Schedule - A

(See Clauses 2.1 and 8.1)

SITE OF THE PROJECT

1. The Site

1.1 Site of the Two-Laning of Existing Joram-Koloriang Road on EPC basis from design km 122+353 to km 138+389 (Existing km 138+000 to km 158+000) in the state of Arunachal Pradesh under SARDP-NE, Project Highway shall include the land, buildings, structures and road works as described in **Annex-1** of this **Schedule-A**.

1.2 The dates of handing over the Right of Way to the Contractor are specified in **Annex-ll**of this **Schedule-A.**

1.3 An inventory of the Site including the land, buildings, structures, road works, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority's Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2.1 of this Agreement.

1.4 The alignment plans of the Project Highway are specified in Annex-Ill. In the case of sections where no modification in the existing alignment of the Project Highway is contemplated, the alignment plan has not been provided. Alignment plans have only been given for sections where the existing alignment is proposed to be modified.

1.5 The status of the environment clearances obtained or awaited is given in **Annex-IV**.

Annex-I
(Schedule-A)

1. Site

Site of the Two-Laning of Existing Joram-Koloriang Road on EPC basis from design km 122+353 to km 138+389 (Existing km 138+000 to km 158+000) in the state of Arunachal Pradesh under SARDP-NE. The road is of sub-standard single lane with poor road surface, passing through mountainous terrain, in general. The road is deficient in geometric features at almost all locations. The stretch lies within Kurung-kumey district.

The project corridor i.e.,Joram-Koloriang passes through settlements of one major settlement Koloriang.

The Index Map is appended at the end of this Schedule-A.

2. Chainage References (Existing vs Design)

"Existing Chainage" means Km Stones existing on the Project Highway. During topography survey, observations are made to these Km stones and after finalization of alignment by improving the existing geometry the chainage has been referred to "Design Chainage". The relationship between the " Existing Chainage" and the" Design Chainage" as per field surveys of the location of existing Km stones for the "Project Highway" is given below:

Sl. No.	Existing Chainage (Km)	Design chainage (Km)	Remarks
1	138+000	122+353	
2	138+500	122+833	
3	139+000	123+253	
4	139+500	123+683	
5	140+000	124+153	
6	140+500	124+613	
7	141+000	125+193	
8	141+500	125+573	
9	142+000	125+993	
10	142+500	126+493	
11	143+000	126+968	
12	143+500	127+383	
13	144+000	127+753	
14	144+500	128+253	
15	145+000	128+738	

16	145+500	129+213	
17	146+000	129+543	
18	146+500	130+018	
19	147+000	130+328	
20	147+500	130+733	
21	148+000	131+173	
22	148+500	131+543	
23	149+000	131+933	
24	149+500	132+283	
25	150+000	132+778	
26	150+500	133+253	
27	151+000	133+743	
28	151+500	134+153	
29	152+000	134+553	
30	152+500	135+053	
31	153+000	135+543	
32	153+500	135+953	
33	154+000	136+303	
34	154+500	136+683	
35	155+000	137+143	
36	155+500	137+533	
37	156+000	137+858	
38	156+500	138+053	
39	157+000	138+253	
40	157+500	138+323	
41	158+000	138+389	

3. Land

The Site of the Project Highway comprises the land described below:

Sl. No.	**Existing Chainage (Km)**		**Design chainage (Km)**		**Length In m (Design)**	**Existing/ Available ROW (m)**	**Remarks**
	From	To	From	To			
1	138+000	158+000	122+353	138+389	16036	24m	

4. Carriageway

The present carriageway of the Project Highway is substandard single lane configuration except on chainages mentioned in below table.

Sl. No.	Existing Chainage (Km)		Design chainage (Km)		Length In m (Design)	Lane Width (m)	Remarks
	From	To	From	To			
1	138+000	158+000	122+353	138+389	16036		
2			122+850	122+866	16	12.00	Landslide may have occurred at few locations
3			123+600	124+000	400	12.00	Landslide may have occurred at few locations
4			124+200	124+400	200	12.00	Landslide may have occurred at few locations
6			124+400	124+900	500	12.00	Landslide may have occurred at few locations
7			124+900	125+300	400	12.00	Landslide may have occurred at few locations
8			125+500	126+200	700	12.00	Landslide may have occurred at few locations
9			126+200	126+400	200	12.00	Landslide may have occurred at few locations

10			126+400	126+600	200	12.00	Landslide may have occurred at few locations
11			126+600	126+950	350	12.00	Landslide may have occurred at few locations
12			127+000	127+400	400	12.00	Landslide may have occurred at few locations
			127+400	127+900	500	12.00	Landslide may have occurred at few locations
13			128+500	130+950	2450	12.00	Landslide may have occurred at few locations
14			131+350	131+700	350	12.00	Landslide may have occurred at few locations
15			132+550	133+304	754	12.00	Landslide may have occurred at few locations
16			133+304	135+100	1796	12.00	Landslide may have occurred at few locations
17			135+100	135+967	867	12.00	Landslide may have occurred at few locations
18			136+120	136+748	628	12.00	Landslide may have occurred at few locations
19			137+000	137+480	480	12.00	Landslide may have occurred at few locations
20			137+580	138+389	809	12.00	Landslide may have occurred at few locations

Lane width as mentioned in above table is approximate assessment.The Contractor shall be responsible for accurate assessment of the lane width. Any reduction in width will not be

responsibility of Authority.

