|---|
| 1 | Drains type D-3 thickness issue | Email : April 15 , 2015 Meeting : Aug 24 , 2015 Oct 15 , 2015 | Matter remain under decision |
| 2 | Substandard works in Retaining and Breast Walls | Emails : Sep 03, 2015 Sep 15 , 2015 Oct 07 , 2015 Oct 27 , 2015 Nov 10, 2015 Nov 24, 2015 Meetings : July 07 , 2015 Aug 24 , 2015 Oct 15, 2015 | Rectification in progress however No improvement observed |
| 3 | Improper backfilling at newly constructed retaining walls, breast walls, culverts, RCC Drains | Emails : May 28, 2015 June 17, 2015 Aug 11, 2015 Oct 07 , 2015 Nov 24, 2015 Meeting : Oct 15, 2015 | Rectification in progress |
| 5 | Sub standard works at KM 10+500 (Baghiari Check Post). | Emails : May 28 , 2015 July 30, 2015 Oct 02, 2015 Nov 10 ,2015 | Rectification in progress |
| 6 | Aerolastic Sealant joint filling not as per specs in Rigid Pavement | Emails : Nov 10, 2015 Nov 20, 2015 Nov 27, 2015 | Rectification Pending |
| 8 | Rigid pavement panels at Km 40+244, 40+359 , 40 +392, constructed in sheer violation (Dowels missing /not aligned at expansion joints) | Email : Sep 08, 2015 Sep 18 , 2015 Oct 07, 2015 Meeting : Oct 15, 2015 | Rectification pending |

4.5 Meetings

Follow-up/coordination meetings conducted with USAID, FWO/NESPAK representatives.

| Date | Participants | Venue |
|--------------|---------------------------------------|-------------------------|
| Dec 01, 2015 | USAID, AGES, FATA Sect FWO, NESPAK | FWO Office, Jamrud Fort |

4.6 Laboratory Tests

The following table shows the frequency of laboratory tests conducted during the reporting month.

| Sr. No. | Test | No of Tests conducted | | | | | | | | |
|--------------|--|-----------------------|----------|-----------|-----------|----------|-----------|------------|----------|------------|
| | | Independent | | | Jointly | | | Total | | |
| | | Total | Fail | Pass | Total | Fail | Pass | Tests | Fail | Pass |
| 1 | Asphaltic concrete wearing course quality test | 14 | 0 | 14 | - | - | - | 14 | 0 | 14 |
| 2 | Asphaltic concrete wearing course compaction test | - | - | - | 4 | 0 | 4 | 4 | 0 | 4 |
| 3 | Asphaltic concrete wearing course cores thickness test | - | - | - | 4 | 0 | 4 | 4 | 0 | 4 |
| 4 | Asphaltic concrete base course quality test | 14 | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 14 |
| 5 | Asphaltic concrete base course cores compaction test | - | - | - | 8 | 0 | 8 | 8 | 0 | 8 |
| 6 | Asphaltic concrete base course cores thickens test | - | - | - | 8 | 0 | 8 | 8 | 0 | 8 |
| 7 | Water Bound Macadam material quality test | 14 | 1 | 13 | - | - | - | 14 | 1 | 13 |
| 8 | Water Bound Macadam field density test (FDT) | - | - | - | 9 | 4 | 5 | 9 | 4 | 5 |
| 9 | Sub base material field density test (FDT) | - | - | - | 9 | 1 | 8 | 9 | 1 | 8 |
| 10 | Sub grade material field density test (FDT) | - | - | - | 1 | 0 | 1 | 1 | 0 | 1 |
| 11 | Aggregate quality test for concrete | 11 | 0 | 11 | - | - | - | 11 | 0 | 11 |
| 12 | Concrete compressive strength test | 26 | 1 | 25 | - | - | - | 26 | 1 | 25 |
| 13 | Stone Dust | 4 | 0 | 4 | - | - | - | 4 | 0 | 4 |
| Total | | 83 | 2 | 81 | 43 | 5 | 38 | 126 | 7 | 119 |

5. ENVIRONMENTAL COMPLIANCE

The Environmental Monitoring Report is attached as **Annex-I**.

6. SECURITY SITUATION

The security situation report is attached as **Annex-II**.

