

National Highway Infrastructure Development Corporation Limited

**(Ministry of Road, Transport & Highways)
Government of India**

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode.

TECHNICAL SCHEDULES (A to D)

**July 2026
1st & 2nd Floor,
Tower A, World Trade Centre, Nauroji Nagar,
New Delhi - 110029**

SCHEDULE-A

(See Clause 2.1 and 8.1)

SITE OF THE PROJECT**1 THE SITE**

- (i) Site of the Project Management Consultancy for Preparation of Detailed Project Report, Preconstruction activities and Project Supervision of 4 Lane NH 15 from Baihata Chariali (Km 0.00) to Start Mangaldoi Bypass (Km 28) connecting NH-15 to NH-27 (Old NH-31) (Missing Link) with Junction design and 4 Lane of NH-15 from Mangaldoi (excluding Mangaldoi Bypass) (Km 42) to Mission Chariali (Km 135) in the State of Assam. Project Highway shall include the land, buildings, structures and road works as described in Annex-I of this Schedule-A.
- (ii) The dates of handing over the Right of Way to the Contractor are specified in Annex- II of this Schedule-A.
- (iii) 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 Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2 (i) of this Agreement.
- (iv) The alignment plans of the Project Highway are specified in Annex-III. 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 upgraded. The proposed profile of the Project Highways shall be followed by the contractor with minimum FRL as indicated in the alignment plan. The Contractor, however, improve/upgrade the Road Profile as indicated in Annex-III based on site/design requirement.
- (v) The status of the environment clearances obtained or awaited is given in Annex-IV.

Annex – I (Schedule-A)

1 Site

The Site of the Project Management Consultancy for Preparation of Detailed Project Report, Preconstruction activities and Project Supervision of 4 Lane NH 15 from Baihata Chariali (Km 0.00) to Start Mangaldoi Bypass (Km 28) connecting NH-15 to NH-27 (Old NH-31) (Missing Link) with Junction design and 4 Lane of NH-15 from Mangaldoi (excluding Mangaldoi Bypass) (Km 42) to Mission Chariali (Km 135) in the State of Assam] Project Highway comprises the section of National Highway-15 commencing from km 0.000 to km 28+000 & km 42+500 to 150+972 i.e the – Baihata Chariali - Mission Chariali section in the State of Assam. The land, carriageway and structures comprising the Site are described below.

2 Land

The site of the project highway comprises the land (existing right of way) as described below.

The Site of the Project Highway comprises the land (sum total of land already in possession and land to be possessed) as described below:

Sl. No.	Chainage (km)		Existing Right of Way (m)	Remarks
	From	To		
1	0+000	28+000	25-30	Baihata Chariali to start Mangaldoi Bypass (NH-15)
2	41+430	136+430	25-30	Mangaldoi (excluding Mangaldoi bypass) to Mission Chariali

3 Carriageway

The present carriageway of the Project Highway is 2 Lane with Paved shoulder. The type of the existing pavement is flexible/Rigid.

4 Major Bridges-

The site includes the following major bridge:

Sl. No.	Chainage (km)	Type of Structure			No. of Spans with span length (m)	Width (m)
		Foundation	Sub-Structure	Super-Structure		
1	9+120	-	-	RCC Slab type	3X27.3	8.50
2	13+175	-	-	RCC Slab type	2X33.75	10.5
3	14+510	-	-	RCC Slab type	2X30.25	9.33
4	47+820	-	-	RCC Slab type	2X39.25	8.50
5	60+680	-	-	BOX type	1X41.20	8.50
6	82+740	-	-	RCC Slab type	5X40	16.10
7	84+040	-	-	RCC Slab type	2X30	8.50
8	90+620	-	-	RCC Slab type	3X34	8.50
9	102+060	-	-	RCC Slab type	2X38.35	8.50
10	120+560	-	-	RCC Slab type	4X48.50	8.50

5 Railway Over Bridges / Road under Bridges

The site includes the following ROB (road ver railway line)/RUB (road under railway line):

Sl. No.	Existing Chainage (km)	Design Chainage (km)	Type of Structure	No. of Spans	Width (m)	No. of Tracks	Remarks
Nil							

6 Grade Separators

The site includes the following Grade Separators:

S. No.	Existing Chainage (km)	Design Chainage (km)	Type of Structure	No. of Spans with span length (m)	Width (m)
Nil					

7 Minor Bridges

The Site includes the following Minor Bridges:

Sl. No.	Chainage (Km)	Type of structure			No. of Spans with span length (m)	Width (m)
		Foundation	Sub-structure	Super-structure		
1	7+850	Raft			2x8.75	7.5
2	11+100	Raft			2x8.75	7.5
3	12+050	Raft			2x8.75	7.5
4	12+490	Raft			3x8.75	7.5
5	16+700	Raft			2x7.35	7.5
6	18+460	Raft			2x9	7.5
7	23+150	Raft			2x8.75	7.5
8	24+430	Raft			2x17.15+1x17.20	7.5
9	52+480	Raft			3x10	7.5
10	60+680	Pile			1x41.20	7.5
11	69+340	Pile			1x42	7.5
12	85+310	Raft			4x9	7.5
13	86+240	Raft			2x10	7.5
14	86+900	Raft			1x9	7.5
15	88+700	Raft			2x9	7.5
16	92+360	Raft			2x8.70	7.5
17	92+820	Raft			2x8.70	7.5
18	96+920	Pile			1x38	7.5
19	103+700	Pile			1x26	7.5
20	104+680	Raft			3x9	7.5
21	106+840	Raft			2x7.50	7.5
22	112+700	Pile			1x25.50	7.5
23	114+520	Pile			1x38.15	7.5
24	118+520	Raft			1x20.70	7.5
25	122+680	Raft			2x13.35	7.5
26	126+830	Raft			2x8.75	7.5
27	127+220	Raft			1x10.50	7.5
28	127+720	Raft			1x10.50	7.5
29	128+400	Raft			1x10.50	7.5
30	129+940	Pile			1x25.60	7.5

8 Railway Line / Level Crossings

The Site includes the following Railway Line / Level Crossing:

Sl. No.	Existing Chainage (km)	Design Chainage (km)	Railway Crossing Type	No. of Tracks
	Nil			

9 Vehicular Underpasses

S. No.	Existing Chainage (km)	Design Chainage (km)	Type of Structure	Clear Span arrangement (No. x Span) (m)	Width(m)
	Nil				

10 Culverts

The Site has the following culverts:

Sr. No.	Existing Chainage	Type	Span
1	210	PIPE CULVERT	1X0.6
2	330	PIPE CULVERT	1X0.7
3	610	BOX CULVERT	1X2.5
4	1380	PIPE CULVERT	1X6
5	1660	BOX CULVERT	1X1.5
6	2340	BOX CULVERT	1X1.5
7	2630	BOX CULVERT	1X1.5
8	3280	BOX CULVERT	1X6
9	3745	BOX CULVERT	2X3
10	4330	BOX CULVERT	1X6
11	5145	BOX CULVERT	1X1.5
12	5380	BOX CULVERT	1X1.5
13	5575	BOX CULVERT	1X1.5
14	6555	BOX CULVERT	1X1.5
15	6430	BOX CULVERT	1X1.6
16	6725	BOX CULVERT	1X6
17	7320	BOX CULVERT	1X6
18	7610	BOX CULVERT	1X1.5
19	7670	BOX CULVERT	1X6
20	8370	BOX CULVERT	1X6
21	9520	PIPE CULVERT	1X0.6
22	9850	PIPE CULVERT	1X0.6
24	21220	BOX CULVERT	1X6
25	22460	BOX CULVERT	1X1
26	23380	BOX CULVERT	1X0.5
27	24720	BOX CULVERT	1X2
28	24920	BOX CULVERT	1X1.5
29	25350	PIPE CULVERT	1X1.2
30	25770	PIPE CULVERT	1X1.3
31	25960	BOX CULVERT	1X1.5
32	26435	BOX CULVERT	1X0.3
33	26820	PIPE CULVERT	1X1.2
34	27480	BOX CULVERT	1X0.3
35	41882	BOX CULVERT	1X1
36	44140	BOX CULVERT	1X1
37	44620	BOX CULVERT	1X0.5
38	45662	BOX CULVERT	1X2.5
39	45960	BOX CULVERT	1X1.2
40	46280	BOX CULVERT	1X1.2
41	46718	BOX CULVERT	1X1.2
42	47020	BOX CULVERT	1X1.2
43	48880	BOX CULVERT	1X0.5

Sr. No.	Existing Chainage	Type	Span
44	50280	BOX CULVERT	1X2
45	52020	BOX CULVERT	1X1
46	53700	BOX CULVERT	1X0.5
47	56500	BOX CULVERT	1X1
48	56840	BOX CULVERT	1X1
49	60180	BOX CULVERT	1X1
50	62120	BOX CULVERT	1X1.8
51	64410	BOX CULVERT	1X1.2
52	65900	PIPE CULVERT	1X0.6
53	67190	BOX CULVERT	1X1
54	67325	PIPE CULVERT	1X0.5
55	70765	PIPE CULVERT	1X0.8
56	72140	PIPE CULVERT	1X0.6
57	72380	BOX CULVERT	1X1.5
58	74035	BOX CULVERT	1X1
59	74520	PIPE CULVERT	2X0.8
60	75815	BOX CULVERT	1X1
61	75980	BOX CULVERT	1X1.5
62	77160	PIPE CULVERT	1X1
63	77300	BOX CULVERT	1X4.5
64	77460	BOX CULVERT	1X4.5
65	77620	BOX CULVERT	1X4.5
66	78190	BOX CULVERT	1X1.5
67	78730	BOX CULVERT	1X4.5
68	79690	PIPE CULVERT	1X0.8
69	80050	BOX CULVERT	1X1.2
70	81292	BOX CULVERT	1X1
71	81492	BOX CULVERT	1X1
72	84480	BOX CULVERT	1X2.5
73	84760	PIPE CULVERT	1X1
74	85400	BOX CULVERT	1X1.2
75	86400	BOX CULVERT	1X1.5
76	87590	BOX CULVERT	1X1.5
77	88020	BOX CULVERT	1X0.7
78	88370	BOX CULVERT	1X0.8
79	89850	BOX CULVERT	1X1.2
80	91160	BOX CULVERT	1X3
81	91510	BOX CULVERT	1X2.8
82	91690	PIPE CULVERT	1X1
83	92990	PIPE CULVERT	1X0.6
84	93500	BOX CULVERT	1X2
85	94145	PIPE CULVERT	1X0.8
86	94720	BOX CULVERT	1X1
87	95380	BOX CULVERT	1X1
88	95565	BOX CULVERT	1X3

Sr. No.	Existing Chainage	Type	Span
89	98250	BOX CULVERT	1X2.8
90	98970	BOX CULVERT	1X1
91	99320	BOX CULVERT	1X2.8
92	99560	BOX CULVERT	1X3
93	101180	BOX CULVERT	1X0.7
94	103160	BOX CULVERT	1X1.8
95	106240	BOX CULVERT	1X2
96	107490	BOX CULVERT	1X3
97	108300	BOX CULVERT	1X2
98	110040	BOX CULVERT	1X3
99	110590	BOX CULVERT	1X5.0
100	111240	BOX CULVERT	1X0.7
101	113870	BOX CULVERT	1X0.7
102	114900	BOX CULVERT	1X1
103	115865	BOX CULVERT	1X1
104	117260	BOX CULVERT	1X1
105	119320	BOX CULVERT	1X1
106	119670	BOX CULVERT	1X3.0
107	121370	BOX CULVERT	1X2.0
108	124460	BOX CULVERT	1X1
109	125800	BOX CULVERT	1X5.0
110	132300	BOX CULVERT	1X1.0
111	132604	BOX CULVERT	1X3.0
112	132900	BOX CULVERT	1X1.0
113	133480	BOX CULVERT	1X1.5
114	134380	BOX CULVERT	1X1.0
115	134900	BOX CULVERT	1X1.3
116	135120	BOX CULVERT	1X1.0
117	135640	BOX CULVERT	1X0.8
118	135900	BOX CULVERT	1X0.8

11 Toll Plaza:

Sl. No.	Existing Chainage (km)	Type of Structure	Remarks
Nil			

12 Total Number of Structures

The total number of structures on the Site indicated below:

- (a) No. of Major Bridges – 10
- (b) No. of Railway Over Bridges – Nil
- (c) No. of Grade Separators – Nil
- (d) No. of Underpasses – Nil
- (e) No. of Minor Bridges – 30
- (f) No. of Culverts – 118

(g) Toll Plaza –Nil

13 Bus bays/Bus shelters and Truck lay-byes**13.1 Bus Bays**

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

Sl. No.	Chainage (km)	Length (m)	Left Hand Side	Right Hand Side
1	4+245			RHS
2	5+305		LHS	
3	5+384			RHS
4	6+190			RHS
5	7+350			RHS
6	8+795			RHS
7	13+245			RHS
8	13+295		LHS	
9	16+930		LHS	
10	17+427			RHS
11	17+990		LHS	
12	23+370		LHS	
13	25+890		LHS	
14	41+745			RHS
15	45+645			RHS
16	57+120			RHS
17	59+770			RHS
18	60+515			RHS
19	62+870		LHS	
20	62+950			RHS
21	64+115		LHS	
22	68+250			RHS
23	69+530			RHS
24	70+833		LHS	
25	70+838			RHS
26	74+040			RHS
27	78+442			RHS
28	79+515			RHS
29	83+470			RHS
30	86+192			RHS
31	93+141			RHS
32	93+605			RHS
33	96+188		LHS	
34	97+700		LHS	
35	101+743		LHS	
36	109+757			RHS
37	110+290		LHS	
38	110+965		LHS	
39	114+400			RHS
40	118+135			RHS
41	118+600		LHS	
42	121+436			RHS

Sl. No.	Chainage (km)	Length (m)	Left Hand Side	Right Hand Side
43	124+350		LHS	
44	124+976			RHS
45	125+235			RHS
46	126+125		LHS	
47	126+815			RHS
48	127+295			RHS
49	127+890			RHS
50	128+580		LHS	
51	129+135			RHS
52	129+365		LHS	
53	130+620		LHS	
54	131+618		LHS	
55	133+605			RHS
56	135+980			RHS

13.2 Truck Lay-byes

The location of existing truck lay-byes are given below:

Sl. No.	Chainage (km)	Length (m)	Left Hand Side	Right Hand Side
1	52+080		LHS	
2	52+210			RHS

14 Road Side Drains

The details of the roadside drains are as follows:

Sr. No.	Existing Chainage		Side	Length	Remarks
	From	To			
Section - Baihata Chariali to start Mangaldoi Bypass (NH-15)					
1	0+010	0+610	LHS	600	Footpath Cum Drain
2	0+010	1+280	RHS	1270	Footpath Cum Drain
3	0+830	1+280	LHS	450	Footpath Cum Drain
4	14+225	14+470	LHS	245	Nala
5	19+422	21+190	RHS	1768	Footpath Cum Drain
6	19+460	21+260	LHS	1800	Footpath Cum Drain
7	22+720	23+020	LHS	300	Footpath Cum Drain
8	22+720	23+055	RHS	335	Footpath Cum Drain
9	23+370	23+445	RHS	75	Nala
10	26+860	26+965	RHS	105	Footpath Cum Drain
Section - Mangaldoi (excluding Mangaldoi bypass) to Mission Chariali					
11	43+910	44+140	LHS	230	Footpath Cum Drain
12	44+270	44+440	LHS	170	Nala
13	50+280	51+380	LHS & RHS	1100	Footpath Cum Drain
14	51+370	52+345	RHS	975	Footpath Cum Drain
15	51+510	52+215	LHS	705	Footpath Cum Drain
16	53+380	53+740	RHS	360	Footpath Cum Drain
17	53+440	53+617	LHS	177	Footpath Cum Drain
18	56+840	57+160	LHS	320	Nala

Sr. No.	Existing Chainage		Side	Length	Remarks
	From	To			
19	57+748	59+365	LHS	1617	Footpath Cum Drain
20	57+773	58+174	RHS	401	Footpath Cum Drain
21	58+263	59+365	RHS	1102	Footpath Cum Drain
22	70+585	70+765	LHS	180	Nala
23	71+807	72+614	LHS	807	Nala
24	73+256	73+362	LHS	106	Nala
25	74+520	76+220	LHS	1700	Nala
26	75+185	75+745	RHS	560	Nala
27	76+388	76+473	LHS	85	Nala
28	76+491	76+910	LHS	419	Footpath Cum Drain
29	76+505	77+300	RHS	795	Footpath Cum Drain
30	76+920	77+300	LHS	380	Footpath Cum Drain
31	79+016	79+043	RHS	27	Nala
32	79+097	79+298	LHS	201	Nala
33	79+360	79+383	RHS	23	Unlined Drain
34	79+930	80+223	LHS	293	Nala
35	81+730	82+276	LHS	546	Nala
36	89+855	90+125	LHS	270	Drain
37	89+870	90+125	RHS	255	Drain
38	90+140	90+280	LHS & RHS	140	Drain
39	91+240	91+510	LHS	270	Nala
40	91+510	91+630	RHS	120	Nala
41	92+820	92+990	LHS	170	Nala
42	95+380	95+750	LHS	370	Nala
43	96+070	96+600	RHS	530	Drain
44	97+487	97+680	LHS	193	Nala
45	98+054	98+090	RHS	36	Drain
46	98+994	99+170	LHS	176	Nala
47	100+700	100+790	LHS	90	Drain
48	101+132	101+162	LHS	30	Drain
49	101+162	101+210	RHS	48	Drain
50	102+860	102+910	LHS	50	Drain
51	104+410	106+780	LHS & RHS	2370	Drain
52	107+360	107+680	RHS	320	Nala
53	108+844	108+908	LHS	64	Drain
54	122+340	122+380	LHS	40	Drain
55	122+680	122+740	RHS	60	Drain
56	130+475	130+660	LHS	185	Nala

15 Major Junction

The details of major junctions are as follows:

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
1	0+000	STARTING	Y	
2	8+200	LEFT	Y	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
3	16+500	RIGHT	X	
4	26+300	RIGHT	Y	
5	47+450	LEFT	T	
6	49+200	RIGHT	Y	
7	56+800	LEFT	Y	
8	59+300	RIGHT	Y	
9	63+800	RIGHT	T	
10	67+200	BS	+	
11	76+440	BS	+	
12	78+800	LEFT/RIGHT	Y/T	
13	79+300	LEFT	T	
14	69+900	LEFT	Y	
15	80+550	LEFT	Y	
16	83+150	LEFT	Y	
17	83+180	BS	+	
18	85+900	BS	+	
19	89+800	BS	+	
20	90+700	LEFT	Y	
21	93+200	BS	+	
22	95+750	LEFT	T	
23	95+800	RIGHT	Y	
24	97+290	LEFT	T	
25	103+300	LEFT	Y	
26	108+500	LEFT	Y	
27	111+500	LEFT	Y	
28	113+300	RIGHT	Y	
29	114+800	BS	+	
30	115+270	LEFT	Y	
31	119+900	BS	Y	
32	123+000	RIGHT	Y	
33	126+600	BS	+	
34	128+220	BS	+	
35	133+650	BS	+	
36	139+100	BS	+	
37	145+650	BS	+	
38	149+600	RIGHT	Y	

(NH: National Highway, SH: State Highway, MDR: Major District Road)

16 Minor Junction

The details of minor junctions are as follows:

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
1	1+200	BS	+	BT
2	1+600	BS	+	BT

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Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
3	2+100	BS	+	BT
4	2+400	BS	+	BT
5	3+300	BS	+	ER
6	3+600	LEFT	T	ER
7	4+350	BS	+	BT
8	4+700	BS	+	BT
9	5+400	BS	+	BT
10	6+000	BS	+	Brick
11	6+430	BS	+	BT
12	6+600	BS	+	BT
13	7+300	LEFT	T	ER
14	7+550	RIGHT	T	BT
15	7+600	LEFT	T	BT
16	7+700	LEFT	T	BT
17	8+350	RIGHT	T	BT
18	8+600	RIGHT	T	Brick
19	8+650	RIGHT	T	BT
20	8+700	LEFT	T	BT
21	8+720	LEFT	T	Brick
22	9+630	RIGHT	T	BT
23	9+900	LEFT	T	BT
24	10+120	LEFT	T	Brick
25	10+520	LEFT	T	Gravel
26	10+600	RIGHT	T	ER
27	10+680	RIGHT	T	Brick
28	11+150	BS	+	BT
29	12+260	LEFT	T	Gravel
30	12+370	RIGHT	T	Gravel
31	12+980	LEFT	T	BT
32	13+060	LEFT	T	Gravel
33	13+220	LEFT	T	Gravel
34	13+250	RIGHT	T	BT
35	13+220	RIGHT	T	
36	13+400	LEFT	T	Gravel
37	13+460	LEFT	T	Gravel
38	13+620	RIGHT	T	Brick
39	13+930	RIGHT	T	Gravel
40	14+200	LEFT	T	Gravel
41	14+370	BS	+	BT
42	14+550	BS	+	LHS=BT, RHS=Brick
43	14+720	LEFT	T	Gravel
44	15+160	BS	+	LHS=BT, RHS=Brick
45	15+300	RIGHT	T	BT

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
46	15+600	RIGHT	T	Brick
47	16+000	RIGHT	Y	Gravel
48	16+520	RIGHT	t	BT
49	16+950	BS	+	Gravel
50	17+500	BS	+	Gravel
51	17+750	BS	+	Gravel
52	18+300	BS	+	Gravel
53	19+100	BS	+	Gravel
54	20+450	BS	+	Gravel
55	20+900	BS	+	Gravel
56	20+930	RIGHT	t	Gravel
57	21+500	BS	+	Brick
58	22+790	BS	+	BT
59	23+000	BS	+	gravel
60	23+540	BS	+	Brick
61	23+800	BS	+	ER
62	24+390	BS	+	ER
63	24+520	BS	+	ER
64	25+020	BS	+	ER
65	25+560	RIGHT	T	Gravel
66	26+000	LEFT	T	Gravel
67	26+820	LEFT	T	Gravel
68	27+050	BS	+	BT
69	27+180	RIGHT	T	Brick
70	27+330	RIGHT	T	Brick
71	27+680	RIGHT	T	ER
72	27+740	RIGHT	T	ER
73	27+860	BS	+	Brick
74	42+240	LEFT	T	Gravel
75	42+420	LEFT	T	Brick
76	42+460	RIGHT	T	Gravel
77	42+760	LEFT	T	Brick
78	42+800	RIGHT	T	Gravel
79	42+900	LEFT	T	
80	43+010	LEFT	T	ER
81	43+160	RIGHT	T	ER
82	43+170	LEFT	T	Gravel
83	43+280	RIGHT	T	Gravel
84	43+480	RIGHT	T	BT
85	43+500	LEFT	T	BT
86	43+590	RIGHT	T	BT
87	43+760	RIGHT	T	Brick
88	43+860	RIGHT	T	Brick
89	43+910	LEFT	T	Gravel
90	44+260	RIGHT	T	BT

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
91	44+460	LEFT	T	Brick
92	44+680	RIGHT	T	Gravel
93	44+720	RIGHT	T	Gravel
94	44+940	RIGHT	T	Brick
95	45+500	LEFT	T	ER
96	45+620	BS	+	BT
97	45+950	LEFT	T	Brick
98	46+550	LEFT	T	Brick
99	46+790	LEFT	T	ER
100	46+970	LEFT	T	Gravel
101	47+170	RIGHT	T	ER
102	47+450	LEFT	T	BT
103	47+800	RIGHT	T	Gravel
104	47+930	RIGHT	T	Gravel
105	48+470	BS	+	Gravel
106	48+800	LEFT	T	BT
107	48+800	BS	+	Gravel
108	48+890	BS	+	Gravel
109	48+930	RIGHT	T	ER
110	48+950	RIGHT	T	ER
111	48+970	LEFT	T	ER
112	49+020	BS	+	LHS=BT, RHS=Gravel
113	49+110	BS	+	LHS=Brick, RHS=BT
114	49+200	LEFT	T	BT
115	50+060	BS	+	BT
116	50+130	RIGHT	T	Gravel
117	50+950	BS	+	ER
118	51+020	BS	+	BT
119	51+980	BS	+	BT
120	52+180	BS	+	BT
121	52+420	BS	+	BT
122	52+650	BS	+	BT
123	52+780	BS	+	ER
124	52+820	BS	+	ER
125	53+330	BS	+	BT
126	54+290	BS	+	Gravel
127	54+370	BS	+	BT
128	54+930	BS	+	Gravel
129	56+200	LEFT	T	ER
130	57+670	RIGHT	T	Gravel
131	56+700	LEFT	T	BT
132	56+740	LEFT	T	Gravel
133	57+350	LEFT	T	Gravel

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
134	57+660	RIGHT	T	Brick
135	58+040	RIGHT	T	BT
136	58+130	RIGHT	T	Brick
137	58+300	LEFT	T	ER
138	58+700	RIGHT	T	Gravel
139	58+800	LEFT	T	Brick
140	58+880	BS	+	Brick
141	58+900	RIGHT	T	BT
142	59+320	LEFT	T	Brick
143	59+370	RIGHT	T	BT
144	59+400	RIGHT	T	BT
145	59+430	BS	+	LHS=BT, RHS=Brick
146	59+500	RIGHT	T	BT
147	59+630	RIGHT	T	Gravel
148	59+820	LEFT	T	BT
149	59+890	RIGHT	T	Brick
150	59+940	LEFT	T	Gravel
151	60+150	RIGHT	T	Gravel
152	60+220	LEFT	T	Gravel
153	60+540	RIGHT	T	Brick
154	60+700	LEFT	T	BT
155	60+850	RIGHT	T	ER
156	61+050	RIGHT	T	BT
157	61+390	BS	+	LHS=Gravel, RHS=ER
158	61+950	LEFT	T	BT
159	62+030	LEFT	T	ER
160	62+270	RIGHT	T	gravel
161	62+590	RIGHT	T	gravel
162	62+950	RIGHT	T	ER
163	62+980	LEFT	T	ER
164	62+990	RIGHT	T	ER
165	63+280	RIGHT	T	BT
166	63+360	LEFT	T	BT
167	63+800	BS	+	LHS=CC, RHS=BT
168	64+160	LEFT	T	Gravel
169	64+350	LEFT	T	ER
170	64+430	LEFT	T	ER
171	64+460	LEFT	T	ER
172	64+850	RIGHT	T	ER
173	64+950	LEFT	T	ER
174	64+970	RIGHT	T	BT
175	65+400	LEFT	T	gravel
176	65+750	LEFT	T	Brick
177	66+100	RIGHT	T	gravel

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
178	66+260	LEFT	T	Brick
179	66+470	RIGHT	T	ER
180	66+570	RIGHT	T	Gravel
181	66+760	LEFT	T	ER
182	66+770	RIGHT	T	Brick
183	66+820	RIGHT	T	ER
184	66+950	RIGHT	T	ER
185	67+080	LEFT	T	ER
186	67+200	LEFT	T	Brick
187	67+230	RIGHT	T	Brick
188	67+280	RIGHT	T	Gravel
189	67+420	LEFT	T	Brick
190	67+730	RIGHT	T	ER
191	67+890	RIGHT	T	BT
192	68+700	RIGHT	T	ER
193	68+840	LEFT	T	ER
194	69+000	RIGHT	T	BT
195	69+250	RIGHT	T	ER
196	69+690	BS	+	ER
197	69+900	LEFT	T	BT
198	69+980	LEFT	T	BT
199	70+000	RIGHT	T	ER
200	70+110	RIGHT	T	Brick
201	70+290	LEFT	T	Gravel
202	70+320	RIGHT	T	Gravel
203	70+440	LEFT	T	Gravel
204	70+570	RIGHT	T	BT
205	70+890	RIGHT	T	BT
206	70+900	LEFT	T	Brick
207	71+220	RIGHT	T	Gravel
208	71+650	RIGHT	T	Brick
209	71+930	RIGHT	T	Gravel
210	72+000	LEFT	T	ER
211	72+420	RIGHT	T	ER
212	72+760	RIGHT	T	BT
213	72+890	LEFT	T	BT
214	72+930	RIGHT	T	BT
215	73+170	BS	+	LHS=Gravel, RHS=ER
216	73+190	LEFT	T	Gravel
217	73+330	RIGHT	T	ER
218	73+810	LEFT	T	Gravel
219	73+930	LEFT	T	ER
220	73+960	RIGHT	T	Gravel
221	74+030	LEFT	T	Gravel

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
222	74+410	LEFT	T	Gravel
223	74+820	BS	+	ER
224	74+870	RIGHT	T	Brick
225	74+970	LEFT	T	BT
226	75+260	LEFT	T	ER
227	75+300	LEFT	T	ER
228	75+360	LEFT	T	ER
229	75+390	RIGHT	T	ER
230	75+570	BS	+	Gravel
231	75+740	RHS	T	ER
232	75+560	BS	+	Gravel
233	76+160	LEFT	T	Gravel
234	76+205	RIGHT	T	Gravel
235	76+440	BS	+	BT
236	76+760	RIGHT	Y	Gravel
237	76+770	BS	+	Gravel
238	77+130	BS	+	ER
239	77+645	BS	+	BT
240	78+750	LEFT	Y	BT
241	78+770	BS	+	BT
242	78+940	RIGHT	Y	BT
243	79+300	LEFT	T	BT
244	79+850	LEFT	Y	BT
245	80+250	BS	+	Gravel
246	80+590	RIGHT	Y	BT
247	81+020	BS	+	BT
248	81+820	BS	+	BT
249	82+050	LEFT	Y	BT
250	82+100	RIGHT	Y	ER
251	82+800	BS	+	BT
252	83+140	LEFT	Y	BT
253	83+160	LEFT	T	BT
254	83+180	RIGHT	T	BT
255	83+410	RIGHT	T	ER
256	83+660	RIGHT	Y	BT
257	84+030	RIGHT	Y	BT
258	84+325	LEFT	T	Gravel
259	84+710	RIGHT	y	BT
260	85+060	BS	+	BT
261	85+900	BS	+	BT
262	86+050	RIGHT	T	Gravel
263	86+210	LEFT	T	BT
264	86+320	RIGHT	T	BT
265	86+690	RIGHT	T	BT
266	86+990	BS	+	BT

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
267	87+290	RIGHT	T	Gravel
268	87+490	RIGHT	Y	Gravel
269	87+690	LEFT	T	GRAVEL
270	87+720	RIGHT	T	ER
271	88+200	BS	+	BT
272	88+600	LEFT	T	GRAVEL
273	88+900	RIGHT	T	GRAVEL
274	89+020	LEFT	T	BT
275	89+040	RIGHT	t	GRAVEL
276	89+290	LEFT	T	BRICK
277	89+460	RIGHT	T	BT
278	89+690	RIGHT	T	BT
279	89+810	BS	+	BT
280	89+860	BS	Y	BT
281	90+750	LEFT	Y	BT
282	91+250	RIGHT	T	BT
283	91+660	LEFT	T	BRICK
284	92+090	LEFT	T	BT
285	92+740	RIGHT	T	BT
286	93+100	RIGHT	T	GRAVEL
287	93+120	LEFT	T	GRAVEL
288	93+200	BS	+	BT
289	93+720	RIGHT	T	GRAVEL
290	94+250	LEFT	T	GRAVEL
291	94+520	RIGHT	T	GRAVEL
292	94+880	LEFT	T	GRAVEL
293	95+000	RIGHT	T	GRAVEL
294	95+250	RIGHT	T	GRAVEL
295	95+750	LEFT	T	BT
296	95+800	RIGHT	Y	BT
297	95+880	RIGHT	T	BT
298	96+000	LEFT	T	BT
299	96+190	RIGHT	T	GRAVEL
300	96+730	LEFT	T	BT
301	96+970	RIGHT	T	GRAVEL
302	97+210	LEFT	T	BT
303	97+280	LEFT	T	BT
304	97+520	RIGHT	T	BT
305	97+810	LEFT	T	GRAVEL
306	97+940	RIGHT	T	ER
307	98+600	LEFT	T	BRICK
308	98+700	RIGHT	T	BT
309	98+800	LEFT	T	GRAVEL
310	99+700	BS	+	LEFT BT RIGHT GRAVEL