Length and chainages as mentioned in above table is approximate assessment. The Contractor shall be responsible for accurate assessment of the length of road. Any reduction in length will not be responsibility of Authority.

The Contractor shall be responsible for accurate assessment of the actual Landslide which have occurred. Any reduction in width of lane due to landslide or any other reason will not be responsibility of Authority.

5. Granular Sub Base:

The present "Granular Sub-Base layer" is laid on the following chainages only as mentioned in below table:

Sl. No.	Existing Chainage (Km)		Design chainage (Km)		Length In m (Design)	Remarks
	From	To	From	To		
1	138+000	158+000	129+353	129+900	547	
2			130+000	130+150	150	
3			133+400	133+700	300	
4			133+800	134+050	250	
6			134+650	135+103	459	
7			135+550	135+820	270	
8			135+850	135+874	24	
9			137+000	137+300	300	
Total Length of GSB					2300	

Thickness of GSB layer, length, profiling/levelling and chainages as mentioned in above table are approximate assessment. The Contractor shall be responsible for accurate assessment. Any reduction in thickness of GSB layer, length, profiling/levelling and chainageswill not be responsibility of Authority.

6. *Wet Mix Macadam (WMM) layer has not been laid yet in any stretch of project highway.*

7. Breast wall

The present "Breast Wall" is Constructed on the following chainages only as mentioned in below table:

S.N	Design Chainage (Km)		Total Length of Breast wall in Rmtr	Remarks
	From	To		
1	134840	134865	25	
2	134800	134810	10	
3	134890	134920	30	
4	134960	134970	10	
5	134950	134960	10	
6	134760	134780	20	
7	134700	134718	18	
8	134670	134700	30	
9	134735	134745	10	
10	134025	134035	10	
11	133990	134000	10	
12	133800	133810	10	
13	133560	133590	30	
14	132720	132730	10	
15	132600	132620	20	
16	130610	130640	30	
17	130580	130600	20	
18	130540	130550	10	
19	130030	130090	60	
20	129940	129950	10	

21	129780	129860	80	
22	129680	129730	50	
23	129460	129490	30	
24	129530	129540	10	
25	129410	129440	30	
26	129300	129370	70	
27	128980	129010	30	
28	129040	129070	30	
29	135550	135560	10	
30	135715	135730	15	
31	135740	135800	60	
32	136140	136170	30	
33	136170	136180	10	
34	136380	136390	10	
35	136450	136470	20	
36	136990	137000	10	
37	137060	137110	50	
38	137330	137370	40	
39	137750	137760	10	
40	137800	137830	30	
41	137950	138030	80	
42	138070	138112	42	
43	138165	138185	20	
44	138200	138240	40	
45	138275	138325	50	
46	138330	138340	10	

47	138405	138435	30	
48	133462	133472	10	
49	133510	133520	10	
50	133840	133900	60	
51	133980	134020	40	
52	133930	133940	10	
53	126770	126900	130	
54	126745	126755	10	
55	126540	126560	20	
56	126380	126430	50	
57	126230	126250	20	
58	126040	126070	30	
59	125565	125585	20	
60	125555	125565	10	
Total			1700	

Design and stabilityof already constructed Breast Wall are approximate assessment. The Contractor shall be responsible for accurate assessment of thestability and Design of Breast Wall. Any issue of instability and failed design of Breast Wall will not be responsibility of Authority.

Chainages and length as mentioned in above table are approximate assessment. The Contractor shall be responsible for accurate assessment of theChainages and length of Constructed Breast Wall. Any variation in chainages and length of Breast Wall will not be responsibility of Authority.

8. Retaining Wall

No Retaining Wall has been constructed in this project highway.

