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

MONTHLY PROGRESS REPORT # 11
October 2013

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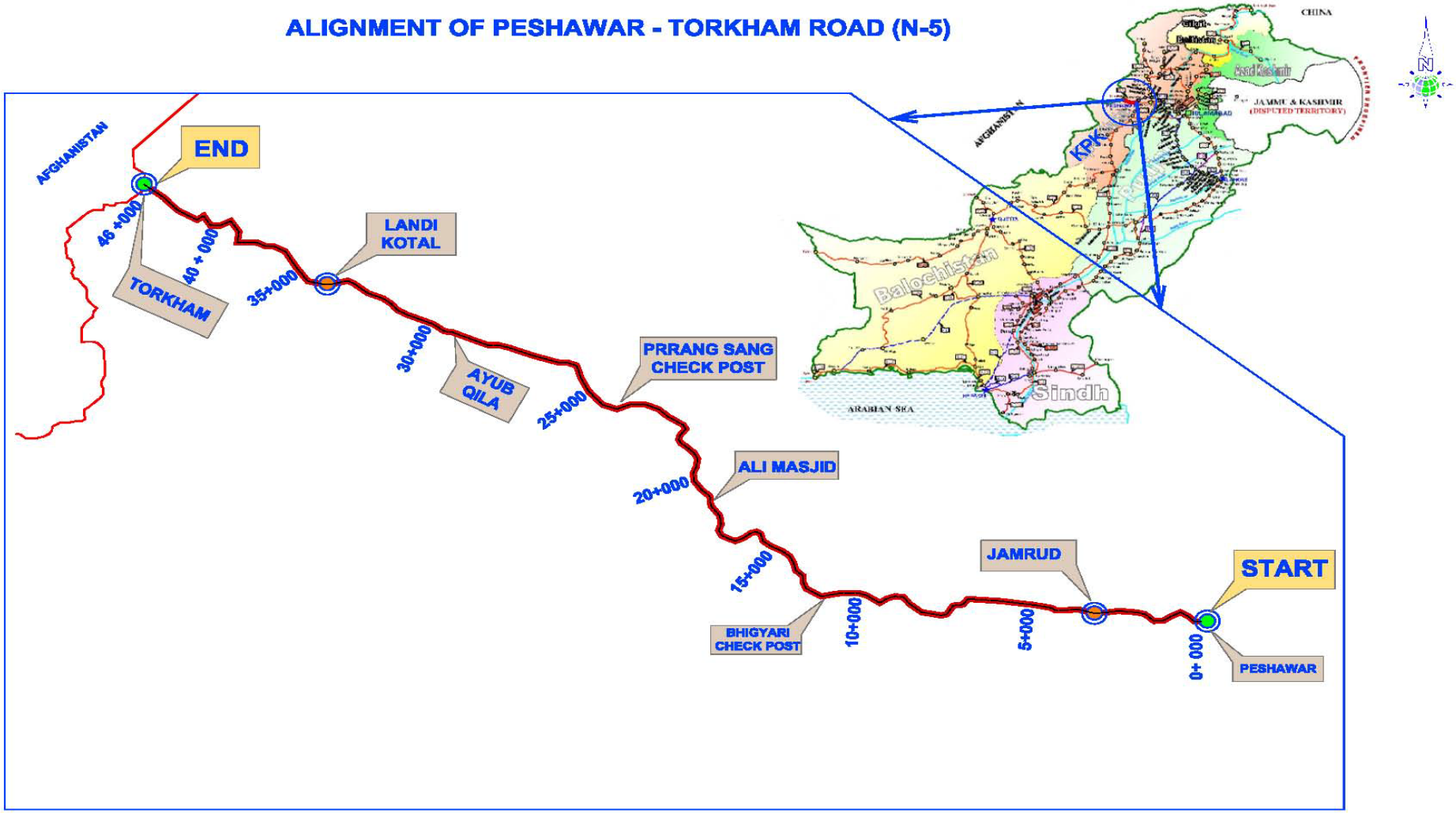

ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5)
AFGHANISTAN
END
46 +000
TORKHAM
40 + 000
35+000
LANDI KOTAL
30+000
AYUB QILA
25+000
PRRANG SANG CHECK POST
20+000
ALI MASJID
15+000
BHIGYARI CHECK POST
10+000
JAMRUD
5+000
0+ 000
START
PESHAWAR
CHINA
JAMMU & KASHMIR
(DISPUTED TERRITORY)
AFGHANISTAN
KPK
Balochistan
Sindh
ARABIAN SEA
N

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 67 Million 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.

Major work components on section – I (KM: 0+000 To 9+000) of the strengthening & improvement project have been completed. The first 09 KM achievement resulted in increase traffic capacity, decrease congestion, reduce travel time and improve safety along the traffic corridor.

- Key construction achievements made against section – I since October 15, 2012 up-to the end of October 2013:-
- Earthwork: 100 %
- Sub Base: 100 %
- Aggregate Base Course: 100 %
- Asphaltic Base Course: 100 %
- Asphaltic Wearing Course: 100 %
- Pavement Marking 100 %
- Culverts: 88.62 %
- Retaining Walls: 88.00 %

- Pavement marking of section-I completed in the reporting month.
- Longitudinal drainage construction continued in section – I.
- WBM and asphalt paving work on remaining 09 No's local connector roads continued in section – I.
- With verification of IPC # 05 on Oct 23, 2013 for an amount of US $ 680,293.00, the overall certified payment till date come to US $ 7.14 Million.
- Bulk earthwork and roadway excavation continued in section – II & III of the project.
- Static pile load test completed at bridge # 02 (KM: 9+560), while boring/ concreting of working piles continued.
- Construction continued on 24 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 in section II & III.
- Public utility (OFC) relocations continued in section – II & III.

- Additional crush plant (KM: 16+000) have started production, while batching plant being made ready for commissioning.
- Detailed design and quantity estimation of section - II completed & PC-1 approved.
- Detailed design and quantity estimation of section - III completed with PC-1 approval in progress.
- Detailed design and quantity estimation of section - IV & V continued at NESPAK HQ.
- Earthwork & sub-base paving work in section – IV (KM: 19+000 To KM: 26+000) & section – V (KM: 26+000 To KM: 34+000) continued.
- Traffic between KM: 22+200 To 26+200, 27+300 To 28+100 and 31+600 To 32+600 of section IV & V switched onto diversions.
- During the reporting period, the contractor teams were able to work 19 days of 31 available working days due to EID holidays.
- 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						
Physical Limits	Peshawar toTorkham					
Feature	Section – I	Section – II	Section – III	Section – IV	Section – V	Section – VI
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)	34+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. NESPAK is providing design and quality 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.

1.3 GENERAL CONTRACT DATA

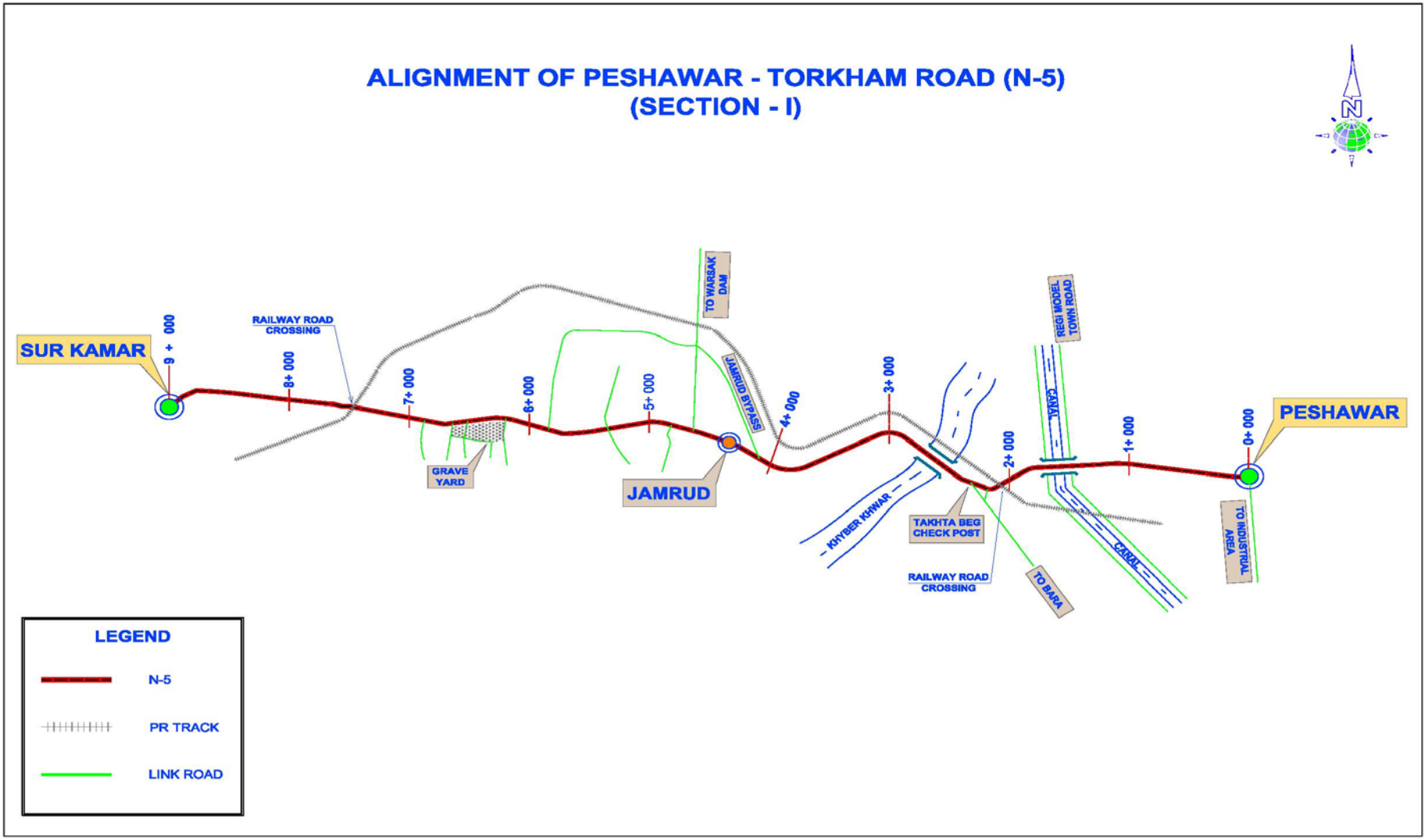
1.	Name of Project	**Strengthening and Improvement of Peshawar Torkham Road (N-5) Khyber Agency FATA**
2.	Project Construction Cost	**US $ 67 Million**
3.	Donor Agency	**USAID PAKISTAN**
4.	Donor's Agency Representative	**Engr. Farhat Ali Shah Banori, USAID/COR**
5.	Sponsoring Agency	**FATA Secretariat, Peshawar**
6.	Sponsoring Agency Representative	**Mr. Roshan Mahsud, Project Director, PMU FATA**
7	Executing Agency	**Frontier Works Organization (FWO)**
8.	Executing Agency Representative	**Col. Zahid (Project Director FWO)**
9.	M&E Consultants	**AGES Consultants**
10.	M&E Consultants Representative	**Engr. Aziz-ul- Haq, Project Manager**
11.	Time for Completion	**807 Calendar Days**
12	Mode of Construction Contract	**EPC (Engineer, Procure and Construct) Contract**
13.	Chronology	

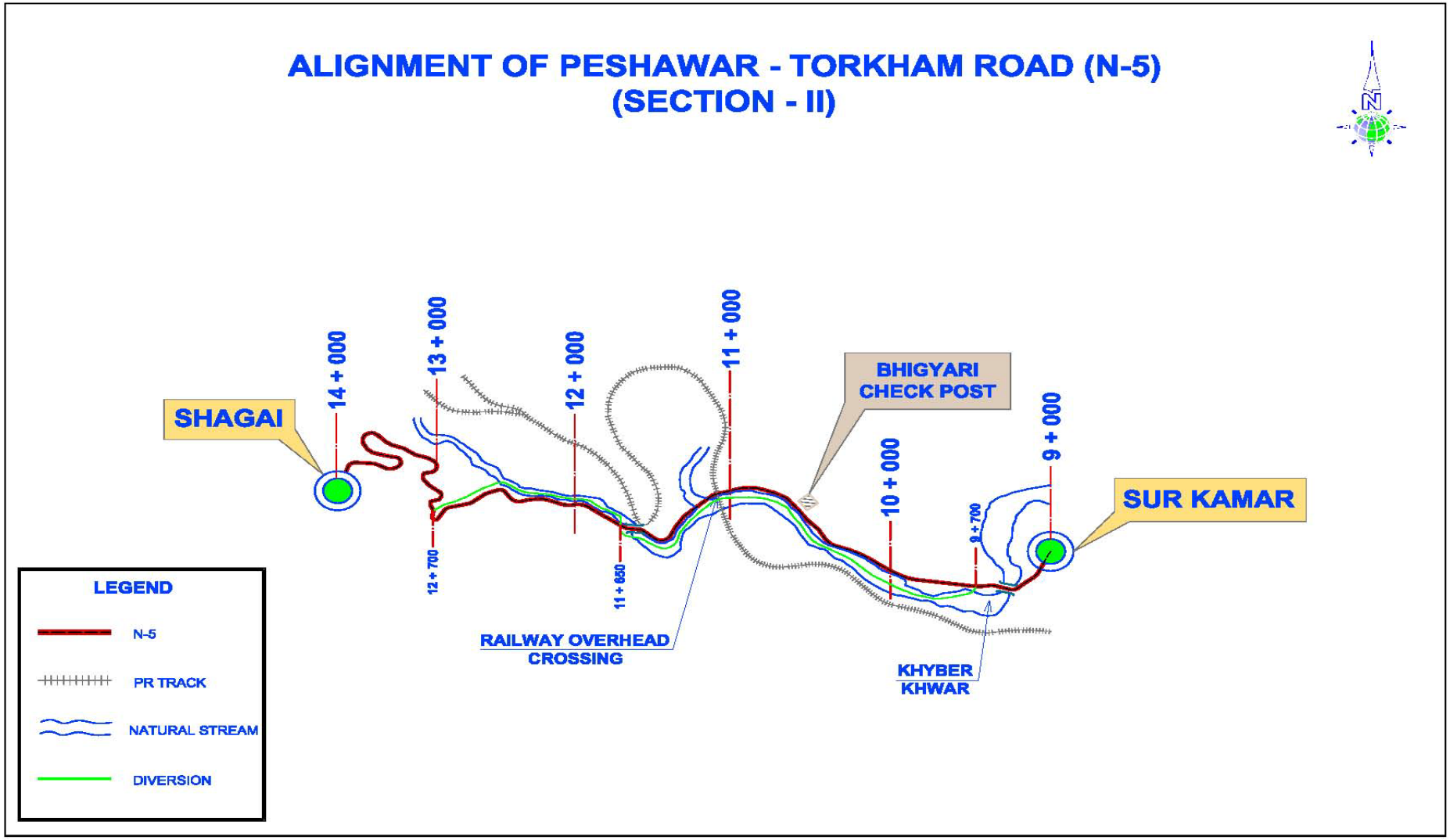
Signing of MoU (USAID–FATA–NHA)	**Sep 18, 2012**
Signing of Consultancy Contract (USAID – AGES)	**Sep 30, 2012**
M&E Consultants Mobilization	**Oct 01, 2012**
Project Date of Commencement	**Oct 15, 2012**
Project Date of Completion	**Dec 31, 2014**

