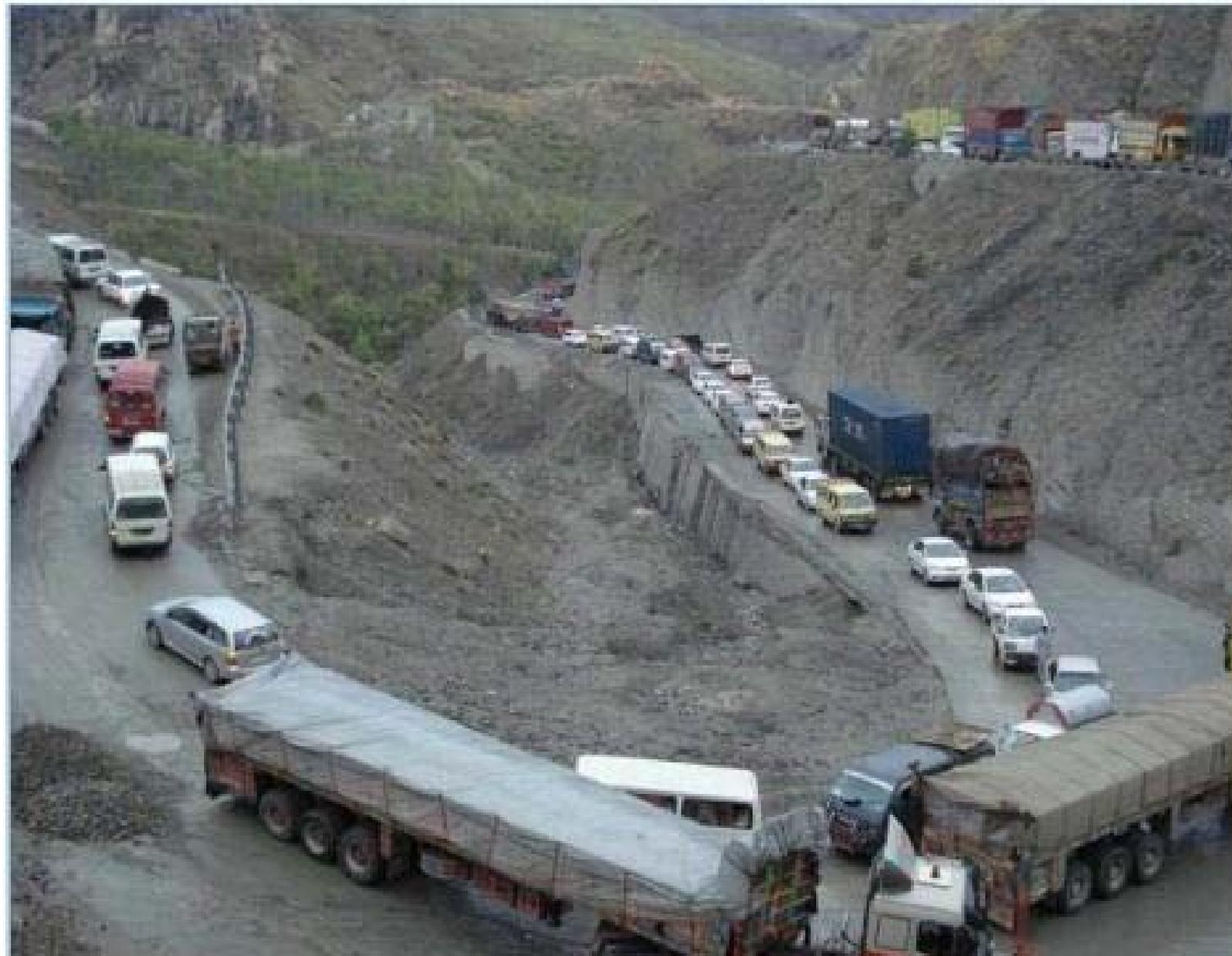




USAID | **PAKISTAN**
FROM THE AMERICAN PEOPLE



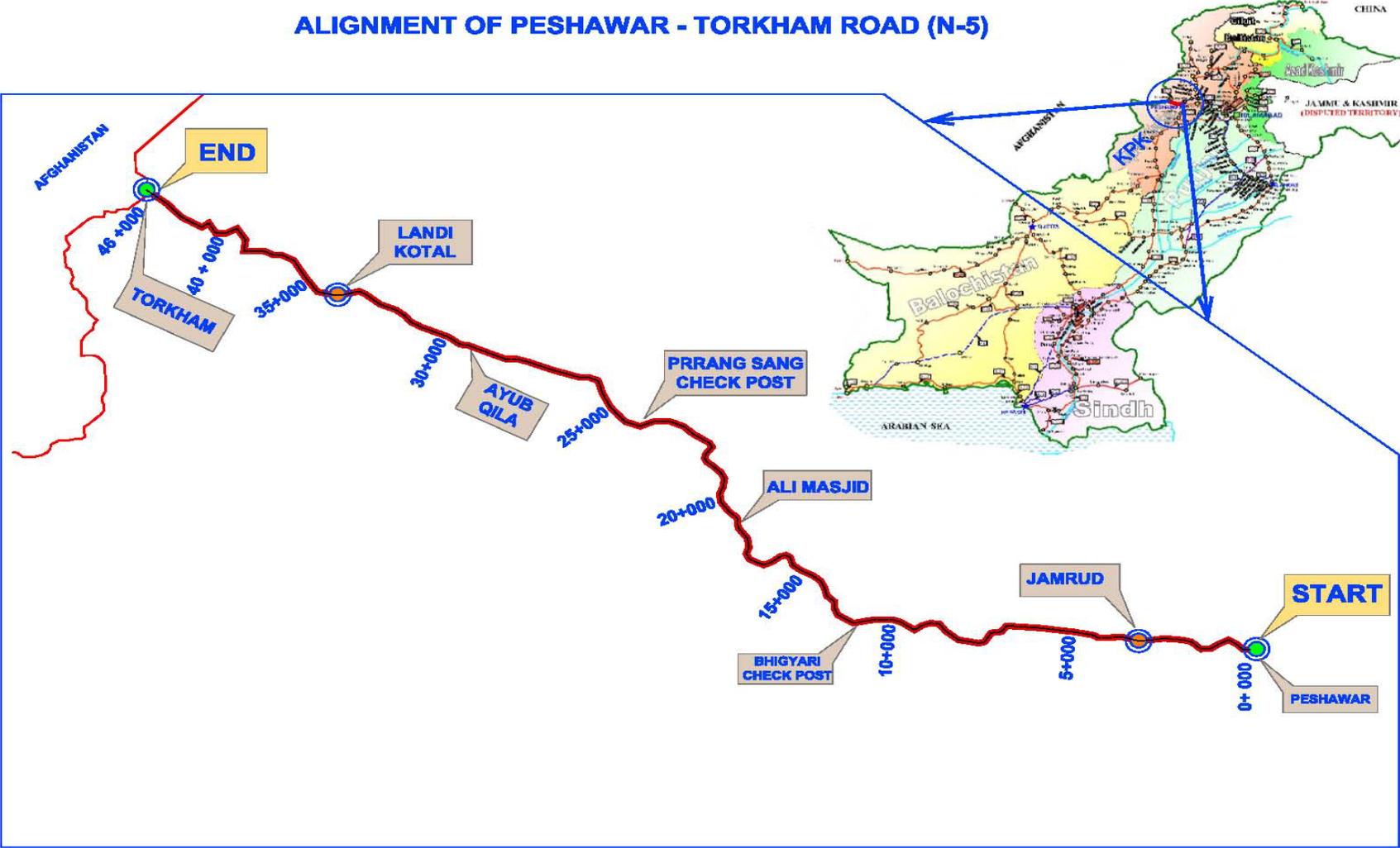
**STRENGTHENING & IMPROVEMENT OF PESHAWAR - TORKHAM ROAD
KHYBER AGENCY, FATA**

**QUARTERLY PROGRESS REPORT # 04
JULY-SEPTEMBER 2013**

TABLE OF CONTENTS

LOCATION MAP	1
EXECUTIVE SUMMARY	2
1 INTRODUCTION	4
1.1 PROJECT BACKGROUND	5
1.2 SCOPE OF WORK.....	6
1.3 GENERAL CONTRACT DATA	7
1.4 ALIGNMENT SKETCHES.....	8
1.5 TYPICAL CROSS SECTION OF ROAD	13
2 MONITORING & EVALUATION SERVICES	16
2.1 M&E CONSULTANTS MAJOR ACTIVITIES DURING THE QUARTER.....	17
2.2 MATTERS REQUIRING ATTENTION	19
2.3 SECTION WISE ACTIVITIES STATUS	20
3 CIVIL WORKS (SECTION-I)	22
3.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS	23
3.2 PHYSICAL PROGRESS STATUS	24
3.3 CULVERTS PHYSICAL PROGRESS STATUS	25
3.4 DETAILED INFORMATION OF LABORATORY TEST REPORTS.....	26
4 CIVIL WORKS (SECTION-II & III).....	30
4.1 PHYSICAL PROGRESS STATUS (SECTION- II)	31
4.2 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-II).....	32
4.3 PHYSICAL PROGRESS STATUS (SECTION-III).....	33
4.4 PHYSICAL PROGRESS STATUS (SECTION-III LOOP NO. 1).....	34
4.5 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-III).....	35
5 ENVIRONMENTAL COMPLIANCE MONITORING	36
5.1 INTRODUCTION	37
5.2 ENVIRONMENT COMPLIANCE.....	38
5.3 PROGRESS DURING THE QUARTER # 04 (JULY – SEPTEMBER 2013).....	39
6 SECURITY REPORT	40
7 APPENDICES	43
7.1 CONTRACTOR IPC'S.....	44
7.2 RECORD OF COORDINATION MEETINGS/ JOINT SITE VISITS	45
7.3 MOBILIZATION OF M&E STAFF	46
7.4 ORGANIZATION CHART FOR CMEP OFFICE, PESHAWAR	47
7.5 ORGANIZATION CHART FOR ROAD COMPONENT OF CMEP PROJECT	48
8 PROJECT PHOTOGRAPHS	49

ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5)



EXECUTIVE SUMMARY

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. The project “Strengthening & Improvement of Peshawar Torkham Road” is funded with United State Agency for International Development (USAID) grant amounting to USD and implemented by FATA Secretariat as project proponent through Frontier Works Organization (FWO) as EPC (Engineer, Procure, and Construct) Contractor.

The 46 KM Peshawar – Torkham road (PTR) has been split into multiple sections for designing / construction purposes due to inherited site specific conditions such as live traffic corridor, gigantic hilly terrain, safety and security restrictions etc. Work on section – I (KM: 0+000 To 9+000) of the project was initiated by FWO on October 15, 2012. During the first 01 quarter (Oct-Dec, 2012) of the EPC based contract, the contractor mobilized at site, completed the detailed design work, started major earthwork activities & constructed diversions across the section – I with slow pace. During the 2nd & 3rd quarters (Jan-March, 2013 & April-June, 2013 respectively) the progress of construction work accelerated gradually and the contractor managed to switched the major traffic onto diversions, continued with construction of cross drainage / retaining structures & different pavement courses including asphaltic base paving work. However due to some security related incidents & extensive wet weather experienced in the 2nd quarter, the progress got retarded owing to additional challenges in managing runoff from the work sites including culverts and diversions.

- During the 4th quarter (July – Sep, 2013), FWO achieved significant progress in completing the cross drainage / retaining structures, the most challenging asphalt paving works of the section – I of P-T road with traffic been moved onto main alignment.

Major accomplishments made during the reporting period in section – I are:

- | | |
|----------------------------|---------|
| ○ Earthwork: | 100 % |
| ○ Sub Base: | 100 % |
| ○ Aggregate Base Course: | 100 % |
| ○ Asphaltic Base Course: | 100 % |
| ○ Asphaltic Wearing Course | 100 % |
| ○ Culverts: | 88.88 % |
| ○ Retaining Walls: | 85.00 % |
- Longitudinal drainage construction continued in section – I.
 - WBM & asphalt paving works on 11 No: local connector roads, each of 25M length, have been completed while work on 09 No’s local road continued in section – I.
 - With verification of IPC # 04 on Sep 26, 2013 for an amount of US \$ 1,096,902.00, the overall certified payment up-to 4th quarter is US \$ 6.46 Million.

- Bulk earthwork and roadway excavation continued in section – II & III of the project.
- Test & Anchor piles concreting completed at bridge No: 02 (KM: 09+500), while preparation for static pile load testing continued.
- Construction continued on 17 No's cross drainage structures in section – II & III.
- Traffic switched onto diversions from KM: 9+700 To 12+700 & 15+500 To 18+200.
- Public utility (OFC) relocations continued in section – II.
- Batching plant & additional crush plant erection, testing & commissioning completed at KM: 16 + 000 of section – III.
- Detailed design and quantity estimation of section – II completed with PC – 1 approval in progress.
- Detailed design and quantity estimation of section – III neared completion.
- Construction activities on section – IV (KM: 19+000 To KM: 26+000) & section – V (KM: 26+000 To KM: 34+000) commenced on Aug 15, 2013.
- Earthwork & sub-base paving work completed from KM: 24+550 To 26+100.
- Diversion opened for traffic between KM: 22+200 To 26+200.
- Work continued to finalizes the concept design for the section – IV to VI of the project.
- During the reporting quarter, the contractor teams were able to work 71 days of 82 available working days due to wet weather and EID holidays, as compared to 100% of 77 available working days in the previous quarter.
- FWO was constantly pressed for demonstrating good environmental practice in conformity with the construction environmental management plan.

INTRODUCTION

1.1 PROJECT BACKGROUND

The Federally Administered Tribal Area (FATA) Secretariat of the Government of Pakistan (GoP) under the Quick Impact Projects (QIPs) in the Khyber Agency has inked an agreement with USAID for financial assistance in the form of a Grant for Strengthening and Improvement of 46 KM long existing two-lane, two-way carriageway from Peshawar to Torkham (N – 5). The Project will support the GoP in improving accessibility to the remotely located areas of Khyber agency and enhance logistic support to law enforcing agencies, besides assisting trade between Pakistan and Afghanistan. The Sponsoring agency for the Peshawar Torkham Road Project is FATA secretariat, headed by Additional Chief Secretary FATA. The Executing agency is Frontier Works Organization (FWO).