9. Major Bridges

The Site includes the following Major Bridges:

Sl. No.	Chainage	Type of Structures	No. of	Width

	(km)	Foundation	Sub-Structure	Superstructure	Spans with span length (m)	(m)
NIL						

10. Railway over-bridges (ROB)

The Site includes the following Railway Over Bridges

Sl. No.	Chainage (km)	Type of Structures			No. of Spans with span length (m)	Width (m)
		Foundation	Sub-Structure	Superstructure		
NIL						

11. Grade Separators

The Site includes the following Grade separators

Sl. No.	Chainage (km)	Type of Structures			No. of Spans with span length (m)	Width (m)
		Foundation	Sub-Structure	Superstructure		
NIL						

12. Minor Bridges

The Site includes the following minor Bridges:

Sl. No.	Design Chainage (km)	Type of Structures			No. of Spans with span length (m)	Total Width (m)
		Foundation	Sub-Structure	Super Structure		

1	124+583	Open	Wall type	PSC I Girder	Single span, L=34.0m	5.50
2	127+283	Open	Stone Masonry wall type	RCC Box Type	Single span, L=10.0m	6.00
3	128+423	Open	Stone Masonry wall type	PSC I Girder	Single span, L=39.0m	5.50
4	130+383	Open	Stone Masonry wall type	RCC Box Type	Single span, L = 6.50m	5.75
5	135+183	Open	Stone Masonry wall type	RCC T Girder	Single span, L =25.0m	5.75
6	124+243	Only A2 foundation completed	Remaining	Remaining	Single span, L =34.0m	16
7	127+050	Both Abutments completed	Completed	Completed but approach slab and all protection works are remaining	Single span, L 10.0m	16
8	135+253	A1 abutment completed	Remaining	Remaining	Single span, L =25.0m	16

13. Railway level crossings / Railway Track

The Site includes the following railway level crossings:

Sl. No.	Road Segment	Existing Chainage (km)	Remarks
NIL			

14. Underpasses (vehicular, Non-Vehicular)

The Site includes the following underpasses:

Sl. No.	Road Segment	Existing Chainage (km)	Type of Structures	No. of Spans with span length (m)	Total Width (m)
NIL					

15. Culverts

The Site includes the 95 Nos of culverts at the following locations and types:

Sl. No.	Design Chainage (km)	Type of Culvert	Span/Dia (m)	Width (m)	Remarks
1	122+900	BOX Culvert	3.00	12.00	Protection work is remaining
2	123+323	BOX Culvert	2.0	12.00	Protection work is remaining
3	123+934	BOX Culvert	2.0	12.00	Protection work is remaining
4	124+057	BOX Culvert	3.0	12.00	Protection work is remaining
5	125+039	BOX Culvert	2.0	12.00	Protection work is remaining
6	125+732	BOX Culvert	2.0	12.00	Protection work is remaining
7	125+786	BOX Culvert	2.0	12.00	Protection work is remaining
8	125+884	BOX Culvert	2.0	12.00	Protection work is remaining
9	126+017	BOX Culvert	2.0	12.00	Protection work is

					remaining
10	126+180	BOX Culvert	2.0	12.00	Protection work is remaining
11	126+330	BOX Culvert	2.0	12.00	Protection work is remaining
12	126+383	BOX Culvert	3.0	12.00	Protection work is remaining
13	126+477	BOX Culvert	2.0	12.00	Protection work is remaining
14	126+667	BOX Culvert	4.0	12.00	Protection work is remaining
15	128+631	BOX Culvert	3.0	12.00	Protection work is remaining
16	128+780	BOX Culvert	3.0	12.00	Protection work is remaining
17	129+200	BOX Culvert	2.0	12.00	Protection work is remaining
18	129+563	BOX Culvert	2.0	12.00	Protection work is remaining
19	129+830	BOX Culvert	2.0	12.00	Protection work is remaining
20	129+900	BOX Culvert	3.0	12.00	Protection work is remaining
21	130+150	BOX Culvert	3.0	12.00	Protection work is remaining
22	130+457	BOX Culvert	6.0	12.00	Protection work is remaining
23	130+600	BOX Culvert	2.0	12.00	Protection work is remaining
24	130+865	BOX Culvert	3.0	12.00	Protection work is remaining
25	132+642	BOX Culvert	3.0	12.00	Protection work is remaining
26	133+180	BOX Culvert		12.00	Protection work is remaining
27	133+237	BOX Culvert	2.0	12.00	Protection work is remaining
28	133+304	BOX Culvert		12.00	Protection work is remaining
29	133+381	BOX Culvert	2.0	12.00	Protection work is remaining
30	133+430	BOX Culvert		12.00	Protection work is remaining
31	133+469	BOX Culvert	2.0	12.00	Protection work is remaining
32	133+558	BOX Culvert	2.0	12.00	Protection work is