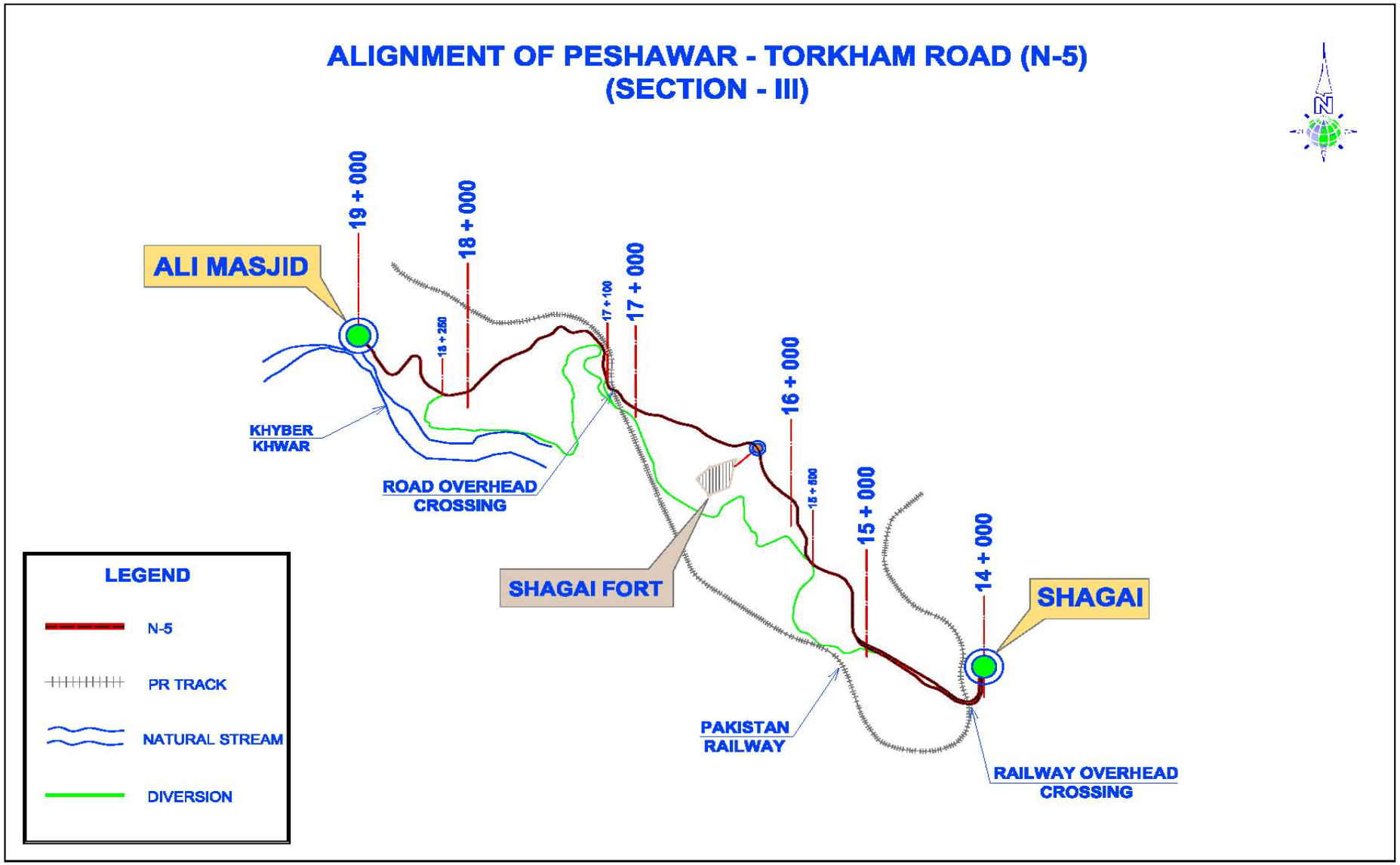
1.4 SECTIONS DATA

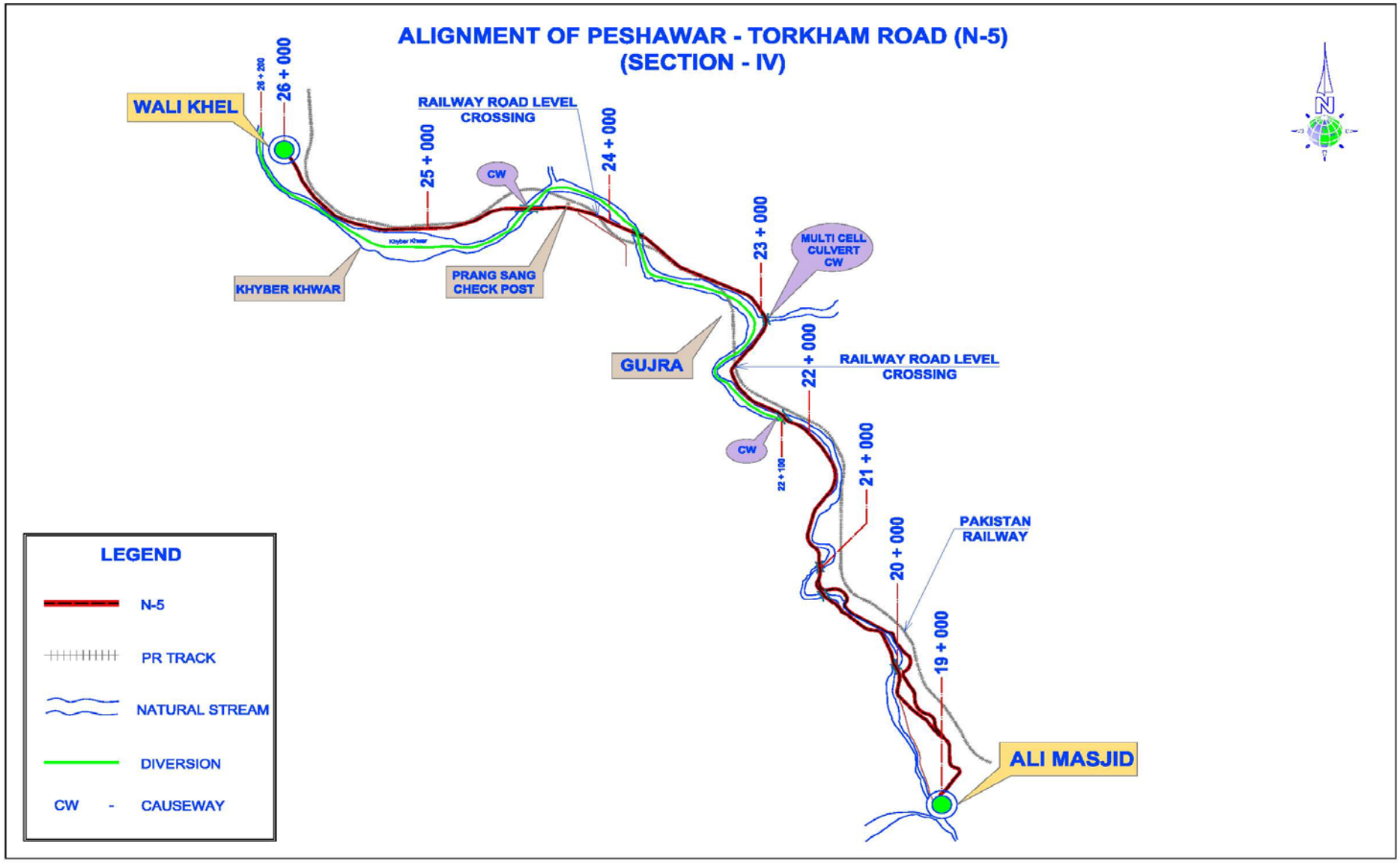
1.	Name of Package	**Section – I (CH: KM: 0+000 to CH: KM: 9+000)**
2.	Project Cost (Section – I)	**Rs. 937.939 Million (US $ 9.978 M)**
3.	Approval of PC – 1 (Section – I)	**Nov 20, 2012**

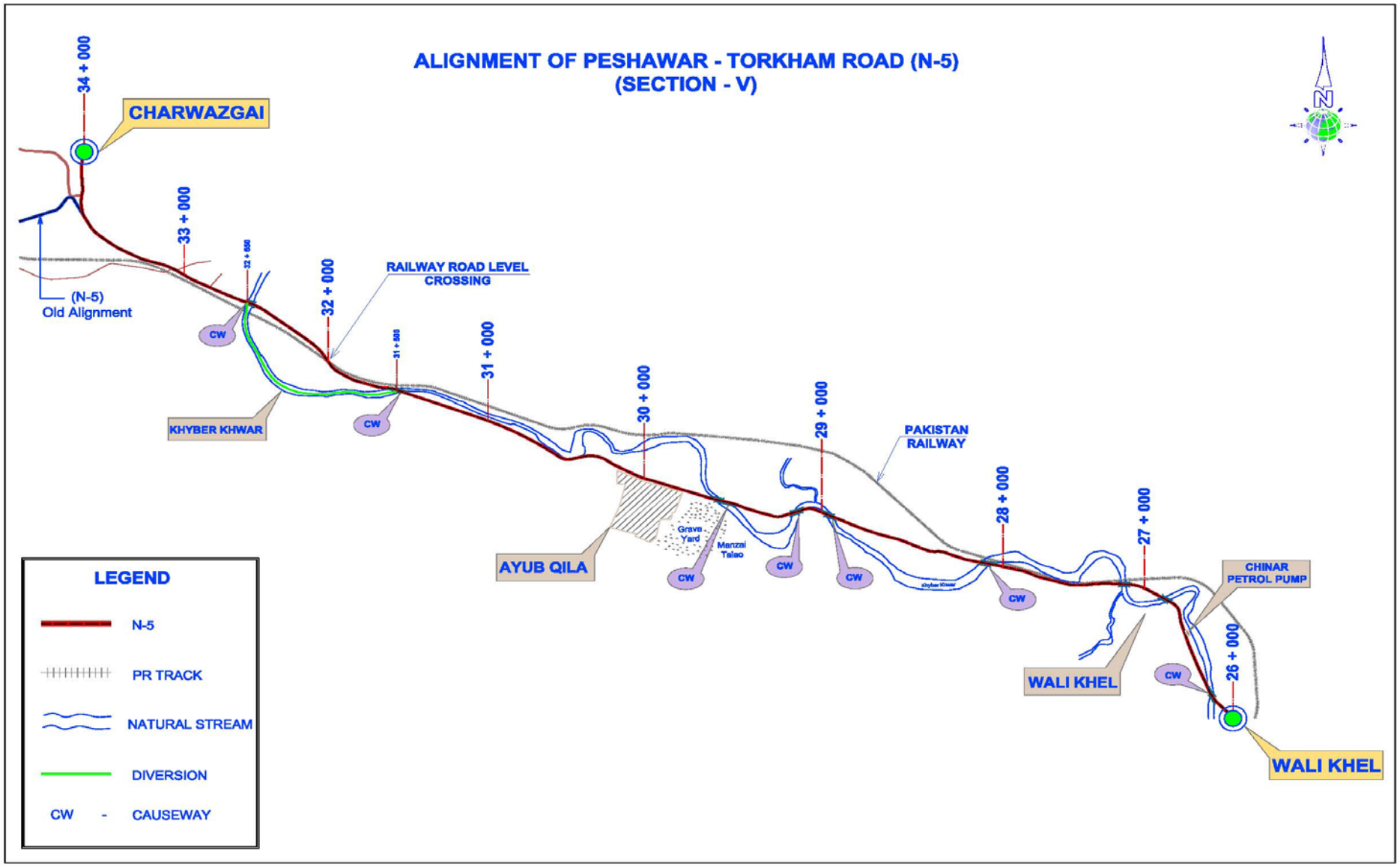
1.5 ALIGNMENT SKETCHES



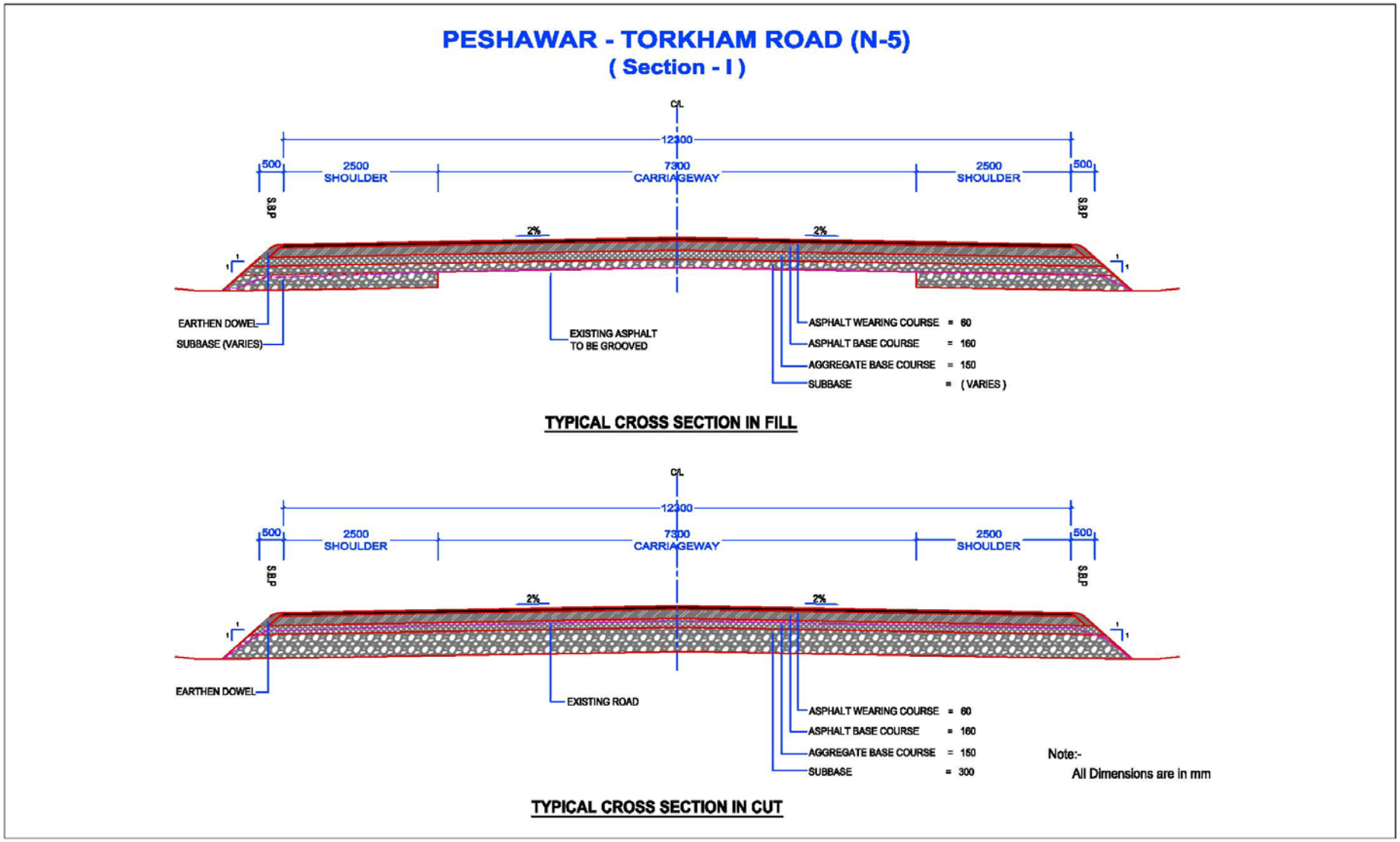

ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5)
(SECTION - II)
N
SHAGAI
14 + 000
13 + 000
12 + 000
11 + 000
10 + 000
9 + 000
12 + 700
11 + 650
9 + 700
BHIGYARI
CHECK POST
SUR KAMAR
RAILWAY OVERHEAD
CROSSING
KHYBER
KHWAR
LEGEND
N-5
PR TRACK
NATURAL STREAM
DIVERSION