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
311	99+840	RIGHT	T	GRAVEL
312	99+940	LEFT	T	ER
313	99+990	RIGHT	T	BT
314	100+420	LEFT	T	GRAVEL
315	100+820	RIGHT	T	GRAVEL
316	100+920	LEFT	T	GRAVEL
317	100+940	RIGHT	T	GRAVEL
318	101+200	LEFT	T	BT
319	101+370	RIGHT	T	BT
320	101+400	RIGHT	T	BT
321	101+820	LEFT	T	BT
322	102+570	LEFT	T	GRAVEL
323	103+110	LEFT	T	GRAVEL
324	103+150	LEFT	Y	BT
325	104+000	RIGHT	T	ER
326	104+560	LEFT	Y	ER
327	104+950	BS	+	BRICK
328	105+470	BS	+	BT
329	106+130	BS	+	BRICK
330	106+520	BS	+	BRICK
331	106+600	BS	+	BRICK
332	106+950	BS	+	GRAVEL
333	107+740	BS	+	BRICK
334	108+450	LEFT	T	GRAVEL
335	108+770	BS	+	BT
336	108+840	RIGHT	T	GRAVEL
337	109+540	RIGHT	T	BT
338	109+690	LEFT	T	BT
339	109+850	RIGHT	T	BT
340	110+250	BS	+	GRAVEL
341	110+660	RIGHT	T	GRAVEL
342	111+170	LEFT	T	BT
343	111+500	LEFT	T	BT
344	111+710	BS	+	BRICK
345	112+500	BS	+	BRICK
346	112+620	BS	+	BRICK
347	113+200	LEFT	Y	BT
348	113+650	LEFT	T	BT
349	113+770	RIGHT	T	BT
350	114+000	RIGHT	T	BRICK
351	114+280	RIGHT	Y	BRICK
352	114+330	LEFT	T	BRICK
353	114+800	BS	+	BT
354	115+150	RIGHT	T	BT
355	115+260	LEFT	T	BT

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
356	115+450	RIGHT	T	BT
357	115+500	LEFT	T	BT
358	115+610	RIGHT	T	BT
359	115+750	LEFT	T	GRAVEL
360	115+950	LEFT	T	BRICK
361	115+970	RIGHT	T	BRICK
362	116+030	RIGHT	T	BRICK
363	116+100	LEFT	T	GRAVEL
364	116+400	RIGHT	T	BRICK
365	116+425	LEFT	T	BT
366	116+630	LEFT	T	GRAVEL
367	117+010	BS	+	BRICK
368	117+850	LEFT	T	BT
369	117+880	RIGHT	T	BT
370	118+060	LEFT	T	BT
371	118+530	BS	+	BT
372	119+000	LEFT	T	BT
373	119+300	BS	+	BT
374	119+560	BS	+	GRAVEL
375	119+680	LEFT	Y	GRAVEL
376	119+880	BS	Y	GRAVEL
377	121+290	LEFT	T	BT
378	121+750	LEFT	Y	ER
379	121+850	RIGHT	Y	BT
380	122+120	LEFT	T	BT
381	123+000	RIGHT	Y	BT
382	123+910	BS	+	BT
383	125+050	BS	+	GRAVEL
384	125+640	BS	+	BT
385	126+580	BS	+	BT
386	127+280	BS	+	BT
387	128+250	BS	+	BT
388	128+950	BS	+	BT
389	129+250	LEFT	Y	BT
390	129+720	BS	+	BT
391	130+510	BS	+	BT
392	130+900	BS	+	BT
393	130+960	LEFT	T	BT
394	131+570	BS	+	BT
395	131+760	BS	+	BT
396	132+070	BS	+	ER
397	132+260	BS	+	ER
398	132+700	BS	+	GRAVEL
399	133+650	BS	+	BT
400	133+900	LEFT	Y	GRAVEL

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Existing Chainage (Km.)	Direction	Type (Junction)	REMARKS
401	134+060	BS	+	BT
402	135+610	LEFT	Y	BT
403	135+650	BS	+	BT
404	135+950	BS	+	GRAVEL
405	136+200	LHS	T	GRAVEL
406	136+610	BS	+	GRAVEL
407	136+900	BS	+	BT
408	137+480	BS	+	BT
409	137+700	BS	+	BT
410	138+000	BS	+	BT
411	138+150	BS	+	BT
412	138+790	BS	+	BT
413	139+190	BS	+	BT
414	141+260	BS	+	BRICK
415	142+440	BS	+	BT
416	142+670	BS	+	BT
417	144+160	BS	+	BT
418	144+900	BS	+	BT
419	145+600	BS	+	BT
420	147+170	BS	+	BT
421	147+900	BS	+	BT
422	148+400	BS	+	BT
423	149+030	BS	+	BT

17 Built up Area

The existing highway passes through the following built-up areas:

Sl. No.	Built-up stretch (Township)	Location (km to km)
1	Baihata-Chariali	Km 0+000 to Km 08+100
2	Salmara	Km 08+500 to Km 09+500
3	Dumunichowki	10+000 to 14+500
4	singimari	15+050 to 15+180
5	Bijulibari	15+850 to 16+200
6	Sipajhar	16+240 to 26+200
7	Pipra dokan (mangaldoi)	26+200 to 27+500
8	Mazgaon	42+590 to 43+310
9	Gelaidingi	43+600 to 43+900
10	Dhula	44+000 to 44+300
11	Bezpara	44+900 to 45+450
12	Thekerabari	47+050 to 50+200
13	Kharupetia	50+250 to 57+830
14	Dalgaon	57+830 to 66+500
15	Besimari	67+200 to 69+800
16	Alisinga	70+300 to 71+000
17	Lalpool	71+300 to 75+000

18	Jhargaon	76+700 to 76+970
19	RE-alignment jhargaon to rowta	76+970 to 79+790
20	Rowta	79+970 to 82+800
21	Dhansirighat	82+800 to 85+700
22	Gelabil	86+100 to 90+500
23	Sirajuli	90+850 to 103+600
24	Dhekiajuli	104+190 to 109+530
25	Thelamara	114+700 to 119+150
26	Baligaon	119+600 to 122+000
27	Mission Chariali	123+250 to 150+971

18 Bypasses under consideration

S. No.	Name of Bypass	Existing Chainage (km)		Design Length (km)	Remarks
		Start	End		
Nil					

19 Electrical Utilities

The site includes the following electrical utilities:

(a) Extra High-Tension Lines (EHT Lines)

Sl No.	NH Chainage	Name of Bypass/ Existing NH-15	Name of Line crossing the alignment	Capacity of the line (132kV/400kV/800 kV, etc..)	Available Vertical clearance from OGL (m)	Vertical clearance from FRL (m)	Type of Current Flow	Minimum Vertical Clearance required as per policy (m)	Horizontal Clearance Between Towers Crossing/falling in the alignment
1	63+150	Existing NH-15	PGCIL-BLP-BNG Line	400KV	15.00m	14.00m	DC	14.15m	225m
2	85+050	Existing NH-15	AEGCL Line	132KV	11.00m	10.00m	AC	11.6m	175m
3	92+490	Existing NH-15	PGCIL-BLP-BNG Line	400KV	15.00m	14.00m	DC	14.15m	243m
4	106+000	Dhekiajuli Bypass	AEGCL Line	132KV	8m	-	AC	11.6m	306m
6	106+625	Dhekiajuli Bypass	AEGCL Line	132KV	8m	-	AC	11.6m	315m
7	117+375	Existing NH 15	PGCIL	400KV	15.00m	14.00m	DC	14.15m	258m
8	121+200 to 121+800	Existing NH 15	AEGCL Line	132KV	10m	9m	AC	11.6m	326m

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

SI No.	NH Chainage	Name of Bypass/ Existing NH-15	Name of Line crossing the alignment	Capacity of the line (132kV/400kV/800 kV, etc..)	Available Vertical clearance from OGL (m)	Vertical clearance from FRL (m)	Type of Current Flow	Minimum Vertical Clearance required as per policy (m)	Horizontal Clearance Between Towers Crossing/falling in the alignment
9	123+990	Existing NH 15/Start of Mission Chariali Bypass	PGCIL	400KV	15.00m	14.00m	DC	14.15m	204m
10	129+650	Mission Chariali Bypass	AEGCL Line	132KV	7m	-	AC	11.6m	278m
11	130+470	Mission Chariali Bypass	AEGCL Line	132KV	7m	-	AC	11.6m	252m
12	136+830	Mission Chariali Bypass	PGCIL	400KV	12m	-	DC	14.15m	369m
13	138+550	Mission Chariali Bypass	PGCIL (Double Circuit)	400KV	12m	-	DC	14.15m	335m
14	138+800	Mission Chariali Bypass	PGCIL	400KV	12m	-	DC	14.15m	339m
15	139+750	Mission Chariali Bypass	AEGCL Line	132KV (Double Circuit)	11m	-	AC	11.6m	429m
16	140+950	Mission Chariali Bypass	AEGCL Line (Depota-Ghoramari-Sonabil)	132KV	8m	-	AC	11.6m	307m
17	144+100	Mission Chariali Bypass	AEGCL Line	132KV	8m	-	AC	11.6m	282m
18	148+900	Mission Chariali Bypass	PGCIL	400KV	12m	-	DC	14.15m	374m
19	150.981 (RHS)	Mission Chariali Bypass end/ Last Trumpet Ramp/ Jamurighat to Kaliabore NH-15	PGCIL	400KV	17m	14m	DC	14.15m	243m

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

SI No.	NH Chainage	Name of Bypass/ Existing NH-15	Name of Line crossing the alignment	Capacity of the line (132kV/400kV/800 kV, etc..)	Available Vertical clearance from OGL (m)	Vertical clearance from FRL (m)	Type of Current Flow	Minimum Vertical Clearance required as per policy (m)	Horizontal Clearance Between Towers Crossing/falling in the alignment
		(Tezpur Bypass)/ Existing Tezpur Bypass							

- SC – Single Circuit, DC – Double Circuit

(b) Low Tension Lines (LT Lines)

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
0+000	0+100	APDCL	
0+100	0+200	APDCL	
0+200	0+300	APDCL	
0+300	0+400	APDCL	
0+400	0+500	APDCL	
0+500	0+600	APDCL	
0+600	0+700	APDCL	
0+700	0+800	APDCL	
0+800	0+900	APDCL	
0+900	1+000	APDCL	
1+000	1+100	APDCL	
1+100	1+200	APDCL	
1+200	1+300	APDCL	
1+300	1+400	APDCL	
1+400	1+500	APDCL	
1+500	1+600	APDCL	Three nos of Poles having capacity of 11 KV
1+600	1+700	APDCL	Three nos of Poles having capacity of 11 KV
1+700	1+800	APDCL	Three nos of Poles having capacity of 11 KV
1+800	1+900	APDCL	Three nos of Poles having capacity of 11 KV
1+900	2+000	APDCL	Three nos of Poles having capacity of 11 KV
2+000	2+100	APDCL	Three nos of Poles having capacity of 11 KV
2+100	2+200	APDCL	Three nos of Poles having capacity of 11 KV
2+200	2+300	APDCL	Three nos of Poles having capacity of 11 KV
2+300	2+400	APDCL	Three nos of Poles having capacity of 11 KV
2+400	2+500	APDCL	Three nos of Poles having capacity of 11 KV
2+500	2+600	APDCL	Three nos of Poles having capacity of 11 KV
2+600	2+700	APDCL	Three nos of Poles having capacity of 11 KV
2+700	2+800	APDCL	Three nos of Poles having capacity of 11 KV
2+800	2+900	APDCL	Three nos of Poles having capacity of 11 KV

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
2+900	3+000	APDCL	Three nos of Poles having capacity of 11 KV
3+000	3+100	APDCL	
3+100	3+200	APDCL	
3+200	3+300	APDCL	
3+300	3+400	APDCL	
3+400	3+500	APDCL	
3+500	3+600	APDCL	
3+600	3+700	APDCL	
3+700	3+800	APDCL	
3+800	3+900	APDCL	
3+900	4+000	APDCL	
4+000	4+100	APDCL	
4+100	4+200	APDCL	
4+200	4+300	APDCL	
4+300	4+400	APDCL	
4+400	4+500	APDCL	
4+500	4+600	APDCL	
4+600	4+700	APDCL	
4+700	4+800	APDCL	
4+800	4+900	APDCL	
4+900	5+000	APDCL	
5+000	5+100	APDCL	
5+100	5+200	APDCL	
5+200	5+300	APDCL	
5+300	5+400	APDCL	
5+400	5+500	APDCL	
5+500	5+600	APDCL	
5+600	5+700	APDCL	
5+700	5+800	APDCL	
5+800	5+900	APDCL	
5+900	6+000	APDCL	
6+000	6+100	APDCL	
6+100	6+200	APDCL	
6+200	6+300	APDCL	
6+300	6+400	APDCL	
6+400	6+500	APDCL	
6+500	6+600	APDCL	
6+600	6+700	APDCL	
6+700	6+800	APDCL	
6+800	6+900	APDCL	
6+900	7+000	APDCL	
7+000	7+100	APDCL	
7+100	7+200	APDCL	
7+200	7+300	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
7+300	7+400	APDCL	
7+400	7+500	APDCL	
7+500	7+600	APDCL	
7+600	7+700	APDCL	
7+700	7+800	APDCL	
7+800	7+900	APDCL	
7+900	8+000	APDCL	
8+000	8+100	APDCL	
8+100	8+200	APDCL	
8+200	8+300	APDCL	
8+300	8+400	APDCL	
8+400	8+500	APDCL	
8+500	8+600	APDCL	
8+600	8+700	APDCL	
8+700	8+800	APDCL	
8+800	8+900	APDCL	
8+900	9+000	APDCL	
9+000	9+100	APDCL	
9+100	9+200	APDCL	
9+200	9+300	APDCL	
9+300	9+400	APDCL	
9+400	9+500	APDCL	
9+500	9+600	APDCL	
9+600	9+700	APDCL	
9+700	9+800	APDCL	
9+800	9+900	APDCL	
9+900	10+000	APDCL	
10+000	10+100	APDCL	
10+100	10+200	APDCL	
10+200	10+300	APDCL	
10+300	10+400	APDCL	
10+400	10+500	APDCL	
10+500	10+600	APDCL	
10+600	10+700	APDCL	
10+700	10+800	APDCL	
10+800	10+900	APDCL	
10+900	11+000	APDCL	
11+000	11+100	APDCL	
11+100	11+200	APDCL	
11+200	11+300	APDCL	
11+300	11+400	APDCL	
11+400	11+500	APDCL	
11+500	11+600	APDCL	
11+600	11+700	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
11+700	11+800	APDCL	
11+800	11+900	APDCL	
11+900	12+000	APDCL	
12+000	12+100	APDCL	
12+100	12+200	APDCL	
12+200	12+300	APDCL	
12+300	12+400	APDCL	
12+400	12+500	APDCL	
12+500	12+600	APDCL	
12+600	12+700	APDCL	
12+700	12+800	APDCL	
12+800	12+900	APDCL	
12+900	13+000	APDCL	
13+000	13+100	APDCL	
13+100	13+200	APDCL	
13+200	13+300	APDCL	
13+300	13+400	APDCL	
13+400	13+500	APDCL	
13+500	13+600	APDCL	
13+600	13+700	APDCL	
13+700	13+800	APDCL	
13+800	13+900	APDCL	
13+900	14+000	APDCL	
14+000	14+100	APDCL	
14+100	14+200	APDCL	
14+200	14+300	APDCL	
14+300	14+400	APDCL	
14+400	14+500	APDCL	
14+500	14+600	APDCL	
14+600	14+700	APDCL	
14+700	14+800	APDCL	
14+800	14+900	APDCL	
14+900	15+000	APDCL	
15+000	15+100	APDCL	
15+100	15+200	APDCL	
15+200	15+300	APDCL	
15+300	15+400	APDCL	
15+400	15+500	APDCL	
15+500	15+600	APDCL	
15+600	15+700	APDCL	
15+700	15+800	APDCL	
15+800	15+900	APDCL	
15+900	16+000	APDCL	
16+000	16+100	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
16+100	16+200	APDCL	
16+200	16+300	APDCL	
16+300	16+400	APDCL	
16+400	16+500	APDCL	
16+500	16+600	APDCL	
16+600	16+700	APDCL	
16+700	16+800	APDCL	
16+800	16+900	APDCL	
16+900	17+000	APDCL	
17+000	17+100	APDCL	
17+100	17+200	APDCL	
17+200	17+300	APDCL	
17+300	17+400	APDCL	
17+400	17+500	APDCL	
17+500	17+600	APDCL	
17+600	17+700	APDCL	
17+700	17+800	APDCL	
17+800	17+900	APDCL	
17+900	18+000	APDCL	
18+000	18+100	APDCL	
18+100	18+200	APDCL	
18+200	18+300	APDCL	
18+300	18+400	APDCL	
18+400	18+500	APDCL	
18+500	18+600	APDCL	
18+600	18+700	APDCL	
18+700	18+800	APDCL	
18+800	18+900	APDCL	
18+900	19+000	APDCL	
19+000	19+100	APDCL	
19+100	19+200	APDCL	
19+200	19+300	APDCL	
19+300	19+400	APDCL	
19+400	19+500	APDCL	
19+500	19+600	APDCL	
19+600	19+700	APDCL	
19+700	19+800	APDCL	
19+800	19+900	APDCL	
19+900	20+000	APDCL	
20+000	20+100	APDCL	
20+100	20+200	APDCL	
20+200	20+300	APDCL	
20+300	20+400	APDCL	
20+400	20+500	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
20+500	20+600	APDCL	
20+600	20+700	APDCL	
20+700	20+800	APDCL	
20+800	20+900	APDCL	
20+900	21+000	APDCL	
21+000	21+100	APDCL	
21+100	21+200	APDCL	
21+200	21+300	APDCL	
21+300	21+400	APDCL	
21+400	21+500	APDCL	
21+500	21+600	APDCL	
21+600	21+700	APDCL	
21+700	21+800	APDCL	
21+800	21+900	APDCL	
21+900	22+000	APDCL	
22+000	22+100	APDCL	
22+100	22+200	APDCL	
22+200	22+300	APDCL	
22+300	22+400	APDCL	
22+400	22+500	APDCL	
22+500	22+600	APDCL	
22+600	22+700	APDCL	
22+700	22+800	APDCL	
22+800	22+900	APDCL	
22+900	23+000	APDCL	
23+000	23+100	APDCL	
23+100	23+200	APDCL	
23+200	23+300	APDCL	
23+300	23+400	APDCL	
23+400	23+500	APDCL	
23+500	23+600	APDCL	
23+600	23+700	APDCL	
23+700	23+800	APDCL	
23+800	23+900	APDCL	
23+900	24+000	APDCL	
24+000	24+100	APDCL	
24+100	24+200	APDCL	
24+200	24+300	APDCL	
24+300	24+400	APDCL	
24+400	24+500	APDCL	
24+500	24+600	APDCL	
24+600	24+700	APDCL	
24+700	24+800	APDCL	
24+800	24+900	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
24+900	25+000	APDCL	
25+000	25+100	APDCL	
25+100	25+200	APDCL	
25+200	25+300	APDCL	
25+300	25+400	APDCL	
25+400	25+500	APDCL	
25+500	25+600	APDCL	
25+600	25+700	APDCL	
25+700	25+800	APDCL	
25+800	25+900	APDCL	
25+900	26+000	APDCL	
26+000	26+100	APDCL	
26+100	26+200	APDCL	
26+200	26+300	APDCL	
26+300	26+400	APDCL	
26+400	26+500	APDCL	
26+500	26+600	APDCL	
26+600	26+700	APDCL	
26+700	26+800	APDCL	
26+800	26+900	APDCL	
26+900	27+000	APDCL	
27+000	27+100	APDCL	
27+100	27+200	APDCL	
27+200	27+300	APDCL	
27+300	27+400	APDCL	
27+400	27+500	APDCL	
27+500	27+600	APDCL	
27+600	27+700	APDCL	
27+700	27+800	APDCL	
27+800	27+900	APDCL	
27+900	28+000	APDCL	
28+000	28+100	APDCL	
28+100	28+200	APDCL	
28+200	28+300	APDCL	
28+300	28+400	APDCL	
28+400	28+500	APDCL	
28+500	28+600	APDCL	
28+600	28+700	APDCL	
28+700	28+800	APDCL	
28+800	28+900	APDCL	
28+900	29+000	APDCL	
29+000	29+100	APDCL	
29+100	29+200	APDCL	
29+200	29+300	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
29+300	29+400	APDCL	
29+400	29+500	APDCL	
29+500	29+600	APDCL	
29+600	29+700	APDCL	
29+700	29+800	APDCL	
29+800	29+900	APDCL	
29+900	30+000	APDCL	
30+000	30+100	APDCL	
30+100	30+200	APDCL	
30+200	30+300	APDCL	
30+300	30+400	APDCL	
30+400	30+500	APDCL	
30+500	30+600	APDCL	
30+600	30+700	APDCL	
30+700	30+800	APDCL	
30+800	30+900	APDCL	
30+900	31+000	APDCL	
31+000	31+100	APDCL	
31+100	31+200	APDCL	
31+200	31+300	APDCL	
31+300	31+400	APDCL	
31+400	31+500	APDCL	
31+500	31+600	APDCL	
31+600	31+700	APDCL	
31+700	31+800	APDCL	
31+800	31+900	APDCL	
31+900	32+000	APDCL	
32+000	32+100	APDCL	
32+100	32+200	APDCL	
32+200	32+300	APDCL	
32+300	32+400	APDCL	
32+400	32+500	APDCL	
32+500	32+600	APDCL	
32+600	32+700	APDCL	
32+700	32+800	APDCL	
32+800	32+900	APDCL	
32+900	33+000	APDCL	
33+000	33+100	APDCL	
33+100	33+200	APDCL	
33+200	33+300	APDCL	
33+300	33+400	APDCL	
33+400	33+500	APDCL	
33+500	33+600	APDCL	
33+600	33+700	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
33+700	33+800	APDCL	
33+800	33+900	APDCL	
33+900	34+000	APDCL	
34+000	34+100	APDCL	
34+100	34+200	APDCL	
34+200	34+300	APDCL	
34+300	34+400	APDCL	
34+400	34+500	APDCL	
34+500	34+600	APDCL	
34+600	34+700	APDCL	
34+700	34+800	APDCL	
34+800	34+900	APDCL	
34+900	35+000	APDCL	
35+000	35+100	APDCL	
35+100	35+200	APDCL	
35+200	35+300	APDCL	
35+300	35+400	APDCL	
35+400	35+500	APDCL	
35+500	35+600	APDCL	
35+600	35+700	APDCL	
35+700	35+800	APDCL	
35+800	35+900	APDCL	
35+900	36+000	APDCL	
36+000	36+100	APDCL	
36+100	36+200	APDCL	
36+200	36+300	APDCL	
36+300	36+400	APDCL	
36+400	36+500	APDCL	
36+500	36+600	APDCL	
36+600	36+700	APDCL	
36+700	36+800	APDCL	
36+800	36+900	APDCL	
36+900	37+000	APDCL	
37+000	37+100	APDCL	
37+100	37+200	APDCL	
37+200	37+300	APDCL	
37+300	37+400	APDCL	
37+400	37+500	APDCL	
37+500	37+600	APDCL	
37+600	37+700	APDCL	
37+700	37+800	APDCL	
37+800	37+900	APDCL	
37+900	38+000	APDCL	
38+000	38+100	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
38+100	38+200	APDCL	
38+200	38+300	APDCL	
38+300	38+400	APDCL	
38+400	38+500	APDCL	
38+500	38+600	APDCL	
38+600	38+700	APDCL	
38+700	38+800	APDCL	
38+800	38+900	APDCL	
38+900	39+000	APDCL	
39+000	39+100	APDCL	
39+100	39+200	APDCL	
39+200	39+300	APDCL	
39+300	39+400	APDCL	
39+400	39+500	APDCL	
39+500	39+600	APDCL	
39+600	39+700	APDCL	
39+700	39+800	APDCL	
39+800	39+900	APDCL	
39+900	40+000	APDCL	
40+000	40+100	APDCL	
40+100	40+200	APDCL	
40+200	40+300	APDCL	
40+300	40+400	APDCL	
40+400	40+500	APDCL	
40+500	40+600	APDCL	
40+600	40+700	APDCL	
40+700	40+800	APDCL	
40+800	40+900	APDCL	
40+900	41+000	APDCL	
41+000	41+100	APDCL	
41+100	41+200	APDCL	
41+200	41+300	APDCL	
41+300	41+400	APDCL	
41+400	41+500	APDCL	
41+500	41+600	APDCL	
41+600	41+700	APDCL	
41+700	41+800	APDCL	
41+800	41+900	APDCL	
41+900	42+000	APDCL	
42+000	42+100	APDCL	
42+100	42+200	APDCL	
42+200	42+300	APDCL	
42+300	42+400	APDCL	
42+400	42+500	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
42+500	42+600	APDCL	
42+600	42+700	APDCL	
42+700	42+800	APDCL	
42+800	42+900	APDCL	
42+900	43+000	APDCL	
43+000	43+100	APDCL	
43+100	43+200	APDCL	
43+200	43+300	APDCL	
43+300	43+400	APDCL	
43+400	43+500	APDCL	
43+500	43+600	APDCL	
43+600	43+700	APDCL	
43+700	43+800	APDCL	
43+800	43+900	APDCL	
43+900	44+000	APDCL	
44+000	44+100	APDCL	
44+100	44+200	APDCL	
44+200	44+300	APDCL	
44+300	44+400	APDCL	
44+400	44+500	APDCL	
44+500	44+600	APDCL	
44+600	44+700	APDCL	
44+700	44+800	APDCL	
44+800	44+900	APDCL	
44+900	45+000	APDCL	
45+000	45+100	APDCL	
45+100	45+200	APDCL	
45+200	45+300	APDCL	
45+300	45+400	APDCL	
45+400	45+500	APDCL	
45+500	45+600	APDCL	
45+600	45+700	APDCL	
45+700	45+800	APDCL	
45+800	45+900	APDCL	
45+900	46+000	APDCL	
46+000	46+100	APDCL	
46+100	46+200	APDCL	
46+200	46+300	APDCL	
46+300	46+400	APDCL	
46+400	46+500	APDCL	
46+500	46+600	APDCL	
46+600	46+700	APDCL	
46+700	46+800	APDCL	
46+800	46+900	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
46+900	47+000	APDCL	
47+000	47+100	APDCL	
47+100	47+200	APDCL	
47+200	47+300	APDCL	
47+300	47+400	APDCL	
47+400	47+500	APDCL	
47+500	47+600	APDCL	
47+600	47+700	APDCL	
47+700	47+800	APDCL	
47+800	47+900	APDCL	
47+900	48+000	APDCL	
48+000	48+100	APDCL	
48+100	48+200	APDCL	
48+200	48+300	APDCL	
48+300	48+400	APDCL	
48+400	48+500	APDCL	
48+500	48+600	APDCL	
48+600	48+700	APDCL	
48+700	48+800	APDCL	
48+800	48+900	APDCL	
48+900	49+000	APDCL	
49+000	49+100	APDCL	
49+100	49+200	APDCL	
49+200	49+300	APDCL	
49+300	49+400	APDCL	
49+400	49+500	APDCL	
49+500	49+600	APDCL	
49+600	49+700	APDCL	
49+700	49+800	APDCL	
49+800	49+900	APDCL	
49+900	50+000	APDCL	
50+000	50+100	APDCL	
50+100	50+200	APDCL	
50+200	50+300	APDCL	
50+300	50+400	APDCL	
50+400	50+500	APDCL	
50+500	50+600	APDCL	
50+600	50+700	APDCL	
50+700	50+800	APDCL	
50+800	50+900	APDCL	
50+900	51+000	APDCL	
51+000	51+100	APDCL	
51+100	51+200	APDCL	
51+200	51+300	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
51+300	51+400	APDCL	
51+400	51+500	APDCL	
51+500	51+600	APDCL	
51+600	51+700	APDCL	
51+700	51+800	APDCL	
51+800	51+900	APDCL	
51+900	52+000	APDCL	
52+000	52+100	APDCL	
52+100	52+200	APDCL	
52+200	52+300	APDCL	
52+300	52+400	APDCL	
52+400	52+500	APDCL	
52+500	52+600	APDCL	
52+600	52+700	APDCL	
52+700	52+800	APDCL	
52+800	52+900	APDCL	
52+900	53+000	APDCL	
53+000	53+100	APDCL	
53+100	53+200	APDCL	
53+200	53+300	APDCL	
53+300	53+400	APDCL	
53+400	53+500	APDCL	
53+500	53+600	APDCL	
53+600	53+700	APDCL	
53+700	53+800	APDCL	
53+800	53+900	APDCL	
53+900	54+000	APDCL	
54+000	54+100	APDCL	
54+100	54+200	APDCL	
54+200	54+300	APDCL	
54+300	54+400	APDCL	
54+400	54+500	APDCL	
54+500	54+600	APDCL	
54+600	54+700	APDCL	
54+700	54+800	APDCL	
54+800	54+900	APDCL	
54+900	55+000	APDCL	
55+000	55+100	APDCL	
55+100	55+200	APDCL	
55+200	55+300	APDCL	
55+300	55+400	APDCL	
55+400	55+500	APDCL	
55+500	55+600	APDCL	
55+600	55+700	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
55+700	55+800	APDCL	
55+800	55+900	APDCL	
55+900	56+000	APDCL	
56+000	56+100	APDCL	
56+100	56+200	APDCL	
56+200	56+300	APDCL	
56+300	56+400	APDCL	
56+400	56+500	APDCL	
56+500	56+600	APDCL	
56+600	56+700	APDCL	
56+700	56+800	APDCL	
56+800	56+900	APDCL	
56+900	57+000	APDCL	
57+000	57+100	APDCL	
57+100	57+200	APDCL	
57+200	57+300	APDCL	
57+300	57+400	APDCL	
57+400	57+500	APDCL	
57+500	57+600	APDCL	
57+600	57+700	APDCL	
57+700	57+800	APDCL	
57+800	57+900	APDCL	
57+900	58+000	APDCL	
58+000	58+100	APDCL	
58+100	58+200	APDCL	
58+200	58+300	APDCL	
58+300	58+400	APDCL	
58+400	58+500	APDCL	
58+500	58+600	APDCL	
58+600	58+700	APDCL	
58+700	58+800	APDCL	
58+800	58+900	APDCL	
58+900	59+000	APDCL	
59+000	59+100	APDCL	
59+100	59+200	APDCL	
59+200	59+300	APDCL	
59+300	59+400	APDCL	
59+400	59+500	APDCL	
59+500	59+600	APDCL	
59+600	59+700	APDCL	
59+700	59+800	APDCL	
59+800	59+900	APDCL	
59+900	60+000	APDCL	
60+000	60+100	APDCL	Three nos of Poles having capacity of 11 KV
60+100	60+200	APDCL	Three nos of Poles having capacity of 11 KV

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
60+200	60+300	APDCL	Three nos of Poles having capacity of 11 KV
60+300	60+400	APDCL	Three nos of Poles having capacity of 11 KV
60+400	60+500	APDCL	Three nos of Poles having capacity of 11 KV
60+500	60+600	APDCL	Three nos of Poles having capacity of 11 KV
60+600	60+700	APDCL	Three nos of Poles having capacity of 11 KV
60+700	60+800	APDCL	Three nos of Poles having capacity of 11 KV
60+800	60+900	APDCL	Three nos of Poles having capacity of 11 KV
60+900	61+000	APDCL	Three nos of Poles having capacity of 11 KV
61+000	61+100	APDCL	Three nos of Poles having capacity of 11 KV
61+100	61+200	APDCL	Three nos of Poles having capacity of 11 KV
61+200	61+300	APDCL	Three nos of Poles having capacity of 11 KV
61+300	61+400	APDCL	Three nos of Poles having capacity of 11 KV
61+400	61+500	APDCL	Three nos of Poles having capacity of 11 KV
61+500	61+600	APDCL	Three nos of Poles having capacity of 11 KV
61+600	61+700	APDCL	Three nos of Poles having capacity of 11 KV
61+700	61+800	APDCL	Three nos of Poles having capacity of 11 KV
61+800	61+900	APDCL	Three nos of Poles having capacity of 11 KV
61+900	62+000	APDCL	Three nos of Poles having capacity of 11 KV
62+000	62+100	APDCL	Three nos of Poles having capacity of 11 KV
62+100	62+200	APDCL	Three nos of Poles having capacity of 11 KV
62+200	62+300	APDCL	Three nos of Poles having capacity of 11 KV
62+300	62+400	APDCL	Three nos of Poles having capacity of 11 KV
62+400	62+500	APDCL	Three nos of Poles having capacity of 11 KV
62+500	62+600	APDCL	Three nos of Poles having capacity of 11 KV
62+600	62+700	APDCL	Three nos of Poles having capacity of 11 KV
62+700	62+800	APDCL	Three nos of Poles having capacity of 11 KV
62+800	62+900	APDCL	Three nos of Poles having capacity of 11 KV
62+900	63+000	APDCL	Three nos of Poles having capacity of 11 KV
63+000	63+100	APDCL	Three nos of Poles having capacity of 11 KV
63+100	63+200	APDCL	Three nos of Poles having capacity of 11 KV
63+200	63+300	APDCL	Three nos of Poles having capacity of 11 KV
63+300	63+400	APDCL	Three nos of Poles having capacity of 11 KV
63+400	63+500	APDCL	Three nos of Poles having capacity of 11 KV
63+500	63+600	APDCL	Three nos of Poles having capacity of 11 KV
63+600	63+700	APDCL	Three nos of Poles having capacity of 11 KV
63+700	63+800	APDCL	Three nos of Poles having capacity of 11 KV
63+800	63+900	APDCL	Three nos of Poles having capacity of 11 KV
63+900	64+000	APDCL	Three nos of Poles having capacity of 11 KV
64+000	64+100	APDCL	Three nos of Poles having capacity of 11 KV
64+100	64+200	APDCL	Three nos of Poles having capacity of 11 KV
64+200	64+300	APDCL	Three nos of Poles having capacity of 11 KV
64+300	64+400	APDCL	Three nos of Poles having capacity of 11 KV
64+400	64+500	APDCL	Three nos of Poles having capacity of 11 KV
64+500	64+600	APDCL	Three nos of Poles having capacity of 11 KV
64+600	64+700	APDCL	Three nos of Poles having capacity of 11 KV
64+700	64+800	APDCL	Three nos of Poles having capacity of 11 KV
64+800	64+900	APDCL	Three nos of Poles having capacity of 11 KV
64+900	65+000	APDCL	Three nos of Poles having capacity of 11 KV
65+000	65+100	APDCL	Three nos of Poles having capacity of 11 KV
65+100	65+200	APDCL	Three nos of Poles having capacity of 11 KV