Table: 1

Civil Works Package Features						
Feature	Section – I	Section – II	Section – III	Section – IV	Section – V	Section – VI
Physical Limits	Peshawar to Torkham					
Kilometers	0+000 to 9+000	9+000 to 14+000 (Revised)	14+000 to 19+000 (Revised)	19+000 to 26+000 (Revised)	26+000 to 34+000 (Revised)	36+000 to 46+000 (Revised)
Black Top	Total 12.3 meter (7.3 meter carriageway & 2.5 meter treated shoulders on either side)					
Completion Period	807 Calendar Days					

1.2 SCOPE OF WORK

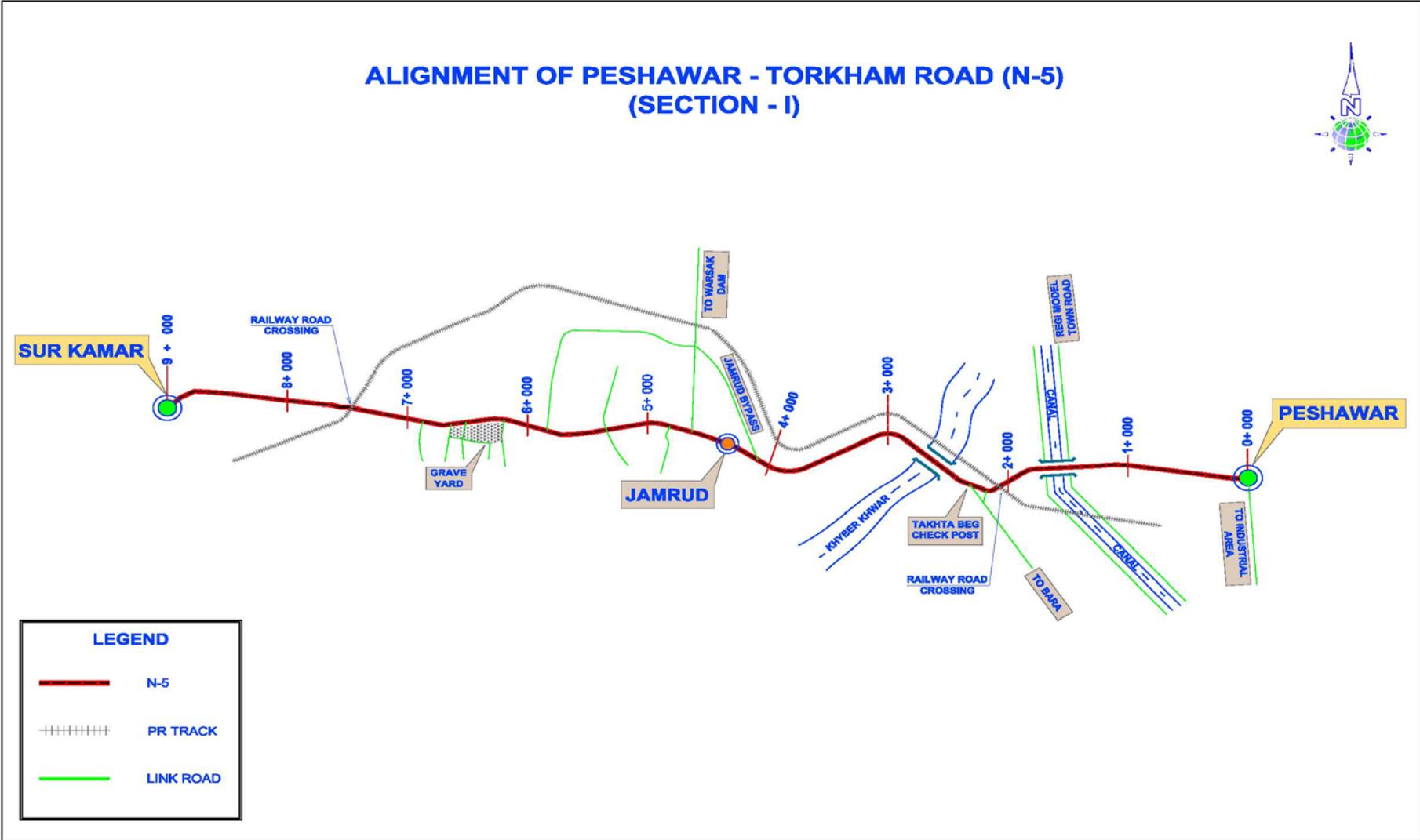
The project involves widening, strengthening and improvement of the existing two lane carriageway, including construction of new cross drainage structures, bridges, rigid pavements and earth retaining structures spread over 46 KM. At a first stage, the FATA Secretariat has undertaken to contract out section – I of the project from KM: 0 +000 To KM: 9 + 000. Length of each package varies according to topographical features and live traffic conditions along the project route.

Being an EPC form of contract, FWO is fully responsible for design and construction of the project in conformity with the NHA's specifications and standard engineering practices. AGES Consultants has been entrusted the Construction Monitoring and Evaluation Services including Quality Assurance and Environmental Monitoring of the project on behalf of the USAID Pakistan Mission.

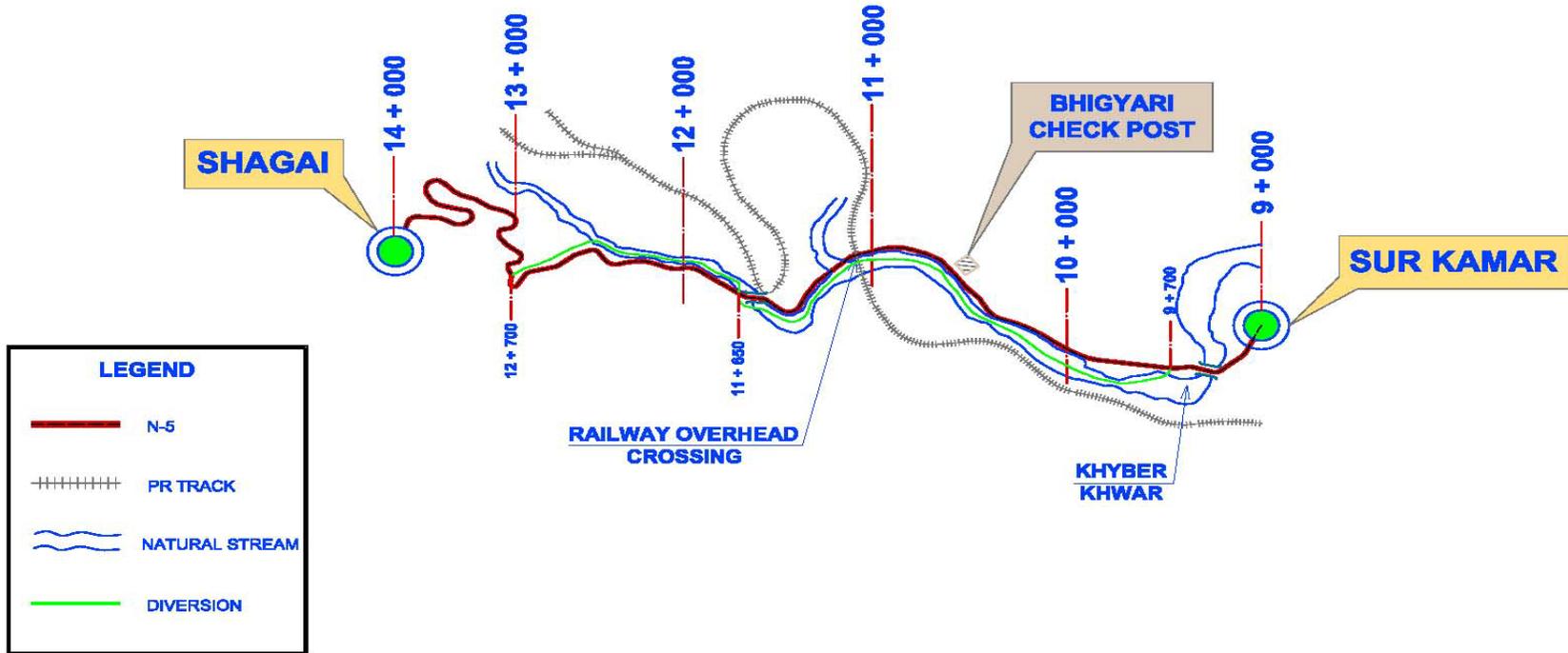
1.3 GENERAL CONTRACT DATA

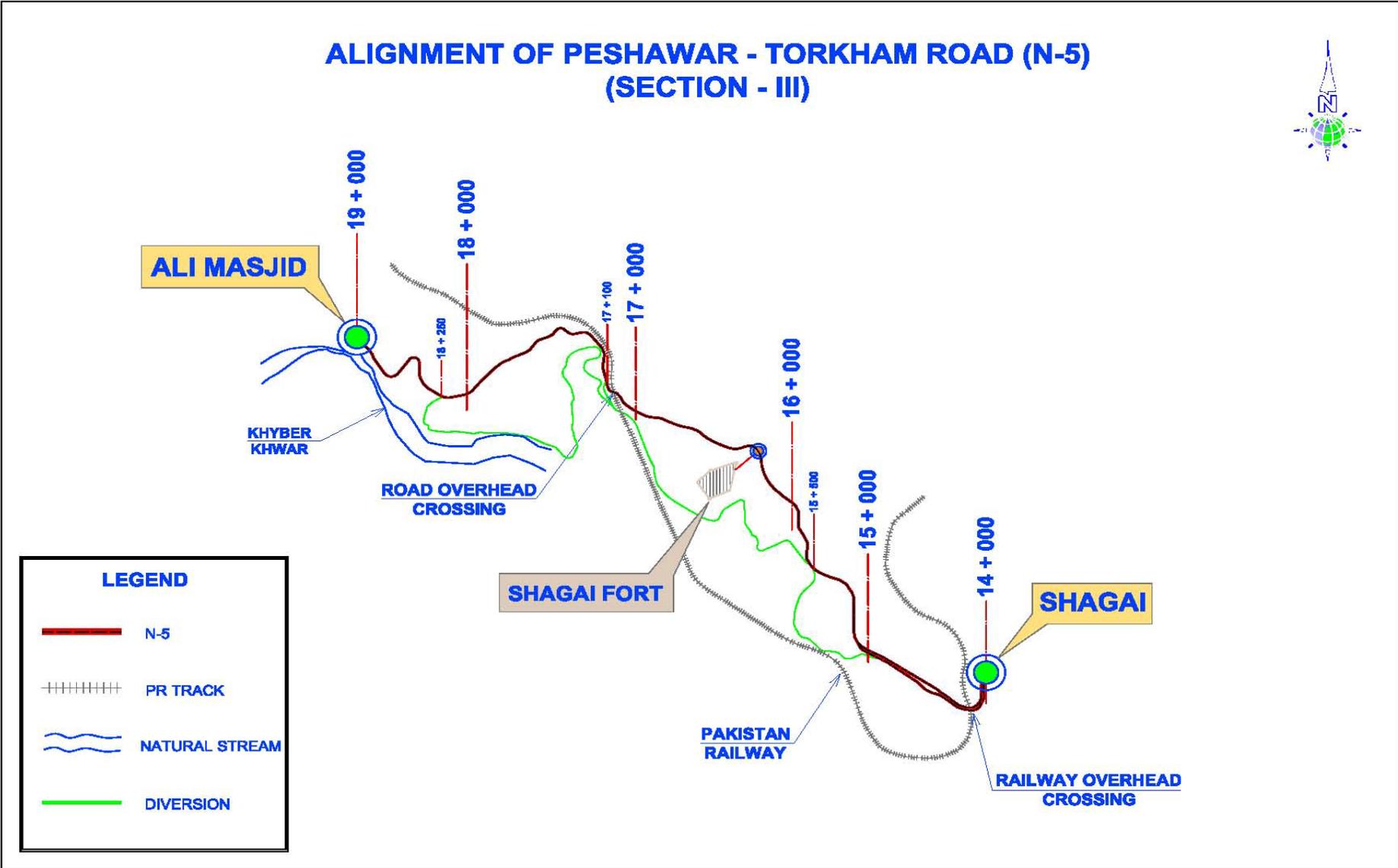
1.	Name of Project	Strengthening and Improvement of Peshawar Torkham Road (N-5) Khyber Agency FATA
2.	Name of Package	Section – I (CH: KM: 0+000 to CH: KM: 9+000)
3.	Sponsoring Agency	FATA Secretariat, Peshawar
4.	Sponsoring Agency Representative	Mr. Roshan Mahsud, Project Director, PMU FATA
5.	Donor Agency	USAID PAKISTAN
6.	Donor's Agency Representative	Engr. Farhat Ali Shah Banori, USAID/COR
7.	Executing Agency	Frontier Works Organization
8.	Executing Agency Representative	Lt. Colonel Khurram
9.	M&E Consultants	AGES Consultants
10.	M&E Consultants Representative	Engr. Aziz-ul- Haq, Project Manager
11.	Project Cost (Section – I)	Rs. 937.939 Million
12.	Time for Completion	807 Calendar Days
13.	Mode of Construction Contract	EPC (Engineer, Procure and Construct) Contract
14.	Chronology	
	Signing of MoU (USAID–FATA–NHA)	Sep 18, 2012
	Signing of Consultancy Contract (USAID – AGES)	Sep 30, 2012
	M&E Consultants Mobilization	Oct 01, 2012
	Approval of PC – 1 (Section – I)	Nov 20, 2012
	Project Date of Commencement	Oct 15, 2012
	Project Date of Completion	Dec 31, 2014