**ANNEXURE-I
ENVIRONMENTAL MONITORING REPORT**

Environmental Monitoring Report

Environmental Compliance Officer: Shabir Ahmad Khan

Road Section under Construction

Section-IV (km: 19+000 to 21+100, km: 22+400 to km; 24+000 & Loop-II)

Section-V (km; 21+100 to km: 22+400 & km: 24+000 to 29+000)

Section-VI (km: 29+000 to 33+00)

Section-VII (km: 33+000 to km: 37+000)

Section-VIII (km: 37+000 to km: 41+000)

Section-IX (km: 41+000 to km: 43+465 & Loop-III)

Persons Consulted at Site

1. Mr. Kamran Site Supervisor, FWO
2. Mr. Mohammad Azam, Site Sub-Engineer, FWO
3. Mr. Mohammad Bilal, Surveyor, FWO

| Work Status | Quality of Environmental Compliance |
|------------------|-------------------------------------|
| Work in Progress | Satisfactory |

Issues at Site

- Heavy dust pollution at diversion near 42+100 Km and diversions from Km 37 to Km 39.
- Km 39+500 Loop III, Excavated material dumped along the road depression, damaged the vegetation, and requires removal.
- Km 35+50 asphalt placement site, requires proper H&S protocols, proper placement of solid waste/building materials
- At, Km 35+500, 42+050, and 38+800 construction sites, require the Health and Safety measures, proper placement of building material & solid waste.
- Installation of traffic sign boards with reflecting material, speed breakers etc. were found missing, especially at diversions.
- While working at sites workers are without using PPE's (Personal protective equipment's).
- Health & Safety arrangements, such as first aid boxes and ambulance services are available at FWO Camp, and will be provided to the workers when needed at site.
- Near Km 31+700, 36+000 crush plants, requires remedy of dust pollution and obey other Health and Safety protocols

Environmental Monitoring Check List for the Site

| S. # | Activity | Mitigation Measures | Monitoring indicators | Field Observations |
|---------------------------|---|---|--|---|
| Construction Phase | | | | |
| 1 | Use of heavy equipment | a. Set protocols for vehicle Maintenance. b. Check fuel level, deliveries, and use. c. Check pipes and joints for leaks. d. Tight & check generators cables and fuel lines. e. Prevent overfilling of main storage and vehicles tanks. f. Avoid parking of heavy equipments under trees to prevent soil compaction and damage to the roots of the trees. | Soil contaminations, stability and erosion | During the site visits, it was observed that heavy and light machinery was properly maintained and parked at FWO camps. |
| 2 | Flood protection | a. Culvert construction to control flood damages and provide safety to embankments. b. Take measures to protect road along the river side. c. Construction of retaining walls. d. Provide new causeways for a smooth flow to flood water during rainy seasons. | Road protection and Safety | Safety measures, such as side drains, culverts and retaining walls construction in sections VII, VIII & IX are in progress to protect road from flood water and provide a smooth flow to wastewater disposal. |
| 3 | Handling and transportation of hazardous waste | a. Prevent dumping of hazardous materials near villages and water bodies. b. Burn waste oil, which is not reusable. c. Recyclable material should not contain heavy metals that are inflammable, investigate and use less toxic alternative products. d. Prohibit use of waste oil for cooking purposes. | Soil Contamination and Safety | During site visits, no hazardous material was found along the road site; therefore, no action as such is further required. |
| 4 | Handling of solid Waste | a. Site manager should feel responsible for collection and disposal of solid waste. b. Provide Training to the site personnel in waste management and its handling procedures. c. Separation of chemical waste for special handling. d. Record the amount of waste, generated recycled & reused e. Proper storage and well managed site practices will minimize the damage to potentially contaminate construction materials. f. Store general refuse in enclosed bins to control its further mixing with construction materials. g. Engage a reputable waste collection firm for waste collection and removal of general refuse at the site. | Toxicity, Soil Contamination and Pollution | During site visits, FWO staff was strictly suggested to comply with the solid waste management protocols to prevent the contamination of construction materials. So far the arrangements, to handle the construction materials at main storage were satisfactory. The solid waste management at sub-contractor sites was not satisfactory. |