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
65+200	65+300	APDCL	Three nos of Poles having capacity of 11 KV
65+300	65+400	APDCL	Three nos of Poles having capacity of 11 KV
65+400	65+500	APDCL	Three nos of Poles having capacity of 11 KV
65+500	65+600	APDCL	Three nos of Poles having capacity of 11 KV
65+600	65+700	APDCL	Three nos of Poles having capacity of 11 KV
65+700	65+800	APDCL	Three nos of Poles having capacity of 11 KV
65+800	65+900	APDCL	Three nos of Poles having capacity of 11 KV
65+900	66+000	APDCL	Three nos of Poles having capacity of 11 KV
66+000	66+100	APDCL	Three nos of Poles having capacity of 11 KV
66+100	66+200	APDCL	Three nos of Poles having capacity of 11 KV
66+200	66+300	APDCL	Three nos of Poles having capacity of 11 KV
66+300	66+400	APDCL	Three nos of Poles having capacity of 11 KV
66+400	66+500	APDCL	Three nos of Poles having capacity of 11 KV
66+500	66+600	APDCL	Three nos of Poles having capacity of 11 KV
66+600	66+700	APDCL	Three nos of Poles having capacity of 11 KV
66+700	66+800	APDCL	Three nos of Poles having capacity of 11 KV
66+800	66+900	APDCL	Three nos of Poles having capacity of 11 KV
66+900	67+000	APDCL	Three nos of Poles having capacity of 11 KV
67+000	67+100	APDCL	Three nos of Poles having capacity of 11 KV
67+100	67+200	APDCL	Three nos of Poles having capacity of 11 KV
67+200	67+300	APDCL	Three nos of Poles having capacity of 11 KV
67+300	67+400	APDCL	Three nos of Poles having capacity of 11 KV
67+400	67+500	APDCL	Three nos of Poles having capacity of 11 KV
67+500	67+600	APDCL	Three nos of Poles having capacity of 11 KV
67+600	67+700	APDCL	Three nos of Poles having capacity of 11 KV
67+700	67+800	APDCL	Three nos of Poles having capacity of 11 KV
67+800	67+900	APDCL	Three nos of Poles having capacity of 11 KV
67+900	68+000	APDCL	Three nos of Poles having capacity of 11 KV
68+000	68+100	APDCL	Three nos of Poles having capacity of 11 KV
68+100	68+200	APDCL	Three nos of Poles having capacity of 11 KV
68+200	68+300	APDCL	Three nos of Poles having capacity of 11 KV
68+300	68+400	APDCL	Three nos of Poles having capacity of 11 KV
68+400	68+500	APDCL	Three nos of Poles having capacity of 11 KV
68+500	68+600	APDCL	Three nos of Poles having capacity of 11 KV
68+600	68+700	APDCL	Three nos of Poles having capacity of 11 KV
68+700	68+800	APDCL	Three nos of Poles having capacity of 11 KV
68+800	68+900	APDCL	Three nos of Poles having capacity of 11 KV
68+900	69+000	APDCL	Three nos of Poles having capacity of 11 KV
69+000	69+100	APDCL	Three nos of Poles having capacity of 11 KV
69+100	69+200	APDCL	Three nos of Poles having capacity of 11 KV
69+200	69+300	APDCL	Three nos of Poles having capacity of 11 KV
69+300	69+400	APDCL	Three nos of Poles having capacity of 11 KV
69+400	69+500	APDCL	Three nos of Poles having capacity of 11 KV
69+500	69+600	APDCL	Three nos of Poles having capacity of 11 KV
69+600	69+700	APDCL	Three nos of Poles having capacity of 11 KV
69+700	69+800	APDCL	Three nos of Poles having capacity of 11 KV
69+800	69+900	APDCL	Three nos of Poles having capacity of 11 KV
69+900	70+000	APDCL	Three nos of Poles having capacity of 11 KV
70+000	70+100	APDCL	Three nos of Poles having capacity of 11 KV
70+100	70+200	APDCL	Three nos of Poles having capacity of 11 KV

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
70+200	70+300	APDCL	Three nos of Poles having capacity of 11 KV
70+300	70+400	APDCL	Three nos of Poles having capacity of 11 KV
70+400	70+500	APDCL	Three nos of Poles having capacity of 11 KV
70+500	70+600	APDCL	Three nos of Poles having capacity of 11 KV
70+600	70+700	APDCL	Three nos of Poles having capacity of 11 KV
70+700	70+800	APDCL	Three nos of Poles having capacity of 11 KV
70+800	70+900	APDCL	Three nos of Poles having capacity of 11 KV
70+900	71+000	APDCL	Three nos of Poles having capacity of 11 KV
71+000	71+100	APDCL	Three nos of Poles having capacity of 11 KV
71+100	71+200	APDCL	Three nos of Poles having capacity of 11 KV
71+200	71+300	APDCL	Three nos of Poles having capacity of 11 KV
71+300	71+400	APDCL	Three nos of Poles having capacity of 11 KV
71+400	71+500	APDCL	Three nos of Poles having capacity of 11 KV
71+500	71+600	APDCL	Three nos of Poles having capacity of 11 KV
71+600	71+700	APDCL	Three nos of Poles having capacity of 11 KV
71+700	71+800	APDCL	Three nos of Poles having capacity of 11 KV
71+800	71+900	APDCL	Three nos of Poles having capacity of 11 KV
71+900	72+000	APDCL	Three nos of Poles having capacity of 11 KV
72+000	72+100	APDCL	Three nos of Poles having capacity of 11 KV
72+100	72+200	APDCL	Three nos of Poles having capacity of 11 KV
72+200	72+300	APDCL	Three nos of Poles having capacity of 11 KV
72+300	72+400	APDCL	Three nos of Poles having capacity of 11 KV
72+400	72+500	APDCL	Three nos of Poles having capacity of 11 KV
72+500	72+600	APDCL	Three nos of Poles having capacity of 11 KV
72+600	72+700	APDCL	Three nos of Poles having capacity of 11 KV
72+700	72+800	APDCL	Three nos of Poles having capacity of 11 KV
72+800	72+900	APDCL	Three nos of Poles having capacity of 11 KV
72+900	73+000	APDCL	Three nos of Poles having capacity of 11 KV
73+000	73+100	APDCL	Three nos of Poles having capacity of 11 KV
73+100	73+200	APDCL	Three nos of Poles having capacity of 11 KV
73+200	73+300	APDCL	Three nos of Poles having capacity of 11 KV
73+300	73+400	APDCL	Three nos of Poles having capacity of 11 KV
73+400	73+500	APDCL	Three nos of Poles having capacity of 11 KV
73+500	73+600	APDCL	Three nos of Poles having capacity of 11 KV
73+600	73+700	APDCL	Three nos of Poles having capacity of 11 KV
73+700	73+800	APDCL	Three nos of Poles having capacity of 11 KV
73+800	73+900	APDCL	Three nos of Poles having capacity of 11 KV
73+900	74+000	APDCL	Three nos of Poles having capacity of 11 KV
74+000	74+100	APDCL	Three nos of Poles having capacity of 11 KV
74+100	74+200	APDCL	Three nos of Poles having capacity of 11 KV
74+200	74+300	APDCL	Three nos of Poles having capacity of 11 KV
74+300	74+400	APDCL	Three nos of Poles having capacity of 11 KV
74+400	74+500	APDCL	Three nos of Poles having capacity of 11 KV
74+500	74+600	APDCL	Three nos of Poles having capacity of 11 KV
74+600	74+700	APDCL	Three nos of Poles having capacity of 11 KV
74+700	74+800	APDCL	Three nos of Poles having capacity of 11 KV
74+800	74+900	APDCL	Three nos of Poles having capacity of 11 KV
74+900	75+000	APDCL	Three nos of Poles having capacity of 11 KV
75+000	75+100	APDCL	Three nos of Poles having capacity of 11 KV
75+100	75+200	APDCL	Three nos of Poles having capacity of 11 KV

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
75+200	75+300	APDCL	Three nos of Poles having capacity of 11 KV
75+300	75+400	APDCL	Three nos of Poles having capacity of 11 KV
75+400	75+500	APDCL	Three nos of Poles having capacity of 11 KV
75+500	75+600	APDCL	Three nos of Poles having capacity of 11 KV
75+600	75+700	APDCL	Three nos of Poles having capacity of 11 KV
75+700	75+800	APDCL	Three nos of Poles having capacity of 11 KV
75+800	75+900	APDCL	Three nos of Poles having capacity of 11 KV
75+900	76+000	APDCL	Three nos of Poles having capacity of 11 KV
76+000	76+100	APDCL	Three nos of Poles having capacity of 11 KV
76+100	76+200	APDCL	Three nos of Poles having capacity of 11 KV
76+200	76+300	APDCL	Three nos of Poles having capacity of 11 KV
76+300	76+400	APDCL	Three nos of Poles having capacity of 11 KV
76+400	76+500	APDCL	Three nos of Poles having capacity of 11 KV
76+500	76+600	APDCL	
76+600	76+700	APDCL	
76+700	76+800	APDCL	
76+800	76+900	APDCL	
76+900	77+000	APDCL	
77+000	77+100	APDCL	
77+100	77+200	APDCL	
77+200	77+300	APDCL	
77+300	77+400	APDCL	
77+400	77+500	APDCL	
77+500	77+600	APDCL	
77+600	77+700	APDCL	
77+700	77+800	APDCL	
77+800	77+900	APDCL	
77+900	78+000	APDCL	
78+000	78+100	APDCL	
78+100	78+200	APDCL	
78+200	78+300	APDCL	
78+300	78+400	APDCL	
78+400	78+500	APDCL	
78+500	78+600	APDCL	
78+600	78+700	APDCL	
78+700	78+800	APDCL	
78+800	78+900	APDCL	
78+900	79+000	APDCL	
79+000	79+100	APDCL	
79+100	79+200	APDCL	
79+200	79+300	APDCL	
79+300	79+400	APDCL	
79+400	79+500	APDCL	
79+500	79+600	APDCL	
79+600	79+700	APDCL	
79+700	79+800	APDCL	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
79+800	79+900	APDCL	
79+900	80+000	APDCL	
80+000	80+100	APDCL	
80+100	80+200	APDCL	
80+200	80+300	APDCL	
80+300	80+400	APDCL	
80+400	80+500	APDCL	
80+500	80+600	APDCL	
80+600	80+700	APDCL	
80+700	80+800	APDCL	
80+800	80+900	APDCL	
80+900	81+000	APDCL	
81+000	81+100	APDCL	
81+100	81+200	APDCL	
81+200	81+300	APDCL	
81+300	81+400	APDCL	
81+400	81+500	APDCL	
81+500	81+600	APDCL	
81+600	81+700	APDCL	
81+700	81+800	APDCL	
81+800	81+900	APDCL	
81+900	82+000	APDCL	
82+000	82+100	APDCL	
82+100	82+200	APDCL	
82+200	82+300	APDCL	
82+300	82+400	APDCL	
82+400	82+500	APDCL	
82+500	82+600	APDCL	
82+600	82+700	APDCL	
82+700	82+800	APDCL	
82+800	82+900	APDCL	
82+900	83+000	APDCL	
83+000	83+100	APDCL	
83+100	83+200	APDCL	
83+200	83+300	APDCL	
83+300	83+400	APDCL	
83+400	83+500	APDCL	
83+500	83+600	APDCL	
83+600	83+700	APDCL	
83+700	83+800	APDCL	
83+800	83+900	APDCL	
83+900	84+000	APDCL	
84+000	84+100	APDCL	
84+100	84+200	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
84+200	84+300	APDCL	
84+300	84+400	APDCL	
84+400	84+500	APDCL	
84+500	84+600	APDCL	
84+600	84+700	APDCL	
84+700	84+800	APDCL	
84+800	84+900	APDCL	
84+900	85+000	APDCL	
85+000	85+100	APDCL	
85+100	85+200	APDCL	
85+200	85+300	APDCL	
85+300	85+400	APDCL	
85+400	85+500	APDCL	
85+500	85+600	APDCL	
85+600	85+700	APDCL	
85+700	85+800	APDCL	
85+800	85+900	APDCL	
85+900	86+000	APDCL	
86+000	86+100	APDCL	
86+100	86+200	APDCL	
86+200	86+300	APDCL	
86+300	86+400	APDCL	
86+400	86+500	APDCL	
86+500	86+600	APDCL	
86+600	86+700	APDCL	
86+700	86+800	APDCL	
86+800	86+900	APDCL	
86+900	87+000	APDCL	
87+000	87+100	APDCL	
87+100	87+200	APDCL	
87+200	87+300	APDCL	
87+300	87+400	APDCL	
87+400	87+500	APDCL	
87+500	87+600	APDCL	
87+600	87+700	APDCL	
87+700	87+800	APDCL	
87+800	87+900	APDCL	
87+900	88+000	APDCL	
88+000	88+100	APDCL	
88+100	88+200	APDCL	
88+200	88+300	APDCL	
88+300	88+400	APDCL	
88+400	88+500	APDCL	
88+500	88+600	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
88+600	88+700	APDCL	
88+700	88+800	APDCL	
88+800	88+900	APDCL	
88+900	89+000	APDCL	
89+000	89+100	APDCL	
89+100	89+200	APDCL	
89+200	89+300	APDCL	
89+300	89+400	APDCL	
89+400	89+500	APDCL	
89+500	89+600	APDCL	
89+600	89+700	APDCL	
89+700	89+800	APDCL	
89+800	89+900	APDCL	
89+900	90+000	APDCL	
90+000	90+100	APDCL	
90+100	90+200	APDCL	
90+200	90+300	APDCL	
90+300	90+400	APDCL	
90+400	90+500	APDCL	
90+500	90+600	APDCL	
90+600	90+700	APDCL	
90+700	90+800	APDCL	
90+800	90+900	APDCL	
90+900	91+000	APDCL	
91+000	91+100	APDCL	
91+100	91+200	APDCL	
91+200	91+300	APDCL	
91+300	91+400	APDCL	
91+400	91+500	APDCL	
91+500	91+600	APDCL	one 11 kb line
91+600	91+700	APDCL	
91+700	91+800	APDCL	
91+800	91+900	APDCL	
91+900	92+000	APDCL	
92+000	92+100	APDCL	
92+100	92+200	APDCL	
92+200	92+300	APDCL	
92+300	92+400	APDCL	
92+400	92+500	APDCL	
92+500	92+600	APDCL	
92+600	92+700	APDCL	
92+700	92+800	APDCL	
92+800	92+900	APDCL	
92+900	93+000	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
93+000	93+100	APDCL	
93+100	93+200	APDCL	
93+200	93+300	APDCL	
93+300	93+400	APDCL	
93+400	93+500	APDCL	
93+500	93+600	APDCL	
93+600	93+700	APDCL	
93+700	93+800	APDCL	
93+800	93+900	APDCL	
93+900	94+000	APDCL	
94+000	94+100	APDCL	
94+100	94+200	APDCL	
94+200	94+300	APDCL	
94+300	94+400	APDCL	
94+400	94+500	APDCL	
94+500	94+600	APDCL	
94+600	94+700	APDCL	
94+700	94+800	APDCL	
94+800	94+900	APDCL	
94+900	95+000	APDCL	
95+000	95+100	APDCL	
95+100	95+200	APDCL	
95+200	95+300	APDCL	
95+300	95+400	APDCL	
95+400	95+500	APDCL	
95+500	95+600	APDCL	
95+600	95+700	APDCL	
95+700	95+800	APDCL	
95+800	95+900	APDCL	
95+900	96+000	APDCL	
96+000	96+100	APDCL	
96+100	96+200	APDCL	
96+200	96+300	APDCL	
96+300	96+400	APDCL	
96+400	96+500	APDCL	
96+500	96+600	APDCL	
96+600	96+700	APDCL	
96+700	96+800	APDCL	
96+800	96+900	APDCL	
96+900	97+000	APDCL	
97+000	97+100	APDCL	
97+100	97+200	APDCL	
97+200	97+300	APDCL	
97+300	97+400	APDCL	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
97+400	97+500	APDCL	
97+500	97+600	APDCL	
97+600	97+700	APDCL	
97+700	97+800	APDCL	
97+800	97+900	APDCL	
97+900	98+000	APDCL	
98+000	98+100	APDCL	
98+100	98+200	APDCL	
98+200	98+300	APDCL	
98+300	98+400	APDCL	
98+400	98+500	APDCL	
98+500	98+600	APDCL	
98+600	98+700	APDCL	
98+700	98+800	APDCL	
98+800	98+900	APDCL	
98+900	99+000	APDCL	
99+000	99+100	APDCL	
99+100	99+200	APDCL	
99+200	99+300	APDCL	
99+300	99+400	APDCL	
99+400	99+500	APDCL	
99+500	99+600	APDCL	
99+600	99+700	APDCL	
99+700	99+800	APDCL	
99+800	99+900	APDCL	
99+900	100+000	APDCL	
100+000	100+100	APDCL	
100+100	100+200	APDCL	
100+200	100+300	APDCL	
100+300	100+400	APDCL	
100+400	100+500	APDCL	
100+500	100+600	APDCL	
100+600	100+700	APDCL	
100+700	100+800	APDCL	
100+800	100+900	APDCL	
100+900	101+000	APDCL	
101+000	101+100	APDCL	
101+100	101+200	APDCL	
101+200	101+300	APDCL	
101+300	101+400	APDCL	
101+400	101+500	APDCL	
101+500	101+600	APDCL	
101+600	101+700	APDCL	
101+700	101+800	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
101+800	101+900	APDCL	
101+900	102+000	APDCL	
102+000	102+100	APDCL	
102+100	102+200	APDCL	
102+200	102+300	APDCL	
102+300	102+400	APDCL	
102+400	102+500	APDCL	
102+500	102+600	APDCL	
102+600	102+700	APDCL	
102+700	102+800	APDCL	
102+800	102+900	APDCL	
102+900	103+000	APDCL	
103+000	103+100	APDCL	
103+100	103+200	APDCL	
103+200	103+300	APDCL	
103+300	103+400	APDCL	
103+400	103+500	APDCL	
103+500	103+600	APDCL	
103+600	103+700	APDCL	
103+700	103+800	APDCL	
103+800	103+900	APDCL	
103+900	104+000	APDCL	
104+000	104+100	APDCL	
104+100	104+200	APDCL	
104+200	104+300	APDCL	
104+300	104+400	APDCL	
104+400	104+500	APDCL	
104+500	104+600	APDCL	
104+600	104+700	APDCL	
104+700	104+800	APDCL	
104+800	104+900	APDCL	
104+900	105+000	APDCL	
105+000	105+100	APDCL	
105+100	105+200	APDCL	
105+200	105+300	APDCL	
105+300	105+400	APDCL	
105+400	105+500	APDCL	
105+500	105+600	APDCL	
105+600	105+700	APDCL	
105+700	105+800	APDCL	
105+800	105+900	APDCL	
105+900	106+000	APDCL	
106+000	106+100	APDCL	
106+100	106+200	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
106+200	106+300	APDCL	
106+300	106+400	APDCL	
106+400	106+500	APDCL	
106+500	106+600	APDCL	
106+600	106+700	APDCL	
106+700	106+800	APDCL	
106+800	106+900	APDCL	
106+900	107+000	APDCL	
107+000	107+100	APDCL	
107+100	107+200	APDCL	
107+200	107+300	APDCL	
107+300	107+400	APDCL	
107+400	107+500	APDCL	
107+500	107+600	APDCL	
107+600	107+700	APDCL	
107+700	107+800	APDCL	
107+800	107+900	APDCL	one 11 kv line
107+900	108+000	APDCL	
108+000	108+100	APDCL	
108+100	108+200	APDCL	
108+200	108+300	APDCL	
108+300	108+400	APDCL	
108+400	108+500	APDCL	
108+500	108+600	APDCL	
108+600	108+700	APDCL	
108+700	108+800	APDCL	
108+800	108+900	APDCL	
108+900	109+000	APDCL	
109+000	109+100	APDCL	
109+100	109+200	APDCL	
109+200	109+300	APDCL	
109+300	109+400	APDCL	
109+400	109+500	APDCL	
109+500	109+600	APDCL	
109+600	109+700	APDCL	
109+700	109+800	APDCL	
109+800	109+900	APDCL	
109+900	110+000	APDCL	
110+000	110+100	APDCL	
110+100	110+200	APDCL	
110+200	110+300	APDCL	
110+300	110+400	APDCL	
110+400	110+500	APDCL	
110+500	110+600	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
110+600	110+700	APDCL	
110+700	110+800	APDCL	
110+800	110+900	APDCL	
110+900	111+000	APDCL	
111+000	111+100	APDCL	
111+100	111+200	APDCL	
111+200	111+300	APDCL	
111+300	111+400	APDCL	
111+400	111+500	APDCL	
111+500	111+600	APDCL	
111+600	111+700	APDCL	
111+700	111+800	APDCL	
111+800	111+900	APDCL	
111+900	112+000	APDCL	
112+000	112+100	APDCL	
112+100	112+200	APDCL	
112+200	112+300	APDCL	
112+300	112+400	APDCL	
112+400	112+500	APDCL	
112+500	112+600	APDCL	
112+600	112+700	APDCL	
112+700	112+800	APDCL	
112+800	112+900	APDCL	
112+900	113+000	APDCL	
113+000	113+100	APDCL	
113+100	113+200	APDCL	
113+200	113+300	APDCL	
113+300	113+400	APDCL	
113+400	113+500	APDCL	
113+500	113+600	APDCL	
113+600	113+700	APDCL	
113+700	113+800	APDCL	
113+800	113+900	APDCL	
113+900	114+000	APDCL	
114+000	114+100	APDCL	
114+100	114+200	APDCL	
114+200	114+300	APDCL	
114+300	114+400	APDCL	
114+400	114+500	APDCL	
114+500	114+600	APDCL	
114+600	114+700	APDCL	
114+700	114+800	APDCL	
114+800	114+900	APDCL	
114+900	115+000	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
115+000	115+100	APDCL	
115+100	115+200	APDCL	
115+200	115+300	APDCL	
115+300	115+400	APDCL	
115+400	115+500	APDCL	
115+500	115+600	APDCL	
115+600	115+700	APDCL	
115+700	115+800	APDCL	
115+800	115+900	APDCL	
115+900	116+000	APDCL	
116+000	116+100	APDCL	
116+100	116+200	APDCL	
116+200	116+300	APDCL	
116+300	116+400	APDCL	
116+400	116+500	APDCL	
116+500	116+600	APDCL	
116+600	116+700	APDCL	
116+700	116+800	APDCL	
116+800	116+900	APDCL	
116+900	117+000	APDCL	
117+000	117+100	APDCL	
117+100	117+200	APDCL	
117+200	117+300	APDCL	
117+300	117+400	APDCL	
117+400	117+500	APDCL	
117+500	117+600	APDCL	
117+600	117+700	APDCL	
117+700	117+800	APDCL	
117+800	117+900	APDCL	
117+900	118+000	APDCL	
118+000	118+100	APDCL	
118+100	118+200	APDCL	
118+200	118+300	APDCL	
118+300	118+400	APDCL	
118+400	118+500	APDCL	
118+500	118+600	APDCL	
118+600	118+700	APDCL	
118+700	118+800	APDCL	
118+800	118+900	APDCL	
118+900	119+000	APDCL	
119+000	119+100	APDCL	
119+100	119+200	APDCL	
119+200	119+300	APDCL	
119+300	119+400	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
119+400	119+500	APDCL	
119+500	119+600	APDCL	
119+600	119+700	APDCL	
119+700	119+800	APDCL	
119+800	119+900	APDCL	
119+900	120+000	APDCL	
120+000	120+100	APDCL	
120+100	120+200	APDCL	
120+200	120+300	APDCL	
120+300	120+400	APDCL	
120+400	120+500	APDCL	
120+500	120+600	APDCL	
120+600	120+700	APDCL	
120+700	120+800	APDCL	
120+800	120+900	APDCL	
120+900	121+000	APDCL	
121+000	121+100	APDCL	
121+100	121+200	APDCL	
121+200	121+300	APDCL	
121+300	121+400	APDCL	
121+400	121+500	APDCL	
121+500	121+600	APDCL	
121+600	121+700	APDCL	
121+700	121+800	APDCL	
121+800	121+900	APDCL	
121+900	122+000	APDCL	
122+000	122+100	APDCL	
122+100	122+200	APDCL	
122+200	122+300	APDCL	
122+300	122+400	APDCL	
122+400	122+500	APDCL	
122+500	122+600	APDCL	
122+600	122+700	APDCL	
122+700	122+800	APDCL	
122+800	122+900	APDCL	
122+900	123+000	APDCL	
123+000	123+100	APDCL	
123+100	123+200	APDCL	
123+200	123+300	APDCL	
123+300	123+400	APDCL	
123+400	123+500	APDCL	
123+500	123+600	APDCL	
123+600	123+700	APDCL	
123+700	123+800	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
123+800	123+900	APDCL	
123+900	124+000	APDCL	
124+000	124+100	APDCL	
124+100	124+200	APDCL	
124+200	124+300	APDCL	
124+300	124+400	APDCL	
124+400	124+500	APDCL	
124+500	124+600	APDCL	
124+600	124+700	APDCL	
124+700	124+800	APDCL	
124+800	124+900	APDCL	
124+900	125+000	APDCL	
125+000	125+100	APDCL	
125+100	125+200	APDCL	
125+200	125+300	APDCL	
125+300	125+400	APDCL	
125+400	125+500	APDCL	
125+500	125+600	APDCL	
125+600	125+700	APDCL	two 11kv line
125+700	125+800	APDCL	
125+800	125+900	APDCL	
125+900	126+000	APDCL	
126+000	126+100	APDCL	
126+100	126+200	APDCL	
126+200	126+300	APDCL	
126+300	126+400	APDCL	
126+400	126+500	APDCL	
126+500	126+600	APDCL	
126+600	126+700	APDCL	
126+700	126+800	APDCL	
126+800	126+900	APDCL	
126+900	127+000	APDCL	
127+000	127+100	APDCL	
127+100	127+200	APDCL	
127+200	127+300	APDCL	
127+300	127+400	APDCL	
127+400	127+500	APDCL	
127+500	127+600	APDCL	
127+600	127+700	APDCL	
127+700	127+800	APDCL	
127+800	127+900	APDCL	
127+900	128+000	APDCL	
128+000	128+100	APDCL	
128+100	128+200	APDCL	four 11 KV Line

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
128+200	128+300	APDCL	
128+300	128+400	APDCL	
128+400	128+500	APDCL	
128+500	128+600	APDCL	
128+600	128+700	APDCL	
128+700	128+800	APDCL	two 11kv line
128+800	128+900	APDCL	two 11kv line
128+900	129+000	APDCL	
129+000	129+100	APDCL	
129+100	129+200	APDCL	
129+200	129+300	APDCL	
129+300	129+400	APDCL	
129+400	129+500	APDCL	
129+500	129+600	APDCL	
129+600	129+700	APDCL	
129+700	129+800	APDCL	
129+800	129+900	APDCL	
129+900	130+000	APDCL	
130+000	130+100	APDCL	
130+100	130+200	APDCL	
130+200	130+300	APDCL	
130+300	130+400	APDCL	
130+400	130+500	APDCL	
130+500	130+600	APDCL	
130+600	130+700	APDCL	
130+700	130+800	APDCL	
130+800	130+900	APDCL	
130+900	131+000	APDCL	
131+000	131+100	APDCL	
131+100	131+200	APDCL	
131+200	131+300	APDCL	
131+300	131+400	APDCL	
131+400	131+500	APDCL	
131+500	131+600	APDCL	
131+600	131+700	APDCL	
131+700	131+800	APDCL	
131+800	131+900	APDCL	
131+900	132+000	APDCL	
132+000	132+100	APDCL	
132+100	132+200	APDCL	11 KV Line
132+200	132+300	APDCL	
132+300	132+400	APDCL	
132+400	132+500	APDCL	
132+500	132+600	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
132+600	132+700	APDCL	
132+700	132+800	APDCL	one LT line and one 11 KV line
132+800	132+900	APDCL	
132+900	133+000	APDCL	
133+000	133+100	APDCL	
133+100	133+200	APDCL	
133+200	133+300	APDCL	
133+300	133+400	APDCL	
133+400	133+500	APDCL	
133+500	133+600	APDCL	
133+600	133+700	APDCL	
133+700	133+800	APDCL	
133+800	133+900	APDCL	
133+900	134+000	APDCL	
134+000	134+100	APDCL	
134+100	134+200	APDCL	
134+200	134+300	APDCL	
134+300	134+400	APDCL	
134+400	134+500	APDCL	
134+500	134+600	APDCL	
134+600	134+700	APDCL	
134+700	134+800	APDCL	
134+800	134+900	APDCL	
134+900	135+000	APDCL	
135+000	135+100	APDCL	
135+100	135+200	APDCL	
135+200	135+300	APDCL	
135+300	135+400	APDCL	
135+400	135+500	APDCL	
135+500	135+600	APDCL	
135+600	135+700	APDCL	
135+700	135+800	APDCL	
135+800	135+900	APDCL	
135+900	136+000	APDCL	
136+000	136+100	APDCL	bridge mnb
136+100	136+200	APDCL	
136+200	136+300	APDCL	
136+300	136+400	APDCL	
136+400	136+500	APDCL	
136+500	136+600	APDCL	
136+600	136+700	APDCL	
136+700	136+800	APDCL	
136+800	136+900	APDCL	two 11kv line
136+900	137+000	APDCL	four LT two 11kv line

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
137+000	137+100	APDCL	
137+100	137+200	APDCL	
137+200	137+300	APDCL	
137+300	137+400	APDCL	
137+400	137+500	APDCL	
137+500	137+600	APDCL	
137+600	137+700	APDCL	
137+700	137+800	APDCL	
137+800	137+900	APDCL	
137+900	138+000	APDCL	
138+000	138+100	APDCL	
138+100	138+200	APDCL	
138+200	138+300	APDCL	
138+300	138+400	APDCL	
138+400	138+500	APDCL	
138+500	138+600	APDCL	
138+600	138+700	APDCL	
138+700	138+800	APDCL	
138+800	138+900	APDCL	
138+900	139+000	APDCL	
139+000	139+100	APDCL	
139+100	139+200	APDCL	pole without wire
139+200	139+300	APDCL	
139+300	139+400	APDCL	One 11 KV Line
139+400	139+500	APDCL	
139+500	139+600	APDCL	
139+600	139+700	APDCL	
139+700	139+800	APDCL	
139+800	139+900	APDCL	
139+900	140+000	APDCL	
140+000	140+100	APDCL	
140+100	140+200	APDCL	
140+200	140+300	APDCL	
140+300	140+400	APDCL	
140+400	140+500	APDCL	One 11 KV Line
140+500	140+600	APDCL	
140+600	140+700	APDCL	
140+700	140+800	APDCL	
140+800	140+900	APDCL	
140+900	141+000	APDCL	
141+000	141+100	APDCL	
141+100	141+200	APDCL	
141+200	141+300	APDCL	
141+300	141+400	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
141+400	141+500	APDCL	
141+500	141+600	APDCL	
141+600	141+700	APDCL	
141+700	141+800	APDCL	
141+800	141+900	APDCL	
141+900	142+000	APDCL	
142+000	142+100	APDCL	
142+100	142+200	APDCL	One 11 KV Line
142+200	142+300	APDCL	One 11 KV Line
142+300	142+400	APDCL	two 11kv line
142+400	142+500	APDCL	two 11kv line
142+500	142+600	APDCL	two lt and two 11kv line
142+600	142+700	APDCL	two 11kv line
142+700	142+800	APDCL	two 11kv line
142+800	142+900	APDCL	two 11kv line
142+900	143+000	APDCL	two 11kv line
143+000	143+100	APDCL	two 11kv line
143+100	143+200	APDCL	two 11kv line
143+200	143+300	APDCL	two 11kv line
143+300	143+400	APDCL	two 11kv line
143+400	143+500	APDCL	
143+500	143+600	APDCL	
143+600	143+700	APDCL	
143+700	143+800	APDCL	
143+800	143+900	APDCL	
143+900	144+000	APDCL	
144+000	144+100	APDCL	one LT line and two 11 KV line
144+100	144+200	APDCL	
144+200	144+300	APDCL	
144+300	144+400	APDCL	
144+400	144+500	APDCL	
144+500	144+600	APDCL	
144+600	144+700	APDCL	
144+700	144+800	APDCL	
144+800	144+900	APDCL	
144+900	145+000	APDCL	
145+000	145+100	APDCL	
145+100	145+200	APDCL	
145+200	145+300	APDCL	
145+300	145+400	APDCL	
145+400	145+500	APDCL	
145+500	145+600	APDCL	
145+600	145+700	APDCL	
145+700	145+800	APDCL	