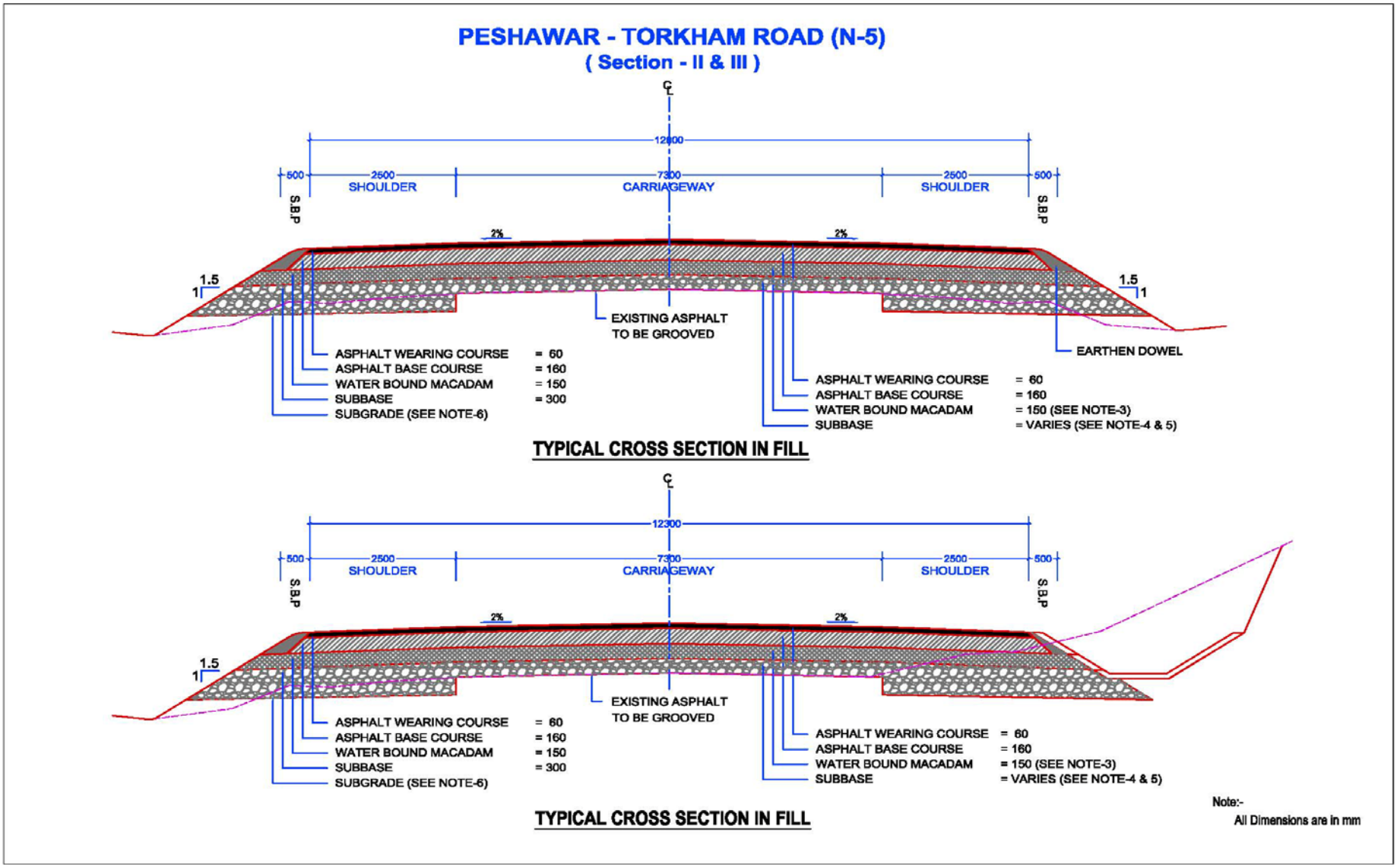

ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5)
(SECTION - III)
N
19 + 000
18 + 000
17 + 100
17 + 000
16 + 000
15 + 800
15 + 000
14 + 000
13 + 250
ALI MASJID
KHYBER
KHWAR
ROAD OVERHEAD
CROSSING
SHAGAI FORT
SHAGAI
PAKISTAN
RAILWAY
RAILWAY OVERHEAD
CROSSING
LEGEND
N-5
PR TRACK
NATURAL STREAM
DIVERSION

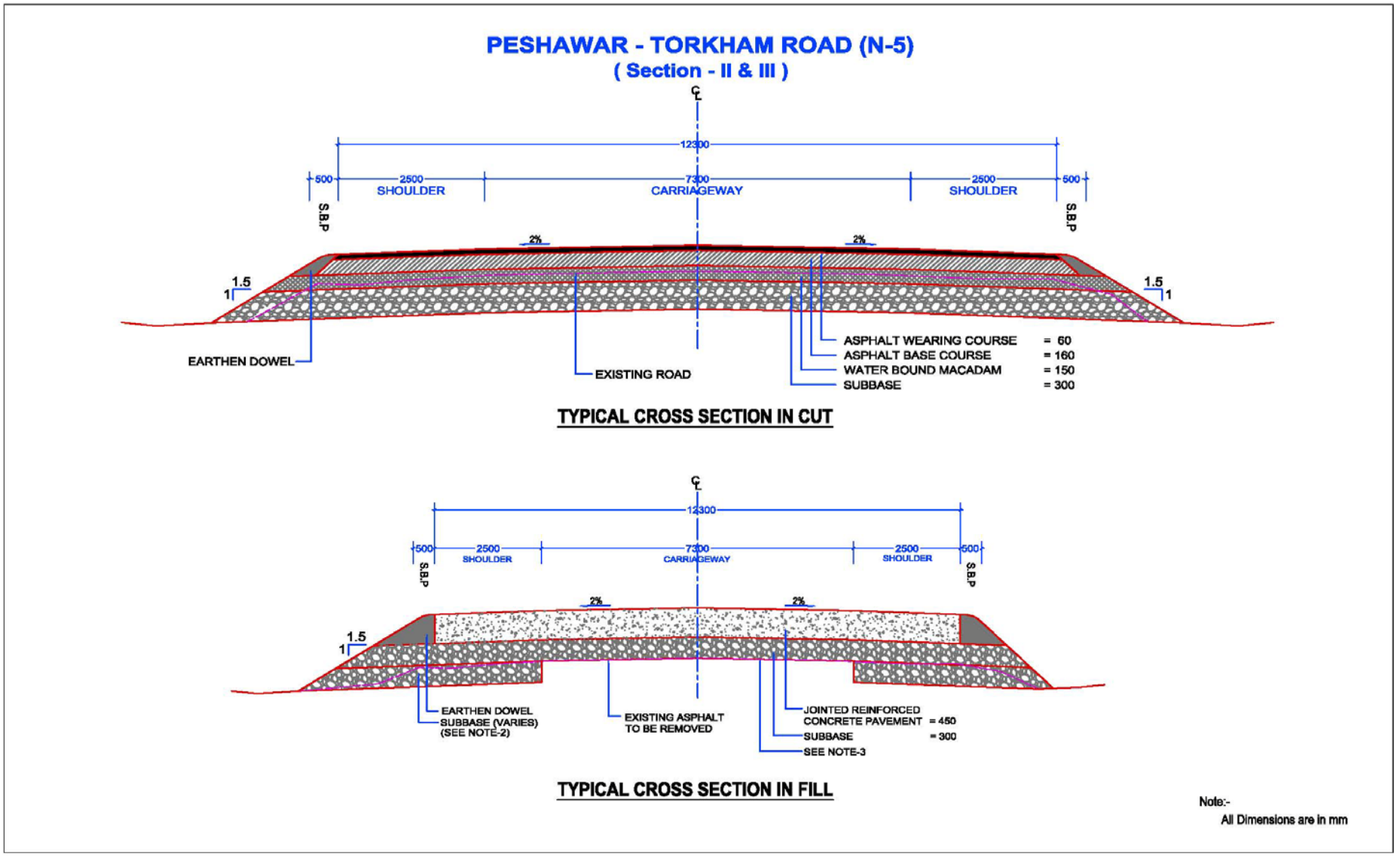

ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5)
(SECTION - IV)
WALI KHEL
26 + 000
25 + 000
RAILWAY ROAD LEVEL CROSSING
24 + 000
CW
KHYBER KHWAR
PRANG SANG CHECK POST
23 + 000
MULTI CELL CULVERT CW
GUJRA
22 + 000
RAILWAY ROAD LEVEL CROSSING
CW
21 + 000
20 + 000
PAKISTAN RAILWAY
19 + 000
ALI MASJID
N
LEGEND
N-5
PR TRACK
NATURAL STREAM
DIVERSION
CW - CAUSEWAY


ALIGNMENT OF PESHAWAR - TORKHAM ROAD (N-5)
(SECTION - V)
34 + 000
CHARWAZGAI
33 + 000
32 + 000
RAILWAY ROAD LEVEL CROSSING
31 + 000
30 + 000
29 + 000
28 + 000
27 + 000
26 + 000
(N-5)
Old Alignment
CW
KHYBER KHWAR
AYUB QILA
Grave Yard
Manzai Talao
PAKISTAN RAILWAY
CHINAR PETROL PUMP
WALI KHEL
WALI KHEL
LEGEND
N-5
PR TRACK
NATURAL STREAM
DIVERSION
CW - CAUSEWAY

1.6 TYPICAL CROSS SECTIONS OF ROAD




PESHAWAR - TORKHAM ROAD (N-5)
(Section - II & III)
12300
500
2500
SHOULDER
7300
CARRIAGEWAY
2500
SHOULDER
500
S.B.P
S.B.P
2%
2%
1.5
1
1.5
1
EXISTING ASPHALT
TO BE GROOVED
EARTHEN DOWEL
ASPHALT WEARING COURSE = 60
ASPHALT BASE COURSE = 160
WATER BOUND MACADAM = 150
SUBBASE = 300
SUBGRADE (SEE NOTE-6)
ASPHALT WEARING COURSE = 60
ASPHALT BASE COURSE = 160
WATER BOUND MACADAM = 150 (SEE NOTE-3)
SUBBASE = VARIES (SEE NOTE-4 & 5)
TYPICAL CROSS SECTION IN FILL
12300
500
2500
SHOULDER
7300
CARRIAGEWAY
2500
SHOULDER
500
S.B.P
S.B.P
2%
2%
1.5
1
EXISTING ASPHALT
TO BE GROOVED
ASPHALT WEARING COURSE = 60
ASPHALT BASE COURSE = 160
WATER BOUND MACADAM = 150
SUBBASE = 300
SUBGRADE (SEE NOTE-6)
ASPHALT WEARING COURSE = 60
ASPHALT BASE COURSE = 160
WATER BOUND MACADAM = 150 (SEE NOTE-3)
SUBBASE = VARIES (SEE NOTE-4 & 5)
TYPICAL CROSS SECTION IN FILL
Note:-
All Dimensions are in mm


PESHAWAR - TORKHAM ROAD (N-5)
(Section - II & III)
12300
500
2500
SHOULDER
7300
CARRIAGEWAY
2500
SHOULDER
500
S.B.P
S.B.P
2%
2%
1.5
1
1.5
1
EARTHEN DOWEL
EXISTING ROAD
ASPHALT WEARING COURSE = 60
ASPHALT BASE COURSE = 160
WATER BOUND MACADAM = 150
SUBBASE = 300
TYPICAL CROSS SECTION IN CUT
12300
500
2500
SHOULDER
7300
CARRIAGEWAY
2500
SHOULDER
500
S.B.P
S.B.P
2%
2%
1.5
1
EARTHEN DOWEL
SUBBASE (VARIES)
(SEE NOTE-2)
EXISTING ASPHALT
TO BE REMOVED
JOINTED REINFORCED
CONCRETE PAVEMENT = 450
SUBBASE = 300
SEE NOTE-3
TYPICAL CROSS SECTION IN FILL
Note:-
All Dimensions are in mm

M&E SERVICES & PROGRESS OF ACTIVTIES

2.1 MAJOR ACTIVITIES DURING THE REPORTING MONTH – AUGUST 2013

- IPC # 05 submitted to USAID by FWO through FATA Secretariat was certified on Oct 23, 2013 for an amount of US $ 680,293.00.
- Key construction achievements made against section – I by the end of October 2013 are :-
  - Retaining Walls were taken from 85% to 88%
  - Roadside drains were taken from 7.05% to 19%
  - Pavement marking started & completed in the reporting month.
- Detailed technical comments on proposed cost estimate & design / drawings for section – II & III of the project have been shared with FWO/NESPAK during the reporting period.
- Detailed technical comments on proposed cost estimate & design / drawings for Bridge #10 (KM:23+750), #12 (KM:27+350) & Multi-cell Culvert (KM:22+925) of the project have been shared with FWO/NESPAK during the reporting period.
- M&E Consultants continued to monitor the Construction activities during the reporting month and conducted requisite material sampling & testing as per NHA's guidelines.
- Work continued to finalize the detailed design & ground survey from KM: 19+861 To 46+000.
- During the reporting month, M&E consultants attended 02 meetings at FATA Secretariat. The first was FDWP meeting for PC-I approval of section – II, and the 2nd was Pre-FDWP for PC-1 of section – III.
- M&E consultants continued to liaise with relevant stakeholders about project and address environmental, planning and other concerns relating to the strengthening / improvement of the vital national traffic corridor.
- Actively participated in on-site discussions with FWO/NESPAK regarding Construction of 09 No's bridges on existing causeways between KM: 22+000 to 33+000.
- FWO was constantly pressed for demonstrating good environmental practice in conformity with the construction environmental management plan.
- Total percent time elapsed up-to 31st October 2013 is 47.34 %.