| S. # | Activity | Mitigation Measures | Monitoring indicators | Field Observations |
|------|--|--|---|--|
| 5 | Construction crews, camps & Accommodation | a. Check quality & maintenance of accommodation for site crew. b. Avoid cutting of vegetation as much as possible. c. Provide sanitation, such as pit latrines to the site crew on temporary basis. d. Use of local labor. e. Screening test for potentially affected HIV and tuberculosis viruses' site crews. f. Provide education and enforced guidelines to local inhabitants. g. Set guidelines to prohibit poaching and plants collection. h. Provide an adequate and good quality of food to the work force. i. Drinking water should meet WHO standards, and clearly demarcated from water for construction purposes. j. Prohibit domestic pets / livestock to enter into the site. | Ground water pollution and conflicts with locals. | During site visits, it was found that the FWO camp was renovated and properly maintained in order to provide basic facilities to the construction crew, such as washrooms, kitchen, TV lounge, café shop, dining hall etc. The quality of food provided to the FWO labor force was good and found sufficiently enough. Other facilities, such as health hygiene were also found satisfactory. |
| 6 | Material handling, use, and storage | a. Securing of construction materials will ensure a safe passage between destinations for the transport system. Loaded vehicles shall be properly covered to prevent spillage, and contractor should be held responsible to clear them off. b. Transfer and deposit construction materials directly to the site for use. Avoid stockpiles to create less visual impacts. Leftover of any foreign materials on the site should clearly be off, and the project area should also be properly reinstated, affected by any construction activity. c. Avoid spray of any bitumen products on vegetation outside the road area. d. Avoid concrete mixing on ground. e. Use of wet gravel at site. f. Avoid direct fall of drainage water into sensitive areas. g. Control all runoff from batching plants so that cement do not contaminate water, and if any, it should be collected, stored and disposed of at a designated site. h. Collect and deliver empty cement bags to recycling plants. i. Storage of contaminated water should not allow to over flow, and will be protected from rain water. | Dust pollution | FWO labor force was suggested to provide safe passages to dumpers for carrying construction materials from main storage to work places. Further suggested that the construction material should be properly loaded and secured to prevent the material spillage and minimize the stockpiles visual impacts. The compliance about the proper placement and handling of building materials was not satisfactory, especially during retaining walls and culvert construction. |

| S. # | Activity | Mitigation Measures | Monitoring indicators | Field Observations |
|------|--|--|--|---|
| 7 | Materials extraction, Quarrying & logging | a. Identify environment friendly materials within budget. b. Use materials from local road cuts first, only if it produces an aggregate of materials for stabilizing surfaces and filling embankments. c. Project area should be properly restored and treated with erosion control measures once materials removed at site. d. Develop logging, quarrying and borrowing plans, and also take into account its accumulative effects. e. Take photos at site before the start of excavation, so that restoration can match the original site as much as possible. Also make sure that site quarries and gravel pits are invisible to travelers on road. f. Adhere and monitor the plans to minimize side impacts due to extraction activities. Try to modify the plans as much as required. g. Restore and sustain the site area once the extraction activity is over. h. Install drainage structures to direct the water away from pits. i. Implement safety protocols to minimize the risks occurring due to collapse of quarry walls, rocks falling, debris, or any other accidental falls from clefts. j. Discuss the use of retaining walls pits and water ponds with local community as an option used for crops, grazing of cattle, or similar use. | Change in landscape & Creation of water ponds. | FWO management was also advised for proper maintenance of the quarry area as well as the restoration of the original site, once the borrowing activities accomplished. |
| 8 | Site clearing & leveling | a. Minimize disturbance to local flora during construction activities as much as possible. b. Minimize the amount of clearance of small areas for active work once at a time. c. Avoid use of herbicides. Any such use should follow health and safety procedures to protect people and the environment. d. Limit for herbicides use should specified by the manufacturers. e. Clear the project area without destroying plants and turfs, and take measures to preserve and replant where ever is possible. f. Remove Vegetation during dry periods only, and preserve soil top surface if required re spreading. While if it is | Loss of vegetation, soil erosion, stability, water pollution, health of workers and local community. | During the site visits, no impact on vegetation was found as most of the project area is rugged, and of hilly nature. No use of herbicides was found as most of the project area is barren and devoid of the greenery and plantation. Appropriate measures were taken for the conservation of soil. |