Chainage		LT line and LT pole (BHS) exiting in ROW	
From	To	Concerned Authority	
145+800	145+900	APDCL	
145+900	146+000	APDCL	
146+000	146+100	APDCL	
146+100	146+200	APDCL	
146+200	146+300	APDCL	
146+300	146+400	APDCL	
146+400	146+500	APDCL	
146+500	146+600	APDCL	
146+600	146+700	APDCL	
146+700	146+800	APDCL	
146+800	146+900	APDCL	
146+900	147+000	APDCL	
147+000	147+100	APDCL	
147+100	147+200	APDCL	
147+200	147+300	APDCL	
147+300	147+400	APDCL	
147+400	147+500	APDCL	
147+500	147+600	APDCL	
147+600	147+700	APDCL	
147+700	147+800	APDCL	
147+800	147+900	APDCL	
147+900	148+000	APDCL	
148+000	148+100	APDCL	
148+100	148+200	APDCL	
148+200	148+300	APDCL	
148+300	148+400	APDCL	
148+400	148+500	APDCL	
148+500	148+600	APDCL	
148+600	148+700	APDCL	
148+700	148+800	APDCL	
148+800	148+900	APDCL	
148+900	149+000	APDCL	
149+000	149+100	APDCL	
149+100	149+200	APDCL	
149+200	149+300	APDCL	
149+300	149+400	APDCL	
149+400	149+500	APDCL	one LT line and one 11 KV line
149+500	149+600	APDCL	
149+600	149+700	APDCL	
149+700	149+800	APDCL	
149+800	149+900	APDCL	
149+900	150+000	APDCL	
150+000	150+100	APDCL	one LT line and one 11 KV line
150+100	150+200	APDCL	

20 Public Health utilities (Water/Sewage Pipelines/Gas pipe line)

The site includes the following water pipeline utilities:

Gas Pipeline: -

Sl. No.	Chainage		Length (in Km)
	From	To	GAS PIPE LINE
1	3+630		BGPL (GAIL Gas Pipeline)
2	67+265		IGGL GAS PIPE LINE STRUCTURE
3	122+008		IGGL GAS PIPE LINE STRUCTURE

Nallah Location: -

Sl. No.	Chainage		Stream	Length (m)	Side	Remarks
	From	To				
1	15+420	15+563	NALA	143	LHS	
2	45+361	45+535	NALA	174	LHS	
3	72+556	72+735	NALA	179	LHS	
4	73+780	74+580	NALA	800	LHS	
5	79+900	80+100	NALA	200	LHS	
6	80+737	80+940	NALA	203	LHS	
7	82+450	82+800	NALA	350	LHS	
8	91+915	92+147	NALA	232	LHS	
9	93+460	93+640	NALA	180	LHS	
10	96+028	96+400	NALA	372	LHS	

21 Other Structure**Petrol Pump: -**

Sr. No.	Existing Chainage (Km.)	Direction
Section - Baihata Chariali to Start of Mangaldoi Bypass		
1.	2+020	LHS
2.	2+910	RHS
3.	9+410	LHS
4.	10+400	RHS
5.	16+380	LHS
6.	21+105	LHS
7.	26+300	LHS
8.	26+703	RHS
Section - Mangaldoi (excluding Mangaldoi bypass) to Mission Chariali		
9.	45+170	LHS
10.	50+980	LHS
11.	51+100	LHS
12.	54+880	LHS
13.	56+070	RHS
14.	59+330	LHS
15.	67+670	RHS
16.	73+235	RHS

Sr. No.	Existing Chainage (Km.)	Direction
17.	75+210	LHS
18.	76+760	LHS
19.	88+060	RHS
20.	100+750	LHS
21.	104+870	LHS
22.	107+100	LHS
23.	110+090	LHS
24.	116+430	RHS
25.	122+350	LHS
26.	128+950	LHS

Religious Structure: -

Sr. No.	Existing Chainage (Km)	Direction	Remarks
1.	0+120	RHS	Temple
2.	0+140	RHS	Temple
3.	0+380	RHS	Temple
4.	0+445	RHS	Temple
5.	0+465	RHS	Temple
6.	0+945	LHS	Temple
7.	1+480	LHS	Temple
8.	3+050	RHS	Temple
9.	3+075	RHS	Temple
10.	3+380	RHS	Temple
11.	3+420	RHS	Temple
12.	3+440	RHS	Temple
13.	4+230	LHS	Temple
14.	4+445	LHS	Temple
15.	4+520	LHS	Temple
16.	4+585	RHS	Temple
17.	4+780	LHS	Temple
18.	5+205	RHS	Temple
19.	5+565	RHS	Temple
20.	6+300	LHS	Temple
21.	6+315	LHS	Temple
22.	6+400	LHS	Temple
23.	7+030	RHS	Temple
24.	7+400	LHS	Temple
25.	8+585	LHS	Temple
26.	8+810	RHS	Temple
27.	9+610	RHS	Temple
28.	9+810	RHS	Temple
29.	10+820	RHS	Masjid
30.	11+930	RHS	Temple
31.	11+970	RHS	Masjid
32.	11+945	RHS	Temple
33.	12+325	RHS	Temple
34.	12+880	LHS	Temple

Sr. No.	Existing Chainage (Km)	Direction	Remarks
35.	13+105	RHS	Temple
36.	13+250	RHS	Temple
37.	13+270	LHS	Temple
38.	13+870	RHS	Temple
39.	13+970	RHS	Temple
40.	14+190	LHS	Temple
41.	15+630	LHS	Temple
42.	15+810	RHS	Temple
43.	16+310	RHS	Temple
44.	17+590	LHS	Masjid
45.	17+660	RHS	Masjid
46.	17+910	RHS	Masjid
47.	17+930	LHS	Masjid
48.	17+965	LHS	Temple
49.	20+850	RHS	Temple
50.	20+880	RHS	Temple
51.	21+885	RHS	Temple
52.	21+980	RHS	Temple
53.	22+010	LHS	Temple
54.	22+890	LHS	Temple
55.	23+830	RHS	Masjid
56.	26+280	LHS	Temple
57.	41+710	RHS	Temple
58.	42+785	RHS	Masjid
59.	43+265	RHS	Temple
60.	43+575	RHS	Temple
61.	45+830	LHS	Masjid
62.	46+840	LHS	Masjid
63.	49+825	LHS	Masjid
64.	50+405	RHS	Temple
65.	50+870	LHS	Temple
66.	51+130	LHS	Temple
67.	51+340	RHS	Temple
68.	51+855	RHS	Temple
69.	51+890	RHS	Temple
70.	55+090	LHS	Masjid
71.	55+550	RHS	Masjid
72.	58+210	RHS	Temple
73.	58+230	RHS	Temple
74.	60+175	RHS	Temple
75.	61+080	LHS	Masjid
76.	68+730	RHS	Masjid
77.	74+090	LHS	Temple
78.	74+770	RHS	Temple
79.	76+270	RHS	Temple
80.	76+500	LHS	Temple
81.	77+025	RHS	Temple
82.	89+070	LHS	Temple
83.	90+010	RHS	Temple

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Existing Chainage (Km)	Direction	Remarks
84.	90+930	LHS	Temple
85.	90+960	LHS	Temple
86.	92+480	RHS	Temple
87.	93+630	RHS	Temple
88.	97+655	RHS	Temple
89.	99+075	RHS	Masjid
90.	99+090	RHS	Temple
91.	100+070	RHS	Temple
92.	101+690	LHS	Temple
93.	104+510	LHS	Temple
94.	104+540	LHS	Temple
95.	104+570	LHS	Temple
96.	106+050	RHS	Temple
97.	106+495	LHS	Temple
98.	106+520	LHS	Temple
99.	108+750	LHS	Temple
100.	108+835	LHS	Temple
101.	109+045	LHS	Temple
102.	109+360	LHS	Temple
103.	110+960	LHS	Temple
104.	113+310	RHS	Temple
105.	113+320	LHS	Temple
106.	114+090	RHS	Masjid
107.	118+175	RHS	Temple
108.	118+740	RHS	Temple
109.	118+765	RHS	Temple
110.	121+450	RHS	Temple
111.	123+810	RHS	Temple
112.	125+940	RHS	Masjid
113.	126+140	LHS	Temple
114.	128+510	LHS	Temple
115.	129+380	LHS	Temple
116.	132+245	RHS	Temple
117.	132+650	LHS	Temple
118.	133+615	RHS	Temple
119.	133+980	RHS	IPC Ebenezer Christian Church
120.	136+285	LHS	Temple
121.	136+300	RHS	Temple
122.	136+360	RHS	Temple

Annex - II

(Schedule-A)

DATES FOR PROVIDING RIGHT OF WAY OF CONSTRUCTION ZONE

The dates on which the Authority shall provide Right of Way of Construction Zone to the Concessionaire on different stretches of the Site are stated below:

Sl. No.	Chainage (km)		Right of Way (m)	Remark	Date of Providing Right of Way
Section - Baihata Chariali to Start of Mangaldoi Bypass					
					90% Right of Way of Construction Zone to be handed over on appointed date and balance within 150 days from appointed date as per Concession Agreement.
1	-0+530	-0+150	65	Elevated Section - 1	
2	-0+150	0+030	60		
4	-0+920	-0+120	65	Elevated Section - 2	
5	-0+120	0+030	60		
7	0+030	0+091	70		
8	0+091	0+900	60		
9	0+900	8+100	60	Bypass -1 (Baihata-Chariali)	
10	8+100	8+578	60	Existing	
11	8+578	16+870	45	Existing	
12	16+870	26+650	60	Bypass -2 (Sipajhar)	
13	26+650	28+000	45	Existing	
Section - Mangaldoi (excluding Mangaldoi bypass) to Mission Chariali					
15	42+590	50+235	45	Existing	
16	50+235	58+490	60	Bypass -3 (Kharupetia)	
17	58+490	104+773	45	Exisiting+Realignment	
18	104+773	110+160	60	Bypass -4 (Dekiajuli)	
19	110+160	123+270	45	Exisiting+Realignment	
20	123+270	125+900	60	Bypass -5 (Mission Chariali)	
21	125+900	130+800	110	ELF	
22	130+800	150+972	60	Bypass -5 (Mission Chariali)	

ANNEX-III*(Schedule-A)***ALIGNMENT PLAN**

The alignment plan of the Project Highway is available on E - Tendering portal of NHIDCL.

The existing alignment of the Project Highway shall be modified in the following sections as per the alignment plan indicated below:

- (i) The alignment of the Project Highway is enclosed in alignment plan. Finished road level indicated in the alignment plan shall be followed by the contractor as minimum FRL. In any case, the finished road level of the project highway shall not be less than those indicated in the alignment plan. The contractor shall, however, improve/upgrade the Road profile as indicated in Annex-III based on site/design requirement.
- (ii) Traffic Signage plan of the Project Highway showing numbers & location of traffic signs is enclosed.
- (iii) The contractor shall, however, improve/upgrade upon the traffic signage plan as indicated in Annex-III based on site/design requirement as per the relevant specifications/IRC Codes/Manual.

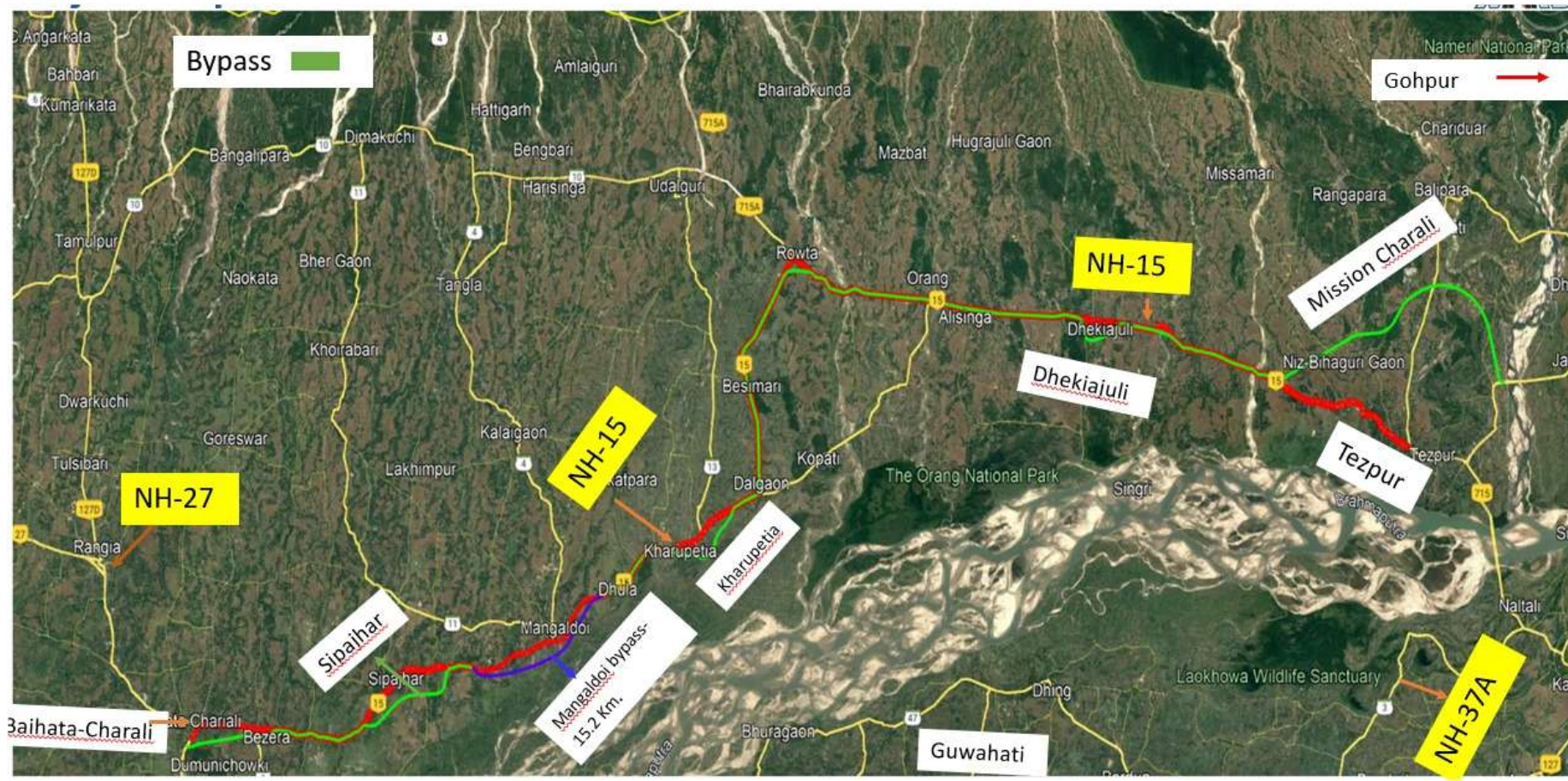
ANNEX-IV*(Schedule-A)***ENVIRONMENTAL CLEARANCES**

Environmental Clearance: The proposed project does not require Environmental clearance as per the notification of MoEF & CC Notification No S.O. 3194(E) dated 14th July, 2022 which states that "All Highway projects are exempted upto 100 km from line of control or border subject to compliance of Standard Operating Procedure notified in this regard from time to time".

Forest Clearance : Nil

Wildlife Clearance : Nil

Appendix A-I (Schedule-A)
INDEX MAP/LOCATION



PLAN OF THE PROJECT HIGHWAY

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Appendix A-II (Schedule-A)**Proposed ROW Co-ordinates****Coordinate System - Universal Transverse Mercator (UTM)-WGS84 (Zone 46N)****1. Interchange at Ch. 0+000 km**

Chainage	Centreline		LHS		RHS		Remarks
	Easting	Northing	Easting	Northing	Easting	Northing	Guwahati Side
0	371780.505	2911774.294	371762.350	2911776.564	371800.427	2911772.592	
50	371786.709	2911823.907	371764.005	2911826.746	371807.665	2911821.287	
100	371792.914	2911873.521	371767.900	2911876.649	371813.545	2911870.941	
150	371799.118	2911923.134	371775.232	2911926.121	371820.084	2911920.513	
200	371805.322	2911972.748	371780.262	2911975.882	371829.789	2911969.688	
250	371811.526	2912022.362	371785.291	2912025.642	371837.157	2912019.156	
300	371817.731	2912071.975	371790.579	2912075.371	371844.193	2912068.666	
350	371823.935	2912121.589	371796.439	2912125.027	371853.848	2912117.848	
400	371830.435	2912171.164	371802.327	2912174.928	371859.846	2912167.226	
450	371837.071	2912220.722	371808.187	2912224.590	371865.880	2912216.864	
500	371843.707	2912270.279	371814.047	2912274.251	371871.914	2912266.502	
550	371850.343	2912319.837	371820.108	2912323.886	371878.428	2912316.076	
600	371858.563	2912369.134	371828.561	2912375.928	371886.831	2912362.733	
650	371872.621	2912417.084	371842.027	2912428.171	371899.016	2912407.517	
700	371891.306	2912463.453	371861.306	2912476.896	371916.668	2912452.089	
750	371914.547	2912507.687	371887.292	2912524.258	371938.525	2912493.109	
800	371943.122	2912548.678	371918.046	2912568.596	371965.034	2912531.272	
850	371974.508	2912587.600	371948.656	2912608.456	371995.368	2912570.770	
900	372005.903	2912626.514	371979.075	2912648.158	372025.787	2912610.472	
950	372037.298	2912665.429	372009.494	2912687.860	372059.657	2912647.391	
1000	372068.693	2912704.344	372039.615	2912727.803	372120.776	2912662.325	
1050	372098.127	2912744.725	372066.790	2912764.730	Project Road (NH-15)		
1100	372122.922	2912788.130	372094.684	2912803.589	372169.337	2912762.719	
1150	372146.932	2912831.987	372122.314	2912845.465	372175.074	2912816.580	
1200	372170.943	2912875.845	372146.698	2912889.118	372199.329	2912860.304	
1250	372194.953	2912919.703	372171.082	2912932.771	372223.713	2912903.957	
1300	372219.596	2912963.201	372195.928	2912977.251	372247.540	2912946.613	
1350	372245.119	2913006.197	372220.320	2913020.918	372271.932	2912990.280	
1400	372270.642	2913049.192	372245.062	2913064.377	372296.413	2913033.894	
1450	372295.898	2913092.341	372274.450	2913104.267	372321.433	2913078.143	
1500	372320.195	2913136.040	372302.628	2913145.808	372346.335	2913121.506	
1550	372344.493	2913179.740	372327.713	2913189.070	372371.412	2913164.772	
1600	372368.791	2913223.439	372352.054	2913232.745	372395.753	2913208.447	
1650	372393.089	2913267.138	372376.407	2913276.413	372420.107	2913252.115	
1700	372417.387	2913310.837	372399.051	2913321.032	372442.804	2913296.704	Rangiya Side

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

2. Section - Baihata Chariali to Start of Mangaldoi Bypass (MCW)

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1	900	372974.559	2912941.544	372959.484	2912967.481	372989.639	2912915.610
2	950	373017.910	2912966.457	373002.828	2912992.393	373032.993	2912940.518
3	1000	373062.072	2912989.892	373046.965	2913015.875	373077.190	2912963.883
4	1050	373107.646	2913010.433	373092.455	2913036.603	373122.860	2912984.208
5	1100	373154.570	2913027.669	373139.253	2913054.176	373169.915	2913001.078
6	1150	373202.548	2913041.723	373187.110	2913068.631	373218.001	2913014.756
7	1200	373251.044	2913053.888	373235.556	2913080.995	373266.534	2913026.775
8	1250	373299.636	2913065.672	373284.146	2913092.785	373315.126	2913038.558
9	1300	373348.228	2913077.455	373332.738	2913104.568	373363.717	2913050.342
10	1350	373396.820	2913089.238	373381.329	2913116.351	373412.309	2913062.125
11	1400	373445.411	2913101.021	373429.921	2913128.135	373460.901	2913073.908
12	1450	373494.003	2913112.804	373478.513	2913139.918	373509.493	2913085.691
13	1500	373542.595	2913124.588	373527.104	2913151.701	373558.084	2913097.474
14	1550	373591.186	2913136.371	373575.696	2913163.484	373606.676	2913109.258
15	1600	373639.778	2913148.154	373624.288	2913175.267	373655.268	2913121.041
16	1650	373688.370	2913159.937	373672.880	2913187.050	373703.860	2913132.824
17	1700	373736.962	2913171.720	373721.471	2913198.834	373752.451	2913144.607
18	1750	373785.554	2913183.503	373770.063	2913210.617	373801.043	2913156.390
19	1800	373834.145	2913195.287	373818.655	2913222.400	373849.635	2913168.174
20	1850	373882.737	2913207.070	373867.247	2913234.183	373898.227	2913179.956
21	1900	373931.329	2913218.853	373915.838	2913245.966	373946.818	2913191.739
22	1950	373979.920	2913230.636	373964.430	2913257.749	373995.410	2913203.523
23	2000	374028.512	2913242.419	374013.022	2913269.532	374044.002	2913215.306
24	2050	374077.104	2913254.202	374061.613	2913281.316	374092.594	2913227.089
25	2100	374125.696	2913265.985	374110.205	2913293.099	374141.185	2913238.872
26	2150	374174.287	2913277.769	374158.797	2913304.882	374189.777	2913250.656
27	2200	374222.879	2913289.552	374207.389	2913316.665	374238.369	2913262.439
28	2250	374271.471	2913301.335	374255.981	2913328.448	374286.960	2913274.222
29	2300	374320.063	2913313.118	374304.572	2913340.231	374335.552	2913286.005
30	2350	374368.654	2913324.901	374353.164	2913352.015	374384.144	2913297.788
31	2400	374417.246	2913336.684	374401.756	2913363.798	374432.736	2913309.571
32	2450	374465.838	2913348.468	374450.347	2913375.581	374481.328	2913321.354
33	2500	374514.429	2913360.251	374498.939	2913387.364	374529.919	2913333.137
34	2550	374563.021	2913372.034	374547.531	2913399.147	374578.511	2913344.921
35	2600	374611.613	2913383.817	374596.123	2913410.930	374627.103	2913356.704
36	2650	374660.205	2913395.600	374644.714	2913422.714	374675.694	2913368.487
37	2700	374708.797	2913407.383	374693.306	2913434.497	374724.286	2913380.270
38	2750	374757.388	2913419.166	374741.898	2913446.280	374772.878	2913392.053
39	2800	374805.980	2913430.950	374790.490	2913458.063	374821.470	2913403.836
40	2850	374854.572	2913442.733	374839.081	2913469.846	374870.062	2913415.619
41	2900	374903.163	2913454.516	374887.673	2913481.629	374918.653	2913427.403
42	2950	374951.755	2913466.299	374936.265	2913493.412	374967.245	2913439.186

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
43	3000	375000.347	2913478.082	374984.857	2913505.196	375015.837	2913450.969
44	3050	375048.939	2913489.865	375033.448	2913516.979	375064.428	2913462.752
45	3100	375097.530	2913501.649	375082.040	2913528.762	375113.020	2913474.536
46	3150	375146.122	2913513.432	375130.632	2913540.545	375161.612	2913486.319
47	3200	375194.714	2913525.215	375179.224	2913552.328	375210.204	2913498.101
48	3250	375243.306	2913536.998	375227.815	2913564.111	375258.795	2913509.885
49	3300	375291.897	2913548.781	375276.407	2913575.895	375307.387	2913521.668
50	3350	375340.489	2913560.564	375324.999	2913587.678	375355.979	2913533.451
51	3400	375389.081	2913572.347	375373.591	2913599.461	375404.571	2913545.234
52	3450	375437.673	2913584.131	375422.182	2913611.244	375453.162	2913557.017
53	3500	375486.264	2913595.914	375470.774	2913623.027	375501.754	2913568.801
54	3550	375534.856	2913607.697	375519.366	2913634.810	375550.346	2913580.584
55	3600	375583.448	2913619.480	375567.958	2913646.593	375598.938	2913592.367
56	3650	375632.040	2913631.263	375616.549	2913658.377	375647.529	2913604.150
57	3700	375680.631	2913643.046	375665.141	2913670.160	375696.121	2913615.933
58	3750	375729.223	2913654.830	375713.733	2913681.943	375744.713	2913627.716
59	3800	375777.815	2913666.613	375762.324	2913693.726	375793.305	2913639.499
60	3850	375826.407	2913678.396	375810.916	2913705.509	375841.896	2913651.283
61	3900	375874.998	2913690.179	375859.508	2913717.292	375890.488	2913663.066
62	3950	375923.590	2913701.962	375908.100	2913729.076	375939.080	2913674.849
63	4000	375972.182	2913713.745	375956.691	2913740.859	375987.671	2913686.632
64	4050	376020.774	2913725.528	376005.283	2913752.642	376036.263	2913698.415
65	4100	376069.365	2913737.312	376053.875	2913764.425	376084.855	2913710.199
66	4150	376117.957	2913749.095	376102.467	2913776.208	376133.447	2913721.981
67	4200	376166.549	2913760.878	376150.204	2913789.201	376182.038	2913733.765
68	4250	376215.134	2913772.666	376198.010	2913803.852	376230.614	2913745.616
69	4300	376263.594	2913785.001	376247.051	2913813.429	376279.043	2913758.047
70	4350	376311.872	2913798.007	376295.726	2913824.676	376327.292	2913771.161
71	4400	376359.960	2913811.702	376343.846	2913838.257	376375.351	2913784.957
72	4450	376407.847	2913826.081	376391.765	2913852.529	376423.209	2913799.433
73	4500	376455.524	2913841.144	376439.474	2913867.491	376470.858	2913814.585
74	4550	376502.981	2913856.886	376486.962	2913883.138	376518.287	2913830.410
75	4600	376550.208	2913873.304	376534.220	2913899.468	376565.487	2913846.906
76	4650	376597.195	2913890.396	376581.237	2913916.477	376612.449	2913864.068
77	4700	376643.934	2913908.156	376628.005	2913934.162	376659.163	2913881.893
78	4750	376690.477	2913926.426	376674.559	2913952.402	376705.700	2913900.177
79	4800	376737.006	2913944.729	376721.089	2913970.704	376752.230	2913918.479
80	4850	376783.536	2913963.031	376767.618	2913989.007	376798.759	2913936.782
81	4900	376830.066	2913981.334	376814.148	2914007.310	376845.289	2913955.085
82	4950	376876.596	2913999.637	376860.678	2914025.612	376891.819	2913973.387
83	5000	376923.126	2914017.937	376907.208	2914043.914	376938.356	2913991.672
84	5050	376969.865	2914035.698	376953.907	2914061.776	376985.129	2914009.340
85	5100	377016.949	2914052.521	377000.950	2914078.716	377032.250	2914026.058
86	5150	377064.359	2914068.399	377048.317	2914094.723	377079.700	2914041.819
87	5200	377112.078	2914083.326	377095.992	2914109.791	377127.459	2914056.617
88	5250	377160.087	2914097.295	377143.955	2914123.914	377175.508	2914070.445

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
89	5300	377208.364	2914110.302	377192.188	2914137.087	377223.827	2914083.298
90	5350	377256.893	2914122.341	377240.671	2914149.303	377272.396	2914095.171
91	5400	377305.652	2914133.406	377289.387	2914160.560	377321.196	2914106.057
92	5450	377354.623	2914143.495	377338.316	2914170.849	377370.205	2914115.954
93	5500	377403.786	2914152.602	377387.439	2914180.170	377419.406	2914124.854
94	5550	377453.121	2914160.724	377436.736	2914188.518	377468.777	2914132.758
95	5600	377502.608	2914167.857	377486.188	2914195.891	377518.297	2914139.660
96	5650	377552.229	2914174.000	377535.777	2914202.285	377567.947	2914145.558
97	5700	377601.962	2914179.149	377585.482	2914207.698	377617.706	2914150.451
98	5750	377651.789	2914183.303	377635.285	2914212.128	377667.554	2914154.336
99	5800	377701.688	2914186.459	377685.165	2914215.573	377717.470	2914157.210
100	5850	377751.636	2914188.724	377735.103	2914218.049	377767.424	2914159.369
101	5900	377801.591	2914190.847	377785.058	2914220.172	377817.379	2914161.491
102	5950	377851.546	2914192.970	377835.013	2914222.294	377867.334	2914163.614
103	6000	377901.501	2914195.093	377884.968	2914224.417	377917.289	2914165.737
104	6050	377951.456	2914197.216	377934.923	2914226.540	377967.243	2914167.860
105	6100	378001.411	2914199.338	377984.878	2914228.663	378017.198	2914169.982
106	6150	378051.366	2914201.461	378034.833	2914230.786	378067.153	2914172.105
107	6200	378101.321	2914203.584	378084.788	2914232.908	378117.108	2914174.228
108	6250	378151.276	2914205.707	378134.742	2914235.031	378167.063	2914176.351
109	6300	378201.231	2914207.829	378184.697	2914237.154	378217.018	2914178.474
110	6350	378251.186	2914209.952	378234.652	2914239.277	378266.973	2914180.596
111	6400	378301.141	2914212.075	378284.607	2914241.399	378316.928	2914182.719
112	6450	378351.095	2914214.198	378334.562	2914243.522	378366.883	2914184.842
113	6500	378401.050	2914216.321	378384.517	2914245.645	378416.838	2914186.965
114	6550	378451.005	2914218.443	378434.472	2914247.768	378466.793	2914189.087
115	6600	378500.960	2914220.566	378484.427	2914249.891	378516.748	2914191.210
116	6650	378550.915	2914222.689	378534.382	2914252.013	378566.702	2914193.333
117	6700	378600.870	2914224.812	378584.337	2914254.136	378616.657	2914195.456
118	6750	378650.825	2914226.935	378634.292	2914256.259	378666.612	2914197.579
119	6800	378700.780	2914229.057	378684.247	2914258.382	378716.567	2914199.701
120	6850	378750.735	2914231.180	378734.201	2914260.505	378766.522	2914201.834
121	6900	378800.674	2914233.634	378784.151	2914262.745	378816.439	2914204.662
122	6950	378850.463	2914238.134	378834.007	2914266.461	378866.144	2914209.990
123	7000	378899.760	2914246.405	378883.460	2914273.728	378915.294	2914219.101
124	7050	378948.198	2914258.749	378932.084	2914285.307	378963.561	2914232.096
125	7100	378995.440	2914275.083	378979.506	2914301.102	379010.650	2914248.867
126	7150	379041.159	2914295.292	379025.365	2914320.981	379056.265	2914269.309
127	7200	379085.037	2914319.237	379069.313	2914344.792	379100.117	2914293.302
128	7250	379126.769	2914346.751	379110.992	2914372.383	379141.916	2914320.716
129	7300	379166.067	2914377.642	379150.097	2914403.514	379181.415	2914351.349
130	7350	379202.720	2914411.633	379186.454	2914437.820	379218.398	2914384.979
131	7400	379237.409	2914447.639	379220.971	2914473.992	379253.319	2914420.758
132	7450	379271.491	2914484.223	379255.044	2914510.584	379287.429	2914457.316
133	7500	379305.561	2914520.819	379289.114	2914547.180	379321.499	2914493.912
134	7550	379339.631	2914557.415	379323.184	2914583.776	379355.569	2914530.507