2.2 MATTERS REQUIRING ATTENTION

- **COMPLEX CONSTRUCTION ALONG HIGH VOLUME TRAFFIC CORRIDOR:**

  The 10 KM stretch of Sec-II & III of the project involves construction of rigid pavement (plain concrete) in full width with shoulders for 4.6 KM length & single lane for 1.65 KM length of loops. However non provision of construction method statement & relevant construction drawings / details regarding max / min slab corner angles, proper definitions of length & width of slab panel w.r.t straight & curved reaches, transverse joint details & spacing criteria on curved portion, paving precedence of travel lanes & shoulder lanes etc will not only severely hamper the construction implementation & quality of work , but technical audit of the stated construction activities will also be suffered.

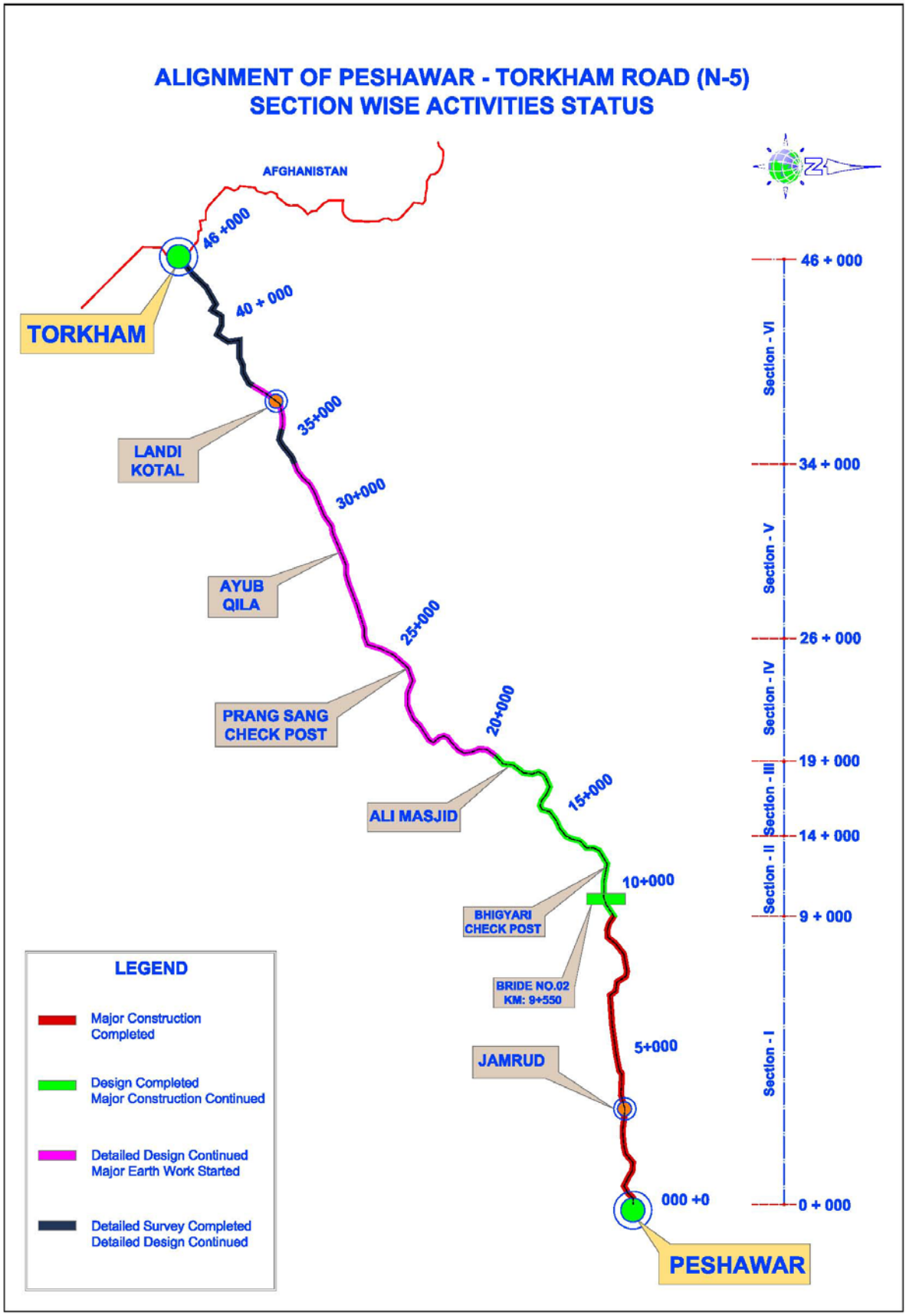
  FWO / NESPAK are advised to properly address the design / drawing shortcomings prior to proceeding for gigantic task implementation at site.

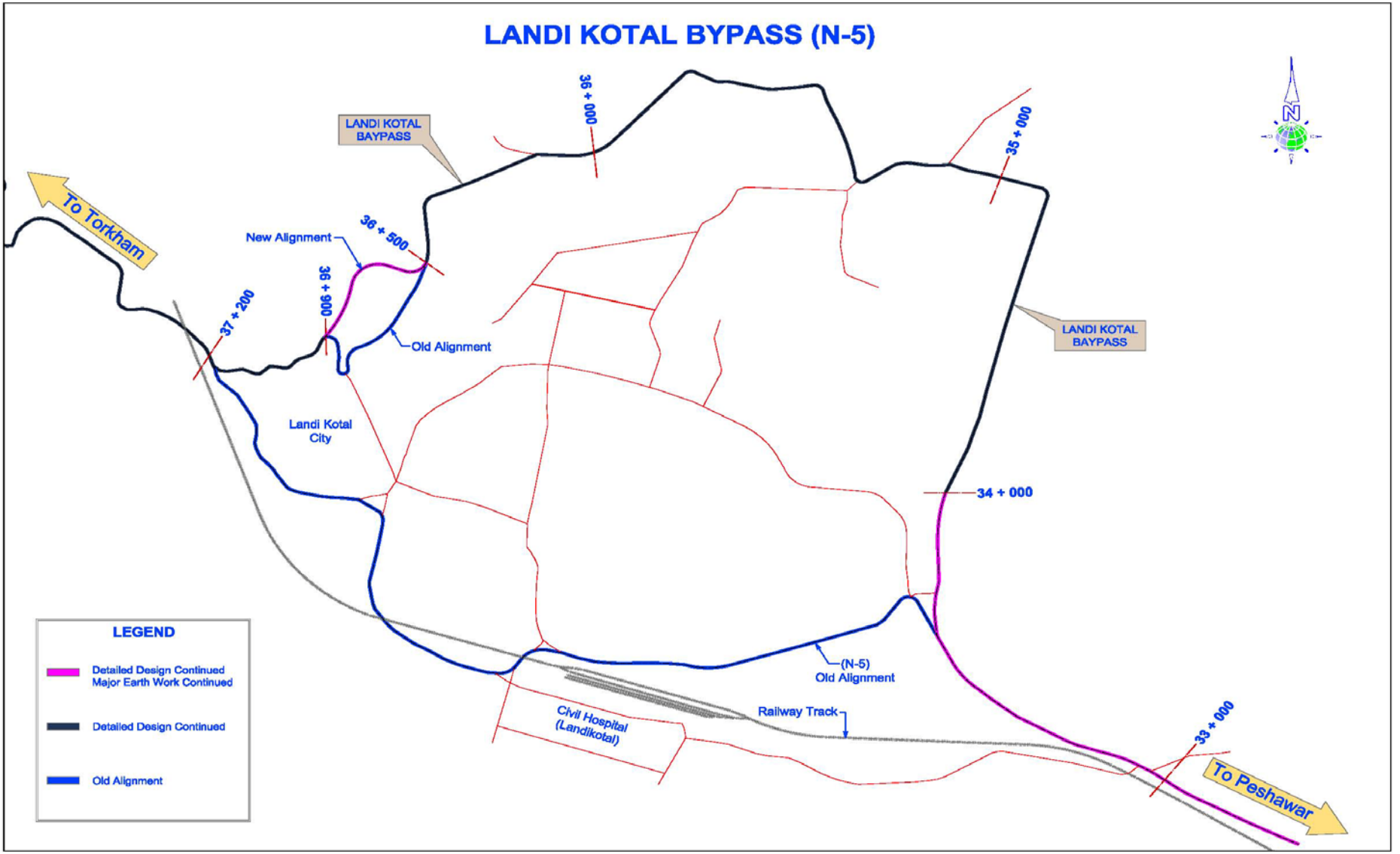
- **COMPLEXITY IN MAINTAINING TRAFFIC ON DIVERSIONS & REDUCING IMPACT TO TRAVELLING PUBLIC:**

  Diversions of 12.05 KM have been provided at regular intervals b/w KM: 09+000 To 35+000. However substandard condition of the diversion tracks including potholes, bumpy and dusty surface, diesel fumes of multi-axle trucks etc made life miserable for the road commuters as well as adjacent population. Peak hour traffic congestion and frequency of occurrence regularly escalated. Any traffic accident on the corridor results in rapid deterioration of traffic movement and even complete blockage of diversions.

  In order to ensure smooth traffic movement along the corridor, minimizing impact on traffic, keeping dust & noise disturbance to a minimum, a higher level of communication and liaison would be required throughout the work period to manage the expectations of stakeholders, road users and locals.

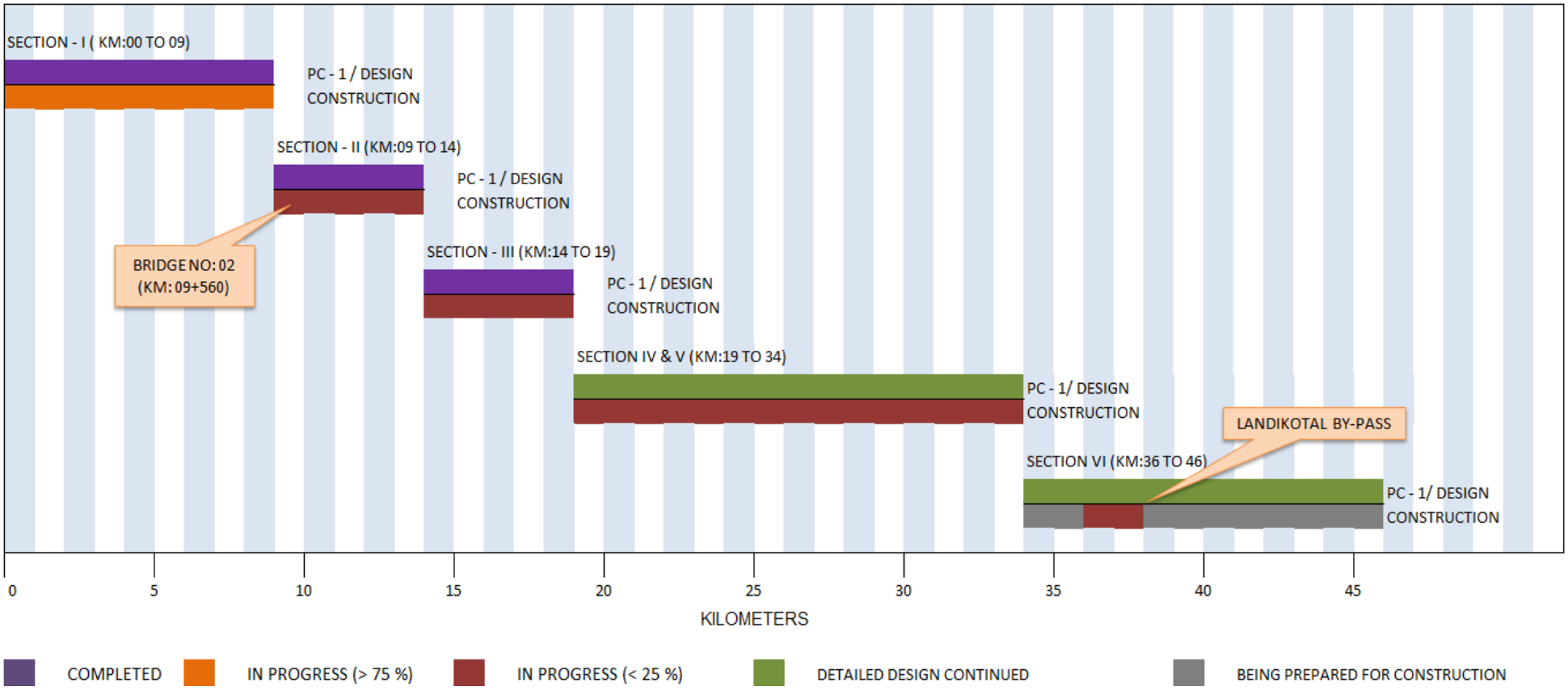
2.3 SECTION WISE ACTIVITIES STATUS




LANDI KOTAL BYPASS (N-5)
LANDI KOTAL BAYPASS
36 + 000
35 + 000
To Torkham
New Alignment
36 + 500
36 + 000
37 + 200
Old Alignment
Landi Kotal City
LANDI KOTAL BAYPASS
34 + 000
(N-5) Old Alignment
Railway Track
Civil Hospital (Landikotal)
33 + 000
To Peshawar
LEGEND
Detailed Design Continued Major Earth Work Continued
Detailed Design Continued
Old Alignment