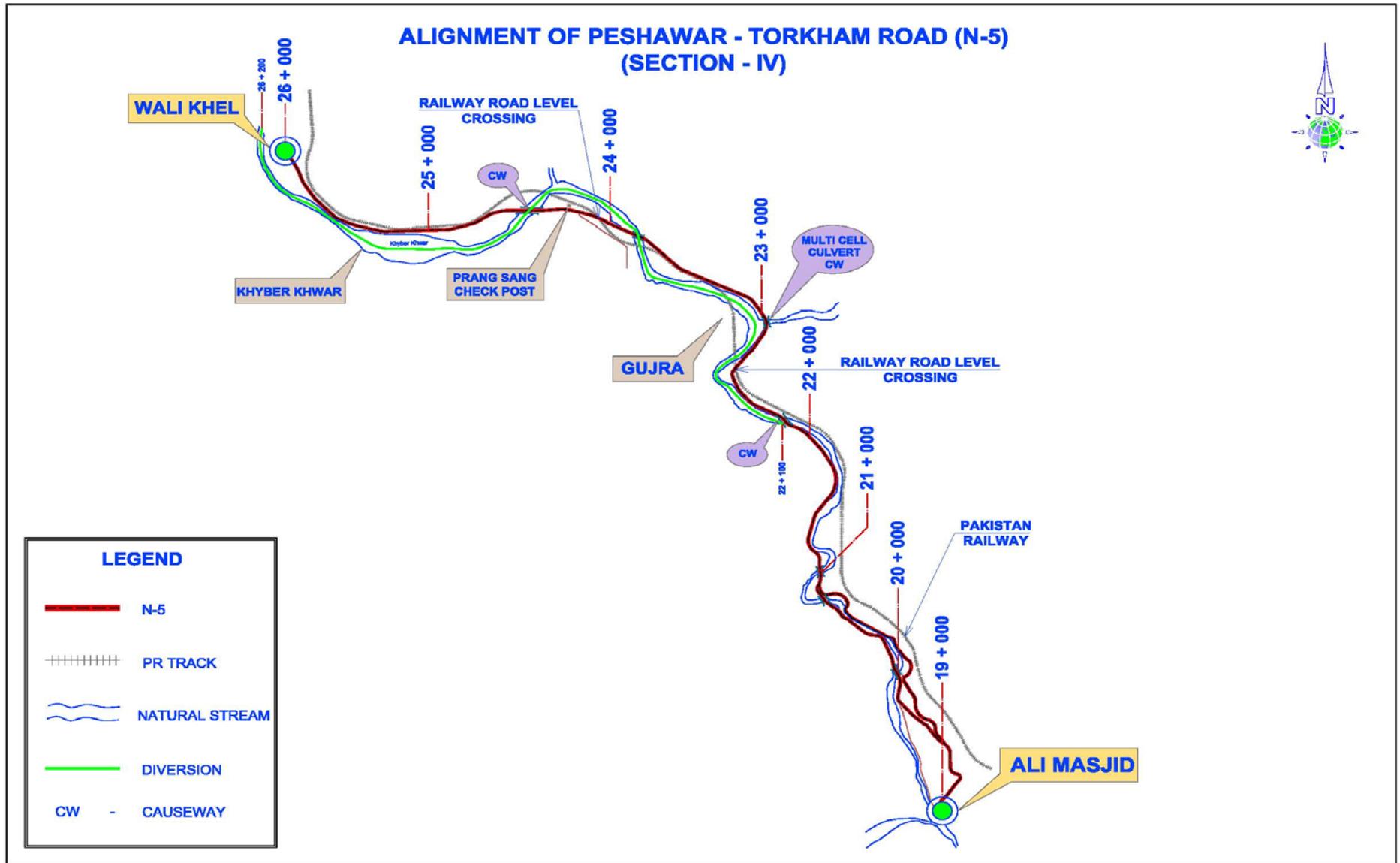
1.4 ALIGNMENT SKETCHES

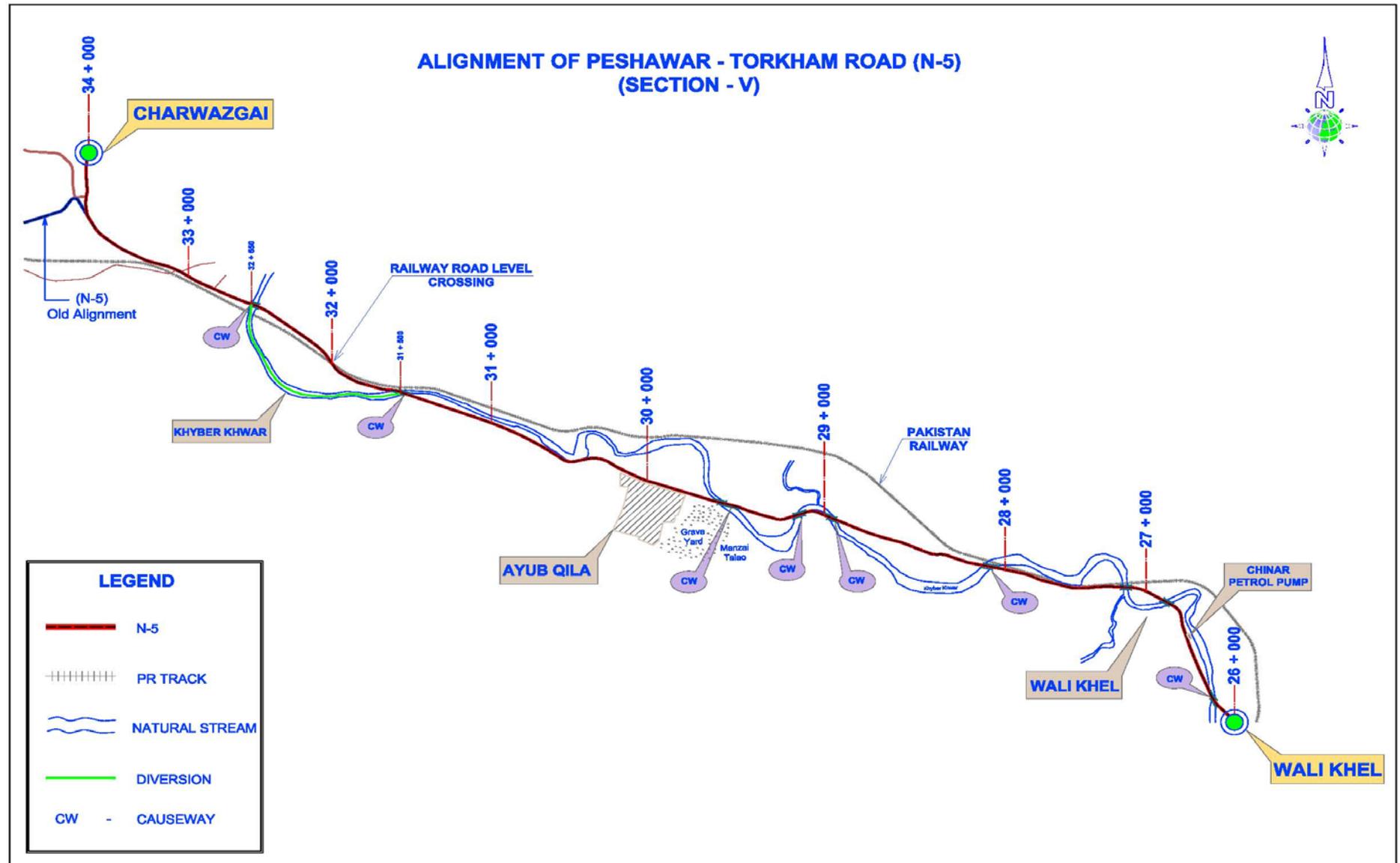


ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5) (SECTION - II)