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
135	7600	379373.700	2914594.011	379357.253	2914620.372	379389.639	2914567.104
136	7650	379407.770	2914630.606	379391.323	2914656.967	379423.708	2914603.699
137	7700	379441.840	2914667.202	379425.393	2914693.563	379457.778	2914640.295
138	7750	379475.910	2914703.798	379459.463	2914730.159	379491.848	2914676.890
139	7800	379510.190	2914740.195	379493.884	2914766.422	379526.029	2914713.382
140	7850	379546.130	2914774.940	379530.159	2914800.813	379561.619	2914748.487
141	7900	379585.331	2914805.930	379569.594	2914831.504	379600.483	2914779.888
142	7950	379628.068	2914831.822	379612.323	2914857.415	379643.171	2914805.845
143	8000	379673.700	2914852.184	379657.772	2914878.185	379688.976	2914825.794
144	8050	379721.515	2914866.697	379705.314	2914893.573	379737.041	2914839.429
145	8100	379770.700	2914875.578	379754.398	2914902.561	379785.778	2914850.497
146	8150	379820.406	2914880.953	379804.378	2914903.667	379834.892	2914859.655
147	8200	379870.212	2914885.354	379854.247	2914906.535	379884.699	2914864.043
148	8250	379920.019	2914889.742	379904.054	2914910.922	379934.506	2914868.431
149	8300	379969.826	2914894.129	379953.861	2914915.310	379984.313	2914872.819
150	8350	380019.633	2914898.517	380003.669	2914919.698	380034.120	2914877.207
151	8400	380069.440	2914902.905	380053.476	2914924.086	380083.927	2914881.594
152	8450	380119.248	2914907.293	380103.283	2914928.474	380133.734	2914885.982
153	8500	380169.055	2914911.680	380153.090	2914932.861	380183.542	2914890.365
154	8550	380218.884	2914915.804	380202.909	2914937.112	380233.441	2914893.142
155	8600	380268.729	2914919.741	380252.379	2914944.150	380283.363	2914895.221
156	8650	380318.574	2914923.678	380302.236	2914947.441	380333.082	2914900.507
157	8700	380368.418	2914927.616	380352.170	2914950.018	380382.796	2914905.843
158	8750	380418.263	2914931.553	380402.083	2914952.845	380432.606	2914910.116
159	8800	380468.106	2914935.509	380451.928	2914956.783	380482.445	2914914.132
160	8850	380517.913	2914939.895	380501.749	2914961.006	380532.243	2914918.620
161	8900	380567.702	2914944.482	380551.538	2914965.588	380582.032	2914923.207
162	8950	380617.492	2914949.069	380601.327	2914970.175	380631.821	2914927.794
163	9000	380667.281	2914953.653	380651.069	2914975.211	380681.721	2914930.874
164	9050	380717.115	2914957.708	380700.703	2914981.249	380731.636	2914933.764
165	9100	380767.072	2914959.597	380750.620	2914983.293	380781.592	2914935.849
166	9150	380817.038	2914958.058	380800.574	2914981.467	380831.516	2914934.338
167	9200	380866.768	2914952.965	380850.419	2914977.667	380881.115	2914928.097
168	9250	380916.119	2914944.960	380899.916	2914970.637	380930.357	2914919.438
169	9300	380965.256	2914935.711	380949.108	2914961.689	380979.477	2914910.099
170	9350	381014.374	2914926.360	380998.226	2914952.338	381028.595	2914900.749
171	9400	381063.492	2914917.013	381047.344	2914942.988	381077.716	2914891.410
172	9450	381112.614	2914907.685	381096.465	2914933.654	381126.835	2914882.066
173	9500	381161.676	2914898.048	381145.573	2914924.254	381175.826	2914872.076
174	9550	381210.562	2914887.552	381194.524	2914914.071	381224.683	2914861.449
175	9600	381259.417	2914876.912	381243.379	2914903.432	381273.538	2914850.809
176	9650	381308.271	2914866.272	381292.234	2914892.792	381322.393	2914840.168
177	9700	381357.126	2914855.631	381341.089	2914882.151	381371.247	2914829.528
178	9750	381405.981	2914844.991	381389.943	2914871.511	381420.102	2914818.888
179	9800	381454.835	2914834.350	381438.798	2914860.871	381468.957	2914808.247
180	9850	381503.690	2914823.710	381487.653	2914850.230	381517.812	2914797.607

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
181	9900	381552.545	2914813.070	381536.508	2914839.590	381566.666	2914786.966
182	9950	381601.400	2914802.429	381585.362	2914828.949	381615.521	2914776.326
183	10000	381650.256	2914791.795	381633.804	2914820.028	381664.348	2914765.750
184	10050	381699.285	2914782.006	381682.924	2914810.688	381713.559	2914756.945
185	10100	381748.849	2914775.559	381732.056	2914801.428	381763.309	2914752.213
186	10150	381798.812	2914774.812	381781.949	2914799.119	381813.267	2914753.212
187	10200	381848.479	2914780.300	381831.837	2914800.493	381862.763	2914760.084
188	10250	381897.092	2914791.873	381880.766	2914810.607	381911.132	2914772.657
189	10300	381944.401	2914808.025	381928.303	2914826.059	381958.295	2914789.234
190	10350	381990.999	2914826.150	381974.964	2914844.021	382004.874	2914807.411
191	10400	382037.856	2914843.585	382021.700	2914861.782	382051.846	2914824.527
192	10450	382085.723	2914857.998	382069.358	2914876.874	382099.875	2914838.387
193	10500	382134.497	2914868.959	382117.948	2914888.624	382148.796	2914848.663
194	10550	382183.928	2914876.412	382167.232	2914896.990	382198.339	2914855.328
195	10600	382233.710	2914881.045	382216.951	2914902.231	382248.151	2914859.642
196	10650	382283.547	2914885.086	382266.785	2914906.301	382297.988	2914863.683
197	10700	382333.383	2914889.127	382316.621	2914910.341	382347.823	2914867.736
198	10750	382383.177	2914893.644	382366.442	2914914.562	382397.575	2914872.676
199	10800	382432.640	2914900.861	382416.044	2914920.777	382446.894	2914880.802
200	10850	382481.070	2914913.175	382464.798	2914931.728	382495.058	2914894.122
201	10900	382527.727	2914931.087	382511.759	2914948.789	382541.867	2914911.672
202	10950	382572.806	2914952.703	382556.420	2914971.246	382587.480	2914932.138
203	11000	382617.254	2914975.603	382600.240	2914995.325	382632.572	2914953.713
204	11050	382661.673	2914998.557	382644.365	2915018.801	382676.275	2914978.004
205	11100	382706.111	2915021.475	382689.468	2915040.381	382720.010	2915002.237
206	11150	382751.057	2915043.372	382734.933	2915061.180	382764.636	2915024.740
207	11200	382797.346	2915062.237	382781.145	2915080.259	382811.086	2915043.186
208	11250	382845.139	2915076.872	382828.668	2915095.749	382859.079	2915057.144
209	11300	382894.063	2915087.108	382877.364	2915107.020	382908.179	2915066.486
210	11350	382943.714	2915092.860	382926.857	2915114.006	382957.944	2915071.128
211	11400	382993.683	2915094.081	382976.769	2915116.658	383007.924	2915071.049
212	11450	383043.556	2915090.760	383026.732	2915115.296	383056.399	2915059.232
213	11500	383092.921	2915082.925	383076.714	2915116.608	383105.338	2915049.134
214	11550	383141.420	2915070.816	383125.414	2915105.996	383154.228	2915038.693
215	11600	383189.186	2915056.044	383172.599	2915089.477	383202.092	2915024.326
216	11650	383236.749	2915040.625	383220.003	2915073.621	383249.742	2915009.210
217	11700	383284.312	2915025.205	383267.566	2915058.200	383298.189	2914996.844
218	11750	383331.874	2915009.783	383314.153	2915040.066	383345.810	2914981.612
219	11800	383379.437	2914994.363	383361.434	2915023.852	383393.372	2914966.191
220	11850	383426.999	2914978.941	383408.997	2915008.431	383440.935	2914950.770
221	11900	383474.562	2914963.520	383456.559	2914993.010	383488.497	2914935.349
222	11950	383522.155	2914948.193	383504.122	2914977.590	383536.212	2914920.412
223	12000	383570.225	2914934.463	383551.861	2914962.734	383584.654	2914908.079
224	12050	383619.287	2914924.957	383600.406	2914950.838	383634.077	2914900.703
225	12100	383669.135	2914921.489	383649.981	2914944.624	383684.023	2914899.184
226	12150	383719.036	2914924.160	383699.943	2914945.034	383733.833	2914903.274

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
227	12200	383768.506	2914931.363	383749.567	2914951.023	383783.258	2914910.810
228	12250	383817.679	2914940.422	383798.595	2914960.717	383832.605	2914918.856
229	12300	383866.874	2914949.349	383847.543	2914970.911	383881.943	2914926.968
230	12350	383916.399	2914956.174	383897.138	2914977.120	383931.343	2914934.605
231	12400	383966.252	2914959.907	383946.941	2914981.373	383981.213	2914937.900
232	12450	384016.240	2914960.784	383996.901	2914983.195	384031.209	2914938.249
233	12500	384066.240	2914960.624	384046.901	2914983.194	384081.209	2914938.070
234	12550	384116.239	2914960.444	384096.900	2914983.014	384131.209	2914937.890
235	12600	384166.239	2914960.264	384146.900	2914982.834	384181.208	2914937.710
236	12650	384216.239	2914960.195	384196.900	2914982.656	384231.207	2914937.847
237	12700	384266.235	2914960.763	384246.898	2914983.036	384281.204	2914938.439
238	12750	384316.232	2914961.356	384296.894	2914983.629	384331.200	2914939.032
239	12800	384366.228	2914961.949	384346.891	2914984.222	384381.197	2914939.625
240	12850	384416.225	2914962.541	384396.887	2914984.814	384431.193	2914940.217
241	12900	384466.221	2914963.134	384446.884	2914985.407	384481.190	2914940.800
242	12950	384516.220	2914963.476	384496.881	2914985.935	384531.189	2914940.853
243	13000	384566.204	2914962.390	384546.878	2914985.574	384581.150	2914939.033
244	13050	384616.075	2914958.864	384596.809	2914983.060	384630.967	2914934.804
245	13100	384665.806	2914953.684	384646.591	2914978.419	384680.672	2914929.379
246	13150	384715.494	2914948.115	384696.286	2914972.909	384730.361	2914923.808
247	13200	384765.183	2914942.544	384746.005	2914967.665	384779.850	2914916.695
248	13250	384814.872	2914936.974	384795.823	2914963.402	384829.543	2914911.294
249	13300	384864.561	2914931.403	384845.432	2914957.277	384879.363	2914907.106
250	13350	384914.256	2914925.892	384894.983	2914950.648	384929.065	2914901.651
251	13400	384963.969	2914920.544	384944.688	2914945.229	384978.784	2914896.361
252	13450	385013.700	2914915.363	384994.412	2914939.975	385028.521	2914891.237
253	13500	385063.448	2914910.347	385044.152	2914934.887	385078.274	2914886.278
254	13550	385113.212	2914905.498	385093.909	2914929.965	385128.044	2914881.484
255	13600	385162.992	2914900.814	385143.682	2914925.209	385177.751	2914876.169
256	13650	385212.779	2914896.208	385193.557	2914921.729	385227.398	2914870.251
257	13700	385262.567	2914891.602	385243.422	2914918.175	385277.262	2914866.655
258	13750	385312.387	2914887.386	385293.063	2914912.219	385327.189	2914863.999
259	13800	385362.348	2914885.753	385342.891	2914908.417	385377.169	2914863.672
260	13850	385412.192	2914889.292	385392.842	2914909.790	385426.881	2914868.737
261	13900	385461.209	2914899.000	385442.199	2914917.541	385475.645	2914879.654
262	13950	385508.649	2914914.702	385490.109	2914931.715	385522.808	2914896.175
263	14000	385554.332	2914935.000	385536.120	2914951.242	385568.344	2914916.803
264	14050	385599.050	2914957.365	385580.936	2914973.408	385613.033	2914939.227
265	14100	385643.649	2914979.967	385625.535	2914996.012	385657.632	2914961.830
266	14150	385688.249	2915002.571	385670.134	2915018.615	385702.232	2914984.433
267	14200	385732.848	2915025.175	385714.734	2915041.219	385746.831	2915007.036
268	14250	385777.447	2915047.778	385759.333	2915063.821	385791.430	2915029.640
269	14300	385822.046	2915070.380	385803.932	2915086.425	385836.029	2915052.243
270	14350	385866.646	2915092.984	385848.531	2915109.028	385880.629	2915074.846
271	14400	385911.241	2915115.595	385893.130	2915131.632	385925.219	2915097.467
272	14450	385955.592	2915138.679	385937.563	2915154.560	385969.524	2915120.638

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
273	14500	385999.222	2915163.096	385981.323	2915178.743	386013.100	2915145.150
274	14550	386042.014	2915188.954	386024.240	2915204.392	386055.849	2915171.080
275	14600	386083.973	2915216.144	386066.297	2915231.429	386097.784	2915198.307
276	14650	386125.576	2915243.879	386107.910	2915259.148	386139.388	2915226.039
277	14700	386167.569	2915271.015	386149.806	2915286.436	386181.420	2915253.115
278	14750	386210.827	2915296.072	386192.828	2915311.897	386224.782	2915277.988
279	14800	386255.723	2915318.058	386237.442	2915334.450	386269.816	2915299.688
280	14850	386301.800	2915337.465	386283.341	2915354.270	386315.976	2915318.894
281	14900	386348.311	2915355.815	386329.811	2915372.722	386362.499	2915337.214
282	14950	386394.849	2915374.096	386376.216	2915391.315	386409.286	2915354.820
283	15000	386441.218	2915392.797	386422.101	2915411.175	386456.106	2915372.358
284	15050	386486.491	2915413.987	386467.057	2915433.035	386501.846	2915392.523
285	15100	386529.264	2915439.821	386510.441	2915457.874	386543.942	2915419.280
286	15150	386568.530	2915470.729	386550.855	2915487.251	386582.383	2915451.213
287	15200	386604.665	2915505.273	386588.001	2915520.695	386617.900	2915486.395
288	15250	386639.296	2915541.337	386622.638	2915556.753	386652.598	2915522.395
289	15300	386674.246	2915577.090	386657.574	2915592.520	386687.459	2915558.234
290	15350	386711.327	2915610.607	386694.681	2915626.016	386724.236	2915592.072
291	15400	386751.875	2915639.809	386734.921	2915655.640	386764.751	2915621.310
292	15450	386795.746	2915663.729	386778.366	2915680.328	386808.779	2915644.926
293	15500	386842.197	2915682.164	386824.401	2915699.773	386855.432	2915662.835
294	15550	386890.059	2915696.606	386872.041	2915714.918	386903.401	2915676.922
295	15600	386938.355	2915709.546	386920.293	2915728.022	386951.709	2915689.818
296	15650	386986.597	2915722.684	386968.583	2915740.986	386999.901	2915703.136
297	15700	387034.165	2915738.053	387016.390	2915755.602	387047.308	2915718.985
298	15750	387079.956	2915758.059	387062.619	2915774.570	387092.895	2915739.448
299	15800	387122.914	2915783.584	387105.997	2915799.359	387135.769	2915765.117
300	15850	387162.354	2915814.265	387145.734	2915829.643	387175.284	2915795.705
301	15900	387197.662	2915849.624	387181.128	2915864.907	387210.919	2915830.734
302	15950	387228.285	2915889.109	387211.528	2915904.557	387242.183	2915869.714
303	16000	387254.247	2915931.825	387237.274	2915947.406	387268.776	2915912.029
304	16050	387279.339	2915975.073	387262.366	2915990.654	387293.866	2915955.278
305	16100	387304.430	2916018.321	387287.457	2916033.903	387318.958	2915998.526
306	16150	387329.524	2916061.569	387310.001	2916078.466	387345.405	2916040.895
307	16200	387355.220	2916104.457	387331.758	2916123.453	387375.020	2916081.178
308	16250	387383.561	2916145.630	387360.250	2916164.521	387403.528	2916122.227
309	16300	387416.300	2916183.379	387392.915	2916202.338	387435.798	2916160.368
310	16350	387453.490	2916216.752	387429.738	2916236.117	387472.895	2916193.832
311	16400	387494.550	2916245.229	387470.214	2916265.423	387514.180	2916221.969
312	16450	387538.841	2916268.364	387513.841	2916289.791	387558.862	2916244.321
313	16500	387585.670	2916285.795	387559.991	2916308.951	387606.160	2916260.412
314	16550	387634.307	2916297.253	387608.045	2916322.660	387655.188	2916270.026
315	16600	387683.956	2916303.003	387657.366	2916330.714	387705.000	2916274.181
316	16650	387733.903	2916305.225	387707.225	2916334.332	387754.975	2916275.747
317	16700	387783.887	2916306.469	387757.202	2916335.820	387804.960	2916276.978
318	16750	387833.872	2916307.699	387807.187	2916337.051	387854.944	2916278.208

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
319	16800	387883.857	2916308.929	387857.172	2916338.281	387904.929	2916279.438
320	16850	387933.842	2916310.160	387907.156	2916339.512	387954.914	2916280.669
321	16900	387983.827	2916311.390	387957.141	2916340.742	388004.899	2916281.899
322	16950	388033.812	2916312.620	388007.126	2916341.972	388054.884	2916283.130
323	17000	388083.796	2916313.857	388057.111	2916343.203	388104.867	2916284.441
324	17050	388133.765	2916315.589	388107.093	2916344.549	388154.813	2916286.718
325	17100	388183.638	2916319.092	388157.029	2916347.010	388204.614	2916291.117
326	17150	388233.276	2916325.055	388206.794	2916351.787	388254.143	2916297.926
327	17200	388282.554	2916333.492	388256.248	2916359.120	388303.283	2916307.127
328	17250	388331.349	2916344.381	388305.259	2916368.990	388351.920	2916318.700
329	17300	388379.538	2916357.695	388353.693	2916381.383	388399.939	2916332.618
330	17350	388427.002	2916373.401	388401.424	2916396.252	388447.226	2916348.847
331	17400	388473.622	2916391.459	388448.327	2916413.560	388493.668	2916367.359
332	17450	388519.281	2916411.825	388494.277	2916433.259	388539.155	2916388.105
333	17500	388563.865	2916434.448	388539.151	2916455.296	388583.583	2916411.032
334	17550	388607.262	2916459.271	388582.832	2916479.616	388626.847	2916436.086
335	17600	388649.364	2916486.231	388625.199	2916506.159	388668.845	2916463.208
336	17650	388690.067	2916515.262	388666.139	2916534.852	388709.480	2916492.334
337	17700	388729.268	2916546.290	388705.548	2916565.615	388748.655	2916523.396
338	17750	388766.869	2916579.240	388743.321	2916598.366	388786.269	2916556.330
339	17800	388802.776	2916614.028	388779.358	2916633.018	388822.241	2916591.051
340	17850	388836.950	2916650.521	388813.608	2916669.438	388856.523	2916627.441
341	17900	388869.960	2916688.075	388846.639	2916706.974	388889.599	2916664.936
342	17950	388902.713	2916725.853	388879.392	2916744.752	388922.355	2916702.713
343	18000	388935.466	2916763.632	388912.145	2916782.530	388955.109	2916740.491
344	18050	388968.219	2916801.411	388944.898	2916820.309	388987.862	2916778.270
345	18100	389000.972	2916839.190	388977.651	2916858.088	389020.614	2916816.049
346	18150	389033.725	2916876.969	389010.404	2916895.867	389053.367	2916853.828
347	18200	389066.478	2916914.747	389043.158	2916933.646	389086.121	2916891.607
348	18250	389099.231	2916952.526	389075.911	2916971.425	389118.874	2916929.385
349	18300	389131.984	2916990.305	389108.664	2917009.204	389151.627	2916967.164
350	18350	389164.737	2917028.084	389141.416	2917046.982	389184.380	2917004.943
351	18400	389197.490	2917065.863	389174.169	2917084.761	389217.132	2917042.722
352	18450	389230.244	2917103.641	389206.923	2917122.539	389249.886	2917080.500
353	18500	389262.997	2917141.420	389239.676	2917160.318	389282.639	2917118.279
354	18550	389295.750	2917179.199	389272.429	2917198.097	389315.392	2917156.058
355	18600	389328.503	2917216.978	389305.182	2917235.876	389348.145	2917193.837
356	18650	389361.255	2917254.757	389337.935	2917273.655	389380.898	2917231.616
357	18700	389394.009	2917292.535	389370.688	2917311.434	389413.651	2917269.395
358	18750	389426.762	2917330.314	389403.441	2917349.212	389446.404	2917307.173
359	18800	389459.515	2917368.093	389436.194	2917386.991	389479.157	2917344.952
360	18850	389492.268	2917405.872	389468.947	2917424.770	389511.910	2917382.731
361	18900	389525.021	2917443.651	389501.700	2917462.549	389544.663	2917420.510
362	18950	389557.774	2917481.430	389534.453	2917500.328	389577.416	2917458.289
363	19000	389590.527	2917519.208	389567.206	2917538.107	389610.169	2917496.068
364	19050	389623.280	2917556.987	389599.959	2917575.885	389642.922	2917533.846

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
365	19100	389656.033	2917594.766	389632.712	2917613.664	389675.675	2917571.625
366	19150	389688.786	2917632.545	389665.465	2917651.443	389708.428	2917609.404
367	19200	389721.539	2917670.324	389698.218	2917689.222	389741.181	2917647.183
368	19250	389754.292	2917708.102	389730.972	2917727.001	389773.934	2917684.961
369	19300	389787.045	2917745.881	389763.725	2917764.780	389806.688	2917722.740
370	19350	389819.798	2917783.660	389796.477	2917802.558	389839.441	2917760.519
371	19400	389852.551	2917821.439	389829.230	2917840.337	389872.193	2917798.298
372	19450	389885.304	2917859.218	389861.983	2917878.116	389904.946	2917836.077
373	19500	389918.057	2917896.996	389894.737	2917915.895	389937.700	2917873.856
374	19550	389950.810	2917934.775	389927.490	2917953.674	389970.453	2917911.634
375	19600	389983.564	2917972.554	389960.243	2917991.452	390003.206	2917949.413
376	19650	390016.316	2918010.333	389992.996	2918029.231	390035.959	2917987.192
377	19700	390049.069	2918048.112	390025.749	2918067.010	390068.712	2918024.971
378	19750	390081.923	2918085.802	390058.596	2918104.707	390101.539	2918062.685
379	19800	390115.341	2918122.994	390091.996	2918141.914	390134.906	2918099.922
380	19850	390149.375	2918159.622	390126.005	2918178.565	390168.895	2918136.591
381	19900	390184.015	2918195.678	390160.615	2918214.650	390203.497	2918172.683
382	19950	390219.250	2918231.152	390195.815	2918250.159	390238.701	2918208.189
383	20000	390255.072	2918266.034	390231.596	2918285.082	390274.498	2918243.096
384	20050	390291.471	2918300.313	390267.950	2918319.410	390310.878	2918277.395
385	20100	390328.434	2918333.983	390304.863	2918353.134	390347.829	2918311.078
386	20150	390365.955	2918367.031	390342.329	2918386.244	390385.343	2918344.134
387	20200	390404.021	2918399.448	390380.336	2918418.731	390423.408	2918376.553
388	20250	390442.622	2918431.227	390418.873	2918450.587	390462.014	2918408.326
389	20300	390481.747	2918462.359	390457.931	2918481.803	390501.149	2918439.445
390	20350	390521.386	2918492.834	390497.498	2918512.370	390540.802	2918469.900
391	20400	390561.527	2918522.644	390537.565	2918542.280	390580.963	2918499.684
392	20450	390602.159	2918551.781	390578.120	2918571.525	390621.619	2918528.788
393	20500	390643.272	2918580.236	390619.151	2918600.097	390662.759	2918557.203
394	20550	390684.852	2918608.003	390660.649	2918627.988	390704.372	2918584.921
395	20600	390726.890	2918635.073	390702.601	2918655.191	390746.445	2918611.936
396	20650	390769.373	2918661.438	390744.996	2918681.697	390788.968	2918638.238
397	20700	390812.289	2918687.092	390787.824	2918707.499	390831.926	2918663.820
398	20750	390855.627	2918712.027	390831.071	2918732.590	390875.310	2918688.676
399	20800	390899.375	2918736.236	390874.726	2918756.966	390919.106	2918712.798
400	20850	390943.520	2918759.713	390918.778	2918780.617	390963.301	2918736.180
401	20900	390988.050	2918782.451	390963.214	2918803.538	391007.884	2918758.814
402	20950	391032.953	2918804.443	391008.022	2918825.724	391052.841	2918780.695
403	21000	391078.217	2918825.684	391053.190	2918847.166	391098.161	2918801.816
404	21050	391123.828	2918846.168	391098.706	2918867.861	391143.829	2918822.171
405	21100	391169.774	2918865.889	391144.557	2918887.801	391189.834	2918841.755
406	21150	391216.042	2918884.842	391190.730	2918906.983	391236.162	2918860.561
407	21200	391262.620	2918903.020	391237.214	2918925.400	391282.800	2918878.583
408	21250	391309.494	2918920.419	391283.996	2918943.048	391329.735	2918895.818
409	21300	391356.651	2918937.036	391331.062	2918959.921	391376.954	2918912.260
410	21350	391404.079	2918952.864	391378.400	2918976.016	391424.442	2918927.905

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
411	21400	391451.765	2918967.899	391425.997	2918991.327	391472.188	2918942.748
412	21450	391499.694	2918982.138	391473.841	2919005.851	391520.176	2918956.786
413	21500	391547.854	2918995.576	391521.917	2919019.584	391568.394	2918970.014
414	21550	391596.231	2919008.209	391570.214	2919032.521	391616.828	2918982.428
415	21600	391644.812	2919020.034	391618.718	2919044.659	391665.463	2918994.026
416	21650	391693.583	2919031.048	391667.415	2919055.996	391714.287	2919004.803
417	21700	391742.531	2919041.248	391716.293	2919066.527	391763.286	2919014.756
418	21750	391791.642	2919050.630	391765.338	2919076.249	391812.444	2919023.888
419	21800	391840.865	2919059.414	391814.530	2919085.201	391861.672	2919032.643
420	21850	391890.092	2919068.168	391863.757	2919093.956	391910.900	2919041.397
421	21900	391939.320	2919076.923	391912.985	2919102.710	391960.127	2919050.151
422	21950	391988.548	2919085.677	391962.213	2919111.464	392009.355	2919058.906
423	22000	392037.775	2919094.431	392011.440	2919120.218	392058.583	2919067.660
424	22050	392087.003	2919103.185	392060.668	2919128.973	392107.810	2919076.414
425	22100	392136.231	2919111.940	392109.896	2919137.727	392157.038	2919085.169
426	22150	392185.458	2919120.694	392159.123	2919146.481	392206.265	2919093.923
427	22200	392234.686	2919129.448	392208.351	2919155.236	392255.493	2919102.677
428	22250	392283.914	2919138.203	392257.579	2919163.990	392304.721	2919111.431
429	22300	392333.141	2919146.957	392306.806	2919172.744	392353.948	2919120.186
430	22350	392382.369	2919155.711	392356.034	2919181.498	392403.176	2919128.940
431	22400	392431.597	2919164.465	392405.261	2919190.253	392452.404	2919137.694
432	22450	392480.824	2919173.220	392454.489	2919199.007	392501.631	2919146.449
433	22500	392530.052	2919181.974	392503.717	2919207.761	392550.859	2919155.203
434	22550	392579.280	2919190.728	392552.944	2919216.516	392600.087	2919163.957
435	22600	392628.507	2919199.483	392602.172	2919225.270	392649.315	2919172.711
436	22650	392677.735	2919208.237	392651.400	2919234.024	392698.542	2919181.466
437	22700	392726.963	2919216.991	392700.628	2919242.778	392747.770	2919190.220
438	22750	392776.190	2919225.745	392749.855	2919251.533	392796.997	2919198.974
439	22800	392825.418	2919234.500	392799.083	2919260.287	392846.225	2919207.729
440	22850	392874.646	2919243.254	392848.311	2919269.041	392895.453	2919216.483
441	22900	392923.873	2919252.008	392897.538	2919277.796	392944.680	2919225.237
442	22950	392973.101	2919260.763	392946.766	2919286.550	392993.908	2919233.991
443	23000	393022.329	2919269.517	392995.993	2919295.304	393043.136	2919242.746
444	23050	393071.556	2919278.271	393045.221	2919304.058	393092.363	2919251.500
445	23100	393120.784	2919287.025	393094.449	2919312.813	393141.591	2919260.254
446	23150	393170.012	2919295.780	393143.676	2919321.567	393190.819	2919269.009
447	23200	393219.239	2919304.534	393192.904	2919330.321	393240.046	2919277.763
448	23250	393268.467	2919313.288	393242.132	2919339.076	393289.274	2919286.517
449	23300	393317.694	2919322.043	393291.359	2919347.830	393338.502	2919295.271
450	23350	393366.922	2919330.797	393340.587	2919356.584	393387.729	2919304.026
451	23400	393416.150	2919339.551	393389.815	2919365.338	393436.957	2919312.780
452	23450	393465.378	2919348.305	393439.042	2919374.093	393486.185	2919321.534
453	23500	393514.605	2919357.060	393488.270	2919382.847	393535.412	2919330.289
454	23550	393563.833	2919365.814	393537.498	2919391.601	393584.640	2919339.046
455	23600	393613.032	2919374.727	393586.722	2919400.376	393633.792	2919348.208
456	23650	393661.972	2919384.947	393635.811	2919409.865	393682.587	2919359.091

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
457	23700	393710.278	2919397.824	393684.406	2919421.604	393730.682	2919372.734
458	23750	393757.684	2919413.693	393732.148	2919436.427	393777.870	2919389.242
459	23800	393804.008	2919432.491	393778.830	2919454.313	393823.972	2919408.578
460	23850	393849.066	2919454.146	393824.254	2919475.186	393868.827	2919430.652
461	23900	393892.684	2919478.573	393868.231	2919498.959	393912.273	2919455.383
462	23950	393934.691	2919505.677	393910.568	2919525.543	393954.154	2919482.680
463	24000	393974.924	2919535.352	393951.087	2919554.822	393994.318	2919512.447
464	24050	394013.224	2919567.481	393989.624	2919586.666	394032.615	2919544.581
465	24100	394049.443	2919601.940	394026.016	2919620.939	394068.900	2919578.970
466	24150	394083.438	2919638.594	394060.111	2919657.499	394103.052	2919615.478
467	24200	394115.078	2919677.300	394091.757	2919696.198	394134.947	2919653.973
468	24250	394144.238	2919717.907	394120.819	2919736.874	394164.470	2919694.317
469	24300	394170.805	2919760.255	394147.183	2919779.347	394191.514	2919736.362
470	24350	394194.676	2919804.180	394170.740	2919823.439	394215.965	2919779.968
471	24400	394215.756	2919849.511	394191.391	2919868.966	394237.747	2919824.965
472	24450	394233.964	2919896.069	394209.040	2919915.738	394256.784	2919871.190
473	24500	394249.228	2919943.674	394223.614	2919963.558	394273.007	2919918.477
474	24550	394261.750	2919992.076	394235.602	2920012.095	394286.424	2919966.636
475	24600	394272.770	2920040.846	394246.473	2920060.899	394297.843	2920015.313
476	24650	394283.544	2920089.671	394257.247	2920109.725	394308.631	2920064.135
477	24700	394294.318	2920138.497	394268.021	2920158.550	394319.405	2920112.961
478	24750	394305.092	2920187.322	394278.795	2920207.375	394330.179	2920161.786
479	24800	394315.866	2920236.148	394289.570	2920256.201	394340.953	2920210.612
480	24850	394326.640	2920284.973	394300.343	2920305.026	394351.727	2920259.437
481	24900	394337.414	2920333.799	394311.117	2920353.852	394362.500	2920308.263
482	24950	394348.188	2920382.624	394321.891	2920402.677	394373.274	2920357.088
483	25000	394358.962	2920431.449	394332.665	2920451.503	394384.048	2920405.913
484	25050	394369.736	2920480.275	394343.439	2920500.328	394394.822	2920454.739
485	25100	394380.510	2920529.100	394354.213	2920549.153	394405.596	2920503.564
486	25150	394391.284	2920577.926	394364.987	2920597.979	394416.370	2920552.390
487	25200	394402.058	2920626.751	394375.760	2920646.804	394427.144	2920601.215
488	25250	394412.832	2920675.576	394386.535	2920695.630	394437.918	2920650.040
489	25300	394423.605	2920724.402	394397.308	2920744.455	394448.692	2920698.866
490	25350	394434.379	2920773.227	394408.082	2920793.281	394459.466	2920747.691
491	25400	394445.153	2920822.053	394418.856	2920842.106	394470.240	2920796.517
492	25450	394455.927	2920870.878	394429.630	2920890.931	394481.014	2920845.342
493	25500	394466.701	2920919.704	394440.405	2920939.757	394491.788	2920894.168
494	25550	394477.475	2920968.529	394451.178	2920988.582	394502.562	2920942.993
495	25600	394488.250	2921017.354	394461.986	2921037.400	394513.335	2920991.819
496	25650	394499.637	2921066.038	394473.888	2921085.958	394524.288	2921040.604
497	25700	394513.884	2921113.950	394489.059	2921133.584	394537.233	2921088.888
498	25750	394532.653	2921160.272	394508.622	2921179.577	394554.568	2921135.760
499	25800	394555.955	2921204.488	394532.416	2921223.530	394576.763	2921180.537
500	25850	394583.553	2921246.157	394560.229	2921265.057	394603.613	2921222.687
501	25900	394615.174	2921284.862	394591.843	2921303.770	394634.779	2921261.754
502	25950	394650.501	2921320.218	394626.970	2921339.324	394669.905	2921297.303