CIVIL WORKS PROGRESS STATUS

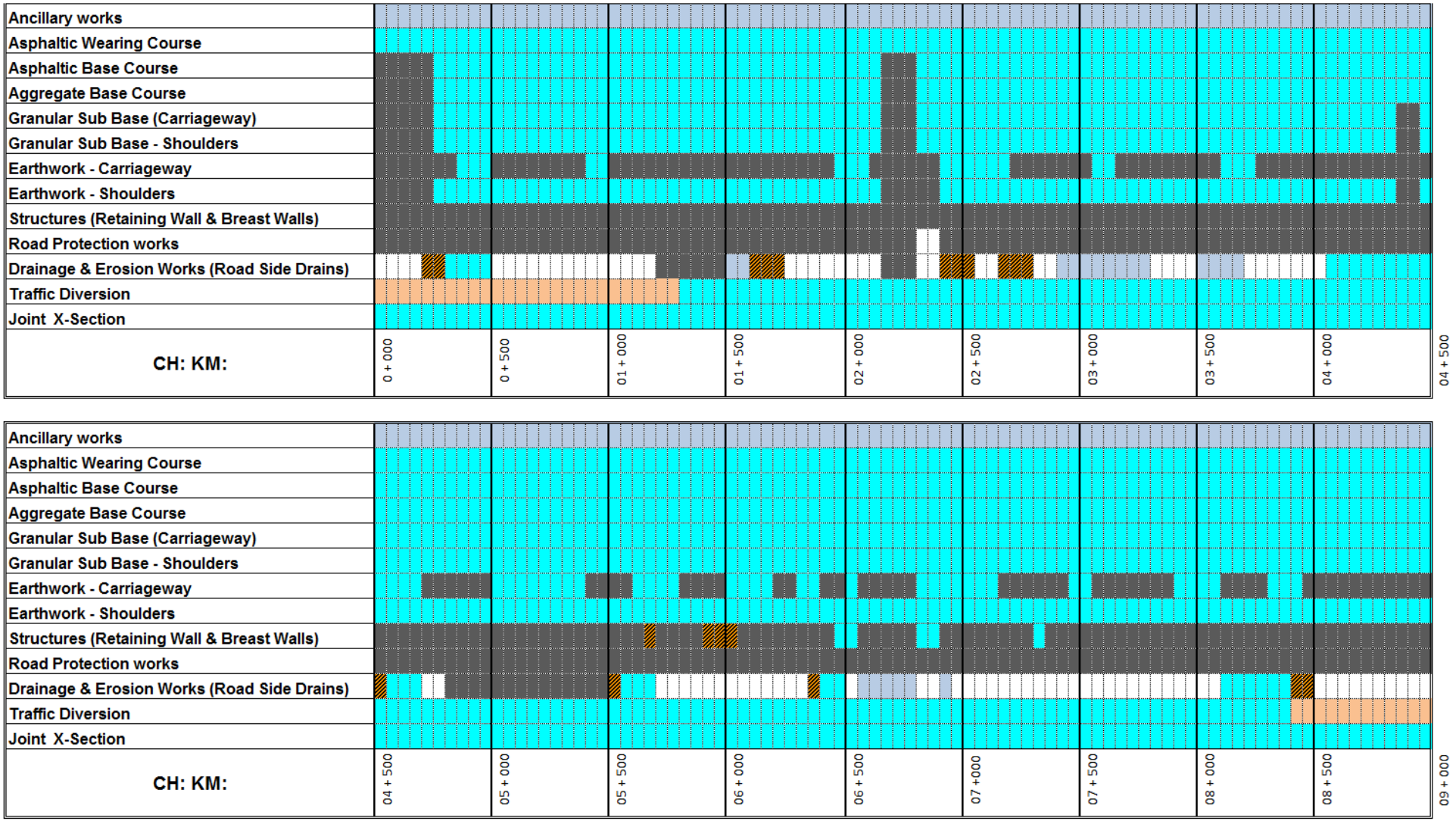
3.1 OVERALL PROGRESS STATUS



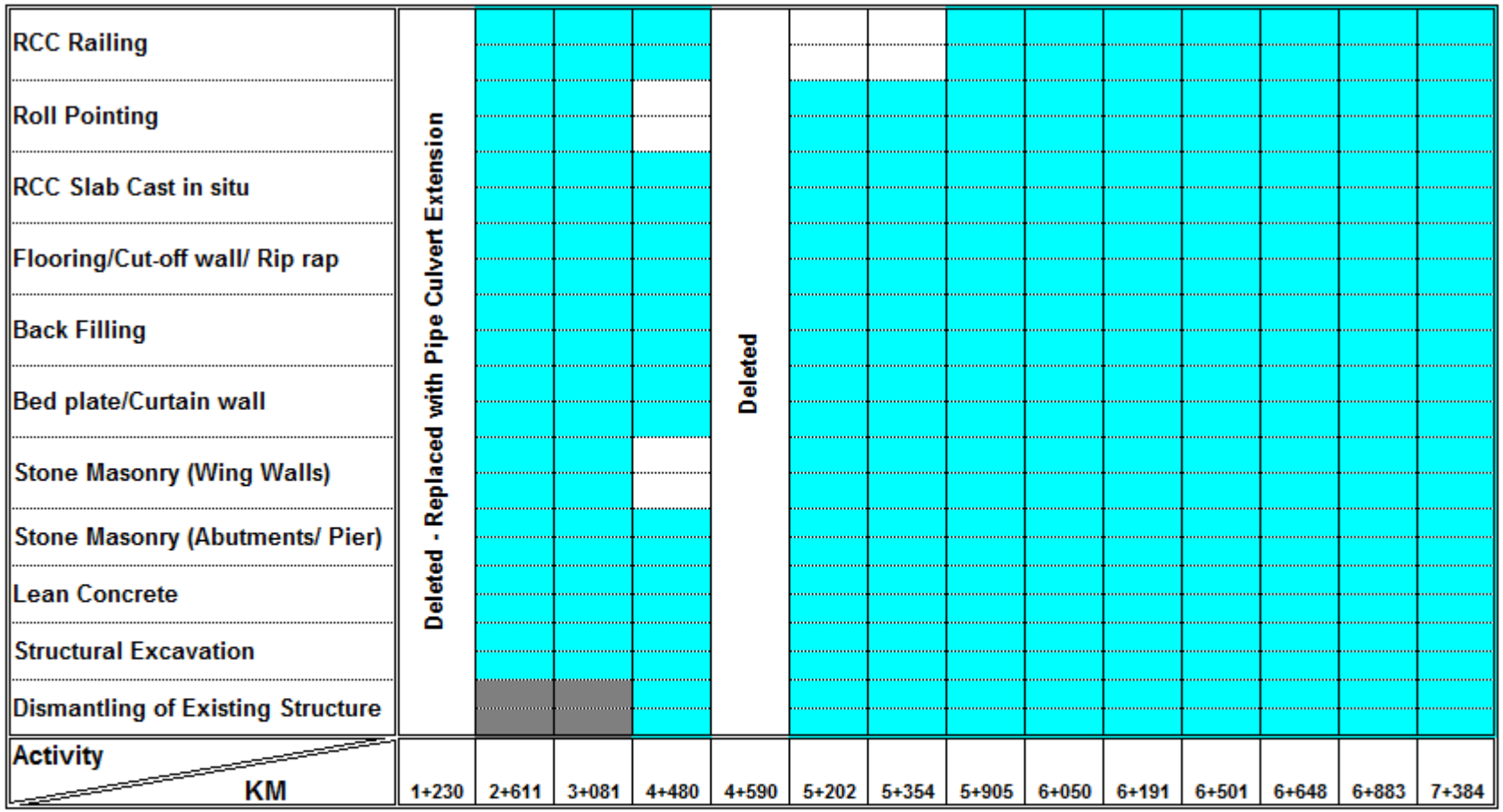
3.2 SECTION - I CUMULATIVE MILESTONE WISE PROGRESS STATUS

BILL NO	DESCRIPTION	MILESTONE UNIT	NUMBER OF MILESTONES	AMOUNT AS PER MILESTONE (US $)	TOTAT AMOUNT (US $)	PROGRESS UPTO PREVIOUS MONTH			PROGRESS IN THIS MONTH			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	9.00	1,005,872.49	100.00	-	-	-	9.00	1,005,872.49	100.00
ii	AGGREGATE BASE COURSE	KM	9	73,611.56	662,504.04	9.00	662,504.04	100.00	-	-	-	9.00	662,504.04	100.00
iii	ASPHALTIC BASE COURSE	KM	9	416,608.69	3,749,478.21	9.00	3,749,478.21	100.00	-	-	-	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	0.85	32,990.46	85.00	0.03	1,164.37	3.00	0.88	34,154.83	88.00
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	6.90	132,951.27	98.57	0.00	-	-	6.90	132,951.27	98.57
	1 x 3 x 1.5	NUMBER	3	25,204.07	75,612.21	1.92	48,391.81	64.00	0.00	-	-	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	1.00	54,597.59	100.00	0.00	-	-	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	0.63	155,626.74	11.36	0.40	99,601.11	7.27	1.03	255,227.85	18.64
ii	DRAIN TYPE D-1a & D-2a (UNCOVERED)	KM	3	110,128.52	330,385.56	0.58	63,323.90	19.17	0.03	2,753.21	0.83	0.60	66,077.11	20.00
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	0.25	33,859.94	16.67
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	-	-	-	0.47	25,556.48	47.00	0.47	25,556.48	47.00
7	DIVERSION	KM	9	12,978.72	116,808.48	9.00	116,808.48	100.00	0.00	-	-	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**		**8,177,514.07**	**81.95**		**146,005.14**	**1.46**		**8,323,519.21**	**83.42**

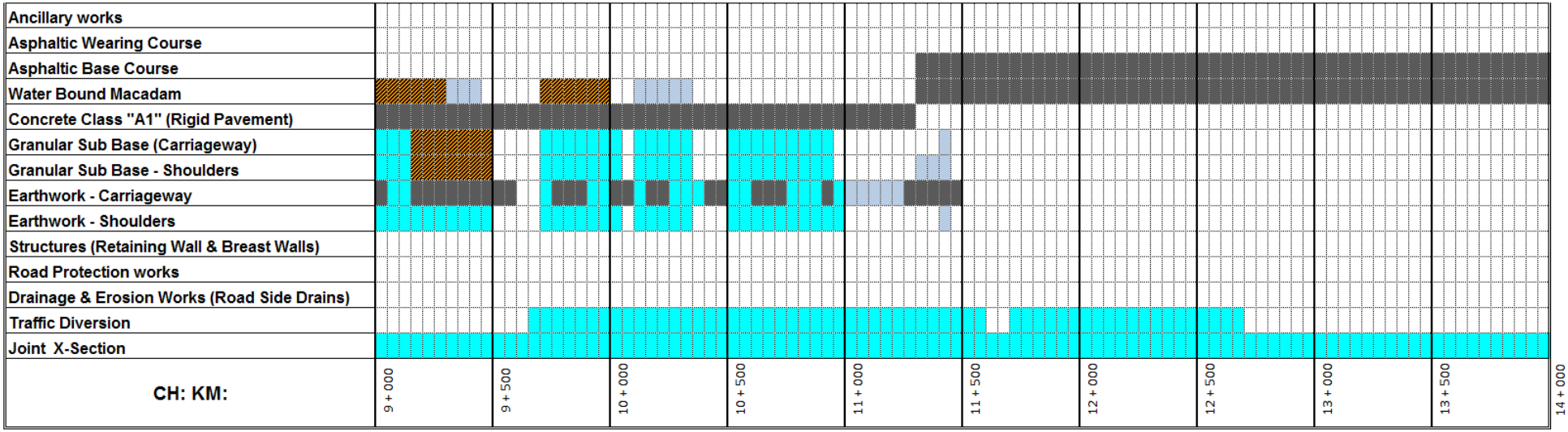
3.3 SECTION - I PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS



3.4 SECTION - I CULVERTS PHYSICAL PROGRESS STATUS



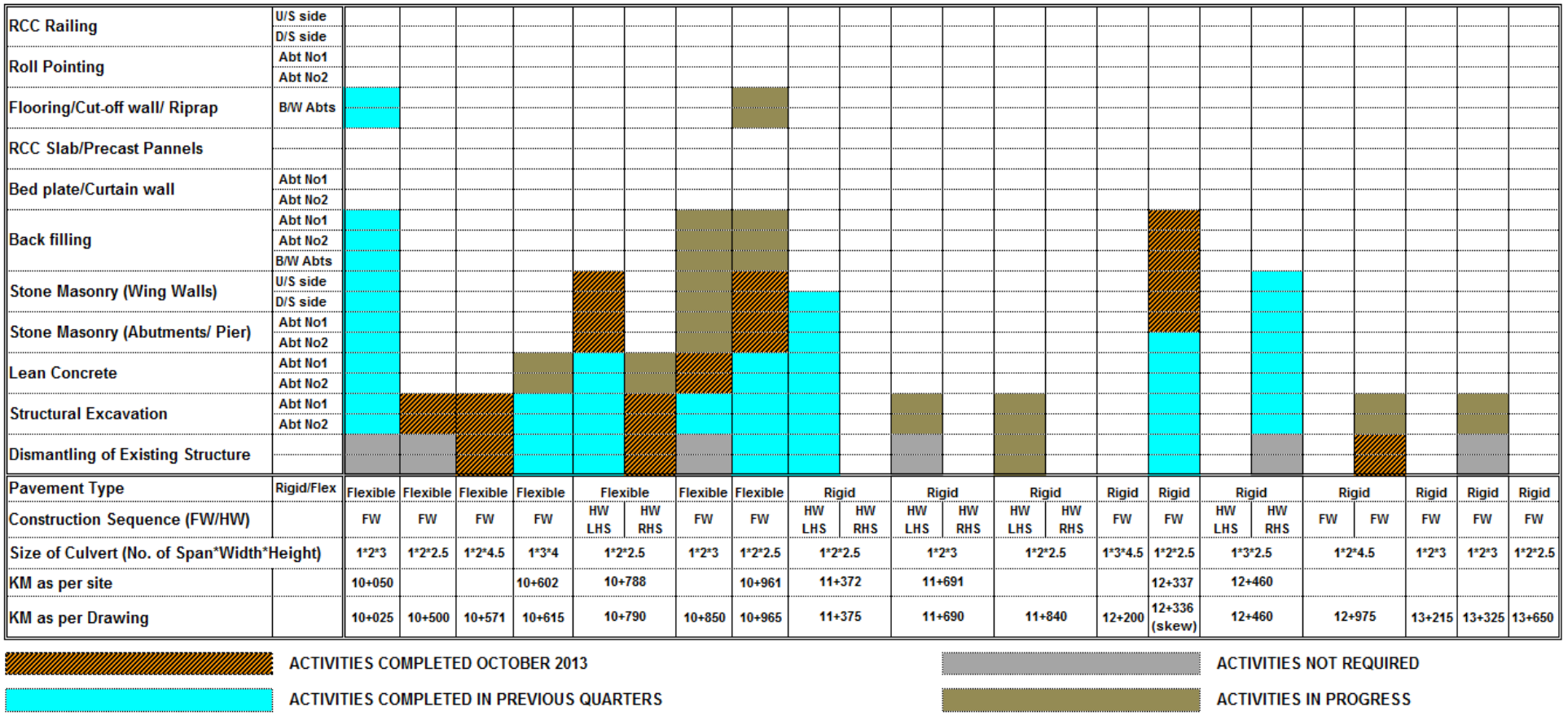
3.5 SECTION - II PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS



LEGEND

- WORKS COMPLETED IN OCTOBER 2013
- WORKS COMPLETED IN PREVIOUS MONTHS
- PARTIAL COMPLETION
- SINGLE LANE TRAFFIC MAINTAINED
- ITEM NOT REQUIRED