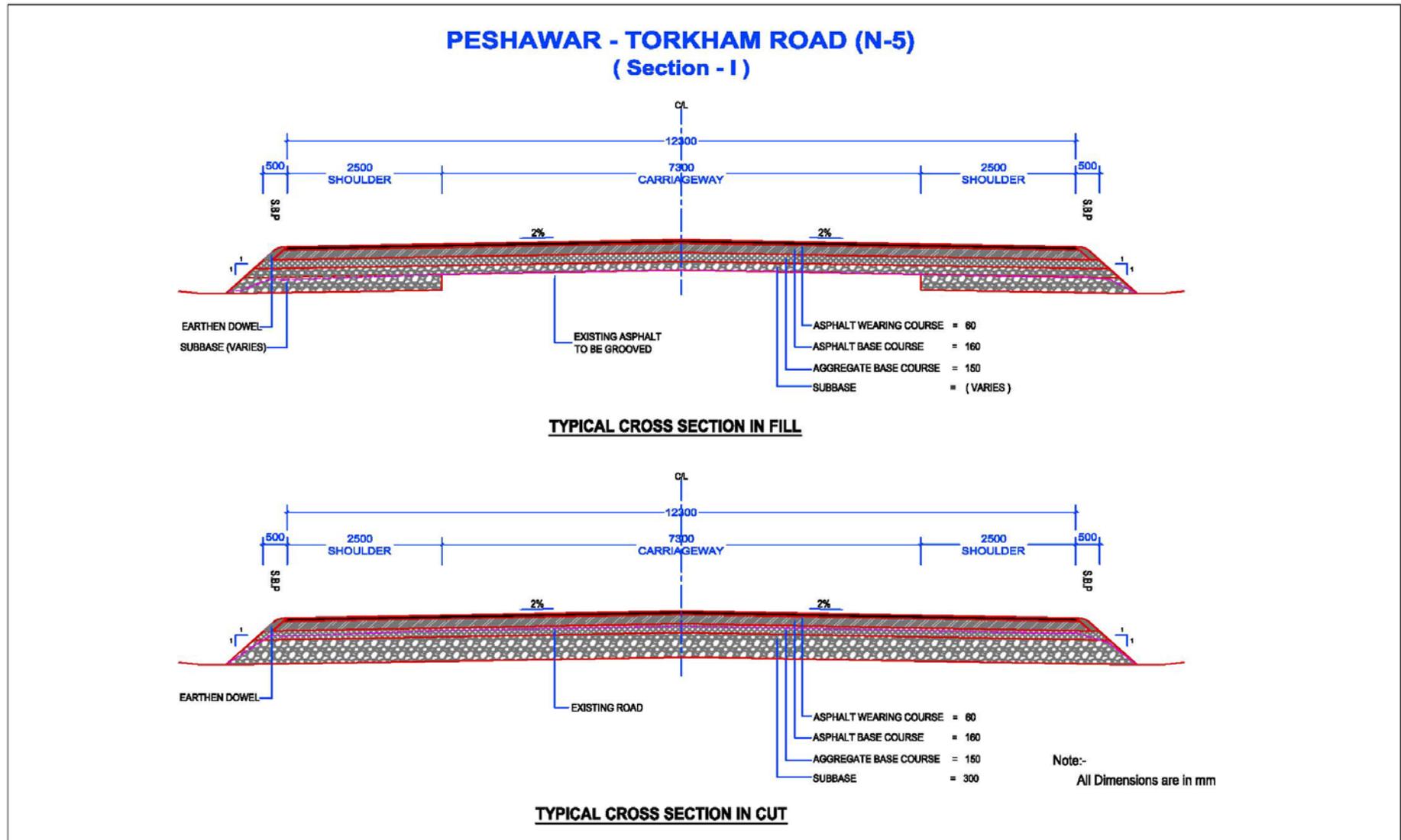


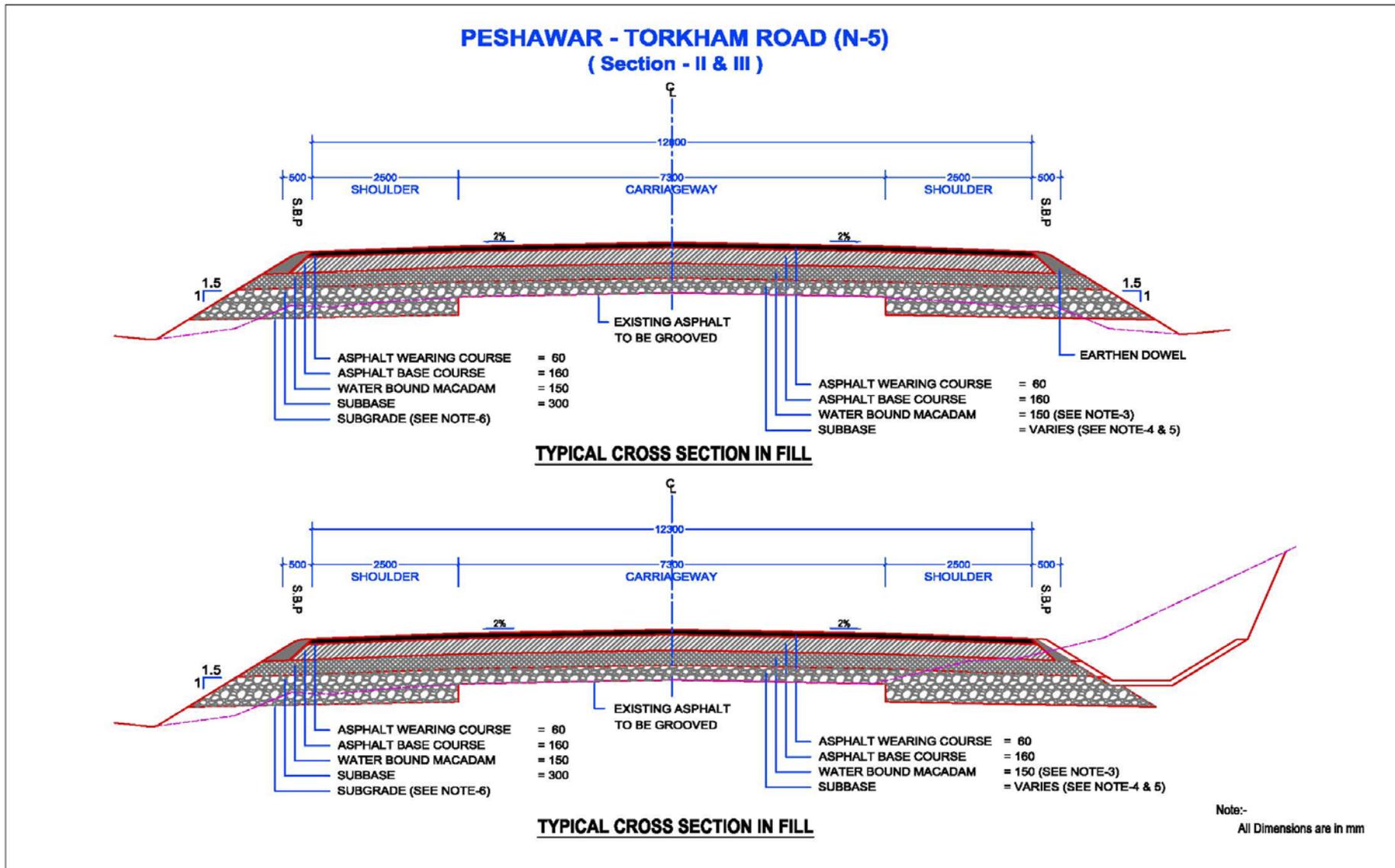




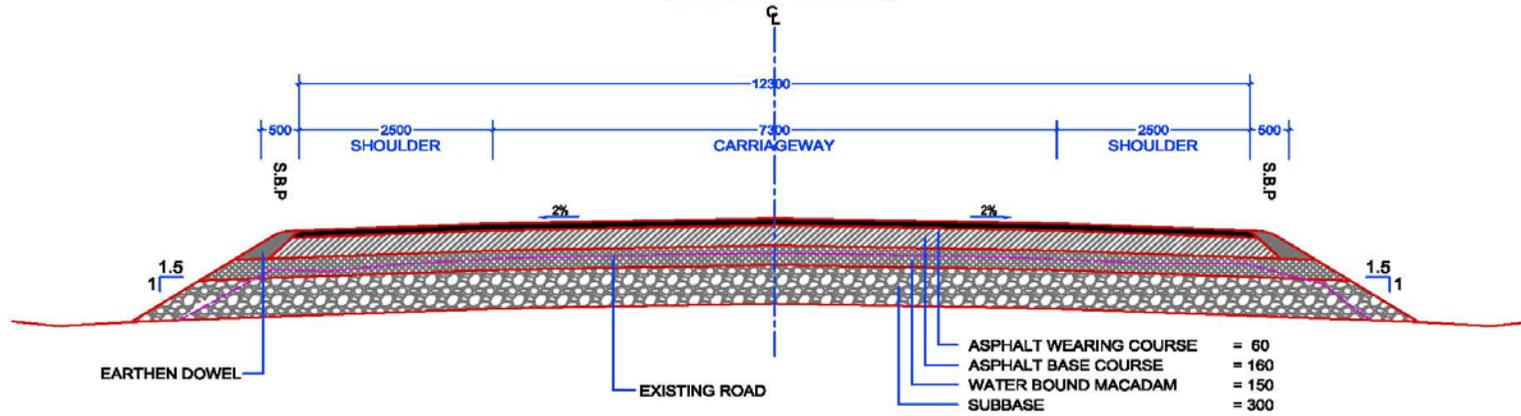


1.5 TYPICAL CROSS SECTION OF ROAD

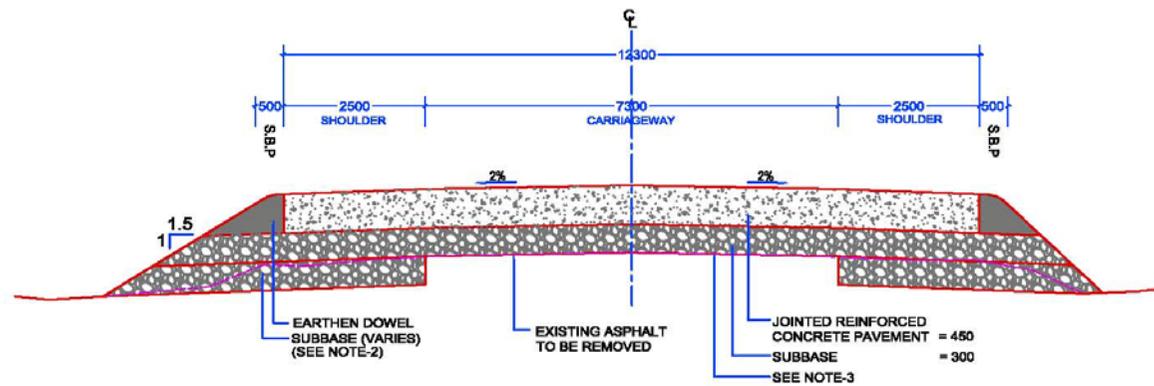




PESHAWAR - TORKHAM ROAD (N-5)
(Section - II & III)



TYPICAL CROSS SECTION IN CUT



TYPICAL CROSS SECTION IN FILL

Note:-
 All Dimensions are in mm

MONITORING & EVALUATION SERVICES

2.1 M&E CONSULTANTS MAJOR ACTIVITIES DURING THE QUARTER

During the reporting quarter, M&E Consultants carried out the following activities:

- Conducted Joint site visits with representatives of F W O / NESPAK at regular intervals including ground validation survey of proposed structures in section – II & III.
- Following completion of major asphalt works along section – I, QAM M&E Consultants & RE NESPAK conducted joint visit to assess requirements of any additional protection works at critical locations of the alignment.
- Conducted follow-up /coordination meetings/ fortnight meetings with FWO / NESPAK reps.
- Monitoring / documentation of the construction activities on daily basis.
- M&E Consultant's senior management conducted fortnight site visits and shared information with USAID & FWO / NESPAK reps.
- Maintained close liaison with the Contractor's field staff and shared information pertaining to material quality and construction methodology. Accordingly FWO dismantled the substandard RR stone masonry work of Culvert at KM: 12+337.
- Upon M&E Consultants observations regarding establishment of borrow pit in natural tributary on the upstream side of proposed multi-cell culvert at KM: 11+190, FWO reinstated partially the stated pit by refilling with roadway excavated waste material.
- Conducted 140 No's independent & 493 No's joint field testing of different pavement layers / backfill material, concrete & asphalt concrete works with FWO / NESPAK.
- Reviewed / Evaluated Contractor's JMF for asphaltic base course and submitted relevant technical comments to USAID & FWO for modification / improvement. Accordingly JMF for asphaltic base & wearing course were structured by FWO.
- Reviewed Contractor's (FWO) detailed design works and quantity estimation of section – II and submitted relevant technical comments to FWO / NESPAK for incorporation / amendments in Design & BOQ.
- Reviewed Design & BOQ of Bridge No.02 at KM: 09+560 & Multi-cell culvert at KM: 11+190 and submitted relevant technical comments to FWO / NESPAK for incorporation / amendments in Design & BOQ.
- Reviewed / Evaluated Contractor's (FWO) Rate analysis & Premium on CSR – 2011 for PC – 1 of section - II and submitted report to USAID.
- Attended Pre – FDWP meeting for PC – 1's approval of USAID funded projects including section – II of P – T road b/w FATA, USAID, FWO, NESPAK, AID Consultants etc at FATA secretariat.
- Regularly shared M&E Consultants Material Testing Laboratory quality test results with USAID, FWO & NESPAK.

- Regularly monitored and shared issues related to detour's management along the construction zone with USAID / FWO; for example:
 - ✓ Traffic operating conditions with regard to detour geometry, surface condition, visibility and traffic safety / management.
 - ✓ Dust suppression activities, particularly during peak traffic hours.
- Certified 03 No's IPC of P – T road project during the reporting quarter amounting to US \$ 5,859,474.

2.2 MATTERS REQUIRING ATTENTION

- **TRAFFIC MANAGEMENT & DIVERSIONS CONDITION**

Management of substantial volume of traffic (ADT > 16000 vehicles) along the Peshawar Torkham corridor during construction is perhaps the most perplexing problem for the construction contractor. High traffic volume makes the construction work difficult to manage. On the other hand construction works on section – II to V of P-T road project though progressing steadily but at great inconvenience to road users. Journey through the stated traffic stretch can be described as frustrating one, due to the poor surface of the diversions provided by the FWO.

Beside the go-slow posed by the bumpy surface condition & imperfect geometry of the diversion route, the stretch has become chaotic and with inadequate road signs / poor visibility due to dusty atmosphere, difficult to ply on.

The matter has regularly been highlighted at different forums & communication channels with FWO for requisite compliance. FWO high-ups conceded the rough surface condition of the diversions and promised to improve the riding quality & gave assurance that road signs would be installed supplemented by increased dust suppression activities, in order to smoothly & safely navigate the vehicular traffic on the diversions route.

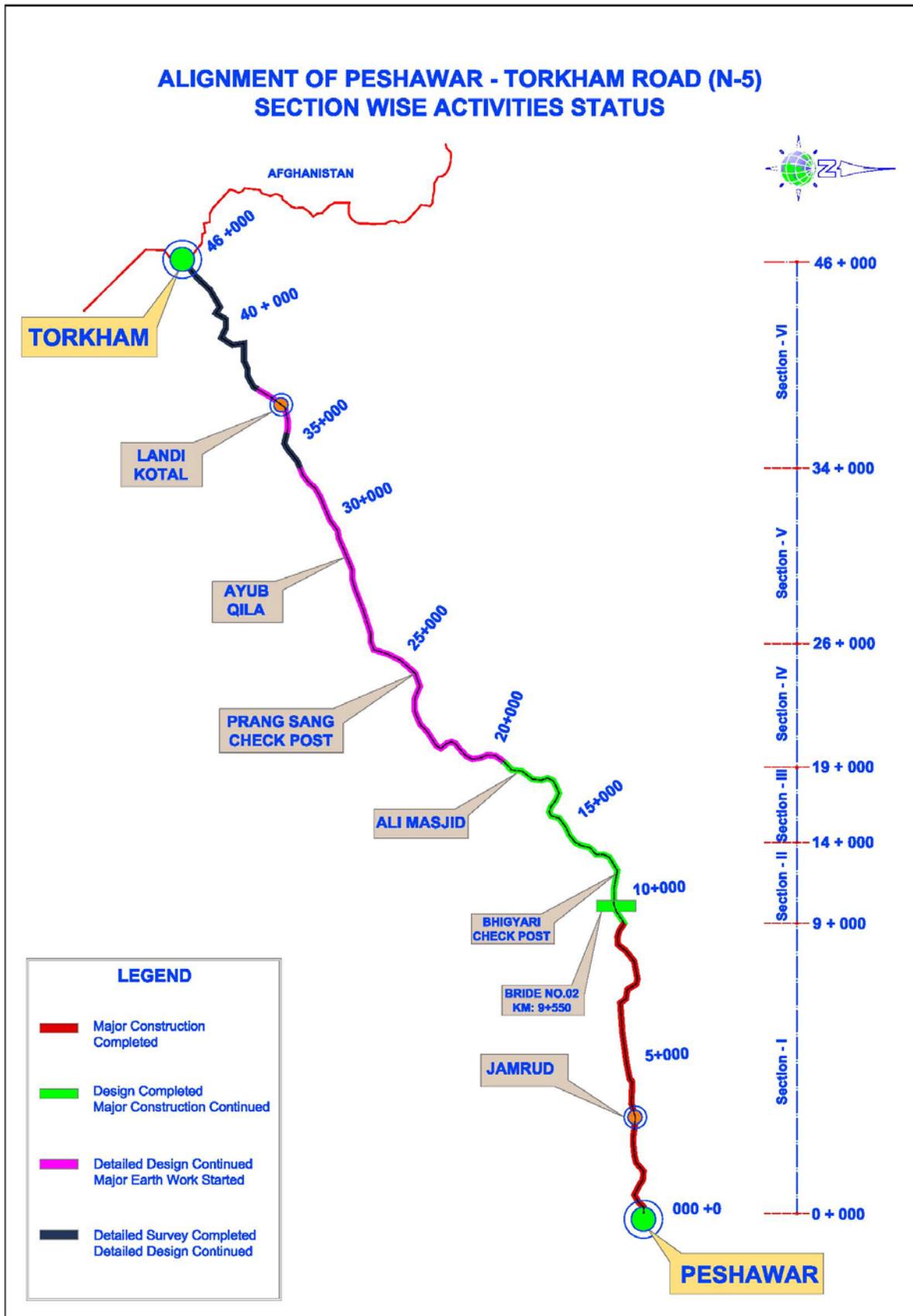
- **DESIGN ERRORS / OMISSIONS & CONSTRUCTION SCHEDULE**