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
503	26000	394689.181	2921351.869	394665.280	2921371.423	394708.621	2921328.905
504	26050	394730.828	2921379.502	394706.434	2921399.786	394750.473	2921356.217
505	26100	394775.025	2921402.838	394750.098	2921424.109	394794.978	2921378.950
506	26150	394821.174	2921422.053	394795.794	2921444.367	394841.371	2921397.572
507	26200	394868.189	2921439.065	394842.642	2921461.828	394887.915	2921415.666
508	26250	394915.268	2921455.904	394890.717	2921475.368	394933.122	2921437.026
509	26300	394962.051	2921473.547	394938.854	2921488.737	394979.290	2921456.122
510	26350	395008.486	2921492.087	394985.402	2921506.990	395025.657	2921474.832
511	26400	395054.556	2921511.516	395031.588	2921526.142	395071.661	2921494.416
512	26450	395100.407	2921531.458	395077.468	2921546.016	395117.510	2921514.362
513	26500	395146.257	2921551.403	395123.318	2921565.961	395163.360	2921534.307
514	26550	395192.106	2921571.349	395169.167	2921585.907	395209.209	2921554.253
515	26600	395237.956	2921591.294	395215.017	2921605.852	395255.059	2921574.198
516	26650	395283.805	2921611.240	395260.866	2921625.798	395300.909	2921594.143
517	26700	395329.655	2921631.185	395306.716	2921645.742	395347.176	2921613.056
518	26750	395375.692	2921650.690	395352.369	2921666.122	395394.024	2921630.519
519	26800	395422.724	2921667.618	395398.290	2921685.879	395441.977	2921644.570
520	26850	395471.270	2921679.461	395445.723	2921701.613	395490.616	2921656.155
521	26900	395520.904	2921685.263	395494.935	2921710.258	395540.201	2921661.605
522	26950	395570.882	2921686.426	395544.813	2921712.347	395590.180	2921662.873
523	27000	395620.874	2921685.604	395594.773	2921710.438	395640.171	2921662.715
524	27050	395670.864	2921684.606	395644.689	2921707.633	395690.161	2921661.717
525	27100	395720.855	2921683.609	395694.679	2921706.636	395740.152	2921660.802
526	27150	395770.850	2921682.939	395744.671	2921705.743	395790.149	2921660.290
527	27200	395820.849	2921682.681	395794.668	2921705.265	395839.649	2921653.612
528	27250	395870.849	2921682.841	395844.126	2921712.522	395889.500	2921652.724
529	27300	395920.845	2921683.415	395894.033	2921713.065	395939.358	2921656.482
530	27350	395970.835	2921684.408	395943.980	2921710.761	395989.292	2921658.675
531	27400	396020.815	2921685.811	395993.957	2921711.213	396039.259	2921660.339
532	27450	396070.791	2921687.360	396043.934	2921712.735	396089.026	2921665.142
533	27500	396120.772	2921688.723	396093.908	2921711.534	396138.990	2921666.497
534	27550	396170.770	2921689.205	396143.882	2921711.551	396188.989	2921666.786
535	27600	396220.769	2921689.428	396193.882	2921711.808	396238.989	2921667.009
536	27650	396270.769	2921689.651	396243.881	2921712.032	396288.988	2921667.232
537	27700	396320.768	2921689.874	396293.881	2921712.255	396338.988	2921667.456
538	27750	396370.768	2921690.097	396343.880	2921712.478	396388.987	2921667.679
539	27800	396420.767	2921690.321	396393.880	2921712.701	396438.987	2921667.902
540	27850	396470.767	2921690.544	396443.879	2921712.924	396488.986	2921668.125
541	27900	396520.766	2921690.732	396493.879	2921713.147	396538.985	2921668.111
542	27950	396570.748	2921689.608	396543.877	2921713.040	396588.916	2921665.737
543	28000	396620.446	2921684.387	396593.799	2921710.476	396616.664	2921662.204
545	43000	407800.521	2928534.791	408617.1695	2929106.251	408644.8442	2929067.9
546	43050	407842.740	2928561.578	408656.1056	2929137.62	408683.9365	2929102.493
547	43100	407884.960	2928588.365	408695.029	2929169.004	408722.9737	2929133.733
548	43150	407927.289	2928614.976	408733.9522	2929200.388	408761.8982	2929165.115

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
549	43200	407970.213	2928640.616	408772.8756	2929231.772	408800.8216	2929196.5
550	43250	408013.636	2928665.403	408811.7993	2929263.156	408839.7453	2929227.883
551	43300	408057.099	2928690.122	408850.7227	2929294.541	408878.7895	2929259.115
552	43350	408100.562	2928714.840	408889.6464	2929325.924	408917.7133	2929290.499
553	43400	408144.024	2928739.559	408928.0815	2929357.831	408957.063	2929321.264
554	43450	408187.339	2928764.534	408962.0596	2929394.512	409000.2698	2929346.426
555	43500	408230.046	2928790.533	409001.8907	2929424.682	409038.759	2929378.295
556	43550	408272.091	2928817.590	409042.9177	2929453.261	409075.9984	2929411.66
557	43600	408313.446	2928845.691	409082.3527	2929483.984	409114.9609	2929442.979
558	43650	408354.086	2928874.816	409121.5578	2929515.015	409153.5941	2929474.688
559	43700	408393.986	2928904.947	409162.6207	2929543.539	409190.978	2929507.859
560	43750	408433.543	2928935.529	409202.1712	2929574.108	409230.1835	2929538.89
561	43800	408473.099	2928966.111	409241.3761	2929605.14	409269.3884	2929569.922
562	43850	408512.656	2928996.693	409280.6995	2929636.021	409308.7144	2929600.799
563	43900	408552.213	2929027.275	409321.0249	2929665.572	409349.0999	2929630.267
564	43950	408591.770	2929057.857	409363.2236	2929692.37	409391.4826	2929656.773
565	44000	408631.171	2929088.638	409406.7916	2929716.897	409435.1619	2929681.103
566	44050	408670.107	2929120.006	409450.653	2929740.899	409478.9459	2929705.243
567	44100	408709.031	2929151.390	409492.7283	2929767.843	409520.7605	2929732.598
568	44150	408747.954	2929182.775	409529.0854	2929802.016	409557.5851	2929766.314
569	44200	408786.877	2929214.159	409557.1825	2929843.253	409587.6996	2929806.134
570	44250	408825.801	2929245.543	409577.9322	2929888.715	409610.6734	2929850.497
571	44300	408864.724	2929276.927	409596.2302	2929935.246	409629.5067	2929896.81
572	44350	408903.648	2929308.311	409614.4619	2929981.804	409647.7376	2929943.367
573	44400	408942.571	2929339.695	409632.6932	2930028.361	409665.9687	2929989.925
574	44450	408981.658	2929370.876	409650.9246	2930074.919	409684.1881	2930036.488
575	44500	409020.863	2929401.907	409669.1559	2930121.477	409702.4218	2930083.044
576	44550	409060.068	2929432.938	409687.3873	2930168.034	409720.6555	2930129.601
577	44600	409099.274	2929463.969	409705.6186	2930214.592	409738.8893	2930176.158
578	44650	409138.479	2929495.001	409723.85	2930261.15	409757.123	2930222.715
579	44700	409177.685	2929526.032	409742.082	2930307.707	409775.3567	2930269.271
580	44750	409216.890	2929557.063	409760.3122	2930354.265	409793.5884	2930315.829
581	44800	409256.095	2929588.095	409778.5441	2930400.823	409811.8197	2930362.387
582	44850	409295.426	2929618.966	409797.0513	2930447.271	409830.0899	2930408.929
583	44900	409335.806	2929648.442	409817.3297	2930492.966	409849.3518	2930455.066
584	44950	409378.130	2929675.044	409840.8571	2930537.069	409871.4849	2930499.884
585	45000	409421.774	2929699.437	409867.6049	2930579.303	409897.3048	2930542.687
586	45050	409465.600	2929723.503	409895.3584	2930620.875	409926.4904	2930583.233
587	45100	409507.477	2929750.759	409922.1645	2930663.065	409957.2034	2930622.663
588	45150	409543.995	2929784.795	409950.887	2930703.992	409985.9722	2930663.557
589	45200	409573.028	2929825.404	409977.9139	2930746.028	410015.5405	2930703.855
590	45250	409594.747	2929870.405	410004.181	2930788.562	410046.5402	2930743.085
591	45300	409613.200	2929916.874	410035.6201	2930827.268	410073.9809	2930784.722
592	45350	409631.431	2929963.432	410067.5976	2930865.539	410097.0167	2930829.029
593	45400	409649.663	2930009.990	410096.1476	2930906.586	410125.5678	2930870.075
594	45450	409667.894	2930056.547	410124.6976	2930947.634	410154.1176	2930911.123

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
595	45500	409686.125	2930103.105	410153.2467	2930988.682	410182.6667	2930952.171
596	45550	409704.357	2930149.663	410181.7967	2931029.729	410211.2169	2930993.219
597	45600	409722.588	2930196.220	410210.2292	2931070.856	410239.7667	2931034.266
598	45650	409740.819	2930242.778	410237.5922	2931112.704	410269.2889	2931074.617
599	45700	409759.051	2930289.336	410264.958	2931154.55	410298.9993	2931114.832
600	45750	409777.282	2930335.894	410293.4214	2931195.64	410328.1367	2931155.449
601	45800	409795.513	2930382.451	410322.9303	2931236.004	410355.3225	2931197.412
602	45850	409813.872	2930428.959	410352.4339	2931276.371	410382.4833	2931239.392
603	45900	409833.648	2930474.876	410380.8984	2931317.476	410410.3543	2931280.897
604	45950	409856.559	2930519.302	410409.2368	2931358.67	410438.6928	2931322.091
605	46000	409882.930	2930561.771	410437.5752	2931399.864	410467.0315	2931363.285
606	46050	409911.374	2930602.890	410465.9136	2931441.057	410495.3696	2931404.479
607	46100	409940.296	2930643.676	410494.2522	2931482.251	410523.7083	2931445.672
608	46150	409969.112	2930684.536	410521.349	2931524.171	410552.0455	2931486.867
609	46200	409997.662	2930725.584	410543.9126	2931568.744	410585.7998	2931523.703
610	46250	410026.212	2930766.632	410573.4446	2931609.062	410614.6584	2931564.39
611	46300	410054.762	2930807.679	410604.2423	2931648.451	410640.4329	2931607.235
612	46350	410083.312	2930848.727	410632.6462	2931689.597	410668.0123	2931648.918
613	46400	410111.862	2930889.774	410661.1759	2931730.65	410696.0308	2931690.316
614	46450	410140.412	2930930.822	410692.0865	2931769.95	410721.5825	2931733.293
615	46500	410168.961	2930971.870	410719.8958	2931811.497	410749.6523	2931774.669
616	46550	410197.511	2931012.918	410745.3458	2931854.522	410776.0049	2931817.152
617	46600	410226.061	2931053.965	410768.0051	2931899.087	410799.5543	2931861.25
618	46650	410254.611	2931095.013	410789.5692	2931944.198	410821.3258	2931906.26
619	46700	410283.160	2931136.060	410812.0529	2931988.852	410843.1665	2931951.236
620	46750	410311.656	2931177.145	410837.4998	2932031.875	410867.4153	2931994.947
621	46800	410340.005	2931218.332	410865.7379	2932073.133	410895.0322	2932036.618
622	46850	410368.343	2931259.527	410894.9046	2932113.744	410924.0611	2932077.328
623	46900	410396.682	2931300.720	410925.5081	2932153.273	410954.173	2932117.236
624	46950	410425.020	2931341.914	410959.3428	2932190.053	410987.4333	2932154.532
625	47000	410453.359	2931383.108	410997.2169	2932222.651	411025.115	2932187.338
626	47050	410481.697	2931424.302	411038.6637	2932250.561	411066.7984	2932214.884
627	47100	410510.035	2931465.495	411083.1076	2932273.401	411111.761	2932236.672
628	47150	410538.374	2931506.689	411129.7747	2932291.302	411158.8514	2932253.434
629	47200	410566.713	2931547.883	411177.5404	2932306.07	411206.7742	2932267.691
630	47250	410595.051	2931589.077	411225.5697	2932319.969	411254.8069	2932281.578
631	47300	410623.390	2931630.270	411273.6025	2932333.856	411302.8396	2932295.466
632	47350	410651.728	2931671.465	411321.6353	2932347.743	411350.8837	2932309.314
633	47400	410680.067	2931712.658	411369.8213	2932361.081	411399.2637	2932321.914
634	47450	410708.404	2931753.853	411418.6699	2932371.68	411448.4924	2932330.51
635	47500	410736.285	2931795.355	411468.3261	2932377.268	411498.4012	2932333.042
636	47550	410762.063	2931838.187	411518.3088	2932377.752	411548.3688	2932331.427
637	47600	410785.014	2931882.602	411568.2493	2932375.361	411598.2818	2932328.48
638	47650	410806.614	2931927.695	411618.1597	2932372.369	411648.1922	2932325.487
639	47700	410828.812	2931972.494	411668.07	2932369.375	411698.092	2932322.33
640	47750	410853.866	2932015.749	411717.9494	2932365.923	411747.8604	2932317.588

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
641	47800	410881.952	2932057.109	411767.6272	2932360.325	411797.1669	2932309.379
642	47850	410911.075	2932097.752	411816.7712	2932351.179	411845.767	2932297.659
643	47900	410941.546	2932137.385	411865.2625	2932339.009	411893.9438	2932284.282
644	47950	410975.325	2932174.214	411913.4158	2932325.546	411942.0672	2932270.712
645	48000	411013.327	2932206.660	411961.5393	2932311.977	411990.1908	2932257.143
646	48050	411055.079	2932234.112	412009.6628	2932298.407	412038.3142	2932243.573
647	48100	411099.925	2932256.152	412057.7861	2932284.837	412086.4377	2932230.004
648	48150	411146.895	2932273.252	412105.9097	2932271.268	412134.5968	2932216.563
649	48200	411194.777	2932287.644	412154.1002	2932257.941	412183.1208	2932204.518
650	48250	411242.809	2932301.531	412202.7126	2932246.261	412232.0959	2932194.465
651	48300	411290.842	2932315.419	412251.777	2932236.654	412281.4409	2932186.422
652	48350	411338.879	2932329.293	412301.2049	2932229.137	412331.0734	2932180.402
653	48400	411387.177	2932342.211	412350.906	2932223.709	412380.8752	2932175.961
654	48450	411436.256	2932351.659	412400.7232	2932219.438	412430.539	2932170.533
655	48500	411486.086	2932355.438	412450.6175	2932216.669	412480.1897	2932164.957
656	48550	411536.069	2932354.581	412500.6065	2932216.231	412530.174	2932164.614
657	48600	411585.989	2932351.758	412550.5636	2932217.731	412579.9572	2932165.78
658	48650	411635.900	2932348.765	412599.87	2932225.788	412629.8651	2932168.793
659	48700	411685.807	2932345.730	412649.1669	2932234.059	412679.2021	2932175.981
660	48750	411735.638	2932341.658	412699.0396	2932235.398	412726.9329	2932190.767
661	48800	411785.135	2932334.664	412748.7777	2932239.043	412776.5022	2932197.316
662	48850	411833.969	2932323.970	412798.3469	2932245.593	412826.0713	2932203.866
663	48900	411882.243	2932310.956	412847.916	2932252.143	412875.6404	2932210.416
664	48950	411930.368	2932297.389	412897.4851	2932258.693	412925.2095	2932216.966
665	49000	411978.491	2932283.820	412947.0543	2932265.242	412974.7788	2932223.515
666	49050	412026.615	2932270.250	412996.6235	2932271.792	413024.3479	2932230.065
667	49100	412074.738	2932256.681	413046.1926	2932278.342	413073.917	2932236.615
668	49150	412122.865	2932243.122	413095.7624	2932284.887	413123.4853	2932243.171
669	49200	412171.218	2932230.408	413145.0943	2932292.939	413173.2238	2932248.239
670	49250	412220.047	2932219.666	413194.2709	2932301.975	413222.9918	2932253.051
671	49300	412269.281	2932210.967	413243.4476	2932311.012	413272.9052	2932255.106
672	49350	412318.835	2932204.325	413292.9986	2932317.413	413322.7266	2932259.187
673	49400	412368.607	2932199.583	413342.9367	2932319.503	413372.6762	2932258
674	49450	412418.428	2932195.355	413392.8015	2932316.214	413422.1639	2932250.996
675	49500	412468.281	2932191.531	413442.1563	2932308.281	413471.143	2932240.956
676	49550	412518.251	2932190.178	413491.0917	2932298.024	413520.0062	2932230.354
677	49600	412568.148	2932193.154	413539.9547	2932287.422	413568.8692	2932219.752
678	49650	412617.798	2932199.043	413588.8177	2932276.82	413617.7322	2932209.15
679	49700	412667.368	2932205.590	413637.6807	2932266.217	413666.5951	2932198.547
680	49750	412716.937	2932212.140	413686.5436	2932255.615	413715.4581	2932187.945
681	49800	412766.506	2932218.690	413735.4067	2932245.013	413764.3238	2932177.355
682	49850	412816.075	2932225.240	413784.2786	2932234.452	413813.3721	2932167.666
683	49900	412865.644	2932231.790	413833.404	2932225.176	413862.9335	2932161.196
684	49950	412915.213	2932238.340	413883.1111	2932220.037	413912.8903	2932159.982
685	50000	412964.782	2932244.889	413933.0625	2932221.288	413962.7113	2932164.022
686	50050	413014.352	2932251.439	413982.6923	2932227.283	414012.2006	2932171.127

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
687	50100	413063.921	2932257.989	414032.083	2932235.063	414061.574	2932179.018
688	50150	413113.490	2932264.539	414081.4552	2932242.961	414110.9463	2932186.916
689	50200	413163.059	2932271.089	414130.8275	2932250.859	414160.3185	2932194.814
690	50250	413212.628	2932277.639	414180.1998	2932258.757	414209.6908	2932202.712
691	50300	413262.213	2932284.064	414229.5721	2932266.655	414259.063	2932210.61
692	50350	413311.989	2932288.707	414278.9443	2932274.553	414308.4353	2932218.508
693	50400	413361.962	2932288.887	414328.3166	2932282.451	414357.8076	2932226.406
694	50450	413411.625	2932283.276	414377.6888	2932290.35	414407.1799	2932234.304
695	50500	413460.730	2932273.883	414427.0618	2932298.243	414456.5649	2932242.121
696	50550	413509.599	2932263.310	414476.5217	2932305.56	414506.1338	2932248.634
697	50600	413558.462	2932252.708	414526.2645	2932310.526	414556.0226	2932251.725
698	50650	413607.325	2932242.106	414576.2364	2932311.754	414606.0036	2932250.749
699	50700	413656.188	2932231.503	414626.19	2932309.716	414655.8994	2932247.54
700	50750	413705.051	2932220.901	414676.0689	2932306.241	414705.7696	2932243.941
701	50800	413753.914	2932210.299	414725.9391	2932302.641	414755.6399	2932240.341
702	50850	413802.854	2932200.065	414775.8094	2932299.042	414805.5102	2932236.742
703	50900	413852.242	2932192.346	414825.6797	2932295.442	414855.3804	2932233.142
704	50950	413902.144	2932189.750	414875.5499	2932291.842	414905.2507	2932229.543
705	51000	413952.020	2932192.973	414925.4202	2932288.243	414955.1209	2932225.943
706	51050	414001.546	2932199.814	414975.2905	2932284.643	415004.9912	2932222.343
707	51100	414050.921	2932207.695	415025.1607	2932281.043	415054.8615	2932218.744
708	51150	414100.293	2932215.593	415075.031	2932277.444	415104.7317	2932215.144
709	51200	414149.665	2932223.491	415124.9012	2932273.844	415154.6019	2932211.544
710	51250	414199.038	2932231.389	415174.7715	2932270.245	415204.4722	2932207.945
711	51300	414248.410	2932239.288	415224.6418	2932266.645	415254.3425	2932204.345
712	51350	414297.782	2932247.186	415274.512	2932263.045	415304.2128	2932200.746
713	51400	414347.154	2932255.084	415324.3823	2932259.446	415354.083	2932197.146
714	51450	414396.526	2932262.982	415374.2525	2932255.846	415403.9532	2932193.546
715	51500	414445.905	2932270.842	415424.1228	2932252.246	415453.8235	2932189.947
716	51550	414495.434	2932277.661	415473.9931	2932248.647	415503.6938	2932186.347
717	51600	414545.278	2932281.451	415523.8633	2932245.047	415553.564	2932182.747
718	51650	414595.266	2932281.253	415573.7336	2932241.448	415603.4343	2932179.148
719	51700	414645.182	2932278.384	415623.6038	2932237.848	415653.3045	2932175.548
720	51750	414695.053	2932274.793	415673.4741	2932234.248	415703.1748	2932171.948
721	51800	414744.923	2932271.193	415723.3444	2932230.649	415753.0451	2932168.349
722	51850	414794.793	2932267.594	415773.2146	2932227.049	415802.9153	2932164.749
723	51900	414844.663	2932263.994	415823.0848	2932223.449	415852.7856	2932161.15
724	51950	414894.534	2932260.394	415872.9551	2932219.85	415902.6558	2932157.55
725	52000	414944.404	2932256.795	415922.8254	2932216.25	415952.5293	2932153.996
726	52050	414994.274	2932253.195	415972.7097	2932212.86	416002.4706	2932151.685
727	52100	415044.145	2932249.596	416022.6839	2932211.668	416052.4326	2932153.033
728	52150	415094.015	2932245.996	416072.487	2932215.663	416101.9324	2932159.872
729	52200	415143.885	2932242.396	416121.3151	2932226.242	416150.3127	2932172.376
730	52250	415193.755	2932238.797	416168.2578	2932243.345	416196.9087	2932190.43
731	52300	415243.626	2932235.197	416212.4795	2932266.592	416241.0913	2932213.772
732	52350	415293.496	2932231.597	416253.1667	2932295.586	416282.2865	2932242.057

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
733	52400	415343.366	2932227.998	416289.6573	2932329.719	416319.9086	2932274.947
734	52450	415393.236	2932224.398	416322.7756	2932367.166	416354.085	2932311.424
735	52500	415443.107	2932220.799	416354.5513	2932405.77	416386.2078	2932349.737
736	52550	415492.977	2932217.199	416386.24	2932444.446	416417.897	2932388.412
737	52600	415542.847	2932213.599	416417.9289	2932483.121	416449.5855	2932427.088
738	52650	415592.717	2932210.000	416449.6171	2932521.798	416481.2743	2932465.764
739	52700	415642.588	2932206.400	416481.306	2932560.474	416512.9629	2932504.44
740	52750	415692.458	2932202.800	416512.9943	2932599.15	416544.6514	2932543.116
741	52800	415742.328	2932199.201	416544.6827	2932637.826	416576.3402	2932581.792
742	52850	415792.198	2932195.601	416576.1114	2932676.712	416607.9794	2932620.508
743	52900	415842.069	2932192.002	416606.1683	2932716.663	416638.8772	2932659.816
744	52950	415891.939	2932188.402	416633.7281	2932758.371	416667.892	2932700.527
745	53000	415941.809	2932184.805	416658.524	2932801.779	416694.4194	2932742.901
746	53050	415991.726	2932181.963	416680.4541	2932846.703	416718.3356	2932786.801
747	53100	416041.707	2932182.351	416699.4275	2932892.953	416739.5691	2932832.06
748	53150	416091.314	2932188.353	416715.3642	2932940.335	416758.0432	2932878.513
749	53200	416139.786	2932200.492	416728.1817	2932988.656	416773.6914	2932925.993
750	53250	416186.366	2932218.579	416737.8343	2933037.706	416786.4567	2932974.328
751	53300	416230.328	2932242.333	416744.3167	2933087.275	416796.2771	2933023.346
752	53350	416270.985	2932271.382	416748.3892	2933137.106	416803.1339	2933072.866
753	53400	416307.753	2932305.224	416751.6069	2933187.003	416807.526	2933122.67
754	53450	416341.163	2932342.410	416754.7855	2933236.902	416810.8089	2933172.562
755	53500	416373.007	2932380.958	416758.037	2933286.796	416813.9869	2933222.46
756	53550	416404.695	2932419.635	416762.2374	2933336.618	416817.1805	2933272.358
757	53600	416436.384	2932458.310	416767.6631	2933386.321	416821.1416	2933322.2
758	53650	416468.072	2932496.987	416774.3112	2933435.876	416826.3664	2933371.925
759	53700	416499.761	2932535.663	416782.1774	2933485.252	416832.8512	2933421.501
760	53750	416531.450	2932574.338	416791.2569	2933534.419	416840.5917	2933470.897
761	53800	416563.138	2932613.015	416801.5444	2933583.348	416849.5829	2933520.08
762	53850	416594.666	2932651.821	416813.0336	2933632.009	416859.8206	2933569.02
763	53900	416625.054	2932691.522	416825.7177	2933680.372	416871.2992	2933617.683
764	53950	416653.168	2932732.860	416839.5917	2933728.407	416884.0089	2933666.039
765	54000	416678.645	2932775.873	416854.6441	2933776.086	416897.9412	2933714.057
766	54050	416701.386	2932820.394	416870.8665	2933823.38	416913.0868	2933761.707
767	54100	416721.301	2932866.248	416888.2484	2933870.26	416929.4369	2933808.956
768	54150	416738.314	2932913.256	416906.7791	2933916.698	416946.9806	2933855.776
769	54200	416752.357	2932961.235	416926.4477	2933962.665	416965.7066	2933902.135
770	54250	416763.377	2933009.998	416947.2423	2934008.135	416985.603	2933948.005
771	54300	416771.328	2933059.354	416969.15	2934053.078	417006.6569	2933993.354
772	54350	416776.413	2933109.090	416992.1576	2934097.468	417028.8544	2934038.155
773	54400	416779.882	2933158.969	417016.2519	2934141.279	417052.1813	2934082.379
774	54450	416783.061	2933208.867	417041.4168	2934184.483	417076.6228	2934125.996
775	54500	416786.239	2933258.766	417067.6381	2934227.054	417102.1636	2934168.979
776	54550	416789.825	2933308.637	417094.9002	2934268.966	417128.7898	2934211.298
777	54600	416794.633	2933358.404	417123.1868	2934310.194	417156.4809	2934252.929
778	54650	416800.684	2933408.035	417152.482	2934350.712	417185.2196	2934293.842

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
779	54700	416807.974	2933457.499	417182.7429	2934390.514	417214.9866	2934334.014
780	54750	416816.498	2933506.766	417213.3173	2934430.076	417245.5125	2934373.614
781	54800	416826.251	2933555.804	417243.892	2934469.639	417276.0865	2934413.177
782	54850	416837.226	2933604.584	417274.466	2934509.202	417306.6614	2934452.74
783	54900	416849.418	2933653.073	417305.0411	2934548.764	417337.2356	2934492.302
784	54950	416862.819	2933701.243	417335.6153	2934588.327	417367.8105	2934531.865
785	55000	416877.419	2933749.062	417366.1902	2934627.889	417398.3847	2934571.428
786	55050	416893.209	2933796.502	417396.7643	2934667.452	417428.9593	2934610.99
787	55100	416910.181	2933843.532	417427.3389	2934707.015	417459.5336	2934650.553
788	55150	416928.323	2933890.123	417457.9134	2934746.577	417490.1084	2934690.115
789	55200	416947.623	2933936.247	417488.488	2934786.14	417520.6828	2934729.678
790	55250	416968.071	2933981.873	417519.0625	2934825.702	417551.2575	2934769.24
791	55300	416989.653	2934026.974	417549.443	2934865.413	417581.8069	2934808.822
792	55350	417012.356	2934071.521	417579.1728	2934905.614	417611.8836	2934848.764
793	55400	417036.165	2934115.487	417608.2207	2934946.31	417641.2965	2934889.197
794	55450	417061.066	2934158.844	417636.5797	2934987.489	417670.0384	2934930.11
795	55500	417087.043	2934201.565	417664.2404	2935029.14	417698.1016	2934971.491
796	55550	417114.079	2934243.623	417691.196	2935071.251	417725.4785	2935013.329
797	55600	417142.159	2934284.993	417717.439	2935113.81	417752.1612	2935055.613
798	55650	417171.263	2934325.647	417742.962	2935156.804	417778.1417	2935098.333
799	55700	417201.375	2934365.562	417767.7574	2935200.222	417803.4133	2935141.476
800	55750	417231.949	2934405.125	417791.8189	2935244.051	417827.97	2935185.029
801	55800	417262.523	2934444.687	417815.1623	2935288.267	417851.8042	2935228.982
802	55850	417293.098	2934484.250	417838.2796	2935332.602	417875.0098	2935273.271
803	55900	417323.672	2934523.812	417861.3975	2935376.937	417898.1276	2935317.606
804	55950	417354.247	2934563.375	417884.515	2935421.272	417921.2448	2935361.941
805	56000	417384.821	2934602.938	417907.6333	2935465.606	417944.3625	2935406.276
806	56050	417415.396	2934642.500	417930.6809	2935509.977	417967.4808	2935450.61
807	56100	417445.971	2934682.063	417952.8573	2935554.787	417990.409	2935495.043
808	56150	417476.545	2934721.625	417973.2197	2935600.449	418012.183	2935540.049
809	56200	417507.120	2934761.188	417991.6143	2935646.938	418032.1461	2935585.887
810	56250	417537.694	2934800.750	418008.0065	2935694.17	418050.231	2935632.498
811	56300	417568.153	2934840.402	418022.3678	2935742.06	418066.4074	2935679.805
812	56350	417598.001	2934880.514	418034.6608	2935790.521	418080.6502	2935727.729
813	56400	417627.178	2934921.118	418044.8762	2935839.462	418092.934	2935776.193
814	56450	417655.674	2934962.202	418053.3734	2935888.734	418103.2344	2935825.118
815	56500	417683.481	2935003.757	418061.4422	2935938.078	418111.8232	2935874.373
816	56550	417710.592	2935045.768	418071.032	2935987.143	418119.861	2935923.723
817	56600	417736.998	2935088.225	418084.4951	2936035.273	418129.2995	2935972.817
818	56650	417762.694	2935131.117	418103.2802	2936081.578	418143.0178	2936020.866
819	56700	417787.671	2935174.430	418127.2829	2936125.406	418162.8539	2936066.72
820	56750	417811.923	2935218.155	418156.2285	2936166.14	418188.6946	2936109.479
821	56800	417835.442	2935262.277	418190.2791	2936202.533	418220.0673	2936148.361
822	56850	417858.561	2935306.611	418231.8479	2936230.314	418253.5253	2936185.505
823	56900	417881.679	2935350.946	418272.5681	2936259.305	418291.3237	2936217.738
824	56950	417904.796	2935395.281	418314.9025	2936285.905	418333.5279	2936244.542