| S. # | Activity | Mitigation Measures | Monitoring indicators | Field Observations |
|------|---------------------------------|---|---|--|
| | | <p>removed during wet periods, don't disturb soil just before the actual start of construction.</p> <p>g. Use of erosion control measures such as hay bales.</p> <p>h. Replant and re-vegetate the local flora on immediate basis once removed the equipment from site.</p> | | |
| 9 | Excavation, cutting and filling | <p>a. Cover Piles with plastic sheets, prevent run off with hay bales, or use similar measures.</p> <p>b. Fencing around excavation activities.</p> <p>c. Investigate shallow over excavation and alternatives.</p> <p>d. Construction crews and supervisors must aware of the historic burials, socio-cultural and religious objects. And, if recovered should properly be guarded to avoid any destruction.</p> <p>e. Ensure that excavation is accompanied by a well-engineered drainage system.</p> <p>f. Don't fill the flow line of a watershed. In arid areas, even the occasional rains may create a strong flow of water in channels.</p> <p>g. Adopt best engineering practices, for example, don't use the soil alone, first lay a bed of rock and then gravel it.</p> <p>h. Balance cuts and fills, wherever is possible to minimize the earth work movement.</p> <p>i. Water sprinkling to avoid dust solution on road temporarily used for traffic.</p> | Soil erosion, stability and surface water contamination | <p>Excavation of side drains, culverts and retaining walls construction in section VIII is in progress. While the protocols compliance about the Health & safety and environmental issues are generally missing or insufficient.</p> <p>During site visits, it was also recommended to the subcontractors to properly cover and fence all the culverts construction at work places. A proper drainage system for the smooth flow of water fall during excavations is also needed at site.</p> <p>The flow line of watershed are generally filled with excavated material at many places, these may need to be removed for smooth flow of rain water.</p> |
| 10 | Traffic Control and management | <p>a. Need for practical efforts in order to control and accommodate traffic along the road as far as much as possible.</p> <p>b. Provide sign boards in order to give directions, and guide drivers about diversions.</p> <p>c. Provide proper traffic management training to the contractor staff at the site before the construction activities take place.</p> <p>d. Avoid as much as possible temporary by passes during land clearing at site.</p> <p>e. Maximum speed limit at project site for heavy machinery should not exceed 20Km/hr.</p> <p>f. Try to keep the road partly closed to provide all time maximum safe passage to the</p> | Health and Safety of workers & local population | <p>Traffic flows with diversions along the existing road. Despite the arrangements for diversions, proper traffic signboards for traffic control management are missing at site. Therefore, FWO contractors are strongly suggested:</p> <p>*Install temporary traffic sign boards with reflective materials to maximize drivers' visibility at night.</p> <p>*Construction of speed breakers to specify maximum speed limit for heavy machinery at site. The maximum speed limit should not exceed 20Km/hr.</p> |

| S. # | Activity | Mitigation Measures | Monitoring indicators | Field Observations |
|------|---|--|---|--|
| | | vehicles/pedestrians g. Try to conduct work when traffic volume is low h. Organize a proper schedule in order to deliver sand trucks at the time of less traffic. | | |
| 11 | Blasting | a. Allow minimum blasting as much as possible at site. b. Take Safety measures to provide protection to workers and locals from injuries due to falling of rocks and avalanches. c. Provide protective equipments to the workforce on individual basis. | Noise pollution and occupational safety | Rock excavation for road widening and blasting has almost completed, so these activities were not found during the reporting month. However FWO is advised to provide PPEs (personal protective equipment's) to workers to ensure labor safety at working sites. |
| 12 | Sources of building materials | a. Develop logging, quarrying and borrowing plans to provide cumulative effects of environmental compliance at site. b. Adherence to plans and monitoring over impacts of extraction activities at site. Try to modify these plans as much as required. c. Fill in quarries and pits before the abandoning of the construction activity. d. Control runoff into pits. | Damages to the aquatic, terrestrial ecosystems erosion, siltation, and vector-borne diseases | The environmental compliance about the quarry areas is not satisfactory at previous quarry places. Therefore, FWO is strictly advised to fill the quarries and pits once the borrowing activities accomplished. |
| 13 | Dust Pollution | a. Water spraying. b. Covering of Trucks with tarpaulins. | Nuisance to the public, undermining the quality of air and water due to contamination | Problem of dust pollution has been observed during the reporting month, especially Km 37 and onward and at Loop III. There were some places having dust pollution, owing to heavy commercial traffic along the corridor and nature of soil. Mitigation measures in this aspect taken were not appropriate. In this respect special attention is required to control this issue, because the dust pollution impacts directly on human health. During the month the water sprinkling was not found & covering of trucks is also not in practice. |
| 14 | Borrow Areas | These impacts of borrow areas can be reversed if a diligent restoration process is placed by the contractor as well as approved by the Highway Division. | Rugged landscape, its interference with the local aesthetics; posing of danger to livestock and local community children; holding of stagnant water and taking up of agricultural land. | The activities concerning borrow areas were mostly seen along the non-perennial flooded stream beds, where the restoration is generally made naturally after rain. However, the restoration at some places is required like land leveling etc. that has been not implemented. |
| 15 | Damages to the existing infrastructure | a. Locate different locations of existing infrastructure on both sides of road. b. Avoid damages to locations of | Facilities to the locals | Since project commencement, FWO demonstrated utmost care of the overhead and underground infrastructure |