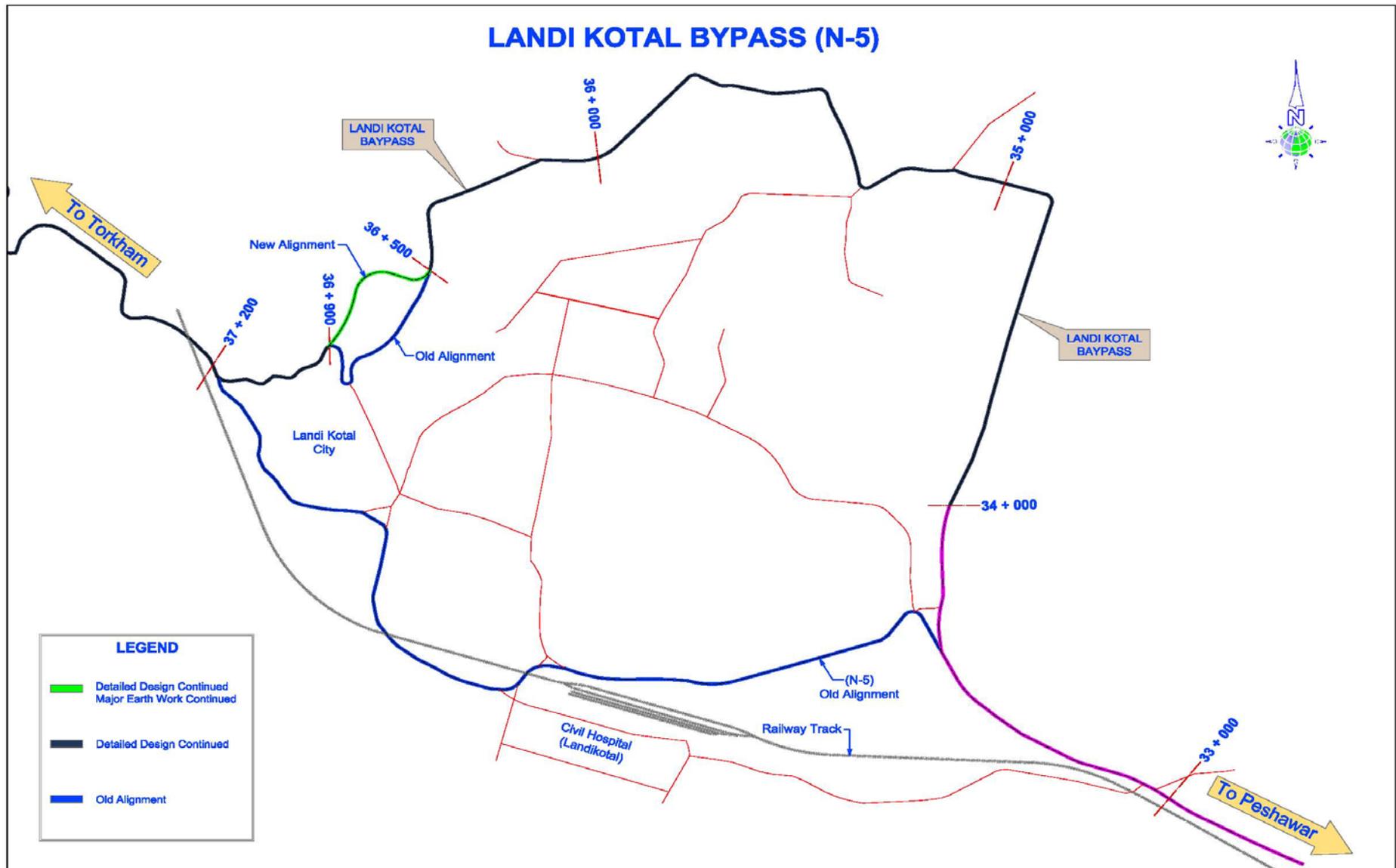
Much of the overall slow construction progress can be attributed to frequent design errors and unclear details caused by inadequate data collection or survey work and failure of contractor to discover / properly plan for relevant field conditions during the preliminary engineering / design stage. FWO/NESPAK needs to evaluate the process to determine why design errors are occurring and how they can be minimized. Similarly FWO / NESPAK should examine how the field inspection process can be improved to ensure that obvious conditions which would impact the design plans are discovered prior to project advances to construction phase.

Disclosure of critical design related information, during preparation & implementation stage, play a vital role from the viewpoint of efficient management of project risks and impacts. Prominent risks associated with P – T road project like frequent design variations, defective or biased design, incomplete or inaccurate cost estimates, inadequate or insufficient site information etc are directly related with tight, unrealistic project schedule.

Vigorous engagement of project participants in the preparation of a practical schedule allowing sufficient but no redundant time to accommodate all design and construction activities will result in successful achievement of project objectives in terms of cost, quality, environment and safety.

2.3 SECTION WISE ACTIVITIES STATUS



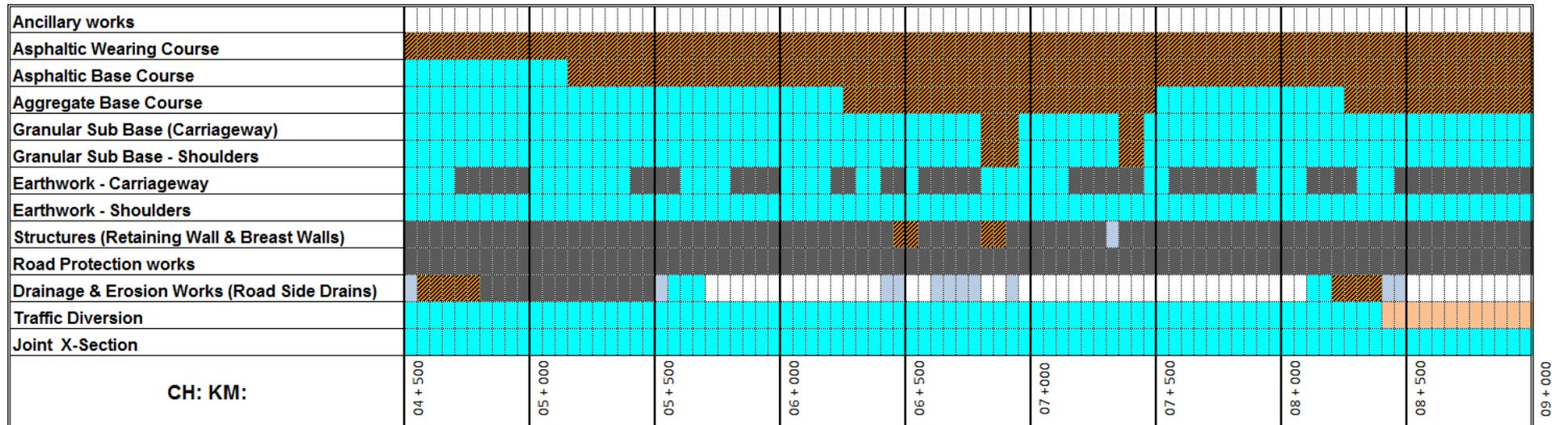
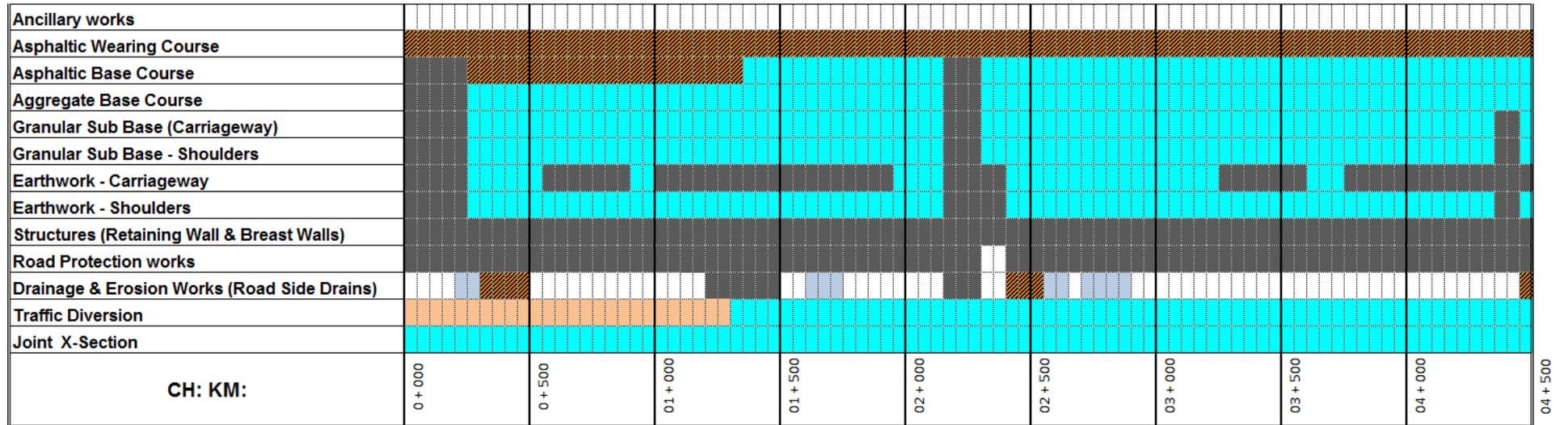


CIVIL WORKS (SECTION-I)

3.1 CUMULATIVE MILESTONE WISE PROGRESS STATUS

BILL NO	DESCRIPTION	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US \$)	TOTAT AMOUNT (US \$)	PROGRESS UPTO PREVIOUS QUARTER			PROGRESS IN THIS QUARTER			MILESTONE WISE COMULATIVE PROGRESS		
						MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %	MILESTONE ACHIEVED	AMOUNT (US \$)	PROGRESS %
1	EARTH WORK	KM	9	6,339.85	57,058.65	9.00	57,058.65	100.00	-	-	-	9.00	57,058.65	100.00
2	SUB BASE AND BASE COURSE													
i	GRANULAR SUB BASE	KM	9	111,763.61	1,005,872.49	8.75	977,931.59	97.22	0.250	27,940.90	2.78	9.00	1,005,872.49	100.00
ii	AGGREGATE BASE COURSE	KM	9	73,611.56	662,504.04	6.33	465,593.12	70.28	2.675	196,910.92	29.72	9.00	662,504.04	100.00
iii	ASPHALTIC BASE COURSE	KM	9	416,608.69	3,749,478.21	4.48	1,864,323.89	49.72	4.525	1,885,154.32	50.28	9.00	3,749,478.21	100.00
3	SURFACE COURSES AND PAVEMENT	KM	9	213,785.71	1,924,071.39	-	-	-	9.00	1,924,071.39	100.00	9.00	1,924,071.39	100.00
4a	STRUCTURES (RETAINING WALL/BREAST WALL)	JOB	1	38,812.31	38,812.31	0.62	24,063.63	62.00	0.23	8,926.83	23.00	0.85	32,990.46	85.00
4b	STRUCTURES (CULVERTS)													
I	WIDENING AND REPAIR OF EXISTING CULVERTS AT RD 1+290 & 5+692	NUMBER	2	10,657.55	21,315.10	-	-	-	-	-	-	-	-	-
II	CONSTRUCTION OF NEW CULVERTS (No. of Span x Span Width x Height)													
	1 x 2 x 1.5	NUMBER	7	19,268.30	134,878.10	5.35	103,059.95	76.41	1.55	29,891.32	22.16	6.90	132,951.27	98.57
	1 x 3 x 1.5	NUMBER	3	25,204.07	75,612.21	1.47	37,112.92	49.08	0.45	11,278.90	14.92	1.92	48,391.81	64.00
	2 x 3 x 1.5	NUMBER	2	40,950.75	81,901.50	2.00	81,901.50	100.00	0.00	-	-	2.00	81,901.50	100.00
	3 x 3 x 1.5	NUMBER	1	54,597.59	54,597.59	0.80	43,674.87	79.99	0.20	10,922.72	20.01	1.00	54,597.59	100.00
	5 x 3 x 1.5	NUMBER	1	75,007.57	75,007.57	1.00	75,007.57	100.00	0.00	-	-	1.00	75,007.57	100.00
5a	DRAINAGE & EROSION WORKS (ROAD SIDE DRAIN)													
i	DRAIN TYPE D-1 & D-2 (COVERED)	KM	5.5	249,002.78	1,369,515.29	0.01	2,490.03	0.18	0.62	153,136.71	11.18	0.63	155,626.74	11.36
ii	DRAIN TYPE D-1a & D-2a (UNCOVERED)	KM	3	110,128.52	330,385.56	-	-	-	0.58	63,323.90	19.17	0.58	63,323.90	19.17
iii	DRAIN TYPE D-3 (Converted to D-2 type)	KM	1.5	135,439.74	203,159.61	-	-	-	0.13	16,929.97	8.33	0.13	16,929.97	8.33
5b	ROAD PROTECTION WORKS (100 M)	JOB	1	11,047.54	11,047.54	-	-	-	-	-	-	-	-	-
6	ANCILLARY WORKS COMPLETE IN ALL RESPECT	JOB	1	54,375.49	54,375.49	-	-	-	-	-	-	-	-	-
7	DIVERSION	KM	9	12,978.72	116,808.48	3.00	38,936.16	33.33	6.00	77,872.32	66.67	9.00	116,808.48	100.00
8	PLANTATION OF TREES (450 Nos)	KM	9	1,297.87	11,680.83	-	-	-	-	-	-	-	-	-
TOTAL PROJECT COST (SECTION-I)					9,978,081.96		3,771,153.88	37.79		4,406,360.19	44.16		8,177,514.07	81.95