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
825	57000	417927.914	2935439.615	418357.5598	2936311.988	418376.1822	2936270.63
826	57050	417951.018	2935483.957	418400.2088	2936338.086	418418.8375	2936296.717
827	57100	417973.573	2935528.579	418442.4343	2936364.86	418461.1475	2936323.358
828	57150	417994.524	2935573.975	418483.2226	2936393.697	418503.0218	2936350.67
829	57200	418013.565	2935620.203	418522.0825	2936425.16	418545.7382	2936376.656
830	57250	418030.664	2935667.185	418561.12	2936456.275	418586.6987	2936405.247
831	57300	418045.792	2935714.838	418599.34	2936488.294	418628.142	2936432.946
832	57350	418058.921	2935763.080	418639.4726	2936518.101	418664.9812	2936466.75
833	57400	418070.029	2935811.827	418677.2141	2936550.896	418702.4313	2936499.833
834	57450	418079.179	2935860.980	418714.9651	2936583.68	418740.0625	2936532.756
835	57500	418087.254	2935910.323	418756.4754	2936611.544	418775.8889	2936567.611
836	57550	418095.845	2935959.577	418796.7992	2936641.103	418814.9017	2936598.751
837	57600	418107.415	2936008.204	418838.354	2936668.901	418856.2163	2936626.903
838	57650	418124.259	2936055.248	418880.9408	2936695.096	418898.6992	2936653.266
839	57700	418146.834	2936099.827	418923.8735	2936720.724	418941.62	2936678.914
840	57750	418174.791	2936141.243	418966.8193	2936746.33	418984.5657	2936704.52
841	57800	418207.694	2936178.849	419009.7644	2936771.937	419027.5108	2936730.127
842	57850	418245.025	2936212.065	419052.7101	2936797.543	419070.4566	2936755.732
843	57900	418285.750	2936241.049	419095.6553	2936823.15	419113.402	2936781.339
844	57950	418328.109	2936267.609	419138.6007	2936848.756	419156.3472	2936806.946
845	58000	418370.767	2936293.691	419181.5461	2936874.363	419199.2929	2936832.552
846	58050	418413.414	2936319.792	419224.4916	2936899.969	419242.238	2936858.159
847	58100	418455.621	2936346.596	419267.4373	2936925.575	419285.1838	2936883.765
848	58150	418497.145	2936374.447	419310.3824	2936951.182	419328.1289	2936909.372
849	58200	418537.959	2936403.327	419353.3282	2936976.788	419371.0746	2936934.978
850	58250	418578.039	2936433.218	419396.2734	2937002.395	419414.0201	2936960.584
851	58300	418617.358	2936464.102	419439.219	2937028.001	419456.9642	2936986.193
852	58350	418655.894	2936495.959	419481.2103	2937055.095	419501.0611	2937009.72
853	58400	418693.654	2936528.733	419523.3032	2937082.026	419544.6091	2937034.246
854	58450	418731.381	2936561.545	419566.5893	2937107.052	419587.8657	2937059.322
855	58500	418770.052	2936593.233	419608.8018	2937133.828	419632.4604	2937081.887
856	58550	418810.202	2936623.024	419651.5804	2937159.665	419677.3108	2937103.957
857	58600	418851.784	2936650.782	419697.7439	2937178.597	419718.7245	2937131.758
858	58650	418894.398	2936676.934	419742.8526	2937199.872	419760.8478	2937158.447
859	58700	418937.335	2936702.554	419786.8203	2937223.68	419804.8156	2937182.255
860	58750	418980.280	2936728.160	419830.6709	2937247.703	419848.6853	2937206.243
861	58800	419023.225	2936753.767	419874.2968	2937272.132	419892.3271	2937230.643
862	58850	419066.171	2936779.373	419917.8755	2937296.645	419935.9056	2937255.157
863	58900	419109.116	2936804.980	419961.4539	2937321.159	419979.4842	2937279.67
864	58950	419152.062	2936830.587	420002.837	2937349.157	420024.6784	2937300.944
865	59000	419195.007	2936856.193	420044.4242	2937376.841	420069.8816	2937322.191
866	59050	419237.953	2936881.799	420086.4764	2937403.863	420112.2525	2937348.719
867	59100	419280.898	2936907.405	420125.249	2937435.373	420152.0578	2937378.933
868	59150	419323.844	2936933.012	420159.4443	2937471.797	420188.1585	2937413.483
869	59200	419366.789	2936958.618	420188.4328	2937512.488	420219.9995	2937451.996
870	59250	419409.734	2936984.225	420211.6462	2937556.728	420247.1414	2937493.953

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
871	59300	419452.680	2937009.831	420228.7232	2937603.68	420269.2617	2937538.76
872	59350	419495.625	2937035.438	420239.2843	2937652.512	420286.0132	2937585.84
873	59400	419538.661	2937060.893	420243.1875	2937702.319	420297.1834	2937634.545
874	59450	419581.961	2937085.893	420240.588	2937752.221	420302.6596	2937684.214
875	59500	419625.528	2937110.427	420233.6509	2937801.731	420302.3206	2937734.185
876	59550	419669.357	2937134.490	420225.3225	2937851.033	420297.0811	2937783.896
877	59600	419713.325	2937158.298	420216.3461	2937900.205	420289.2035	2937833.27
878	59650	419757.293	2937182.106	420211.6728	2937949.962	420281.0863	2937882.599
879	59700	419801.260	2937205.915	420205.9972	2937999.579	420271.8095	2937931.672
880	59750	419845.092	2937229.973	420196.9299	2938048.75	420259.1418	2937980.041
881	59800	419888.706	2937254.422	420189.2568	2938098.132	420250.3553	2938029.216
882	59850	419932.285	2937278.935	420182.5008	2938147.66	420242.1711	2938078.526
883	59900	419975.863	2937303.449	420174.12	2938196.952	420231.5886	2938127.389
884	59950	420019.441	2937327.963	420165.739	2938246.245	420223.2077	2938176.682
885	60000	420062.802	2937352.857	420157.3587	2938295.538	420214.8272	2938225.974
886	60050	420104.754	2937380.037	420148.978	2938344.83	420206.4466	2938275.267
887	60100	420143.609	2937411.457	420140.595	2938394.122	420198.0657	2938324.56
888	60150	420178.251	2937447.467	420132.1049	2938443.396	420189.6856	2938373.852
889	60200	420208.135	2937487.515	420122.5918	2938492.481	420181.3046	2938423.145
890	60250	420232.792	2937530.977	420111.8406	2938541.31	420172.4844	2938472.36
891	60300	420251.838	2937577.173	420099.8585	2938589.852	420162.4689	2938521.345
892	60350	420264.976	2937625.384	420086.8832	2938638.139	420151.2458	2938570.068
893	60400	420272.000	2937674.856	420073.8082	2938686.399	420138.8231	2938618.499
894	60450	420272.804	2937724.819	420060.7322	2938734.659	420125.7513	2938666.76
895	60500	420268.096	2937774.581	420047.6572	2938782.919	420112.6753	2938715.02
896	60550	420260.353	2937823.975	420034.5812	2938831.179	420099.6003	2938763.28
897	60600	420251.973	2937873.268	420021.5061	2938879.439	420086.5243	2938811.54
898	60650	420243.592	2937922.560	420008.4302	2938927.699	420073.4493	2938859.8
899	60700	420235.212	2937971.853	419995.5002	2938975.998	420060.3741	2938908.06
900	60750	420226.831	2938021.146	419983.7019	2939024.583	420047.3011	2938956.321
901	60800	420218.451	2938070.439	419974.094	2939073.646	420034.6259	2939004.686
902	60850	420210.070	2938119.731	419966.7621	2939123.102	420023.6029	2939053.451
903	60900	420201.689	2938169.024	419960.7442	2939172.738	420015.0304	2939102.705
904	60950	420193.309	2938218.316	419954.9411	2939222.4	420008.4738	2939152.271
905	61000	420184.928	2938267.609	419949.1372	2939272.062	420002.6392	2939201.93
906	61050	420176.547	2938316.902	419943.3341	2939321.724	419996.8357	2939251.592
907	61100	420168.167	2938366.194	419937.5302	2939371.386	419991.0322	2939301.254
908	61150	420159.786	2938415.487	419931.7271	2939421.048	419985.2293	2939350.916
909	61200	420151.042	2938464.716	419925.9241	2939470.71	419979.4253	2939400.578
910	61250	420141.105	2938513.717	419920.1202	2939520.372	419973.6223	2939450.24
911	61300	420129.945	2938562.454	419914.3017	2939570.033	419967.8188	2939499.902
912	61350	420117.571	2938610.897	419908.376	2939619.68	419962.0152	2939549.564
913	61400	420104.499	2938659.159	419902.326	2939669.313	419956.1529	2939599.219
914	61450	420091.424	2938707.419	419896.1511	2939718.93	419950.1676	2939648.86
915	61500	420078.348	2938755.679	419889.8528	2939768.532	419944.058	2939698.485
916	61550	420065.272	2938803.939	419883.4305	2939818.118	419937.8246	2939748.095

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
917	61600	420052.197	2938852.199	419876.8832	2939867.687	419931.4672	2939797.689
918	61650	420039.122	2938900.459	419870.2125	2939917.24	419924.9866	2939847.267
919	61700	420026.047	2938948.719	419863.4178	2939966.776	419918.3815	2939896.829
920	61750	420013.330	2938997.074	419856.4988	2940016.295	419911.6531	2939946.374
921	61800	420002.181	2939045.811	419849.4569	2940065.797	419904.8008	2939995.903
922	61850	419993.423	2939095.033	419842.2898	2940115.28	419897.8252	2940045.414
923	61900	419986.737	2939144.582	419834.9994	2940164.746	419890.7256	2940094.907
924	61950	419980.885	2939194.238	419827.5852	2940214.193	419883.5024	2940144.383
925	62000	419975.081	2939243.900	419820.0483	2940263.622	419876.1556	2940193.84
926	62050	419969.278	2939293.562	419812.4623	2940313.043	419868.6856	2940243.279
927	62100	419963.475	2939343.225	419804.8764	2940362.464	419861.1122	2940292.702
928	62150	419957.671	2939392.887	419797.2894	2940411.885	419853.5257	2940342.123
929	62200	419951.868	2939442.549	419789.7034	2940461.306	419845.9391	2940391.544
930	62250	419946.064	2939492.211	419782.1173	2940510.728	419838.3531	2940440.965
931	62300	419940.261	2939541.873	419774.5311	2940560.149	419830.7667	2940490.386
932	62350	419934.411	2939591.529	419766.2765	2940609.449	419823.1802	2940539.807
933	62400	419928.438	2939641.171	419756.4738	2940658.469	419815.5939	2940589.228
934	62450	419922.341	2939690.798	419749.0605	2940707.916	419810.2773	2940638.945
935	62500	419916.119	2939740.409	419738.5844	2940756.726	419801.8845	2940688.222
936	62550	419909.774	2939790.005	419725.8107	2940805.059	419793.0784	2940737.441
937	62600	419903.305	2939839.585	419720.3055	2940854.616	419788.8783	2940787.261
938	62650	419896.712	2939889.148	419716.5211	2940904.348	419782.7303	2940836.833
939	62700	419889.996	2939938.695	419707.729	2940953.569	419767.657	2940884.439
940	62750	419883.155	2939988.225	419698.9361	2941002.789	419757.0794	2940933.2
941	62800	419876.190	2940037.738	419690.1432	2941052.01	419748.2871	2940982.421
942	62850	419869.102	2940087.233	419681.3509	2941101.231	419739.4942	2941031.642
943	62900	419861.890	2940136.710	419672.5581	2941150.452	419730.7015	2941080.863
944	62950	419854.554	2940186.169	419662.9379	2941199.514	419721.9092	2941130.084
945	63000	419847.095	2940235.609	419652.9135	2941248.499	419713.2306	2941179.323
946	63050	419839.526	2940285.033	419642.9797	2941297.483	419705.6731	2941228.749
947	63100	419831.940	2940334.454	419635.4185	2941346.908	419698.1152	2941278.174
948	63150	419824.353	2940383.875	419627.857	2941396.333	419689.4405	2941327.392
949	63200	419816.767	2940433.296	419619.8204	2941445.679	419679.4045	2941376.374
950	63250	419809.181	2940482.717	419611.0276	2941494.9	419669.369	2941425.357
951	63300	419801.594	2940532.138	419602.2354	2941544.121	419660.3773	2941474.539
952	63350	419794.008	2940581.560	419593.4426	2941593.341	419651.5845	2941523.76
953	63400	419786.296	2940630.961	419584.6505	2941642.562	419642.7922	2941572.981
954	63450	419778.338	2940680.324	419575.8575	2941691.783	419633.9995	2941622.202
955	63500	419770.134	2940729.646	419567.0654	2941741.004	419625.2073	2941671.423
956	63550	419761.682	2940778.927	419558.2726	2941790.225	419616.4146	2941720.644
957	63600	419752.986	2940828.164	419549.4804	2941839.446	419607.6223	2941769.864
958	63650	419744.194	2940877.385	419540.6875	2941888.666	419598.8295	2941819.085
959	63700	419735.401	2940926.606	419531.8947	2941937.887	419590.0372	2941868.306
960	63750	419726.609	2940975.827	419522.4688	2941986.985	419581.2442	2941917.527
961	63800	419717.816	2941025.048	419512.4478	2942035.97	419572.4515	2941966.748
962	63850	419709.023	2941074.269	419502.4276	2942084.956	419564.6333	2942016.13

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
963	63900	419700.231	2941123.490	419494.17	2942134.257	419557.0804	2942065.556
964	63950	419691.438	2941172.710	419486.6136	2942183.683	419549.1237	2942114.912
965	64000	419682.646	2941221.931	419479.1576	2942233.121	419539.1119	2942163.899
966	64050	419673.853	2941271.152	419470.3631	2942282.341	419529.094	2942212.886
967	64100	419665.061	2941320.373	419461.5709	2942331.562	419519.7108	2942261.993
968	64150	419656.268	2941369.594	419452.778	2942380.783	419510.9178	2942311.214
969	64200	419647.476	2941418.815	419443.9834	2942430.003	419502.1256	2942360.435
970	64250	419638.683	2941468.035	419434.5784	2942479.108	419493.3329	2942409.656
971	64300	419629.890	2941517.256	419422.3825	2942527.583	419484.4618	2942458.862
972	64350	419621.098	2941566.477	419405.8213	2942574.739	419474.2494	2942507.803
973	64400	419612.305	2941615.698	419385.508	2942620.418	419460.6636	2942555.906
974	64450	419603.513	2941664.919	419363.6152	2942665.37	419442.9615	2942602.651
975	64500	419594.720	2941714.140	419339.1987	2942708.874	419422.1398	2942648.104
976	64550	419585.928	2941763.360	419312.3767	2942750.955	419400.1738	2942693.02
977	64600	419577.135	2941812.581	419292.1307	2942796.649	419381.6601	2942739.316
978	64650	419568.343	2941861.802	419272.5393	2942842.638	419363.8584	2942785.898
979	64700	419559.550	2941911.023	419250.5105	2942887.524	419339.6981	2942829.656
980	64750	419550.757	2941960.244	419229.1298	2942932.702	419315.7367	2942873.519
981	64800	419541.965	2942009.465	419209.7746	2942978.798	419293.7143	2942918.407
982	64850	419533.172	2942058.685	419187.811	2943023.715	419269.7647	2942962.274
983	64900	419524.380	2942107.906	419165.7882	2943068.604	419246.407	2943006.446
984	64950	419515.587	2942157.127	419143.7653	2943113.492	419224.3843	2943051.335
985	65000	419506.795	2942206.348	419121.7429	2943158.381	419202.3617	2943096.224
986	65050	419498.002	2942255.569	419099.7203	2943203.27	419180.3388	2943141.112
987	65100	419489.209	2942304.790	419077.6935	2943248.157	419158.3164	2943186.001
988	65150	419480.417	2942354.010	419055.671	2943293.046	419136.294	2943230.89
989	65200	419471.624	2942403.231	419033.6484	2943337.934	419114.276	2943275.781
990	65250	419462.775	2942452.442	419011.6258	2943382.823	419092.2533	2943320.67
991	65300	419452.652	2942501.401	418989.6034	2943427.712	419070.2307	2943365.559
992	65350	419439.085	2942549.509	418967.5808	2943472.601	419048.2083	2943410.448
993	65400	419421.260	2942596.207	418945.5585	2943517.49	419026.1858	2943455.336
994	65450	419400.300	2942641.597	418923.537	2943562.379	419004.1634	2943500.225
995	65500	419378.310	2942686.502	418901.5173	2943607.27	418982.1409	2943545.114
996	65550	419356.288	2942731.391	418879.495	2943652.158	418960.1178	2943590.003
997	65600	419334.264	2942776.280	418857.4723	2943697.047	418938.0908	2943634.889
998	65650	419312.242	2942821.169	418835.45	2943741.936	418916.0683	2943679.778
999	65700	419290.219	2942866.057	418813.4274	2943786.825	418894.0459	2943724.667
1000	65750	419268.197	2942910.946	418791.4051	2943831.714	418872.0234	2943769.556
1001	65800	419246.175	2942955.835	418769.3822	2943876.603	418850.001	2943814.445
1002	65850	419224.152	2943000.724	418747.3599	2943921.492	418827.9783	2943859.334
1003	65900	419202.129	2943045.613	418725.3372	2943966.38	418805.9557	2943904.223
1004	65950	419180.107	2943090.502	418703.3144	2944011.269	418783.9332	2943949.111
1005	66000	419158.084	2943135.390	418681.2921	2944056.158	418761.9104	2943994
1006	66050	419136.062	2943180.279	418659.2695	2944101.047	418739.888	2944038.889
1007	66100	419114.039	2943225.168	418637.2469	2944145.936	418717.8655	2944083.778
1008	66150	419092.017	2943270.057	418615.5307	2944190.973	418695.8429	2944128.667

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1009	66200	419069.994	2943314.946	418593.1592	2944235.663	418673.8209	2944173.556
1010	66250	419047.971	2943359.835	418569.5696	2944279.728	418652.2123	2944218.645
1011	66300	419025.949	2943404.724	418548.1486	2944324.907	418633.1868	2944264.867
1012	66350	419003.926	2943449.612	418525.0055	2944369.203	418612.585	2944310.403
1013	66400	418981.904	2943494.501	418501.201	2944413.161	418591.1641	2944355.582
1014	66450	418959.882	2943539.390	418483.426	2944459.745	418572.0467	2944401.766
1015	66500	418937.858	2943584.279	418466.1321	2944506.514	418552.7207	2944447.866
1016	66550	418915.836	2943629.168	418444.7111	2944551.693	418526.6957	2944490.423
1017	66600	418893.813	2943674.056	418423.2898	2944596.872	418502.6417	2944534.102
1018	66650	418871.791	2943718.945	418401.8688	2944642.051	418481.2207	2944579.281
1019	66700	418849.769	2943763.834	418380.4478	2944687.23	418459.7997	2944624.46
1020	66750	418827.746	2943808.723	418359.0268	2944732.409	418438.3787	2944669.639
1021	66800	418805.723	2943853.612	418336.6363	2944777.11	418416.9577	2944714.818
1022	66850	418783.701	2943898.501	418315.5559	2944822.419	418395.5367	2944759.997
1023	66900	418761.678	2943943.389	418295.8813	2944868.385	418375.3921	2944805.757
1024	66950	418739.656	2943988.278	418276.5933	2944914.513	418353.8091	2944850.849
1025	67000	418717.633	2944033.167	418258.2563	2944961.029	418332.7174	2944896.165
1026	67050	418695.611	2944078.056	418237.0417	2945006.303	418313.6961	2944942.404
1027	67100	418673.588	2944122.945	418217.2097	2945052.171	418296.1592	2944989.206
1028	67150	418651.567	2944167.834	418198.9841	2945098.731	418281.071	2945036.875
1029	67200	418630.011	2944212.949	418180.7582	2945145.291	418263.711	2945083.741
1030	67250	418608.590	2944258.128	418162.5322	2945191.851	418245.4854	2945130.301
1031	67300	418587.169	2944303.307	418144.306	2945238.411	418227.26	2945176.861
1032	67350	418565.748	2944348.486	418126.0806	2945284.971	418209.0339	2945223.421
1033	67400	418544.327	2944393.665	418107.855	2945331.531	418190.8078	2945269.981
1034	67450	418522.906	2944438.844	418089.7397	2945378.13	418172.5819	2945316.54
1035	67500	418501.485	2944484.023	418074.6516	2945425.799	418154.3563	2945363.1
1036	67550	418480.064	2944529.202	418057.8939	2945472.878	418135.261	2945409.286
1037	67600	418458.643	2944574.381	418039.6685	2945519.438	418113.9786	2945454.53
1038	67650	418437.222	2944619.560	418021.4426	2945565.997	418095.0838	2945500.802
1039	67700	418415.801	2944664.739	418003.2166	2945612.557	418076.8576	2945547.362
1040	67750	418394.380	2944709.918	417984.9907	2945659.117	418058.6319	2945593.922
1041	67800	418372.959	2944755.097	417966.7648	2945705.677	418040.4065	2945640.482
1042	67850	418351.538	2944800.276	417948.5394	2945752.237	418022.1806	2945687.042
1043	67900	418330.380	2944845.577	417930.3138	2945798.797	418003.9547	2945733.602
1044	67950	418310.302	2944891.368	417912.0879	2945845.357	417985.7287	2945780.161
1045	68000	418291.376	2944937.646	417893.8616	2945891.916	417967.5032	2945826.721
1046	68050	418273.144	2944984.203	417875.6357	2945938.476	417949.2776	2945873.281
1047	68100	418254.918	2945030.763	417857.4103	2945985.036	417931.0515	2945919.841
1048	68150	418236.692	2945077.323	417839.1847	2946031.596	417912.8256	2945966.401
1049	68200	418218.466	2945123.883	417820.9588	2946078.156	417894.5996	2946012.961
1050	68250	418200.241	2945170.443	417802.7329	2946124.716	417876.3741	2946059.521
1051	68300	418182.014	2945217.002	417784.5069	2946171.275	417858.1487	2946106.081
1052	68350	418163.788	2945263.562	417766.2812	2946217.835	417839.9227	2946152.64
1053	68400	418145.563	2945310.122	417748.0556	2946264.395	417821.6966	2946199.2
1054	68450	418127.337	2945356.682	417729.8297	2946310.955	417803.4705	2946245.76

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1055	68500	418109.112	2945403.242	417710.2975	2946356.904	417785.245	2946292.32
1056	68550	418090.886	2945449.802	417685.8581	2946400.491	417767.0196	2946338.88
1057	68600	418072.660	2945496.362	417668.9419	2946447.517	417751.7922	2946386.361
1058	68650	418054.433	2945542.921	417653.6136	2946495.11	417738.5287	2946434.446
1059	68700	418036.208	2945589.481	417635.5272	2946541.719	417718.3228	2946480.16
1060	68750	418017.982	2945636.041	417617.428	2946588.324	417697.8433	2946525.757
1061	68800	417999.757	2945682.601	417602.5423	2946636.053	417679.6177	2946572.317
1062	68850	417981.531	2945729.161	417584.52	2946682.681	417659.6527	2946618.131
1063	68900	417963.305	2945775.721	417566.2943	2946729.241	417639.7635	2946663.969
1064	68950	417945.079	2945822.280	417548.0683	2946775.801	417621.5357	2946710.528
1065	69000	417926.853	2945868.840	417529.8423	2946822.361	417603.3102	2946757.088
1066	69050	417908.627	2945915.400	417511.6162	2946868.921	417585.0847	2946803.648
1067	69100	417890.402	2945961.960	417493.3909	2946915.481	417566.8585	2946850.207
1068	69150	417872.176	2946008.520	417475.1652	2946962.041	417548.6325	2946896.767
1069	69200	417853.950	2946055.080	417456.9393	2947008.6	417530.4066	2946943.327
1070	69250	417835.725	2946101.640	417438.3633	2947055.017	417512.1811	2946989.887
1071	69300	417817.499	2946148.200	417420.1374	2947101.577	417493.956	2947036.447
1072	69350	417799.272	2946194.759	417401.9206	2947148.14	417475.7316	2947083.008
1073	69400	417781.047	2946241.319	417384.5774	2947195.031	417457.5057	2947129.567
1074	69450	417762.821	2946287.879	417370.6585	2947243.033	417439.3405	2947176.151
1075	69500	417744.596	2946334.439	417362.8788	2947292.377	417422.6978	2947223.29
1076	69550	417726.370	2946380.999	417362.4991	2947342.325	417410.7518	2947271.803
1077	69600	417708.144	2946427.559	417369.5883	2947391.771	417406.7486	2947321.578
1078	69650	417689.918	2946474.118	417384.0593	2947439.581	417411.3801	2947371.297
1079	69700	417671.692	2946520.678	417405.4871	2947484.701	417424.5453	2947419.465
1080	69750	417653.466	2946567.238	417432.7862	2947526.558	417445.8595	2947464.623
1081	69800	417635.241	2946613.798	417462.8424	2947565.888	417473.6728	2947506.136
1082	69850	417617.015	2946660.358	417493.7198	2947605.214	417505.6787	2947544.516
1083	69900	417598.789	2946706.918	417526.7167	2947642.78	417538.4186	2947582.286
1084	69950	417580.563	2946753.478	417559.2515	2947680.714	417569.1474	2947621.729
1085	70000	417562.338	2946800.038	417591.2735	2947719.114	417600.8761	2947660.366
1086	70050	417544.111	2946846.597	417623.2947	2947757.515	417632.8983	2947698.766
1087	70100	417525.886	2946893.157	417655.3831	2947795.86	417664.9199	2947737.167
1088	70150	417507.660	2946939.717	417688.2237	2947833.561	417697.1088	2947775.427
1089	70200	417489.434	2946986.277	417720.9198	2947871.388	417730.371	2947812.749
1090	70250	417471.209	2947032.837	417753.4889	2947909.324	417765.1854	2947848.636
1091	70300	417452.983	2947079.397	417785.4751	2947947.754	417799.5392	2947884.964
1092	70350	417434.757	2947125.957	417817.5339	2947986.123	417831.9242	2947923.047
1093	70400	417416.624	2947172.553	417849.0066	2948024.974	417863.72	2947961.626
1094	70450	417400.216	2947219.774	417880.2414	2948064.017	417892.93	2948002.205
1095	70500	417388.511	2947268.350	417911.5573	2948102.992	417922.0794	2948042.828
1096	70550	417384.212	2947318.113	417942.9773	2948141.885	417952.6675	2948082.371
1097	70600	417387.959	2947367.920	417974.674	2948180.555	417984.1912	2948121.181
1098	70650	417399.658	2947416.478	418006.371	2948219.224	418015.8883	2948159.85
1099	70700	417419.003	2947462.527	418038.0682	2948257.893	418047.5853	2948198.52
1100	70750	417445.117	2947505.125	418069.7652	2948296.562	418079.2824	2948237.189

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1101	70800	417475.445	2947544.863	418101.4623	2948335.231	418110.9794	2948275.858
1102	70850	417507.360	2947583.352	418133.1593	2948373.9	418142.677	2948314.526
1103	70900	417539.382	2947621.753	418164.8564	2948412.569	418174.3741	2948353.195
1104	70950	417571.404	2947660.153	418196.5539	2948451.238	418206.0711	2948391.864
1105	71000	417603.425	2947698.554	418228.251	2948489.907	418237.7683	2948430.533
1106	71050	417635.447	2947736.955	418259.9481	2948528.576	418269.4653	2948469.203
1107	71100	417667.489	2947775.338	418291.6451	2948567.245	418301.1624	2948507.872
1108	71150	417700.182	2947813.167	418323.2662	2948605.976	418332.8594	2948546.541
1109	71200	417733.792	2947850.184	418353.6376	2948645.686	418364.3823	2948585.351
1110	71250	417767.485	2947887.127	418380.6004	2948687.767	418394.3459	2948625.367
1111	71300	417800.250	2947924.893	418403.3025	2948732.298	418420.9366	2948667.687
1112	71350	417832.286	2947963.281	418423.3829	2948778.086	418443.6052	2948712.237
1113	71400	417863.006	2948002.727	418442.9109	2948824.115	418463.7425	2948758
1114	71450	417893.097	2948042.658	418462.4372	2948870.144	418483.2716	2948804.028
1115	71500	417923.755	2948082.155	418481.9631	2948916.174	418502.7979	2948850.058
1116	71550	417955.066	2948121.137	418501.489	2948962.204	418522.3238	2948896.088
1117	71600	417986.761	2948159.808	418521.0157	2949008.233	418541.8497	2948942.117
1118	71650	418018.458	2948198.477	418540.542	2949054.263	418561.3761	2948988.147
1119	71700	418050.155	2948237.146	418560.0929	2949100.282	418580.9027	2949034.176
1120	71750	418081.852	2948275.815	418579.6894	2949146.282	418600.4509	2949080.197
1121	71800	418113.549	2948314.484	418599.3324	2949192.262	418620.0448	2949126.197
1122	71850	418145.246	2948353.153	418619.0209	2949238.222	418639.6853	2949172.178
1123	71900	418176.944	2948391.822	418638.7555	2949284.163	418659.3718	2949218.14
1124	71950	418208.641	2948430.491	418658.5362	2949330.084	418679.1041	2949264.081
1125	72000	418240.338	2948469.160	418678.3625	2949375.985	418698.8823	2949310.003
1126	72050	418272.035	2948507.829	418698.2346	2949421.866	418718.7064	2949355.905
1127	72100	418303.732	2948546.498	418718.1527	2949467.728	418738.5765	2949401.788
1128	72150	418335.401	2948585.190	418738.1166	2949513.569	418758.4924	2949447.65
1129	72200	418366.150	2948624.612	418758.1266	2949559.391	418778.4539	2949493.493
1130	72250	418394.003	2948666.114	418778.1818	2949605.192	418798.4621	2949539.315
1131	72300	418417.713	2948710.115	418798.2831	2949650.974	418818.5151	2949585.117
1132	72350	418438.289	2948755.680	418818.4302	2949696.735	418838.6145	2949630.9
1133	72400	418457.842	2948801.699	418838.6215	2949742.477	418858.7597	2949676.662
1134	72450	418477.369	2948847.728	418858.8264	2949788.213	418878.9495	2949722.404
1135	72500	418496.895	2948893.758	418879.0313	2949833.948	418899.1544	2949768.14
1136	72550	418516.421	2948939.787	418899.2362	2949879.684	418919.3593	2949813.876
1137	72600	418535.947	2948985.817	418919.2346	2949925.505	418939.5642	2949859.612
1138	72650	418555.473	2949031.847	418937.1842	2949972.172	418960.6838	2949904.911
1139	72700	418575.012	2949077.871	418958.0481	2950017.61	418982.4569	2949949.899
1140	72750	418594.595	2949123.876	418977.0342	2950063.796	419002.0172	2949995.914
1141	72800	418614.224	2949169.862	418993.1713	2950111.121	419023.226	2950041.126
1142	72850	418633.899	2949215.829	419014.7249	2950156.072	419047.3986	2950084.894
1143	72900	418653.620	2949261.775	419040.2827	2950198.958	419066.5377	2950130.921
1144	72950	418673.387	2949307.702	419060.4872	2950244.694	419080.5908	2950178.84
1145	73000	418693.201	2949353.609	419080.6921	2950290.43	419100.795	2950224.576
1146	73050	418713.060	2949399.496	419100.897	2950336.166	419120.9999	2950270.311

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1147	73100	418732.964	2949445.363	419121.1019	2950381.901	419141.2048	2950316.047
1148	73150	418752.915	2949491.210	419141.3071	2950427.637	419161.4097	2950361.783
1149	73200	418772.911	2949537.038	419161.5113	2950473.373	419181.6149	2950407.519
1150	73250	418792.953	2949582.845	419181.7162	2950519.109	419201.8191	2950453.255
1151	73300	418813.041	2949628.632	419201.388	2950565.069	419222.024	2950498.991
1152	73350	418833.175	2949674.399	419220.7126	2950611.167	419242.6289	2950544.543
1153	73400	418853.354	2949720.146	419242.3061	2950656.26	419263.8602	2950589.801
1154	73450	418873.559	2949765.882	419262.5105	2950701.996	419282.616	2950636.147
1155	73500	418893.764	2949811.618	419282.7155	2950747.732	419302.8204	2950681.883
1156	73550	418913.969	2949857.354	419302.9204	2950793.468	419323.0254	2950727.619
1157	73600	418934.174	2949903.089	419323.1253	2950839.204	419343.2303	2950773.354
1158	73650	418954.379	2949948.825	419343.3302	2950884.939	419363.4352	2950819.09
1159	73700	418974.583	2949994.561	419363.5351	2950930.675	419383.6401	2950864.826
1160	73750	418994.788	2950040.297	419381.1974	2950977.319	419403.845	2950910.562
1161	73800	419014.993	2950086.033	419396.2861	2951024.881	419426.1572	2950955.175
1162	73850	419035.198	2950131.768	419418.3056	2951069.748	419451.61	2950998.132
1163	73900	419055.403	2950177.504	419441.0432	2951114.256	419469.911	2951044.645
1164	73950	419075.607	2950223.240	419461.2481	2951159.992	419487.7429	2951091.33
1165	74000	419095.812	2950268.976	419482.156	2951205.39	419507.9478	2951137.066
1166	74050	419116.017	2950314.712	419504.6229	2951250.041	419526.6667	2951183.402
1167	74100	419136.222	2950360.448	419524.8269	2951295.778	419544.9312	2951229.927
1168	74150	419156.427	2950406.183	419545.0318	2951341.513	419565.1361	2951275.662
1169	74200	419176.631	2950451.920	419565.2367	2951387.249	419585.341	2951321.398
1170	74250	419196.836	2950497.655	419585.4413	2951432.985	419605.5459	2951367.134
1171	74300	419217.041	2950543.391	419605.6459	2951478.721	419625.7507	2951412.87
1172	74350	419237.246	2950589.127	419625.8509	2951524.457	419645.9552	2951458.606
1173	74400	419257.451	2950634.862	419646.0553	2951570.193	419666.1601	2951504.341
1174	74450	419277.656	2950680.598	419666.1521	2951615.976	419686.3649	2951550.077
1175	74500	419297.860	2950726.334	419686.0199	2951661.859	419706.4716	2951595.856
1176	74550	419318.065	2950772.070	419705.6574	2951707.841	419726.3506	2951641.735
1177	74600	419338.270	2950817.806	419725.0644	2951753.921	419746.0005	2951687.712
1178	74650	419358.475	2950863.542	419744.2404	2951800.098	419765.4207	2951733.786
1179	74700	419378.680	2950909.277	419763.1843	2951846.37	419784.6115	2951779.956
1180	74750	419398.884	2950955.014	419781.896	2951892.737	419803.5707	2951826.222
1181	74800	419419.089	2951000.749	419800.4172	2951939.18	419822.299	2951872.582
1182	74850	419439.294	2951046.485	419818.9181	2951985.631	419840.8269	2951919.023
1183	74900	419459.499	2951092.221	419837.4191	2952032.082	419859.3277	2951965.474
1184	74950	419479.704	2951137.956	419855.9196	2952078.534	419877.8287	2952011.925
1185	75000	419499.908	2951183.693	419874.4203	2952124.985	419896.3289	2952058.377
1186	75050	419520.113	2951229.428	419892.9211	2952171.436	419914.83	2952104.828
1187	75100	419540.318	2951275.164	419911.4222	2952217.888	419933.3307	2952151.279
1188	75150	419560.523	2951320.900	419929.9227	2952264.339	419951.8318	2952197.73
1189	75200	419580.728	2951366.636	419948.4247	2952310.79	419970.3318	2952244.182
1190	75250	419600.933	2951412.371	419966.926	2952357.241	419988.8311	2952290.634
1191	75300	419621.137	2951458.108	419984.0024	2952404.207	420007.3319	2952337.085
1192	75350	419641.342	2951503.843	420000.6371	2952451.341	420028.0507	2952382.556