| S. # | Activity | Mitigation Measures | Monitoring indicators | Field Observations |
|------|---|--|---|---|
| | | water pipes and electricity pylons etc. | | facilities and avoided damages to water pipes and electricity pylons etc. especially during culvert construction. The road is almost near to completion therefore no further issue is likely to be occurred. |
| 16 | Health & Safety of the workers | a. Prepare and implement a Health and Safety Plan at site. b. Exclude public from site area. c. Ensure that workers use Personal Protective Equipments. d. Provide Health & Safety Training (including HIV/AIDS transmission process) to all personnel; e. Follow documented procedures for all activities at site; f. Keep reports and records of accidents. | Workers and public at risk due to accidents at site | During the site visit, it was observed that the compliance about the Health and Safety protocols was generally followed at camp, while neglected at work site. In this regard, FWO officials were advised to observe the protocols compliance concerning the labor safety, preparing of H&S plan and keeping records about accidents, illness and treatments of workers etc. Moreover, training of H&S protocols compliance to the workers is also very important to ensure labor safety and good health at site. Also, health facilities, such as ambulance services, first aid etc. are available at FWO camp and provided to the workers at site when needed. PPEs (Personal protective equipment's) for the safety of labor were missing at project site throughout the project life. |
| 17 | Local Employment | Contractor should hire at least 50% of local workforce at project site. | Economic benefits to the local people | Majority of the FWO workforce are regular employees. Local labor is also hired when needed at site, especially with sub-contractors. |
| 18 | Others concerns like Resettlement etc. | a. Resettlement, if any. b. Provide pedestrians and road access to local people. c. Avoid social disturbances over Infrastructure damages, such as telephone cables, sewerage, water supply schemes etc. d. Avoid Social Conflicts with locals. | Resettlement & Social management | Due to the road construction on the existing corridor, there are some minor resettlement issues in the project area. These issues were resolved in peaceful manner, providing the same construction at other places. The FWO has provided the detail of all the relocated structures. The infrastructure facilities, such as water supply lines, telephone cables and electricity lines etc. are identified and relocated. During site visits, few social conflicts with locals were noticed in the whole period, but resolved properly. |

ENVIRONMENTAL MONITORING



.Km 42+500 and by pass road Km 37 to 39, dust pollution requires sprinkling of water.



Crush Plants near Km 31+, requires proper Health & Safety protocols and other crush plant/mixture plants environmental requirements.



Km 42+500, dust pollution requires sprinkling of water.



Crush Plants near Km 31+ and 36+, requires proper Health & Safety protocols and other crush plant/mixture plants environmental requirements.



Km 35+50 asphalt placement site, requires proper H&S protocols, proper placement of solid waste/building materials



Km 42 working sites, requires proper H&S protocols, proper placement of solid waste/building materials

**ANNEXURE-II
SECURITY REPORT**

MONTHLY SECURITY REPORT

1. Situation Analysis

KP/FATA has retained its “High” risk rating during the reporting period. The region warrants aggressive security measures for ensuring safety of personnel / material and successful implementation of project assignment.

2. USAID’s Threat Assessment

The risk level in KP & FATA is “High” as per USAID threat assessment.

3. Update on On – Job Training of Staff

Regular briefing / cautioning on safety / security of project staff has been carried out by the security officer to remain current on situation in the area and follow the project security protocol to avoid any undesired risk / incident.

4. Detail of Security Related Incidents

- On December 4, 2015, the Forces arrested 35 suspects in Khyber Agency in an operation carried out at Khugakhel in Tehsil Landi Kotal.
- On December 13, 2015, a Khasadar official was killed by some unknown militants in Jamrud area of Khyber Agency.
- Eight terrorists have been killed while 8 injured in an aerial strike by jet aircrafts in Tirah Valley of Khyber Agency.
- On December 18, 2015, a wanted militant surrender himself to Political Administration on the outskirts of Jamrud Tehsil in Khyber Agency.
- On December 21, 2015, The Jamrud Political Administrator arrested a gang of kidnapers and seized unlicensed arms and narcotics at Jamrud Khyber Agency.
- Two grenades lobed at FC Camp on December 24, 2015 by some unidentified militants. There was no damage caused since the device exploded in open area of the Camp.
- On December 26, 2015 hundreds of Custom Clearing Agents and Tribal Elders of Khugakhel tribe, demonstrated on Torkham Border against the proposed shifting of the custom and NLC Offices from Torkham to Jamrud.
- Two children were hit by a speedy vehicle of Khasadar forces in Landi Kotal, Khyber Agency on December 26, 2015 and as a result one died while other got injured.
- On December 29, 2015, four suspected militants got killed in military strike in Rajgul area of Khyber Agency in Tirah Valley close to Pak-Afghan Border.