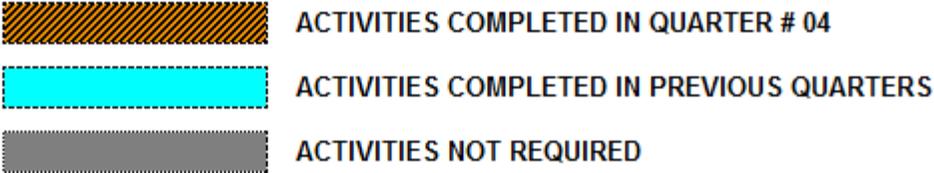
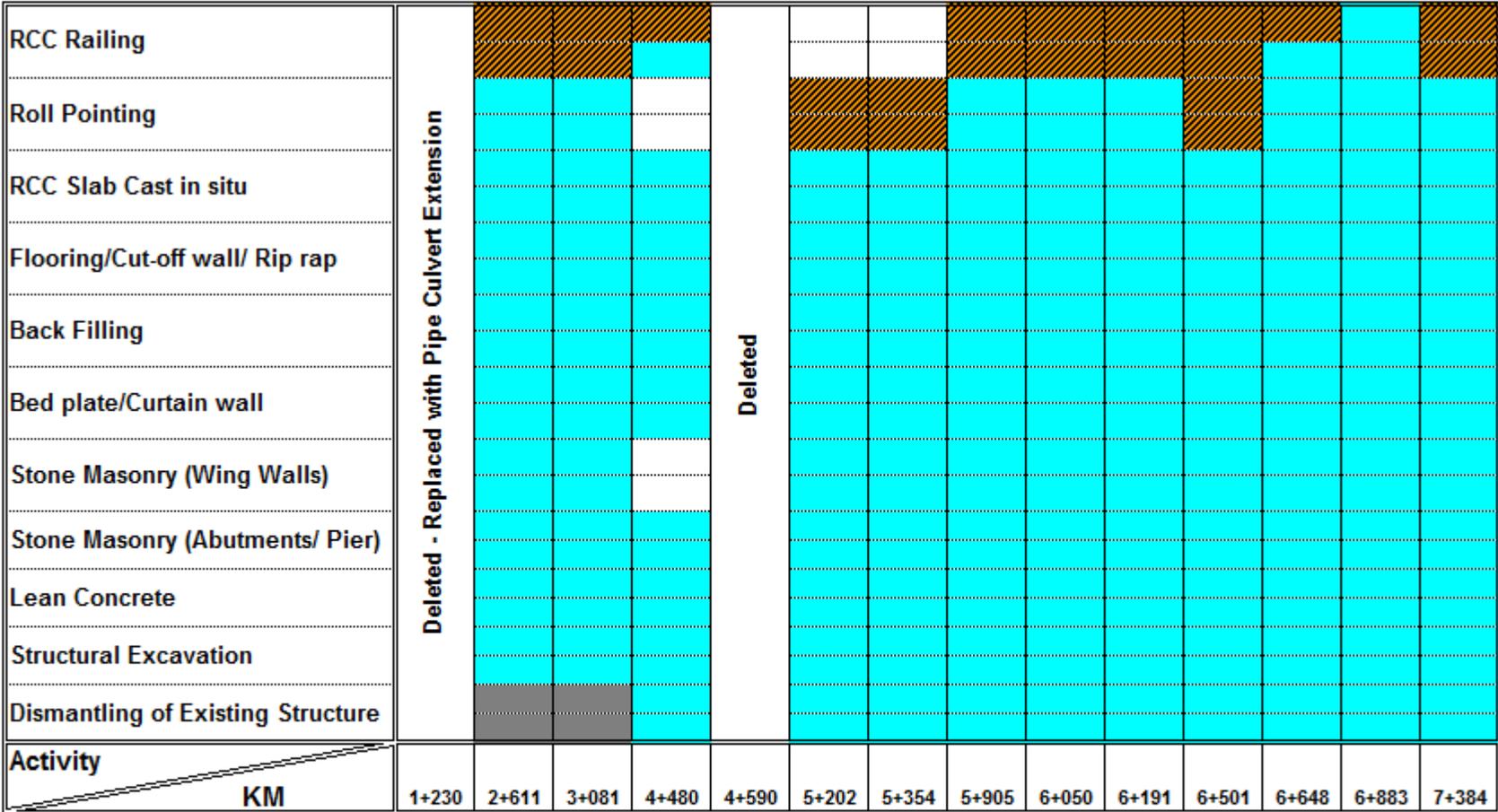
3.2 PHYSICAL PROGRESS STATUS



LEGEND



3.3 CULVERTS PHYSICAL PROGRESS STATUS



3.4 DETAILED INFORMATION OF LABORATORY TEST REPORTS

ITEM	DESCRIPTION OF MATERIAL	TEST ITEM	PREVIOUS QUARTER (1st, 2nd & 3rd)			THIS QUARTER (4th)			TOTAL TODATE			REMARK
			NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	
ASPHALT	Aggregate Quality Test	Sieve Analysis	16	16	0	2	2	0	18	18	0	
		Specific Gravity	18	18	0	2	2	0	20	20	0	
		Absorption	18	18	0	2	2	0	20	20	0	
		Soundness	0	0	0	0	0	0	0	0	0	
		Abrasion	1	1	0	0	0	0	1	1	0	
	Prime Coat	Rate of Application	4	4	0	1	1	0	5	5	0	
		Temprature	4	4	0	1	1	0	5	5	0	
		Standard Required	0.65 ~ 1.75									
	Tack Coat	Rate of Application	3	3	0	2	2	0	5	5	0	
		Standard Required	0.2 ~ 0.4									
	HMA Base Course	Stability	12	12	0	4	4	0	16	16	0	
		Los of Stability	12	12	0	4	4	0	16	16	0	
		Flow Test	12	12	0	4	4	0	16	16	0	
		Extraction	12	12	0	4	4	0	16	16	0	
		Gmm Test	12	12	0	4	4	0	16	16	0	
		Density (1st Layer)	63	63	0	12	12	0	75	75	0	
		Thickness (1st Layer)	63	57	6	12	12	0	75	69	6	
		Thickness (2nd Layer)	73	73	0	52	52	0	125	125	0	
	HMA Wearing Course	Stability	0	0	0	5	5	0	5	5	0	
		Los of Stability	0	0	0	5	5	0	5	5	0	
		Flow Test	0	0	0	5	5	0	5	5	0	
		Extraction	0	0	0	5	5	0	5	5	0	
		Gmm Test	0	0	0	5	5	0	5	5	0	
Density		0	0	0	179	179	0	179	179	0		
Thickness		0	0	0	179	170	9	179	170	9	Note 01	

Note 01. 08 Nos of Core were Re-taken by CRE NESPAK at deficient locations pointed out by M&E Consultants and 07 Nos Core were found within specification limits. The decision regarding the Remaining 02 Nos. deficient area's will be taken by FWO/NESPAK.

DETAILED INFORMATION OF LABORATORY TEST REPORTS

ITEM	DESCRIPTION OF MATERIAL	TEST ITEM	PREVIOUS QUARTER (1st, 2nd & 3rd)			THIS QUARTER (4th)			TOTAL TODATE			REMARK
			NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	
CONCRETE	Fine Aggregate	Sieve Analysis	6	4	2	3	3	0	9	7	2	
		Specific Gravity	2	2	0	1	1	0	3	3	0	
		Absorption	2	2	0	1	1	0	3	3	0	
		Unit Weight	2	2	0	0	0	0	2	2	0	
		Soundness	1	1	0	0	0	0	1	1	0	
		Sand Equivalent	1	1	0	0	0	0	1	1	0	
		Organic Impurities	1	1	0	0	0	0	1	1	0	
	Coarse Aggregate	Sieve Analysis	12	7	5	3	3	0	15	10	5	
		Specific Gravity	2	2	0	2	2	0	4	4	0	
		Absorption	2	2	0	1	1	0	3	3	0	
		Unit Weight	2	2	0	0	0	0	2	2	0	
		Soundness	1	1	0	0	0	0	1	1	0	
		Flakiness & Elongation	2	0	2	0	0	0	2	0	2	
		Abrasion	1	1	0	1	1	0	2	2	0	
	Compressive Strength	LEAN CONCRETE	11	11	0	0	0	0	11	11	0	
		CLASS "B" CONCRETE	0	0	0	0	0	0	0	0	0	
		CLASS "A" CONCRETE	10	9	1	1	1	0	11	10	1	
	Cement	Setting Time	2	2	0	0	0	0	2	2	0	
		Compressive Strength	2	2	0	0	0	0	2	2	0	
	Water	Chemical Test	1	1	0	0	0	0	1	1	0	

DETAILED INFORMATION OF LABORATORY TEST REPORTS

ITEM	DESCRIPTION OF MATERIAL	TEST ITEM	PREVIOUS QUARTER (1st, 2nd & 3rd)			THIS QUARTER (4th)			TOTAL TODATE			REMARK
			NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	
STEEL	Steel Bar	Tensile Strength	3	3	0	0	0	0	3	3	0	
		Elongation	3	3	0	0	0	0	3	3	0	
		Bend	3	3	0	0	0	0	3	3	0	
QUALITY TEST OF SOIL	Borrow Area	Sieve Analysis	15	15	0	3	3	0	18	18	0	
		Plasticity Index	11	11	0	3	3	0	14	14	0	
		Proctor Test	11	11	0	3	3	0	14	14	0	
		Abrasion	3	3	0	3	3	0	6	6	0	
		Sand Equivalent	1	1	0	3	3	0	4	4	0	
		Specific Gravity	1	1	0	3	3	0	4	4	0	
		CBR Test	10	10	0	3	3	0	13	13	0	
	NGC/Sub Grade Cut Material	Gradation	11	11	0	2	2	0	13	13	0	
		Plasticity Index	10	10	0	1	1	0	11	11	0	
		Moisture Density	10	10	0	2	2	0	12	12	0	
		CBR Test	11	11	0	1	1	0	12	12	0	
	Sub Base	Gradation	10	10	0	4	4	0	14	14	0	
		Plasticity Index	7	7	0	2	2	0	9	9	0	
		Moisture Density	9	9	0	3	3	0	12	12	0	
		CBR Test	5	5	0	2	2	0	7	7	0	
		Abrasion	4	4	0	2	2	0	6	6	0	
		Specific Gravity	4	4	0	3	3	0	7	7	0	
		Sand Equivalent	3	3	0	4	4	0	7	7	0	

DETAILED INFORMATION OF LABORATORY TEST REPORTS

ITEM	DESCRIPTION OF MATERIAL	TEST ITEM	PREVIOUS QUARTER (1st, 2nd & 3rd)			THIS QUARTER (4th)			TOTAL TODATE			REMARK
			NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	NO OF TEST	PASS	FAILED	
TEST OF SOIL	Agg.Base Course	Gradation	12	12	0	0	0	0	12	12	0	
		Abrasion	3	3	0	0	0	0	3	3	0	
		Specific Gravity	4	3	1	0	0	0	4	3	1	
		Sand Equivalent	9	2	7	2	1	1	11	3	8	Note 02
		Soundness	1	1	0	1	1	0	2	2	0	
		Plasticity Index	4	4	0	1	1	0	5	5	0	
		Proctor	7	7	0	0	0	0	7	7	0	
		CBR Test	4	4	0	1	1	0	5	5	0	
	FDT Sand & Cone Calibration	Sand Unit Weight	2	2	0	0	0	0	2	2	0	
		Cone Calibration	2	2	0	0	0	0	2	2	0	
	Field Density Test	Backfill	2	1	1	0	0	0	2	1	1	
		NGC	56	52	4	1	1	0	57	53	4	
		EMBANKMENT	17	16	1	0	0	0	17	16	1	
		SUB GRADE	48	43	5	3	3	0	51	46	5	
		SUB BASE	40	32	8	10	8	2	50	40	10	Note 03
AGG.BASE COURSE		33	20	13	17	7	10	50	27	23	Note 03	

Note 02. Quarry Problem. Material quality improved with incorporation of passing # 4 & + # 30 material at site

Note 03. Subsequent layers placement and compaction postponed until previous layer properly compacted/retested and accepted

CIVIL WORKS (SECTION-II & III)

4.2 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-II)

RCC Railing	U/S side																					
	D/S side																					
Roll Pointing	Abt No1																					
	Abt No2																					
Flooring/Cut-off wall/ Rip rap	B/W Abts																					
RCC Slab/Precast Pannels																						
Bed plate/Curtain wall	Abt No1																					
	Abt No2																					
Back filling	Abt No1	■														■						
	Abt No2	■														■						
	B/W Abts	■														■						
Stone Masonry (Wing Walls)	U/S side	■														■						
	D/S side	■									■					■						
Stone Masonry (Abutments/ Pier)	Abt No1	■														■						
	Abt No2	■														■						
Lean Concrete	Abt No1	■														■						
	Abt No2	■														■						
Structural Excavation	Abt No1	■			■											■						
	Abt No2	■			■											■						
Dismantling of Existing Structure		■														■						
Construction Sequence (FW/HW)		FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	HW LHS	HW RHS	FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	FW	FW	
Size of Culvert (No. of Span*Width*Height)		1*2*3	1*2*2.5	1*2*4.5	1*3*4	1*2*2.5	1*2*3	1*2*2.5	1*2*2.5	1*2*3	1*2*2.5	1*3*4.5	1*2*2.5	1*3*2.5	1*2*4.5	1*2*4	1*2*3	1*2*2.5				
KM as per site		10+050			10+602	10+788		10+961	11+372				12+337	12+460								
KM as in Drawing		10+025	10+500	10+571	10+615	10+790	10+850	10+965	11+375	11+690	11+840	12+200	12+336	12+460	12+775	12+975	13+215	13+325				



ACTIVITIES COMPLETED QUARTER # 04



ACTIVITIES NOT REQUIRED

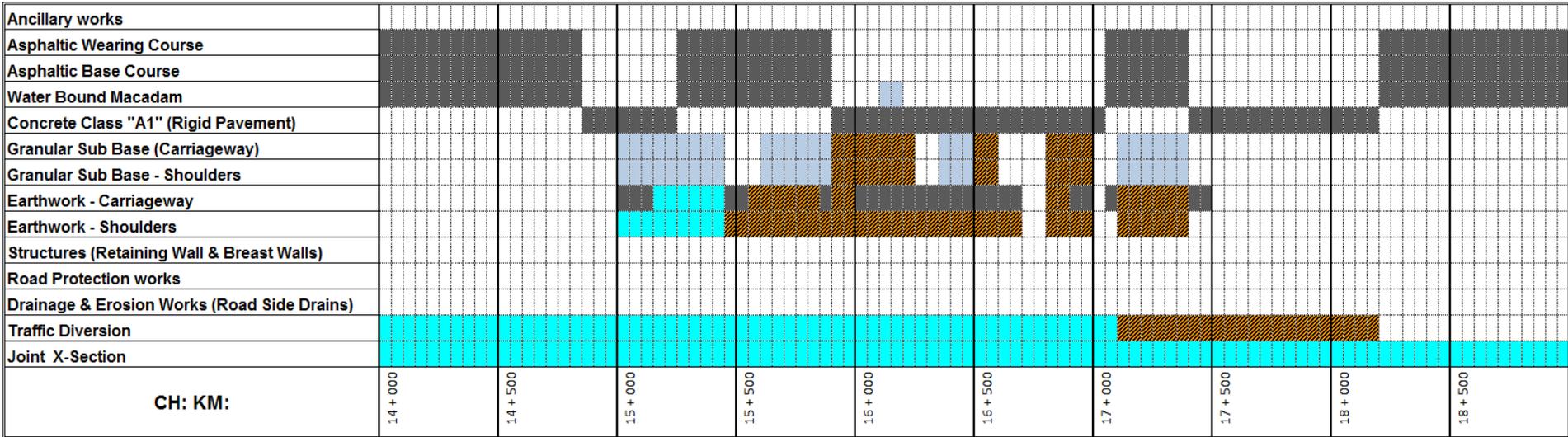


ACTIVITIES COMPLETED IN PREVIOUS QUARTERS



ACTIVITIES IN PROGRESS

4.3 PHYSICAL PROGRESS STATUS (SECTION-III)



LEGEND



4.4 PHYSICAL PROGRESS STATUS (SECTION-III LOOP NO. 1)

Ancillary works			
Asphaltic Wearing Course			
Asphaltic Base Course			
Water Bound Macadam			
Concrete Class "A1" (Rigid Pavement)			
Granular Sub Base (Carriageway)			
Granular Sub Base - Shoulders			
Earthwork - Carriageway			
Earthwork - Shoulders			
Structures (Retaining Wall & Breast Walls)			
Road Protection works			
Drainage & Erosion Works (Road Side Drains)			
Traffic Diversion			
Joint X-Section			
CH: KM:	0 + 000	0 + 500	0 + 922