3.6 SECTION - II CULVERTS PHYSICAL PROGRESS STATUS



RCC Railing	U/S side																						
	D/S side																						
Roll Pointing	Abt No1																						
	Abt No2																						
Flooring/Cut-off wall/ Riprap	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																							
Pavement Type	Rigid/Flex	Flexible	Flexible	Flexible	Flexible	Flexible		Flexible	Flexible	Rigid		Rigid		Rigid		Rigid	Rigid	Rigid		Rigid		Rigid	Rigid	Rigid
Construction Sequence (FW/HW)		FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	HW LHS	HW RHS	HW LHS	HW RHS	HW LHS	HW RHS	FW	FW	HW LHS	HW RHS	FW	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*3	1*2*3	1*2*2.5
KM as per site		10+050			10+602	10+788			10+961	11+372		11+691					12+337	12+460						
KM as per 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 (skew)	12+460		12+975		13+215	13+325	13+650

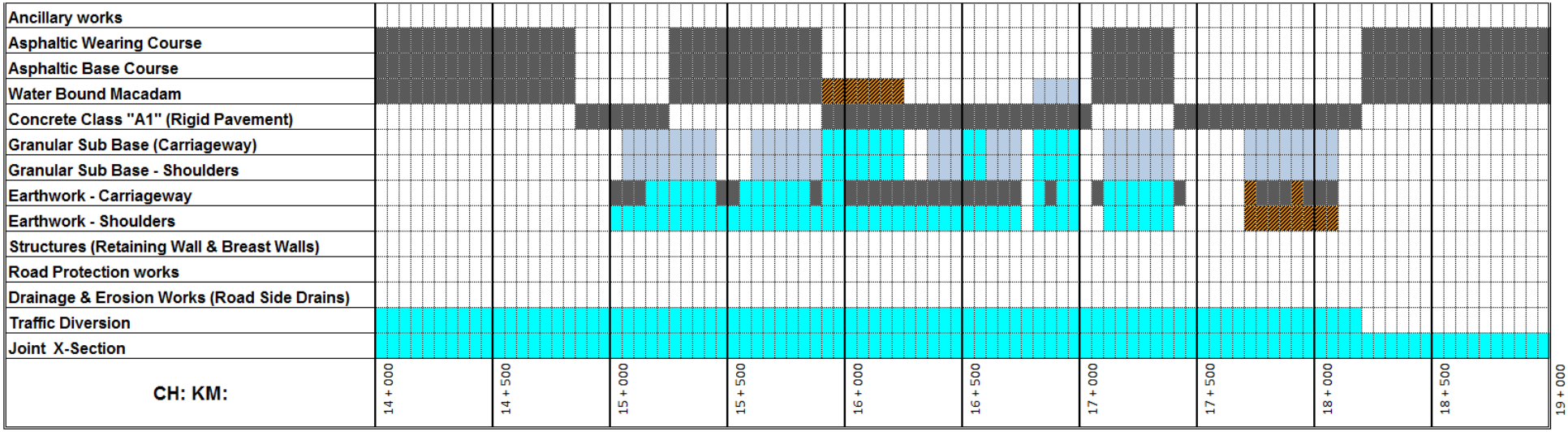
ACTIVITIES COMPLETED OCTOBER 2013

ACTIVITIES COMPLETED IN PREVIOUS QUARTERS

ACTIVITIES NOT REQUIRED

ACTIVITIES IN PROGRESS

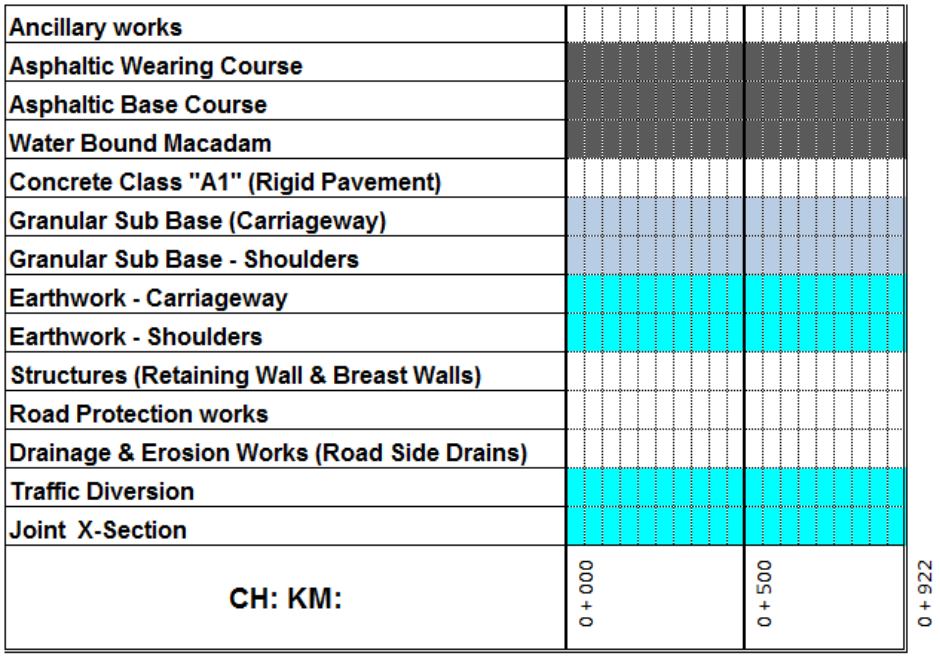
3.7 SECTION - III PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS



LEGEND

- WORKS COMPLETED IN OCTOBER 2013
- WORKS COMPLETED IN PREVIOUS MONTHS
- PARTIAL COMPLETION
- SINGLE LANE TRAFFIC MAINTAINED
- ITEM NOT REQUIRED

3.8 SECTION - III (LOOP NO. 1) PAVEMENT CONSTRUCTION PHYSICAL PROGRESS STATUS



LEGEND

- WORKS COMPLETED IN AUGUST 2013
- WORKS COMPLETED IN PREVIOUS MONTHS
- PARTIAL COMPLETION
- SINGLE LANE TRAFFIC MAINTAINED
- ITEM NOT REQUIRED

3.9 SECTION - III CULVERTS PHYSICAL PROGRESS STATUS

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																						
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Stone Masonry (Wing Walls)	U/S side																						
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Lean Concrete	Abt No1																						
	Abt No2																						
Structural Excavation	Abt No1																						
	Abt No2																						
Dismantling of Existing Structure																							
Pavement Type	Rigid/ Flex	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Flexible		Rigid	Rigid	Flexible	Flexible	Flexible	Flexible	Flexible		Flexible	Flexible	Flexible		Flexible	
Construction Sequence(FW / HW)		FW	FW	FW	FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	FW	FW	FW	FW	HW LHS	HW RHS	FW	FW	HW LHS	HW RHS	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 OCTOBER 2013

ACTIVITIES NOT REQUIRED

ACTIVITIES COMPLETED IN PREVIOUS QUARTERS

ACTIVITIES IN PROGRESS

QUALITY TEST REPORTS

4.1 SUB BASE COURSE FIELD DENSITY TEST REPORT

S.No	Location (KM)	Description	Station (KM)	MMD (g/cc)	OMC (%)	Adj.MDD (g/cc)	M.C (%)	Achieved Compection	Required Compection	Remarks
1	17+950 ~ 18+050	Sub Base	18+000	2.356	6.0	2.350	5.1	98.5	98	Pass

4.2 SUBGRADE FIELD DENSITY TEST REPORT

S.No	Location (KM)	Description	Station (KM)	MMD (g/cc)	OMC (%)	Adj.MDD (g/cc)	M.C (%)	Achieved Compection	Required Compection	Remarks
1	32+050 ~ 32+100	Sub Grade	32+080	2.29	6.6	2.295	4.5	90.5	95	Fail

4.3 SUMMARY OF AGGREGATE QUALITY TESTS FOR CONCRETE

S.No	Concrete Type	Station (R.D.)	Description	Sieve Analysis													FM	L.A %	Sand Equivalent	Specific Gravity	Flackiness & Elongation Index	Remarks
				2"	1½"	1"	3/4"	1/2"	3/8"	#4	#8	#16	#30	#50	#100	#200						
1	Lean Concrete	16+316 ~ 10+375 R/Wall	N. Sand	-	-	-	-	-	100	99.4	98.9	97.6	92.7	72.7	16.9	5.5	1.22	-	80.9	-	-	
2									100	99.5	97.8	92.3	76.1	35.1	5.1	2.3	1.94		85.9			
			Specification Limits						100	95~100	-	45~80	-	10~30	2~10	0~3	2.3~3.1	-	-	-	-	

4.4 SUMMARY OF FINE AGGREGATES QUALITY TESTS FOR BRICK MASONRY

S.No	Location	Description	Station	Sieve Analysis of Sand								
				3/8"	# 4	# 8	# 16	# 30	# 50	# 100	# 200	
1	10+175 ~ 10+375 R/Wall	N.Sand for Stone Masonary	Site Stock	100.0	99.4	98.9	97.6	92.7	72.7	16.9	5.5	
2				100.0	99.5	97.8	92.3	76.1	35.1	5.1	2.3	
3				100.0	100.0	98.9	94.4	70.4	30.8	8.6	5	
	Specification Limits			-	100	95 ~ 100	70 ~ 100	40 ~ 75	10 ~35	2 ~15	-	

4.5 SUMMARY OF WATER BOUND MECADAM TEST REPORTS

S.No	Location (KM)	Description	Sieve Analysis					MDD (g/cc)	OMC %	L.A %	Soundness	Specific gravity	Flakiness Index	Remarks
			3"	2½"	2"	1½"	3/4"							
1	15+900 ~ 16+100	WBM	-	-	-	-	-	-	-	29.38	-	2.682	-	
2	9+800 ~ 10+000	WBM	-	-	-	-	-	-	-	27.74	-	2.677	-	
3	9+025	WBM	100	96.1	71	35.2	24.1	-	-	-	-	-	-	
4	16+000 ~ 17+000	WBM	100	91.8	72.3	41.1	4.1	-	-	-	-	-	8.0	
Specification Limits for WBM			**100**	**90~100**	**25~75**	**0~15**	**0~5**	-	-	**45% Max**	**12% MAX**	-	**15% Max**	
Total Nos.of Tests			**2**					-	-	**2**	-	**2**	**1**	

4.6 COMPRESSIVE STRENGTH OF CONCRETE CYLINDER

Description	Casting date	Testing date	Age	Load in (KN)	Length (cm)	Dia (cm)	Area (cm^2)	Load in Kg	STRENGTH (Kg/cm^2)			Remarks
									Achieved	Average	Required	
Concrete Class "A-3" Bridge No.1 Pile No.1&4	25/Sep/2013	2/Oct/2013	7 Days	450	30.48	15.24	182.4	45887	251.6	263.7	210	
				470	30.48			47926	262.8			
				495	30.48			50475	276.7			
Concrete Class "A-3" Bridge No.1 Pile No.1&4	25/Sep/2013	23/Oct/2013	28 Days	584	30.48	15.24	182.4	59550	326.5	323.9	280	
				580	30.48			59143	324.2			
				574	30.48			58531	320.9			

ENVIRONMENTAL COMPLIANCE MONITORING

Environmental Compliance Officer: Shabir Ahmad Khan

Field Monitor Social: Muhammad Rahman

Road Section under Construction: Section-I: KM: 00+000 to KM: 09+000
Section-II: KM: 09+000 to KM: 14+000
Section-III: KM: 14+000 to KM: 19+000

Persons Consulted at Site

Mr. Abdur Rahman, Site Engineer FWO
Mr. Mobashar, Surveyor FWO
Mr. Hasnain, Site Engineer NESPAK
Mr. Muhammad Imran, Surveyor FWO

Work Status

➢ Work in progress	√
➢ Work Stopped	
➢ Work Completed	

Quality of Environment Compliance

➢ Good	
➢ Satisfactory	√
➢ Poor	

Issues at site:

- No road's traffic signs and speed checking sign boards for the safety of people.
- No records of EHS (Environment, Health and Safety) plans.
- Non availability of personal protective equipment.
- Non availability of Environment Specialist/ Expert on site from FWO / NESPAK side.
- No Health and Safety arrangement at work sites.
- No first aid box and Ambulance arrangement at site.

Environmental Monitoring Checklist for the Site

S. #	Activity	Mitigation Measures	Monitoring indicators	Observations
	Construction Phase			
1	**Use of heavy equipment**	a. Set protocols for vehicle Maintenance. b. Checking of fuel level deliveries and use. c. Checking pipes and joints for leaks. d. Tightening generator and fuel lines. e. Preventing over filling of main storage and vehicle tanks. f. Heavy equipment should not be parked under the tree to avoid soil compaction and damage to the roots of the trees.	Soil contaminations, stability and erosion	The Contractor staff and site supervisors maintain the machinery in proper condition. Heavy machinery is parked in fenced area near the main camp at Jamrud. As this area has no vegetation/trees, therefore, no vegetation damage has occurred. Usually heavy machinery is used for carrying material from quarry area; therefore, FWO staff is advised to follow the compacted routes. Contractor's machinery normally gets its maintenance inside the camps. Advised to set protocols for vehicle maintenance and regular inspection may please be carried out by the H&S Inspector, as per required H & S plan. **(Please refer to photo # 01)**
2	**Flood protection**	a. Culverts should be provided to control flood damages and provision of safety of Embankments. b. Road protection work along the river side. c. Construction of retaining wall d. New causeways for the smooth flow of water during rainy seasons and flooding.	Road protection and Safety	Flood protection measures works as part of road improvement have been started like culverts for smooth flow of water during rainy season and sewerage disposal and retaining walls etc. During site visit, it was noticed that culverts for disposal of flood and sewerage water have been completed in whole segment of section-I, while construction of road side drain along the banks is in progress. The culvert constructions at Section II and III are in progress. **(Please refer to photos # 02,03, 04, 05, 06 & 07)**
3	**Handling and transportation**	a. Prevent dumping of hazardous materials especially near villages and water bodies.	Soil Contamination	No action is required at present stage, as all such material placed safely at inside the army camps.