5. Advisory:

All staff CMEP - KP is advised to be very vigilant and adopt all preventive / security measures as per project security plan and ensure the personnel as well as material safety.

- Follow security orders and instructions.

- Must be alert to the situation around you.
- Maintain a low personal profile by not doing anything that draw attention to yourself. Dress commonly for the area and blend in with the rest of the population.
- Vary routes and timings to and from work.
- Carry cell phone all the times for information of situation, make sure it has sufficient battery power and phone credit.
- Check interior and exterior of your vehicles prior to getting into it (for any suspicious item).
- Keep the doors locked and windows closed when traveling in vehicles.

**ANNEXURE-III
PHOTOGRAPHS**

PAVEMENTS



KM 35+050~35+225 FW; ACWC Laying & compaction in progress



KM 35+050~35+225 FW; ACWC Laying & compaction in progress



KM 35+050~35+250 HW LHS; ACBC 1st layer final compaction in progress



KM 35+075~35+200 FW; ACBC 2nd layer laying & compaction in progress



KM 35+075~35+200 FW; ACBC 2nd layer laying & compaction in progress



KM 35+100 RHS; Link road ACWC completed

BRIDGES



Bridge at KM 11+560 US side; Protection wall stone masonry completed



Bridge at KM 11+560 US side; Protection wall stone masonry completed



Bridge at KM 21+320 DS side; Abt walls Roll Pointing & steel girders red oxide paint complete for grouting of existing bridge about walls

RETAINING WALLS



KM 2+275~2+300 LHS LOOP-III; PCC Protection wall 2nd Sep concrete casted



KM 2+300~2+325 RHS LOOP-III; Breast wall Roll pointing in progress



KM 38+175~38+225 RHS; Breast wall Roll pointing in progress in progress



KM 40+400~40+500 LHS; Ret wall stone masonry in progress



KM 40+800~40+900 LHS; Ret wall stone masonry in progress



KM 41+000~41+200 LHS; Ret wall PCC coping in progress

CULVERTS



culvert 5+202 LHS; widening of existing culvert carried out at Jamrud by pass exit junction



culvert 35+149 DS side; NJ Barrier concrete casted



Culvert 35+149 US side; NJ Barrier concrete in progress



Culvert 38+231 US side; NJ Barrier concrete casted



Culvert 38+612 US side; PCC Protection walls concrete casted



culvert 40+669 DS side; wing walls & head wall final pour formwork fixing in progress.

DRAINS



KM 35+200~35+225 LHS; RCC Drain type D-1 wall formwork released



KM 35+200~35+225 RHS; RCC Drain walls casted



KM 36+600~36+650 RHS; RCC drain walls formwork fixing in progress



KM 37+475 RHS; Drain type D-3 concrete casted



KM 40+350~40+375 RHS; RCC Drain type D-2a walls formwork fixing in progress



KM 40+400~40+458 RHS; Drain type D-3 concrete casted

CAUSEWAYS



Causeway at KM 26+267 HW RHS; concrete placing for 1 x Panel is in progress



Causeway at KM 26+267 HW RHS; steel rebar & formwork fixing for ground slab is progress



Causeway at KM 29+038 LHS; steel rebar fixing for 1x panel completed



Causeway at KM 29+038 RHS; Steel rebar & formwork ready for concrete of ground slab



Causeway at KM 29+708 HW LHS; steel rebar & formwork fixing for ground slab is progress



Causeway at KM 29+708 LHS; Steel rebar & formwork fixing for 1x panel in progress

FIELD / LAB TESTS



ACWC at Landi Kotal Bypass



Casting concrete cylinders at KM;37 batching plant



FDT at Jamrud Bypass KM; 1+060



FDT of WBM at KM; 35+124



FDT of WBM at KM; 35+124



Jointly coring of Asphalt at KM; 35+035 ~ 35+250