LEGEND

		WORKS COMPLETED IN QUARTER # 04		SINGLE LANE TRAFFIC MAINTAINED
		WORKS COMPLETED IN PREVIOUS QUARTERS		ITEM NOT REQUIRED
		PARTIAL COMPLETION		

4.5 CULVERTS PHYSICAL PROGRESS STATUS (SECTION-III)

RCC Railing	U/S side																					
	D/S side																					
Roll Pointing	Abt No1																					
	Abt No2																					
Flooring/Cut-off wall/ Rip rap	B/W Abts																					
RCC Slab/Precast Pannels																						
Bed plate/Curtain wall	Abt No1																					
	Abt No2																					
Back filling	Abt No1																					
	Abt No2																					
	B/W Abts																					
Stone Masonry (Wing Walls)	U/S side																					
	D/S side																					
Stone Masonry (Abutments/ Pier)	Abt No1																					
	Abt No2																					
Lean Concrete	Abt No1																					
	Abt No2																					
Structural Excavation	Abt No1																					
	Abt No2																					
Dismantling of Existing Structure																						
Construction Sequence(FW / HW)		FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	FW	HW LHS	HW RHS
Size of Culvert (No. of Span*Width*Height)		2*2*2.5	2*2*3	1*2*2.5	1*2*3	1*2*2.5	1*2*3	1*2*2.5	1*2*2	1*2*2.5	1*2*2.5	1*2*2.5	1*2*3	1*2*2.5	1*2*2.5	1*2*2.5	1*2*2.5	1*2*4.5	1*2*3	1*2*3	1*2*2.5	
KM as per site										15+647		16+316	16+618	16+740	17+010	17+434	17+562	17+666			18+146	
KM as in Drawing		14+250	14+250 (Loop)	14+300	14+300 (Loop)	14+431	14+431 (Loop)	14+600	15+138	15+640	15+795	16+313	16+625	16+750	16+996	17+400	17+561	17+665	17+909		18+142	



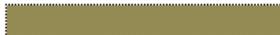
ACTIVITIES COMPLETED IN QUARTER # 04



ACTIVITIES NOT REQUIRED



ACTIVITIES COMPLETED IN PREVIOUS QUARTERS



ACTIVITIES IN PROGRESS

ENVIRONMENTAL COMPLIANCE MONITORING

5.1 Introduction

Environmental Monitoring Compliance of each activity of road component (PTR) is being done according to the Environment Management and Monitoring Plan (EMMP) of the EDF/EIA report, duly approved by the USAID Mission Environment Officer (MEO).

Key roles and responsibilities of Environmental Compliance Officer are as under:

- Environmental Monitoring Compliance of each activity during the construction phase, according to the Environment Management and Monitoring Plan (EMMP).
- Seek and ensure community involvement in environment related matters.
- Reporting of environmental non-compliance related issues and suggest remedial measures for improvement.
- Assist in implementing of EMMP.

1. Existing Environmental Conditions in the Area of Influence

The present land use at the beginning of the project area includes residential and commercial areas of varying density, along the project road in Section – I (0+000 to 9+000 KM). The project area consists mostly of barren land strips and Rocky Mountains. At the start of the project (Section -I) the land is plain & barren with sparse vegetation. An abandoned railway track runs along the road alignment till the end point of the project and crosses the alignment at different locations. There are several surface water channels running across and along the project road such as the Wazir-Dand Canal, Surkamar River and Takhta-beg Rivers. Ground water is available in the project area and used both for drinking and irrigation purposes. There are few vegetation strips and trees situated within the Right of Way (ROW) of project road near 21+500 KM. Cattles have been found grazing at some project areas during site visit but no wild animals have been seen near the project road.

2. Potential Environmental Impacts of the Project Road

Following are the identified potential impacts of the project as per Environment Review Report:

a) Potential Positive Impacts

- Accessibility to the Khyber Agency and Torkham Border from Khyber Pakhtunkhwa province which will improve the road linkage between Pakistan and Afghanistan.
- An improved trade corridor between Pakistan and Afghanistan.
- Will be helpful for law enforcement agencies for improving security control in border areas.
- Generate better economic and social opportunities for local population.
- Less time will be required for travelling and reaching the destination.
- To accelerate the economic activity by providing smooth access to nationwide markets.
- During the construction, local labor is being accommodated in the construction activities.

- To provide sustainable delivery of a productive and efficient national highway system contributing to decrease the transportation cost.
- To provide the livelihood and educate the poor people of the area.

b) Potential Negative Impacts

Project does not have significant potential adverse impacts. However, during strengthening and improvement of the road, the following negative potential impacts are anticipated which could be avoided, localized or mitigated by adopting the proper mitigation measures:

- Health and safety issues of public and workers.
- Solid Waste generation.
- Soil erosion and contamination.
- Noise and air pollution.
- Traffic congestion at diversions.
- Potential impact of blasting if required at quarry areas and rocky areas.
- Surface water body contamination (River and streams) by soil erosion and construction activities.
- Disturbance to public movement during construction.
- Reduction of daily routine activities of local residents.
- Oil spillages from construction machinery, resulting the soil and ground water contamination.

5.2 Environment Compliance

1. Procedure

To comply with the Environment, Health, Safety and Social protocols, a comprehensive Performa has been prepared. Site visits are regularly conducted, properly documented & shared with stakeholders.

2. General Condition of Section-I To V

During the reporting quarter, work continued by FWO in section – I (0+000 to 9+000KM), section – II (KM: 9+000 to 14+000), section – III (KM: 14+000 to 19+000), section – IV (KM: 19+000 to 26+000) & section – V (KM: 26+000 to 34+000). The existing road condition varies from poor to fair. Initially up to 04 KM of section-I passes through commercial area, while rest of the road up to KM: 10 passes through plain terrain. Warsak Lift Canal and many non-perennial streams especially the Khyber Khwar cross the road. The remaining road/sections up to Torkham border passes through hilly terrain with very low serviceability. The road segments from KM: 15+000 to 20+000 and KM: 40+000 to 42+000, have loops to facilitate the dual traffic and act as dual carriageway.

5.3 Progress during the Quarter # 04 (July – September 2013)

During this reporting period three site visits on monthly basis have been conducted. Summarizing, the Contractor's camps and machinery are maintained in good conditions. Heavy vehicles pool / stand of FWO have also been properly maintained. Sprinkling of water to control the dust pollution on diversions is being carried out, but with lesser frequency. FWO needs to focus more on other environmental compliance measures due to inherited site specific conditions such as live traffic corridor, heavy traffic, hilly terrain, and residential and commercial areas along the road. FWO has been constantly stressed upon for undertaking the following.

- Regular sprinkling of water on diversions and portion of roads adjacent to the residential areas.
- Installation of Road's traffic signs and speed checking sign boards for day & night time traffic.
- To keep records of EHS (Environment, Health and Safety) plans.
- To force site staff especially the Sub-contractor staff on permanently wearing personal protective equipments during work.
- Take measures for land leveling and refilling of quarry sites for sustainable use.
- Address drainage problems at culvert's construction sites and quarry areas.
- Ensure availability of Environment Specialist/ Expert on site from FWO / NESPAK side.
- Ensure Health and Safety arrangements at work sites.
- First aid box and Ambulance arrangement in construction zone.

SECURITY REPORT

The security environment is highly vulnerable and militant's objective to stand firm against the security forces and government intention to neutralize them either through negotiation or by force. Hence, there remains the potential for escalation in militant's attacks across the region in the backdrop of recent threats issues by TTP. Risk levels in KP & FATA are currently considered as 'HIGH'. The security related activities undertaken during last quarter are summarized date wise as below:

- On September 4, 2013 the Security Officer (CMEP) along with security Advisor (M&E Project) attended USAID monthly safety & security meeting at Islamabad Club Murree Road, Islamabad. During this meeting discussion was made about security of the USAID Projects.
- Unidentified militants in the Khyber Agency on September 12, 2013 destroyed a NATO vehicle in an attack. However, no casualties were reported. Sources from the political administration said in the area of Sado Khel, and Landi Kotal, unidentified people attacked a truck carrying the NATO military vehicle. Later on, the attackers burned the truck, which severely damaged the NATO vehicle. After the incident, the attackers and the driver and cleaner of the truck fled.
- On September 22, 2013 unidentified gunmen shot dead two Khassadar force personnel in separate incidents in the Jamrud tehsil of the Khyber Agency.
- On September 24, 2013 a NATO supply container was partially damaged when unidentified persons opened fire in Jamrud tehsil in Khyber Agency. The sources said that unidentified persons opened indiscriminate fire on a NATO container in Jamrud due to which it was partially damaged.

Advisory:

M&E staff operating in Khyber Agency / FATA on P-T road project is advised to adopt all possible security measures in the light of prevailing threats to the region and continuously monitor the developing security situation. Staff is further advised to maintain low profile and exercise extreme caution around potential targets of militants. Due to prospects of protests, all movements should be planned accordingly and restricted to essential works only in day light hours. All employees should be encouraged to accept personal responsibility of their own safety and of their subordinates by adhering to the following:

- Vary routes and timings to and from work place.
- Carry cell phone all the times for information of situation.
- Check interior and exterior of their vehicles prior to getting into it (for any suspicious item).
- Keep the doors locked and windows closed when traveling in vehicles.

- Maintain a low personal profile movement at site by not doing anything that draws attention of others.
- Must be alert to the situation around them.
- The colleagues must share and be aware of each other's daily plan so that in case of emergency they can be contacted conveniently.
- In traffic jams, always try to leave space for maneuvering. Always leave their self on exit.
- Be prepared to take evasive action.
- Avoid traffic jam points in travel.
- If being harassed or followed, try to contact Police / Khasadar force / Frontier Corps personnel. Never lead the person back to home or office.
- Never give out your personal information as project name, project sponsor, family members, addresses and telephone numbers in an open sitting.
- Follow security orders and instructions.

APPENDICES

7.1 CONTRACTOR IPC's

IPC No:	AMOUNT CLAIMED		DATE OF SUBMISSION BY CONTRACTOR TO FATA	DATE OF SUBMISSION BY FATA TO USAID	DATE OF CERTIFICATION BY M&E CONSULTANTS	AMOUNT CERTIFIED BY M&E CONSULTANTS		DATE OF PAYMENT TO CONTRACTOR
	US \$	EQUIVALENT PKR				US \$	EQUIVALENT PKR	
1	1,444,442	135,777,548	23-May-13	28-May-13	28-Jun-13	597,641	56,178,279	IN PROCESS
2	2,494,227	234,453,311	28-Jun-13	2-Jul-13	26-Jul-13	2,494,227	234,453,311	IN PROCESS
3	2,382,898	223,992,366	26-Jul-13	31-Jul-13	29-Aug-13	2,268,345	213,224,394	IN PROCESS
4	1,738,259	163,396,356	3-Sep-13	11-Sep-13	25-Sep-13	1,096,902	103,108,788	IN PROCESS