	of hazardous waste	b. Burn waste oil that is not readily 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 as cooking oil.	and Safety	
4	**Handling of solid Waste**	a. Site manager would be responsible for the collection and disposal of solid waste. b. Training of site personnel in waste management and chemical waste handling procedures. c. Separation of chemical waste for special handling. d. Recording system for the amount of waste generated recycled and reused. e. Proper storage and site practices to minimize the potential for damage or contamination of construction materials. f. General refuse would be stored in enclosed bins to separate from construction materials g. A reputable waste collection firm should be engaged by the contractor to remove the general refuse from the site.	Toxicity, Soil Contamination and Pollution	No waste segregation observed at construction site. FWO should share their solid waste management plan. The construction materials in main store are generally stored in good condition; however at site it is not stored/ placed properly. The sub-contractors do not follow Environment, Health and Safety protocols. There is no arrangement for solid waste disposal at site. During the site visit, the solid waste dumping found at KM: 3+740, and KM: 4+100 along the road sides. Although mixing of refuse with construction material was not found at site but at the same time no special bins or collector have been seen to collect refuse systematically. It has been advised especially to the subcontractors having contracts of culverts, to provide solid waste storage bin at their respective sites. No chemical waste has been seen in the project area.
5	**Construction crews and camps**	a. Check accommodations for site crew and maintain it in good condition. b. Avoid as much clearing of vegetation as possible. c. Provide temporary sanitation on site such	Surface and ground water pollution and conflicts with locals.	Both construction crews and camps are maintained in a best manner at army accommodation, where all basic facilities like washrooms, kitchen, TV lounge, café shop etc. are available. These army camps have been renovated by the FWO for labor camps. The

		as pit latrines (assuring the water table is enough and soil and geology of appropriate composition). d. Use local or regional labor. e. Screen potential crew members of HIV and tuberculosis. f. Provide education and enforce guidelines on contact with local residents. g. Set guidelines for prohibiting poaching and collection of plants. h. Provide adequate quantities and good quality food and cooking fuel. i. If the water is stored for drinking water should meet the WHO standards and if it is used for construction purpose then it should be clearly demarcated. j. No domestic pets or livestock are allowed on the site.		quality of food provided is good. Other protocols given like hygienic water etc. are satisfactory. Sub-contractor and some workers are local inhabitants of the area. FWO staff is adequately educated to follow strict guidelines from their senior to interact with locals. Guidelines like for the removal of vegetation etc. have not been followed by FWO contractor and sub-contractors. Domestic livestock can be seen at site but camp is away and protected, so no entrance of live stocks was found during site visits.
6	**Material handling use and storage**	a. Material should be appropriately secured to ensure safe passage b/w the destinations during transportation. Loads shall have proper cover to prevent spillage and contractor is responsible for any clean up resulting from failure. b. Materials from borrow site should be directly transported and deposited to the site where it has to be used. Stockpiles should be positioned and sloped to create less visual impact. No foreign materials generated or deposited should remain on	Dust pollution	Material securing, load prevention of spillage and other visual impacts should be reduced as much as possible by appropriate measures. FWO staff has been advised to provide safe passage to dumpers which usually carry materials. Neither concrete batching plant was commissioned nor any water storage observed at site. Loaded vehicles did not have proper cover to prevent spillage. The concrete mixing on the ground was not found at site. The contaminated water disposal was not appropriate.

		the site after completion of the activity and the areas affected by stockpiling should be reinstated. c. Over spray of bitumen products outside the road surface and on the vegetation should be prevented. d. Concrete mixing on the ground shall not be allowed. e. Use wet gravel on site. f. Avoid falling the drainage water directly into the sensitive area. g. All runoff from batching plant should be strictly controlled and cement contaminated water should be collected, stored and disposed of at the designated site. h. Used empty cement bags should be collected and stored to deliver these to recycling plant. i. Contaminated water storage facilities should not be allowed to over flow and appropriate protection from rain should be implemented.		Generally the sub-contractors are not following the material handling protocols at sites, especially at culvert construction sites.
7	**Materials extraction Quarrying , logging**	a. Identify the most environmentally sound source of materials that is within budget. b. Use materials from local road cuts first but only if it produces a suitable, durable aggregate for embankment fill, or surface stabilization materials. c. On removal of materials, the area should be restored and be treated with erosion	Change in landscape & Creation of water ponds.	FWO officials are neither sharing and providing their logging, quarrying and borrowing plans nor any relevant photos. FWO staff does not care safety protocols. The personal protective equipments were also not provided to staff members. Therefore, advised FWO staff to follow safety protocols while working.

		control measures. d. Develop logging quarrying and borrowing plans and take into account accumulative effects. e. Take photos of site before initiating excavation, that restoration can match the original site characteristics as much as possible. Site quarries and gravel pits so that they are not visible to travelers on the roads, f. Monitor adherence to plans and impacts of extraction and modify as necessary. g. Restore area so it is suitable for sustainable use after extraction is completed. h. Install drainage structures to direct water away from pits. i. Implement safety protocols to minimize risks from falling rock or debris, collapsing quarry walls or accidental falls from clefts. j. Discuss with local community the option of retaining walls pits as water collection ponds for cattle, crops or similar use.		
8	**Site clearing or leveling**	a. Minimize disturbance of native flora during construction. b. Minimize the amount of clearing of small areas for active work one at a time. c. Avoid use of herbicides. Any use should follow health and safety procedures to protect people and the environment.	Loss of vegetation, soil erosion and stability, surface water pollution and occupational health of workers	As the area is almost rugged and without vegetation, so there is no impact on vegetation at site. Moreover at present time, the excavation is continued at the shoulders of the existing road which is already cleared. The plantation along the whole Peshawar-Torkham road should be started with specific species identified according to the provision in Environment

		d. Herbicide should be used according to the manufacturer specifications e. Clear without destroying large plants and turf where possible and preserve for replanting in temporaries nurseries. f. Move earth and vegetation only during dry periods, Store top soil for re-spreading if vegetation must remove during wet periods; disturb ground only just before the actual construction. g. Use erosion control measures such as hay bales h. Re-vegetate the recovered plants and other appropriate local flora immediately after equipment is removed from site.	and community.	Management Plan. In this respect FWO should coordinate with forest department. There is no herbicides used at site and the soil conservation measures are also not required, as the area is leveled or rocky nature and the soil consist of sand, silt and gravels which are more compacted.
9	**Excavation , cutting , and filling**	a. Cover Pile with plastic sheeting, prevent run off with hay bales, or use similar measures. b. Place fence around excavation. c. Investigate shallow over excavation and no excavation alternatives. d. Have construction crews and supervisors be alert for buried historic, religious, and cultural objects and provide them with procedures to follow if such objects are discovered. Provide incentives for recovery of objects and disincentives for their destruction. e. Ensure excavation is accompanied by well-engineered drainage.	Soil erosion and stability and surface water contami*n*ation	Excavation is started at different places such as shoulders of existing road in shallow depth of about one foot and also at rocks. Others mitigation measures are either appropriate or not required. During site visit following irregularities were found which require proper attention to be removed. • At KM. 10+400, 12+850 and 17+600 excavations of rocks and at KM. 10+400, KM. 10+790, KM. 11+200, KM. 12+460 and KM. 10+525, 16+000, 17+600excavation of culvert continued but no safety protocols & personal protection measures were observed during site visit. During rocks excavation even traffic was not stopped which may be very dangerous for life of people. • At KM 4+100 drain blockage and non-disposal of

		f. Don't fill the flow line of a watershed. Even in arid areas, occasional rains may create strong water flow in channels. g. Use good engineering practices, for instance don't use soil alone. First lay a bed of rock and gravel. h. Balance the cuts and fills whenever possible to minimize the earth work movement. i. Water sprinkling should be carried out at the temporary access road and all the areas prone to dust pollution.		water along the road since long time. During excavation process of culverts fence is required around all sites and appropriate engineering drainages for flow line of watershed. Similarly proper dumping of excavated materials and sprinkling of water are also required at dust places. **(Please refer to photos # 05, 08, 09 & 10)**
10	**Traffic Control**	a. Efforts should be made to accommodate the traffic along the road as far as practically possible. b. Provision of sign boards directing the drivers about the diversions. c. Contractor staff should be trained and put on the duty to manage the traffic during the construction activates taking place along the road. d. Temporary by pass if possible should be avoided as involved clearing of land. e. Max allowable speed for heavy machinery on the site should not exceed 20Km/hr. f. Keep road partly closures to a minimum Maintain safe passage of vehicles/pedestrians at all times g. Conduct work that requires road closure at times when traffic volume is low	Health and Safety for the local population and workers.	As far as Traffic control is concerned, it continue to flow along the existing road or at diversions. FWO has arranged diversions as well as existing Kacha tracks along the road for traffic management but no proper signboards at any location were observed during visit. Therefore, asked FWO officials to clearly mark all diversion by installing temporary sign boards (having reflective materials for night time visibility) for driver's guidance. The contractor's staff at construction site also helps the people in traffic control. Heavy machinery speed limit sign boards were not observed on site but because of activities under way, heavy machinery cannot move faster. At the road, heavy vehicles like NATO containers are mostly found, which need speed check limit signboards. Similarly, others traffic arrangements are also required to take place immediately.

		h. Schedule truck sand deliveries for periods of low traffic		
11	**Blasting**	a. Minimize blasting. b. Take safety precautions to protect workers and others from being injured by flying or falling rocks and avalanches and c. Provide Person protection equipment to the workforce.	Noise pollution and occupational safety	Currently rock excavation is continue at KM. 10+400, 12+600, 12+850 etc. for widening of road, and if blasting may needed then safety protocols might be required,. **(Please refer to Photo # 08)**
12	**Dust**	a. Water spraying b. trucks should be covered with tarpaulins	Nuisance to the public, undermining the air quality and water contamination	At this site visit water sprinkling vehicle was observed at many places like KM 9+150, KM 9+500, KM10+450. (**Please refer to photos # 11 & 12)**
13	**Borrow Areas**	These impacts are reversible through a diligent restoration process which must be put in place by the contractor and approved by the Highway Division.	Landscape rugged and interfere with the aesthetics of the area; pose danger to livestock and children; hold stagnant water and they take up agricultural land.	There were no activities at site regarding borrow area use. Moreover, barrow areas are still to be identified, if required.
14	**Damages of existing infrastructure**	a. Locate different infrastructure on opposite side of road b. Determine locations of water pipes, electricity pylons etc. and design scheme to avoid damages.	Facilities to the locals	The officials of PTCL and FWO were asked to take care of cables at the time of excavation at sites, especially at culverts. It was also advised to FWO/NESPAK personals that PTCL Department must be informed before starting excavation activities.

15	**Health & Safety of the workers**	a. Prepare and implement a site Health and Safety Plan. b. Exclude the public from site. c. Ensure that workers use Personal Protective Equipment d. Provide Health & Safety Training (including process of transmission of HIV/AIDS) for all personnel; e. Follow documented procedures for all site activities; f. Keep accident reports and records	Workers and the public are at risk from accidents on site	The contractor FWO generally follows Health and Safety requirements in the camps but does not keep H&S requirements at sites where construction works are being carried out. Therefore, advised FWO officials to prepare H&S plan and to follow H&S protocols at site and also to prepare documentation records of accidents, illness and treatments etc. It is very necessary to provide H&S trainings to the workers and ensure personal protective equipment's to all the workers including the sub contractor's labors. The first aid box at site and ambulance may also be provided.
16	**Local Employment**	Contractor' should employ at least 50% of workforce from communities in vicinity of work site	Economic benefits of local people	Being an Army organization, the contractor FWO has regular employees. In case of subcontract/sublet of any small component to local contractor, local labor is hired.
17	**Others concerns like Resettlement etc.**	a. Resettlement if any b. Access roads or pedestrian of local peoples c. Infrastructure like telephone line, sewerage, water supply disturbance etc d. Social Conflict with locals	Social and Resettlement Management	The Peshawar-Torkham road construction is continued on existing road corridor; therefore, no resettlement issue is involved. Infrastructure like access roads to local people, sewerage, telephone line etc requires proper care and management. The Social problems observed during site visit are given below, which may kindly be address accordingly. - Drain construction activities at section II and III

				are in progress at many places like KM 3+500 and 4+850. - Dumping of excavated material in grave yard at KM 5+630. To avoid social conflict, excavated material must shift to some other suitable place. - At KM 9+250, people demanded for placement of service pipe under road corridor for future concern. - Proper care and management is required during shoulder excavation near residential area (Kacha houses) such as at KM 27+750 and KM 27+800. **(Please refer to photos # 09, 10 & 13)**
	Operation and Maintenance of newly constructed road			
18	**Road maintenance**	a. Monitor and Maintain drainage structures and ditches including culverts. Clean out culverts and side channels. b. Fill mud holes and pot holes with good quality gravels, removed downed trees and limbs obscuring road ways. c. Use water from settling basin and retention ponds for road maintenance.	Road Maintenance	Most of the segment in section I of the road construction has been completed. The construction of road side drain system like water disposal channel along the road is in progress.
19	**Use and maintenance of equipment's**	Install concrete pads, drains and oil/water separators in areas where vehicles and equipment maintenance and fueling will occur regularly.	Water and soil pollution	No compliance at site. The required protocol may please be followed.
20	**Accidents of hazardous materials**	a. In case of spill, there should be a relevant department dealing with it. in accordance with emergency plan ; b. A road administration department should	Accidents cases	No compliance at site. The required protocol may please be followed.

		be established after the completion of the project which will administer the hazardous substances		
21	**Vehicle management**	a. Vehicle with excessive noise should be prohibited to travel on the road. b. Public should be educated about the noise and the air pollution and how to keep the road clean.	Visual inspection	No compliance. The required protocol may please be flowed.

APPENDICES

6.1 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
5	696,562	163,396,356	24-Sep-13	3-Oct-13	23-Oct-13	680,293	63,947,570	IN PROCESS

6.2 RECORD OF COORDINATION MEETINGS / JOINT SITE VISITS

Date	Meeting	Participants	Venue
08-Oct-13	FDWP Meeting PC-1 (Section II)	USAID, FATA , NHA, M&E Consultants, FWO, NESPAK	FATA Secretariat Peshawar
30-Oct-13	Pre-FDWP Meeting (Section-III)	USAID, FATA, NHA, M&E Consultants, FWO, NESPAK	P-T Road
31-Oct-13	Joint Site Visit (09 No's Proposed Bridges Locations)	M&E Consultants, FWO, NESPAK	P-T Road

6.3 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.