					remaining
33	133+592	BOX Culvert	2.0	12.00	Protection work is remaining
34	134+016	BOX Culvert		12.00	Protection work is remaining
35	134+197	BOX Culvert	2.0	12.00	Protection work is remaining
36	134+390	BOX Culvert		12.00	Protection work is remaining
37	134+494	BOX Culvert	2.0	12.00	Protection work is remaining
38	134+560	BOX Culvert	2.0	12.00	Protection work is remaining
39	134+618	BOX Culvert	4.0	12.00	Protection work is remaining
40	134+735	BOX Culvert		12.00	Protection work is remaining
41	134+794	BOX Culvert		12.00	Protection work is remaining
42	134+838	BOX Culvert	2.0	12.00	Protection work is remaining
43	134+940	BOX Culvert		12.00	Protection work is remaining
44	134+977	BOX Culvert		12.00	Protection work is remaining
45	135+537	BOX Culvert	2.0	12.00	Protection work is remaining
46	135+804	BOX Culvert	2.0	12.00	Protection work is remaining
47	136+137	BOX Culvert		12.00	Protection work is remaining
48	136+242	BOX Culvert	2.0	12.00	Protection work is remaining
49	136+364	BOX Culvert	3.0	12.00	Protection work is remaining
50	136+526	BOX Culvert	3.0	12.00	Protection work is remaining
51	137+058	BOX Culvert		12.00	Protection work is remaining
52	137+207	BOX Culvert	2.0	12.00	Protection work is remaining
53	137+407	BOX Culvert		12.00	Protection work is remaining
54	137+789	BOX Culvert		12.00	Protection work is remaining
55	137+900	BOX Culvert	2.0	12.00	Protection work is

					remaining

Chainages and no of culverts as mentioned in above table is approximate.The Contractor shall be responsible for accurate assessment of the no and chainages of culverts. Any reduction in no will not be responsibility of Authority.

16. Bus Shelters

The details of bus shelters on the Site are as follows:

Sl. No.	Road Segment	Existing Chainage (km)	Length (m)	Left Hand Side	Right Hand Side
NIL					

17. Truck Lay Bye

The details of truck lay bye on the Site are as follows:

Sl. No.	Road Segment	Existing Chainage (km)	Length (m)	Left Hand Side	Right Hand Side
NIL					

18. Road side drains

The details of the road side drains on the Site are as follows:

Sl. No.	Design chainage (Km)		Length in Running meter	Remarks
	From (Km)	TO (Km)		
1	129680	129785	105	
2	133560	133685	85	
3	134025	134060	35	
4	134785	134805	20	
5	134880	134900	20	
6	135545	135570	25	
7	135740	135810	70	
8	137000	137020	20	
9	137030	137050	20	
10	137060	137250	190	
11	137330	137370	40	

Total Length of Line Drain	**630**	

Chainages and length of lined drain as mentioned in above table is approximate. TheContractor shall be responsible for accurate assessment of the length and chainages of culverts. Any reduction in length will not be responsibility of Authority.

19. Major Junctions

The details of major junctions are as follows:

Sl. No.	Location		At Grade	Separated	Category of Cross Roads			
	Existing Ch.	Design Ch.			NH	SH	MDR Others	NH
1	158.000	138+389		-	-	-	-	

20. Minor Junctions

The details of major junctions yet to be done are as follows:

SL. No.	Existing Chainage (Km)	Design Chainage (Km)	Type	
			'T' Junction	Cross Road both sides
1	142+953	126+956		-
2	144+700	128+448		-
3	149+560	132+383		-
4	149+950	132+773		-
5	152+070	134+683		-
6	154+300	136+613		-
7	156+000	137+853		-
8	156+100	137+953		-
9	156+250	138+103		-
10	156+300	138+153		-

21. Bypasses

The details of bypasses are as follows:

SL. No.	Name of Bypass (Town)	Road Segment	Existing Chainage		Length (m)	Carriageway	Type
			From (Km)	To (Km)		Width (m)	

NIL

22. Other Structures/Details

The details of other structures are as follows:

SL. No.	**Type**	**Existing Chainage** (Km)	**Length (m)**	Width (m)
NIL				

Annex-11

Schedule – A
Details for Providing Right of Way

The dates on which the Authority shall provide Right of Way (ROW) to the Contractor on Different stretches of the Site are stated below:

SI. No	Design Chainage		Length in km	Existing ROW	Proposed ROW Width (m)	Date of Providing proposed ROW
	From	To				
(i) 90% of ROW (Full width)	122.353	138.389	16.036	9-12 m	18m - 35 m	At appointed date
(ii) Balance ROW (Full width)						Within 90 days after the appointed Date as per clause 8.2 of DCA

Annex-III
(Schedule-A)

Alignment Plans

It is enclosed.

Annex-IV
(Schedule-A)

Environmental Clearances

The following Forest clearance has been obtained:
The project highway does not require environment clearance as per MoEF corrigendum dated 22.08.2013.

Final stage Forest Clearance for the project has been obtained.

The muck dumping sites in forest area stand identified and freezed by forest department to be abided by agency during dumping of muck as stated in Schedule “F”