7.2 RECORD OF COORDINATION MEETINGS/ JOINT SITE VISITS

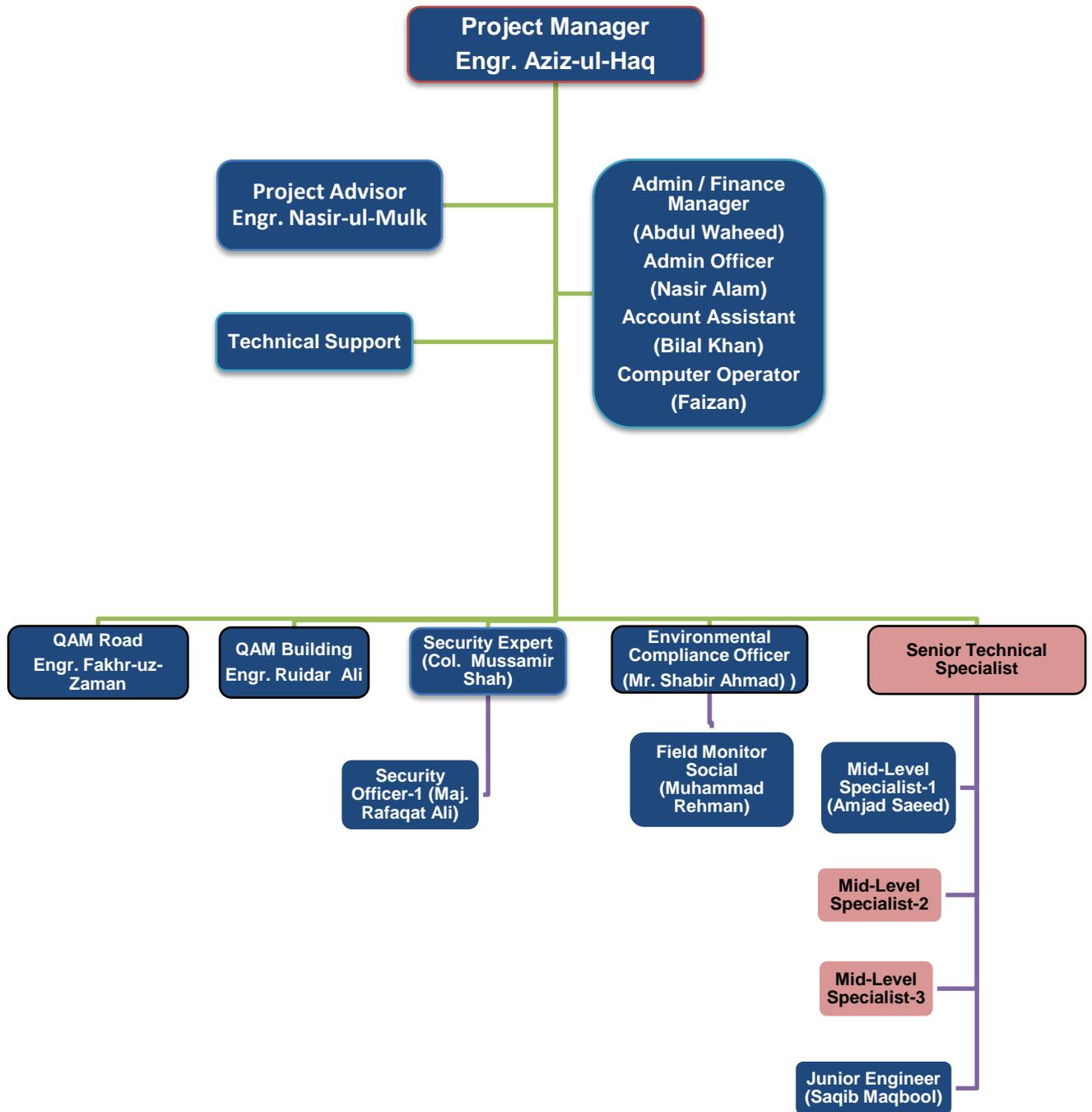
Date	Meeting	Participants	Venue
08-Jul-13	Coordination Meeting	USAID, M&E Consultants, FWO, NESPAK	FWO Office Jamrud
08-Jul-13	Joint Site Visit (Section-I, II & III)	USAID, M&E Consultants, FWO, NESPAK	PT Road
23-Jul-13	Coordination Meeting	FWO, NESPAK and M&E Consultants	FWO Office Jamrud
23-Jul-13	Joint Site Visit (Section-I To V)	M&E Consultants, FWO and NESPAK	PT Road
20-Aug-13	Coordination Meeting	USAID, FATA , NHA, M&E Consultants, FWO, NESPAK	FWO Office Jamrud
20-Aug-13	Joint Site Visit (Section-I, II, III & IV)	USAID, FATA, NHA, M&E Consultants, FWO, NESPAK	PT Road
02-Sep-13	Coordination Meeting	M&E Consultants, FWO and NESPAK	CRE NESPAK office Jamrud
04-Sep-13	Joint Site Visit (Section-I, II, III)	M&E Consultants, FWO and NESPAK	PT Road
12-Sep-13	Coordination Meeting	M&E Consultants, FWO and NESPAK	PD-FWO Office Peshawar
17-Sep-13	Joint Site Visit (Section-I)	M&E Consultants, FWO and NESPAK	PT Road
18-Sep-13	Pre-FDWP Meeting for PC-1 of Sec-II	FATA , M&E Consultants, FWO and NESPAK	FATA Secretariat

7.3 MOBILIZATION OF M&E STAFF

The following members of the M&E Team were mobilized as various activities of the project progressed. Other staff members will be mobilized according to demand of work load.

S. No.	Name	Designation	Mobilized	Agreed Positions
1	Aziz-ul-Haq	Project Manager	01	01
2	Fakhr uz Zaman	Quality Assurance Manager	01	01
3	Khurshid Khan	M&E Specialist	01	01
4	Muhammad Ilyas	Field Manager M&E	01	02
5	Gul Zada	Material Engineer	01	01
6	Muhammad Ibrar	Office Engineer	01	01
7	Rasheed Khan	Field Monitor	01	04
8	Muhammad Sher	Field Monitor	01	
8	Tariq Ibrahim	Quantity Surveyor	01	01
9	Sohail Anjum	Senior Surveyor	01	01
10	Naeem Jan	Surveyor	01	01
11	Khan Umar	Senior Lab. Technician	01	01
12	Amjad Ali Khan	Senior Lab. Technician	01	01
13	Shakeel Akbar	Laboratory Technician	01	01
14	Noor Ali Jan	Laboratory Technician	01	01
15	Baber Naeem	Asstt. Lab. Tech.	01	01
16	Mujeeb Khan	Asstt. Lab. Tech.	01	01
17	Zeeshan Atta	Survey Assistant	01	01
18	Muhammad Waqas	Survey Assistant	01	01
19	Muhammad Ayaz	Survey Assistant	01	01
20	Asad Khan	CAD Operator	01	01
21	Hamid Ali	Computer Operator	01	01

7.4 ORGANIZATION CHART FOR CMEP OFFICE, PESHAWAR



LEGEND:

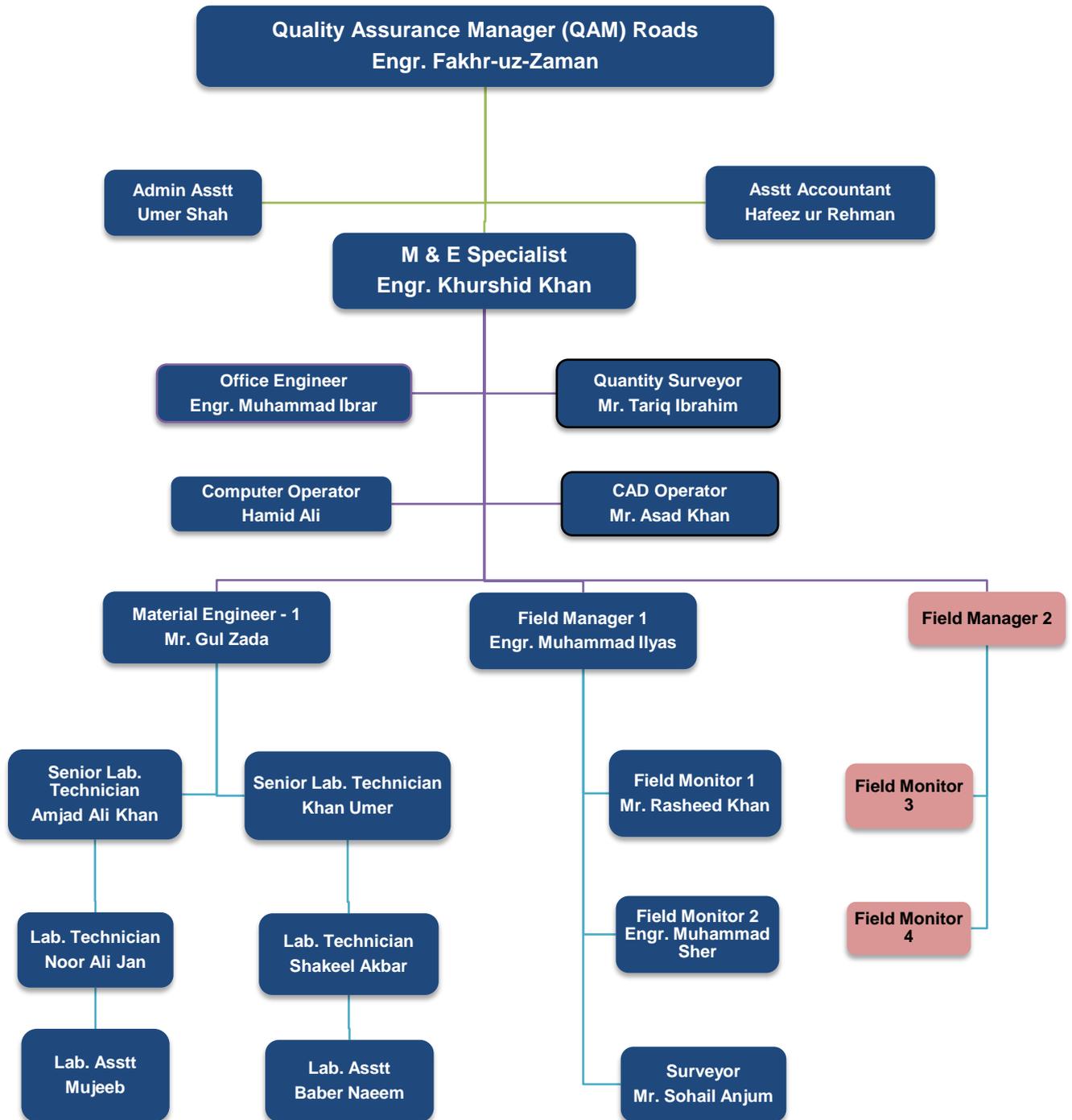


Mobilized



To be mobilized with expansion of work

7.5 ORGANIZATION CHART FOR ROAD COMPONENT OF CMEP PROJECT



LEGEND:



Mobilized



To be mobilized with expansion of work

PROJECT PHOTOGRAPHS

PAVEMENT STRUCTURE



KM: 0+225 To 0+570 Half width RHS
Final rolling of Asphaltic Base Course



KM: 0+225 To 0+570 Half width RHS
View of Carriageway after ACWC work



KM: 5+225 To 5+275 Half width LHS
Final rolling of Asphaltic Base Course



KM: 5+225 To 5+275 Half width LHS
View of Carriageway after ACWC work



KM 5+600 To 5+700 Full width
Cleaning & Brooming of Aggregate Base Course



KM 5+600 To 5+700 Full width
View of Carriageway after ACWC work



KM 6+250 To 6+350 Full width
Compaction of ABC



KM 6+250 To 6+350 Full width
View of Carriageway after ACWC work



KM 6+537 To 6+637 Full width
Grading of Sub base 2nd layer



KM 6+537 To 6+637 Full width
View of Carriageway after ACWC work



KM: 6+800 to 6+900 Full width
Earthwork 4th layer after leveling/ compaction



KM: 6+800 to 6+900 Full width
View of Carriageway after ACWC work



KM: 7+350 To 7+450 Full width
Grading & leveling of ABC



KM: 7+350 To 7+450 Full width
View of Carriageway after ACWC work



KM: 7+450 To 7+550 Full width
Cleaning & Brooming of ABC



KM: 7+450 To 7+550 Full width
View of Carriageway after ACWC work



KM 7+450 To 7+750 Full width
Prime Coating of ABC surface



KM 7+450 To 7+750 Full width
View of Carriageway after ACWC work



KM: 8+250 To 8+400 Full width
Windrows of ABC



KM: 8+250 To 8+400 Full width
View of Carriageway after ACWC work



KM: 10+525 To 10+700 Full width
Spreading and grading of sub base 1st layer



KM: 10+525 To 10+700 Full width
Grading & Leveling of Sub base 2nd layer



KM: 10+825 To 10+975 Half width LHS
Preparation of sub base 1st layer



KM: 10+825 To 10+975 Half width LHS
Windrows of sub base 2nd layer



KM: 11+325 To 11+360 RHS
Roadway excavation in progress



KM: 11+325 To 11+360 RHS
Roadway excavation completed



KM: 11+700 To 12+000 LHS
Roadway excavation in progress



KM: 11+700 To 12+000 LHS
Windrows of sub base material



KM: 12+600 To 12+650
Roadway excavation in progress



KM: 12+600 To 12+650
Roadway excavation in progress



KM: 12+700 To 12+750
Roadway excavation in progress



KM: 12+700 To 12+750
Roadway excavation in progress



KM: 16+100 To 16+200 RHS
Windrows of sub base 1st layer



KM: 16+100 To 16+200 RHS
Grading & leveling of sub base 2nd layer



KM: 17+150 To 17+250 RHS
Roadway excavation in progress



KM: 17+150 To 17+250 RHS
Roadway excavation completed

CULVERTS

JULY/AUGUST



Culvert KM: 6+050

SEPTEMBER



Culvert KM: 6+050



Culvert KM: 6+501



Culvert KM: 6+501



Culvert KM: 7+384



Culvert KM: 7+384

JULY/AUGUST



Culvert KM: 10+050

SEPTEMBER



Culvert KM: 10+050



Culvert KM: 11+372



Culvert KM: 11+372



Multi cell Culvert KM: 11+190
Material excavated from U/S side



Multi cell Culvert KM: 11+190
Refilling of river bed with roadway excavated
waste material by FWO

JULY/AUGUST



Culvert KM: 12+337

SEPTEMBER



Culvert KM: 12+337



Culvert KM: 12+337
Culvert before dismantling



Culvert KM: 12+337
Stone masonry demolished due to poor
Quality of work



Culvert KM: 12+460



Culvert KM: 12+460

JULY/AUGUST



Culvert KM: 16+316

SEPTEMBER



Culvert KM: 16+316



Culvert KM: 16+740



Culvert KM: 16+740

FIELD / LAB TESTING



KM: 6+400
Core Sampling of Asphalt Wearing Course
by M&E Consultants



KM: 8+525
Field Density Test of ABC by FWO and M&E
Consultants



KM: 0+530 (Loop-1 Section III)
Field Density Test of Sub Base by M&E
Consultants



Abrasion test of water bound macadam



Marshal stability test of Asphaltic wearing
course in M&E Consultants lab



Measurement of core density in FWO lab

ENVIRONMENTAL MONITORING



Heavy Vehicle Stand at FWO camp Jamrud



Outside view of FWO Labor camp Jamrud



Inside view of FWO Labor camp residence



Dust Pollution & uneven road geometry near KM 10+200 at diversion, needs proper water sprinkling & grading at regular intervals.



KM: 12+500: Frequency of dust suppression activities should be made compatible with the traffic volume.



Construction of road side drainage in progress at KM: 0+200 (Karkhano Market). The contractor has been advised to adopt proper safety measures at site



KM: 2+300: FWO was advised to properly cover the construction material during transit by dumpers.



KM 5+630: Backfilling of newly constructed road side drains passing through graveyard should be executed promptly to avoid any social conflict



KM 7+900: Trees plantation by Forest Department FATA along the P-T road side will have positive environmental impact.



KM 10+200: FWO was advised to enforce proper construction safety protocols on sub contractor's.



KM 10+200: FWO was advised to enforce proper construction safety protocols on sub contractor's.



Near KM 11+190, Quarry area along stream bed has been refilled & leveled partially by FWO.