PROJECT MANAGER OFFICE – STAFF DEPLOYMENT

S. No.	Name	Designation	
1	Aziz-ul-Haq	Project Manager	ROAD COMPONENT
2	Nasir-ul-Mulk	Project Advisor	
3	Shabir Ahmad Khan	Environmental Compliance Officer	
4	Amjad Saeed	Mid-Level Specialist	
5	Saqib Maqbool	Junior Engineer	
6	Arshad Khan	CAD Operator	
7	Sohail Anjum	Senior Surveyor	
8	Abdul Waheed	Manager Admin/Finance	
9	Amir Habib	IT Officer	
10	Muhammad Bilal	Assistant Accountant	
11	Faizan Khan	Computer Operator	
12	Muhamamd Rehman	Field Monitor Social	OTHER CONSTRUCTION COMPONENT
13	Anwar Dad	Quantity Surveyor	
14	Waqar ul Mulk	Junior Architect	
15	Naeem Jan	Senior Surveyor	
16	Muhammad Waqas	Survey Assistant	
17	Muhammad Ayaz	Survey Assistant	
18	Muhammad Zeeshan Atta	Survey Assistant	
19	Sana ullah	Accountant	
20	Hamid Ullah	Computer Operator	

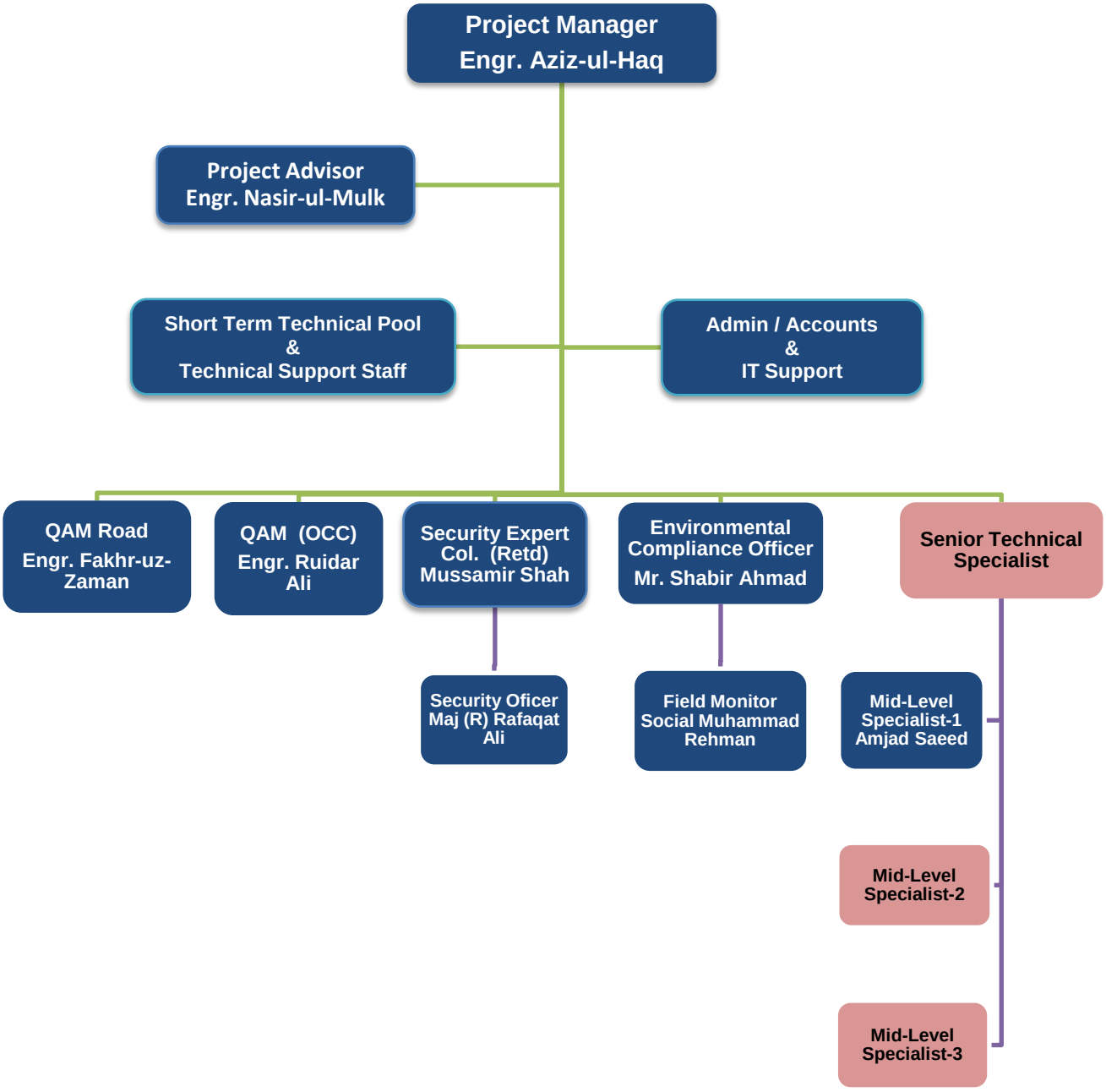
QAM Office (Road Component)

S. No.	Name	Designation
1	Fakhr-uz-Zaman	Quality Assurance Manager (Road)
2	Muhammad Khrushid	M&E Specialist Road
3	Muhammad Ilyas	Field Manager M&E
4	Muhammad Ibrar	Office Engineer
5	Rasheed Khan	Field Monitor Road
6	Muhammad Sher	Field Monitor Road
7	Tariq Ibrahim Khan	Quantity Surveyor
8	Asad Khan	CAD Operator
9	Ihsan Ullah	Accountant
10	Hafiz ur Rehman	Assistant Accountant
11	Nasir Alam	Admin Officer
12	Umar Shah	Assistant Office Admin
13	Hamid Ali	Computer Operator

Laboratory Staff (Road Component)

S. No.	Name	Designation
1	Gul Zada	Material Engineer
2	Amjad Ali Khan	Senior Lab. Technician
3	Khan Umar	Senior Lab. Technician
4	Shakeel Akbar	Lab. Techinician
5	Noor Ali Jan	Lab. Techinician
6	Mujeeb Khan	Assistant Lab. Technician
7	Babar Naeem	Assistant Lab. Technician

6.4 ORGANIZATION CHART FOR CMEP OFFICE, PESHAWAR

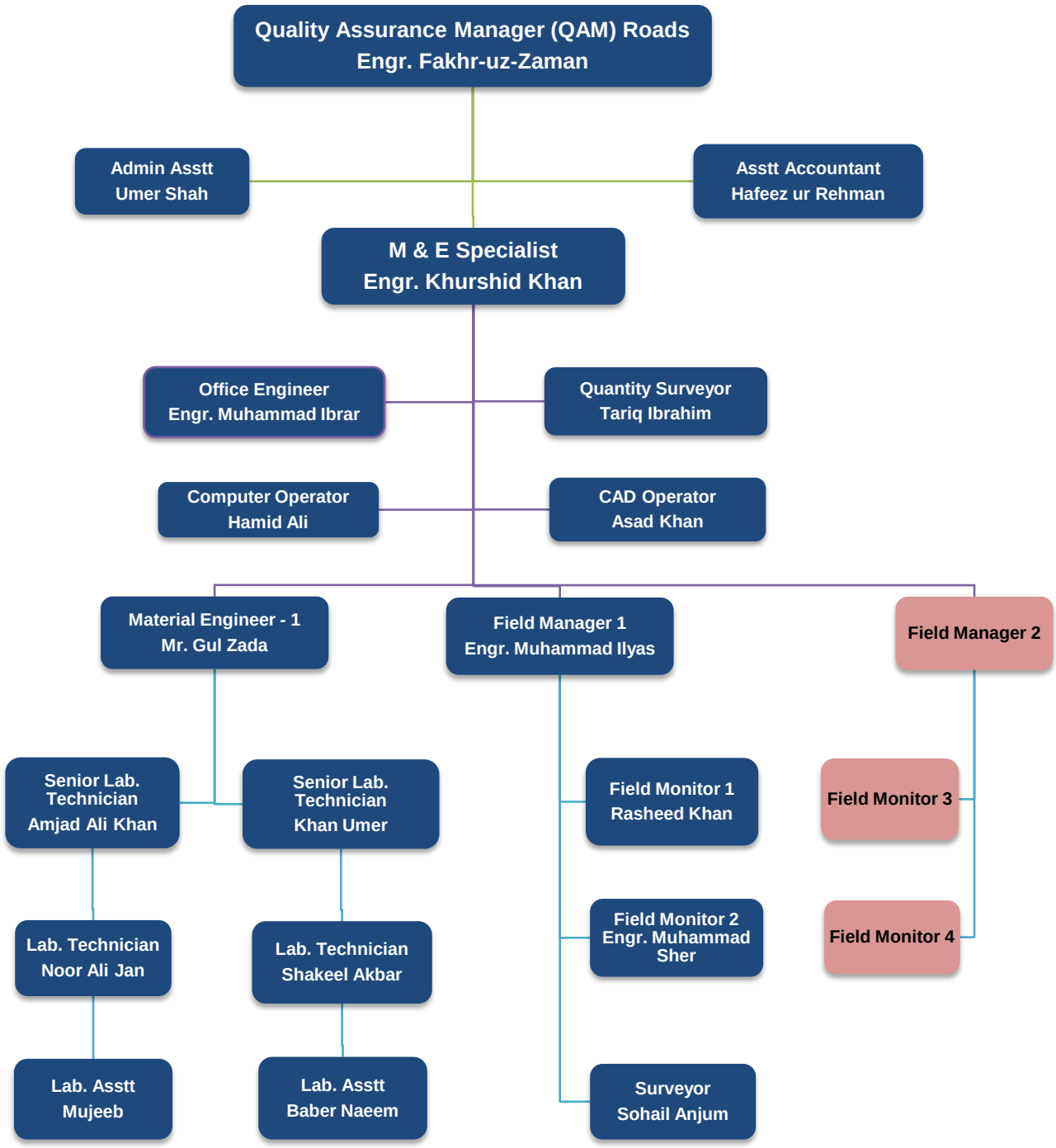


LEGEND:

Mobilized

To be mobilized with expansion of work

6.5 ORGANIZATION CHART FOR ROAD COMPONENT OF CMEP PROJECT



LEGEND:

Mobilized

To be mobilized with expansion of work

PROJECT PHOTOGRAPHS

PAVEMENT

SECTION-I

KM 4+500 LHS Layout for pavement marking in progress

KM 5+200 To.5+600 Cleaning & Brooming for pavement marking in progress

KM 5+225 To.5+600 RHS Layout for reflective TP paint completed

KM 6+150 To.6+500 Pavement marking of reflective TP paint

KM 8+000 To.8+100 RHS M&E Consultants checking TP paint marking

KM 8+000 M&E Consultants checking thickness of TP paint layer

KM 8+000 Sampling of TP paint for thickness measurement

KM 8+000 Transferring of hot paint from truck to pavement marking machine

SECTION-II

KM: 9+000 To 9+225 LHS Half width water bound macadam base leveling & grading in progress

KM: 9+750 To 9+875 Full width water bound macadam base compaction in progress

KM: 9+750 To 9+875 Senior Surveyor M&E Consultants checking water bound macadam base levels (Full width)

KM: 12+300 LHS roadway excavation in progress

KM: 12+600 To 12+650 LHS roadway excavation in progress.

KM: 12+850 To 12+950 LHS roadway excavation in progress

SECTION-III

KM 14+700 To 14+800 LHS Loop (Peshawar bound) roadway excavations in progress

KM 17+675 To 17+700 Full Width sub grade top layer leveling & grading in progress

KM 17+700 To 17+750 Full Width sub base 1st layer compaction in progress

KM 17+950 To 18+050 LHS widening portion sub grade top layer grading in progress

KM 17+950 To 18+050 RHS widening portion roadway excavation in progress

KM 18+050 To 18+100 RHS widening portion sub grade top layer preparation in progress

SECTION-IV & V

KM 23+500 To 23+750 LHS Half widths Embankment formation 1st layer leveling & grading in progress

KM 23+700 To 23+750 Half width RHS Embankment formation 2nd layer compaction in progress

KM 26+000 To 26+075 Half width RHS sub base 1st layer compaction in progress

KM 26+075 To 26+125 Full width sub grade top layer grading in progress

KM 31+125 To 31+175 Half width LHS sub grade top layer watering in progress

KM 31+200 To 31+225 Half width LHS sub base 1st layer compaction in progress

KM 32+100 To 32+300 Half width LHS sub grade top layer compaction in progress

KM 33+700 RHS roadway excavation suspended due to historical monuments

STRUCTURES

Bridge # 02 KM: 9+560 Pile load test assembly preparation in progress

Bridge # 02 KM: 9+560 Pile boring in progress

Culvert KM: 10+500 Structural excavation in progress

Culvert KM: 10+571 Structural excavation has completed

Culvert KM: 10+788 Half width RHS Compaction of culvert foundation completed.

Culvert KM: 10+850 M&E Consultants staff is checking stone masonry construction.

Culvert KM: 10+961 M&E Consultants staff is checking stone masonry construction

Culvert KM: 16+316 Stone masonry of wing wall in progress

Culvert KM: 16+618 Stone masonry construction of abutments in progress

Culvert KM: 16+740 Laying of concrete pad is in progress

Culvert KM: 17+666 Stone masonry of abutment # 2 in progress

Culvert KM: 18+146 Half width LHS stone masonry construction in progress

Drain KM: 2+480 To 2+525 LHS RCC slab concrete casting in progress

Drain KM: 3+150 To 250 RHS lean concrete of drain in progress

Drain KM: 4+480 To 4+600 RHS Pre cast slab laying over side drain completed

Drain KM: 4+525 To 4+600 RHS Brick masonry along pre cast slab in progress

Drain KM: 5+500 To 5+570 LHS Brick masonry construction in progress

KM: 6+100 To 6+175 RHS Dressed stone masonry of parapet wall in progress

KM: 10+175 To 10+300 LHS Retaining wall stone masonry in progress

KM: 10+965 To 11+000 LHS retaining wall structural excavation in progress

FIELD / LAB TESTING

KM: 9+075 Sampling of water bound macadam material by M&E Consultant

KM: 9+125 Sampling of water bound macadam material by M&E Consultant

Crushing of Class A-3 concrete cylinder in M&E Consultants lab

Gradation of water bound macadam material in M&E Consultant's lab

ENVIRONMENTAL MONITORING

(Photo # 01) Heavy Vehicle Stand at FWO camp

(Photo # 02) Construction of new main drain along the road at KM: 03+500

(Photo # 03) Constructions of drain near completion stage at KM: 4+700

(Photo# 04) KM: 10+350 Construction of retaining wall is in progress, where safety measures needs further improvement.

(Photo # 05) KM: 10+525 Proper safety measures should be adopted during the construction of culvert

(Photo # 06) KM: 16+300 Safety measures should be adopted during the construction of culvert

(Photo # 07) KM: 9+600, bridge # 02 construction site on seasonal stream

Photo # 08) KM: 12+850 Proper safety measures should be adopted during rock excavation

(Photo # 09) KM: 27+800 Excavation of shoulders near residential area (Kacha houses) for widening of road needs proper care to avoid social conflict.

(Photo# 10) KM.27+750 Excavation of shoulders near residential area (Kacha houses) needs proper care to avoid social conflict

(Photo # 11) KM: 9+150, sprinkling of water on diversion to control dust pollution.

(Photo # 12) KM: 9+500, sprinkling of water on diversion to control dust pollution.

(Photo # 13) KM: 9+250 Road construction in progress; local resident requesting the FWO personnel about installation of service pipe under the road.

(Photo # 14) KM: 31+200 Dust pollution needs spraying of water at regular interval