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1193	75400	419661.547	2951549.579	420019.1377	2952497.792	420047.7202	2952428.5
1194	75450	419681.693	2951595.341	420035.4061	2952545.06	420066.2209	2952474.952
1195	75500	419701.619	2951641.199	420051.8067	2952592.274	420086.6689	2952520.509
1196	75550	419721.316	2951687.156	420074.6833	2952636.6	420107.4373	2952565.976
1197	75600	419740.783	2951733.210	420096.122	2952681.624	420121.7457	2952613.743
1198	75650	419760.019	2951779.362	420114.6212	2952728.076	420136.49	2952661.373
1199	75700	419779.025	2951825.609	420133.1222	2952774.527	420154.9911	2952707.824
1200	75750	419797.798	2951871.950	420151.6224	2952820.979	420173.4922	2952754.275
1201	75800	419816.352	2951918.380	420170.1232	2952867.43	420191.9939	2952800.726
1202	75850	419834.853	2951964.832	420188.6242	2952913.881	420210.4949	2952847.177
1203	75900	419853.353	2952011.283	420204.7932	2952961.164	420228.996	2952893.629
1204	75950	419871.854	2952057.734	420221.0448	2953008.367	420251.3069	2952938.28
1205	76000	419890.355	2952104.186	420245.795	2953051.782	420275.0843	2952982.256
1206	76050	419908.856	2952150.637	420275.3381	2953092.083	420300.284	2953025.399
1207	76100	419927.356	2952197.088	420309.3409	2953128.702	420330.9885	2953064.811
1208	76150	419945.857	2952243.540	420347.3961	2953161.089	420366.7427	2953099.707
1209	76200	419964.358	2952289.991	420388.9326	2953188.868	420406.8656	2953129.475
1210	76250	419982.859	2952336.442	420433.4074	2953211.652	420450.5822	2953153.671
1211	76300	420001.360	2952382.893	420482.1306	2953222.803	420495.3369	2953175.965
1212	76350	420019.860	2952429.345	420530.9052	2953233.759	420542.9225	2953190.188
1213	76400	420038.361	2952475.796	420580.4681	2953240.204	420592.5604	2953196.024
1214	76450	420056.862	2952522.247	420630.3794	2953243.107	420642.4945	2953198.531
1215	76500	420075.363	2952568.698	420680.347	2953244.906	420692.4629	2953200.308
1216	76550	420093.863	2952615.150	420730.3154	2953246.681	420742.4314	2953202.083
1217	76600	420112.364	2952661.601	420780.2839	2953248.456	420792.3999	2953203.858
1218	76650	420130.865	2952708.052	420830.2524	2953250.23	420842.3684	2953205.632
1219	76700	420149.366	2952754.503	420880.2209	2953252.005	420892.3369	2953207.407
1220	76750	420167.866	2952800.955	420930.1894	2953253.78	420942.3054	2953209.182
1221	76800	420186.367	2952847.406	420980.1579	2953255.554	420992.2739	2953210.956
1222	76850	420204.868	2952893.857	421030.1264	2953257.329	421042.2424	2953212.731
1223	76900	420223.452	2952940.275	421080.0949	2953259.104	421092.2109	2953214.506
1224	76950	420243.521	2952986.063	421130.0634	2953260.879	421142.1793	2953216.281
1225	77000	420267.431	2953029.947	421180.0319	2953262.653	421192.1479	2953218.055
1226	77050	420296.485	2953070.600	421230.0004	2953264.428	421242.1163	2953219.83
1227	77100	420330.382	2953107.314	421279.9689	2953266.203	421292.0848	2953221.605
1228	77150	420368.591	2953139.516	421322.1757	2953275.216	421334.8228	2953215.66
1229	77200	420410.516	2953166.703	421372.1145	2953277.65	421384.7457	2953218.388
1230	77250	420455.505	2953188.449	421421.8704	2953282.483	421434.4616	2953223.628
1231	77300	420502.853	2953204.417	421471.1436	2953290.905	421483.7057	2953232.233
1232	77350	420551.820	2953214.374	421519.6539	2953302.97	421532.2461	2953244.182
1233	77400	420601.575	2953219.183	421567.1237	2953318.637	421579.8567	2953259.419
1234	77450	420651.526	2953221.368	421613.2938	2953337.797	421626.3154	2953277.873
1235	77500	420701.495	2953223.143	421657.9096	2953360.34	421671.4015	2953299.467
1236	77550	420751.463	2953224.918	421700.7676	2953386.073	421714.8988	2953324.104
1237	77600	420801.432	2953226.692	421742.2948	2953413.917	421756.8888	2953351.24
1238	77650	420851.400	2953228.467	421783.4225	2953442.351	421798.1024	2953379.549

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1239	77700	420901.369	2953230.242	421824.5423	2953470.797	421839.2222	2953407.995
1240	77750	420951.337	2953232.017	421865.6625	2953499.242	421880.3424	2953436.44
1241	77800	421001.306	2953233.791	421906.783	2953527.687	421921.4628	2953464.885
1242	77850	421051.274	2953235.566	421947.9033	2953556.132	421962.5832	2953493.33
1243	77900	421101.243	2953237.341	421989.0235	2953584.577	422003.7034	2953521.775
1244	77950	421151.211	2953239.116	422030.1437	2953613.022	422044.8236	2953550.221
1245	78000	421201.180	2953240.890	422071.2643	2953641.467	422085.9442	2953578.665
1246	78050	421251.148	2953242.665	422112.3845	2953669.912	422127.0644	2953607.11
1247	78100	421301.117	2953244.440	422153.5047	2953698.357	422168.1846	2953635.556
1248	78150	421351.078	2953246.398	422194.6245	2953726.803	422209.3049	2953664.001
1249	78200	421400.952	2953249.875	422235.745	2953755.248	422250.4249	2953692.446
1250	78250	421450.507	2953256.455	422276.8653	2953783.693	422291.5452	2953720.891
1251	78300	421499.466	2953266.555	422317.9855	2953812.138	422332.6654	2953749.336
1252	78350	421547.579	2953280.122	422359.2676	2953840.346	422373.8039	2953777.755
1253	78400	421594.602	2953297.089	422401.7619	2953866.675	422415.6091	2953805.173
1254	78450	421640.293	2953317.368	422446.4673	2953889.005	422459.4798	2953829.103
1255	78500	421684.421	2953340.857	422493.4306	2953906.081	422506.0596	2953847.17
1256	78550	421726.869	2953367.267	422542.0709	2953917.538	422554.6396	2953858.834
1257	78600	421768.227	2953395.363	422591.7065	2953923.305	422604.3511	2953863.818
1258	78650	421809.348	2953423.807	422641.6777	2953923.292	422654.2806	2953862.069
1259	78700	421850.468	2953452.253	422691.3042	2953917.436	422703.5226	2953853.625
1260	78750	421891.588	2953480.698	422739.9229	2953905.895	422751.168	2953838.592
1261	78800	421932.709	2953509.143	422786.8767	2953888.794	422796.4142	2953817.395
1262	78850	421973.829	2953537.588	422831.1653	2953865.823	422841.433	2953795.642
1263	78900	422014.949	2953566.033	422871.0635	2953835.688	422884.9807	2953771.283
1264	78950	422056.069	2953594.478	422912.1716	2953807.277	422926.8832	2953744.003
1265	79000	422097.190	2953622.923	422954.074	2953779.997	422968.7854	2953716.723
1266	79050	422138.310	2953651.368	422995.9763	2953752.717	423010.6876	2953689.443
1267	79100	422179.430	2953679.813	423037.8785	2953725.437	423052.6102	2953662.194
1268	79150	422220.550	2953708.259	423079.8081	2953698.2	423095.181	2953635.979
1269	79200	422261.671	2953736.704	423122.5139	2953672.209	423139.5572	2953612.986
1270	79250	422302.791	2953765.149	423167.2654	2953649.974	423186.2093	2953595.085
1271	79300	422343.911	2953793.594	423214.4783	2953633.628	423234.6442	2953582.799
1272	79350	422385.348	2953821.572	423263.4419	2953623.686	423284.1781	2953576.166
1273	79400	422428.338	2953847.076	423313.242	2953619.429	423334.1096	2953573.695
1274	79450	422473.823	2953867.764	423363.2209	2953618.283	423383.9552	2953570.62
1275	79500	422521.530	2953882.625	423413.0227	2953622.73	423433.6801	2953565.449
1276	79550	422570.718	2953891.422	423462.9289	2953623.594	423483.6063	2953565.983
1277	79600	422620.620	2953894.017	423512.8142	2953620.21	423533.5723	2953567.404
1278	79650	422670.455	2953890.370	423562.7884	2953619.018	423583.5678	2953566.735
1279	79700	422719.447	2953880.539	423612.7839	2953618.348	423633.5254	2953568.104
1280	79750	422766.831	2953864.676	423662.6491	2953614.795	423683.4944	2953568.897
1281	79800	422811.917	2953843.124	423712.6169	2953613.511	423733.4899	2953568.227
1282	79850	422854.876	2953817.557	423762.6114	2953612.78	423783.4776	2953567.182
1283	79900	422896.857	2953790.399	423812.5607	2953610.673	423833.3299	2953563.529
1284	79950	422938.760	2953763.119	423862.186	2953604.751	423882.4574	2953554.426

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1285	80000	422980.662	2953735.839	423910.8221	2953593.28	423929.9594	2953538.943
1286	80050	423022.564	2953708.559	423957.749	2953576.107	423975.0101	2953517.341
1287	80100	423064.485	2953681.308	424002.327	2953553.532	424016.8054	2953489.966
1288	80150	423107.060	2953655.099	424043.9389	2953525.867	424054.709	2953457.406
1289	80200	423151.512	2953632.256	424082.0448	2953493.535	424089.4757	2953421.484
1290	80250	423198.350	2953614.848	424117.1044	2953457.9	424122.9895	2953384.379
1291	80300	423246.993	2953603.415	424150.6968	2953420.866	424156.4235	2953347.201
1292	80350	423296.655	2953597.795	424184.1305	2953383.688	424189.8573	2953310.024
1293	80400	423346.616	2953595.937	424217.5643	2953346.511	424223.2912	2953272.846
1294	80450	423396.611	2953595.240	424250.9984	2953309.333	424256.7247	2953235.668
1295	80500	423446.606	2953594.571	424284.4323	2953272.156	424290.1585	2953198.49
1296	80550	423496.602	2953593.901	424317.8656	2953234.978	424323.5925	2953161.313
1297	80600	423546.597	2953593.232	424351.2996	2953197.8	424357.0262	2953124.135
1298	80650	423596.593	2953592.562	424384.7334	2953160.622	424390.6142	2953087.097
1299	80700	423646.589	2953591.893	424418.1826	2953123.459	424424.9517	2953050.763
1300	80750	423696.584	2953591.223	424452.3735	2953086.982	424461.8715	2953017.072
1301	80800	423746.580	2953590.551	424489.0269	2953053.002	424501.7991	2952987.008
1302	80850	423796.557	2953589.135	424528.9757	2953022.973	424544.4298	2952960.917
1303	80900	423846.326	2953584.513	424571.8378	2952997.274	424589.3576	2952939.02
1304	80950	423895.248	2953574.343	424617.1469	2952976.187	424636.1683	2952921.508
1305	81000	423942.521	2953558.153	424664.4095	2952959.94	424684.436	2952908.538
1306	81050	423987.407	2953536.195	424713.1186	2952948.754	424733.7115	2952900.156
1307	81100	424029.205	2953508.813	424762.6744	2952942.198	424783.4575	2952895.164
1308	81150	424067.323	2953476.498	424812.4998	2952938.038	424833.3092	2952891.317
1309	81200	424102.301	2953440.782	424862.3546	2952934.23	424883.1639	2952887.508
1310	81250	424135.859	2953403.717	424912.2093	2952930.421	424933.0187	2952883.7
1311	81300	424169.293	2953366.539	424962.064	2952926.612	424982.8734	2952879.891
1312	81350	424202.727	2953329.361	425011.9188	2952922.804	425032.7281	2952876.082
1313	81400	424236.161	2953292.184	425061.7735	2952918.995	425082.5829	2952872.274
1314	81450	424269.595	2953255.006	425111.6282	2952915.186	425132.4376	2952868.465
1315	81500	424303.028	2953217.828	425161.483	2952911.378	425182.2923	2952864.657
1316	81550	424336.462	2953180.651	425211.3377	2952907.569	425232.1471	2952860.848
1317	81600	424369.896	2953143.473	425261.1837	2952903.652	425281.9594	2952856.535
1318	81650	424403.350	2953106.314	425310.9391	2952898.726	425331.6479	2952850.974
1319	81700	424437.610	2953069.902	425360.5576	2952892.572	425381.1795	2952844.155
1320	81750	424474.312	2953035.972	425410.0087	2952885.193	425430.5229	2952836.087
1321	81800	424514.163	2953005.807	425459.2626	2952876.595	425479.6466	2952826.774
1322	81850	424556.825	2952979.771	425508.2888	2952866.782	425528.5485	2952816.355
1323	81900	424601.874	2952958.124	425557.1551	2952856.195	425577.4111	2952805.751
1324	81950	424648.859	2952941.083	425606.0177	2952845.591	425626.2739	2952795.148
1325	82000	424697.310	2952928.817	425654.8806	2952834.988	425675.1708	2952784.706
1326	82050	424746.720	2952921.251	425703.8694	2952824.996	425724.4155	2952776.094
1327	82100	424796.509	2952916.698	425753.3724	2952818.102	425774.2069	2952771.818
1328	82150	424846.364	2952912.885	425803.3223	2952817.017	425824.1528	2952773.329
1329	82200	424896.219	2952909.077	425852.9815	2952822.518	425873.5737	2952780.707
1330	82250	424946.073	2952905.268	425901.4704	2952834.567	425921.789	2952793.838

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1331	82300	424995.928	2952901.459	425948.3019	2952852.033	425968.4789	2952811.694
1332	82350	425045.783	2952897.651	425994.051	2952872.203	426014.2001	2952831.928
1333	82400	425095.638	2952893.842	426039.5932	2952892.841	426059.7421	2952852.566
1334	82450	425145.492	2952890.033	426085.1352	2952913.479	426105.2841	2952873.204
1335	82500	425195.347	2952886.225	426130.6772	2952934.117	426150.8261	2952893.842
1336	82550	425245.201	2952882.407	426176.1589	2952954.886	426196.3008	2952914.627
1337	82600	425294.989	2952877.824	426220.9907	2952977.016	426241.1276	2952936.767
1338	82650	425344.648	2952871.999	426264.8444	2953001.025	426285.0129	2952960.719
1339	82700	425394.145	2952864.934	426307.6401	2953026.874	426327.8828	2952986.445
1340	82750	425443.450	2952856.634	426349.348	2953054.445	426369.6913	2953013.863
1341	82800	425492.532	2952847.104	426390.6583	2953082.613	426410.9976	2953042.037
1342	82850	425541.413	2952836.588	426432.7152	2953109.643	426452.9248	2953069.268
1343	82900	425590.276	2952825.984	426476.4324	2953133.887	426496.5684	2953093.641
1344	82950	425639.138	2952815.380	426521.5375	2953155.452	426541.6853	2953115.181
1345	83000	425688.064	2952805.073	426567.1647	2953175.901	426587.3177	2953135.618
1346	83050	425737.414	2952797.108	426612.8539	2953196.211	426633.0141	2953155.911
1347	83100	425787.294	2952794.119	426659.0212	2953215.398	426679.564	2953174.096
1348	83150	425837.159	2952797.338	426705.9805	2953232.499	426727.8409	2953186.986
1349	83200	425886.233	2952806.749	426754.7379	2953243.322	426777.3844	2953192.919
1350	83250	425933.820	2952822.015	426804.6289	2953246.206	426827.3465	2953194.776
1351	83300	425979.984	2952841.204	426854.4381	2953244.105	426877.1546	2953191.001
1352	83350	426025.556	2952861.776	426903.729	2953235.799	426926.6684	2953184.089
1353	83400	426071.098	2952882.414	426952.5315	2953224.931	426975.5989	2953173.842
1354	83450	426116.640	2952903.052	427001.3414	2953214.092	427024.2203	2953162.189
1355	83500	426162.181	2952923.692	427049.871	2953202.061	427072.5384	2953149.333
1356	83550	426207.443	2952944.933	427098.1244	2953188.963	427120.7439	2953136.059
1357	83600	426251.831	2952967.940	427146.33	2953175.688	427168.9494	2953122.783
1358	83650	426295.222	2952992.777	427194.5355	2953162.413	427217.155	2953109.509
1359	83700	426337.541	2953019.399	427242.7408	2953149.137	427265.3603	2953096.233
1360	83750	426378.953	2953047.417	427290.9463	2953135.862	427313.5658	2953082.958
1361	83800	426420.408	2953075.370	427339.1519	2953122.587	427361.7713	2953069.682
1362	83850	426463.150	2953101.295	427387.3574	2953109.312	427409.9769	2953056.408
1363	83900	426507.598	2953124.176	427435.563	2953096.037	427458.1824	2953043.132
1364	83950	426553.070	2953144.965	427483.7685	2953082.762	427506.38	2953029.829
1365	84000	426598.724	2953165.353	427531.9822	2953069.516	427554.6526	2953016.803
1366	84050	426644.588	2953185.262	427580.3469	2953056.843	427603.4252	2953005.838
1367	84100	426691.498	2953202.524	427629.3889	2953047.193	427652.9675	2952999.279
1368	84150	426739.974	2953214.648	427679.1893	2953043.084	427702.9317	2952997.823
1369	84200	426789.581	2953220.642	427729.1789	2953043.496	427752.9055	2952999.35
1370	84250	426839.549	2953220.404	427779.133	2953045.632	427802.8551	2953001.595
1371	84300	426889.169	2953214.404	427829.0824	2953047.882	427852.8044	2953003.845
1372	84350	426938.263	2953204.950	427879.0317	2953050.132	427902.7538	2953006.095
1373	84400	426987.115	2953194.299	427928.9811	2953052.382	427952.7031	2953008.345
1374	84450	427035.699	2953182.489	427978.9304	2953054.633	428002.6524	2953010.596
1375	84500	427083.986	2953169.519	428028.8797	2953056.883	428052.6018	2953012.846
1376	84550	427132.192	2953156.244	428078.8291	2953059.133	428102.5511	2953015.096

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1377	84600	427180.397	2953142.968	428128.7784	2953061.383	428152.5005	2953017.346
1378	84650	427228.603	2953129.694	428178.7278	2953063.633	428202.4498	2953019.596
1379	84700	427276.808	2953116.418	428228.6771	2953065.883	428252.3992	2953021.846
1380	84750	427325.014	2953103.143	428278.6265	2953068.133	428302.3485	2953024.096
1381	84800	427373.219	2953089.868	428328.5758	2953070.383	428352.2979	2953026.346
1382	84850	427421.425	2953076.593	428378.5249	2953072.639	428402.2464	2953028.614
1383	84900	427469.630	2953063.317	428428.4726	2953074.926	428452.1934	2953030.915
1384	84950	427517.836	2953050.043	428478.4187	2953077.247	428502.1389	2953033.249
1385	85000	427566.137	2953037.125	428528.3363	2953080.039	428552.1209	2953034.385
1386	85050	427615.014	2953026.642	428578.1855	2953083.92	428602.0935	2953035.81
1387	85100	427664.677	2953021.101	428628.1264	2953085.958	428651.9234	2953039.866
1388	85150	427714.663	2953020.531	428678.1141	2953086.842	428701.8277	2953042.887
1389	85200	427764.626	2953022.425	428728.0546	2953089.281	428751.7682	2953045.326
1390	85250	427814.575	2953024.675	428777.9951	2953091.721	428801.7087	2953047.765
1391	85300	427864.524	2953026.925	428827.9355	2953094.16	428851.6492	2953050.204
1392	85350	427914.474	2953029.175	428877.876	2953096.599	428901.5896	2953052.644
1393	85400	427964.423	2953031.426	428927.8165	2953099.038	428951.5301	2953055.083
1394	85450	428014.372	2953033.676	428977.7569	2953101.477	429001.4705	2953057.522
1395	85500	428064.322	2953035.926	429027.6974	2953103.917	429051.411	2953059.961
1396	85550	428114.271	2953038.176	429077.6379	2953106.355	429101.3518	2953062.393
1397	85600	428164.220	2953040.426	429127.58	2953108.762	429151.2952	2953064.773
1398	85650	428214.170	2953042.676	429177.525	2953111.106	429201.2414	2953067.09
1399	85700	428264.119	2953044.926	429227.4729	2953113.387	429251.1906	2953069.344
1400	85750	428314.068	2953047.176	429277.4236	2953115.607	429301.1425	2953071.537
1401	85800	428364.018	2953049.427	429327.3771	2953117.764	429351.0971	2953073.666
1402	85850	428413.966	2953051.705	429377.3332	2953119.858	429401.0542	2953075.737
1403	85900	428463.912	2953054.015	429427.2908	2953121.915	429451.0119	2953077.794
1404	85950	428513.857	2953056.358	429477.2129	2953124.614	429501.0087	2953078.199
1405	86000	428563.801	2953058.734	429527.1425	2953127.248	429550.941	2953080.362
1406	86050	428613.743	2953061.144	429577.1236	2953128.609	429600.8144	2953083.905
1407	86100	428663.683	2953063.580	429627.0923	2953130.144	429650.769	2953086.02
1408	86150	428713.624	2953066.020	429677.05	2953132.201	429700.7267	2953088.077
1409	86200	428763.564	2953068.459	429727.0076	2953134.258	429750.6844	2953090.134
1410	86250	428813.505	2953070.898	429776.9653	2953136.315	429800.642	2953092.192
1411	86300	428863.445	2953073.337	429826.9229	2953138.373	429850.5997	2953094.249
1412	86350	428913.386	2953075.776	429876.8806	2953140.43	429900.5573	2953096.306
1413	86400	428963.326	2953078.216	429926.8383	2953142.487	429950.515	2953098.363
1414	86450	429013.267	2953080.655	429976.7959	2953144.544	430000.4726	2953100.421
1415	86500	429063.207	2953083.094	430026.7536	2953146.6	430050.4315	2953102.449
1416	86550	429113.148	2953085.517	430076.7166	2953148.523	430100.3986	2953104.262
1417	86600	429163.093	2953087.881	430126.6532	2953150.855	430150.3906	2953104.454
1418	86650	429213.040	2953090.182	430176.5475	2953154.086	430200.3372	2953105.972
1419	86700	429262.989	2953092.420	430226.52	2953155.692	430250.0928	2953110.9
1420	86750	429312.942	2953094.596	430276.4653	2953157.823	430299.9983	2953113.867
1421	86800	429362.897	2953096.710	430326.4197	2953159.926	430349.9727	2953115.423
1422	86850	429412.855	2953098.772	430376.4108	2953160.798	430399.9699	2953115.919

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1423	86900	429462.812	2953100.829	430426.4059	2953161.436	430449.9575	2953116.993
1424	86950	429512.770	2953102.887	430476.3796	2953163.035	430499.923	2953118.846
1425	87000	429562.728	2953104.944	430526.3429	2953164.953	430549.8862	2953120.764
1426	87050	429612.685	2953107.001	430576.3061	2953166.871	430599.8495	2953122.681
1427	87100	429662.643	2953109.058	430626.2693	2953168.789	430649.8127	2953124.599
1428	87150	429712.601	2953111.116	430676.2325	2953170.706	430699.7759	2953126.517
1429	87200	429762.558	2953113.173	430726.1957	2953172.624	430749.7391	2953128.435
1430	87250	429812.516	2953115.230	430776.1589	2953174.542	430799.7023	2953130.353
1431	87300	429862.474	2953117.287	430826.1221	2953176.46	430849.6655	2953132.271
1432	87350	429912.431	2953119.345	430876.0853	2953178.378	430899.6287	2953134.188
1433	87400	429962.389	2953121.402	430926.0485	2953180.296	430949.5919	2953136.106
1434	87450	430012.347	2953123.459	430976.0117	2953182.213	430999.5551	2953138.024
1435	87500	430062.307	2953125.449	431025.9749	2953184.131	431049.5183	2953139.942
1436	87550	430112.276	2953127.199	431075.9381	2953186.049	431099.4815	2953141.86
1437	87600	430162.252	2953128.745	431125.9013	2953187.967	431149.4447	2953143.778
1438	87650	430212.195	2953131.111	431175.8645	2953189.885	431199.4079	2953145.695
1439	87700	430262.085	2953134.421	431225.8277	2953191.803	431249.3711	2953147.613
1440	87750	430312.022	2953136.907	431275.7909	2953193.72	431299.3343	2953149.531
1441	87800	430362.006	2953138.144	431325.7541	2953195.638	431349.2975	2953151.449
1442	87850	430412.003	2953138.617	431375.7173	2953197.556	431399.2607	2953153.367
1443	87900	430461.985	2953139.940	431425.6806	2953199.474	431449.2239	2953155.285
1444	87950	430511.948	2953141.854	431475.6438	2953201.392	431499.1872	2953157.202
1445	88000	430561.911	2953143.772	431525.607	2953203.31	431549.1504	2953159.12
1446	88050	430611.875	2953145.690	431575.5702	2953205.227	431599.1136	2953161.038
1447	88100	430661.838	2953147.608	431625.5334	2953207.145	431649.0767	2953162.959
1448	88150	430711.801	2953149.525	431675.494	2953209.129	431699.0329	2953165.049
1449	88200	430761.764	2953151.443	431725.4432	2953211.38	431749.9764	2953167.422
1450	88250	430811.727	2953153.361	431775.3787	2953213.917	431799.9058	2953170.079
1451	88300	430861.691	2953155.279	431825.2991	2953216.737	431849.8192	2953173.018
1452	88350	430911.654	2953157.197	431875.2025	2953219.841	431899.727	2953175.999
1453	88400	430961.617	2953159.114	431924.9929	2953224.344	431949.6993	2953177.663
1454	88450	431011.580	2953161.032	431974.795	2953228.774	431999.5424	2953181.534
1455	88500	431061.543	2953162.950	432024.677	2953232.129	432049.2459	2953186.951
1456	88550	431111.507	2953164.868	432074.5854	2953235.099	432099.9921	2953191.946
1457	88600	431161.470	2953166.786	432124.3803	2953239.622	432149.7768	2953196.579
1458	88650	431211.433	2953168.703	432174.1514	2953244.401	432199.5316	2953201.525
1459	88700	431261.396	2953170.621	432223.8914	2953249.492	432249.2606	2953206.723
1460	88750	431311.360	2953172.539	432273.6016	2953254.866	432299.9593	2953212.203
1461	88800	431361.323	2953174.458	432323.2804	2953260.525	432349.6263	2953217.964
1462	88850	431411.286	2953176.375	432372.9268	2953266.46	432399.2647	2953223.966
1463	88900	431461.249	2953178.293	432422.5611	2953272.496	432449.899	2953230.002
1464	88950	431511.212	2953180.211	432472.1956	2953278.531	432499.5334	2953236.037
1465	89000	431561.176	2953182.129	432521.8299	2953284.567	432549.1678	2953242.073
1466	89050	431611.139	2953184.047	432571.4644	2953290.602	432599.8022	2953248.109
1467	89100	431661.101	2953185.983	432621.0987	2953296.638	432649.4366	2953254.144
1468	89150	431711.054	2953188.147	432670.7331	2953302.673	432699.0709	2953260.18

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1469	89200	431760.994	2953190.595	432720.3725	2953308.667	432743.8	2953265.131
1470	89250	431810.920	2953193.326	432769.9226	2953315.271	432793.7728	2953266.529
1471	89300	431860.829	2953196.341	432819.7077	2953319.196	432843.7589	2953266.917
1472	89350	431910.719	2953199.640	432869.6868	2953317.973	432893.6236	2953263.695
1473	89400	431960.591	2953203.222	432919.6714	2953317.506	432943.2605	2953257.681
1474	89450	432010.441	2953207.088	432969.6485	2953316.827	432993.0984	2953255.493
1475	89500	432060.269	2953211.235	433018.9359	2953309.168	433042.9223	2953259.177
1476	89550	432110.072	2953215.667	433068.4	2953302.86	433092.8374	2953256.269
1477	89600	432159.849	2953220.381	433118.312	2953299.895	433142.7494	2953253.304
1478	89650	432209.599	2953225.379	433168.224	2953296.93	433192.6614	2953250.339
1479	89700	432259.319	2953230.659	433218.136	2953293.965	433242.5734	2953247.374
1480	89750	432309.009	2953236.220	433268.047	2953290.984	433292.4399	2953243.794
1481	89800	432358.666	2953242.065	433318.0065	2953289.019	433342.2215	2953239.134
1482	89850	432408.301	2953248.096	433367.9542	2953286.752	433391.8726	2953233.292
1483	89900	432457.935	2953254.131	433417.8992	2953284.545	433436.745	2953232.553
1484	89950	432507.570	2953260.167	433462.2701	2953275.532	433486.5875	2953228.602
1485	90000	432557.204	2953266.202	433512.1499	2953272.085	433536.5039	2953225.724
1486	90050	432606.838	2953272.238	433562.0811	2953269.463	433586.4373	2953223.145
1487	90100	432656.473	2953278.273	433612.0145	2953266.884	433636.3708	2953220.567
1488	90150	432706.107	2953284.308	433661.948	2953264.305	433686.3042	2953217.988
1489	90200	432755.799	2953289.836	433711.8815	2953261.727	433736.2377	2953215.409
1490	90250	432805.690	2953293.003	433761.8149	2953259.148	433786.1712	2953212.831
1491	90300	432855.679	2953292.551	433811.7484	2953256.57	433836.1046	2953210.252
1492	90350	432905.611	2953289.960	433861.6819	2953253.991	433886.0381	2953207.674
1493	90400	432955.523	2953286.995	433911.6153	2953251.412	433935.9716	2953205.095
1494	90450	433005.435	2953284.030	433961.5488	2953248.834	433985.905	2953202.516
1495	90500	433055.347	2953281.065	434011.4822	2953246.255	434035.8385	2953199.938
1496	90550	433105.259	2953278.100	434061.4157	2953243.677	434085.772	2953197.359
1497	90600	433155.171	2953275.135	434111.3492	2953241.098	434135.7054	2953194.781
1498	90650	433205.083	2953272.170	434161.2827	2953238.52	434185.6389	2953192.202
1499	90700	433254.995	2953269.205	434211.2161	2953235.941	434235.5724	2953189.624
1500	90750	433304.907	2953266.239	434261.1496	2953233.362	434285.5058	2953187.045
1501	90800	433354.783	2953262.731	434311.083	2953230.784	434335.4393	2953184.466
1502	90850	433404.580	2953258.238	434361.0165	2953228.205	434385.3728	2953181.888
1503	90900	433454.364	2953253.599	434410.95	2953225.627	434435.3062	2953179.309
1504	90950	433504.234	2953250.009	434460.8845	2953223.07	434485.2381	2953176.701
1505	91000	433554.162	2953247.342	434510.8184	2953220.499	434535.1715	2953174.122
1506	91050	433604.096	2953244.764	434560.7519	2953217.921	434585.105	2953171.543
1507	91100	433654.029	2953242.185	434610.6853	2953215.342	434635.0385	2953168.965
1508	91150	433703.963	2953239.606	434660.6188	2953212.764	434684.9719	2953166.386
1509	91200	433753.896	2953237.028	434710.5523	2953210.185	434734.9054	2953163.808
1510	91250	433803.830	2953234.449	434760.4857	2953207.607	434784.8389	2953161.229
1511	91300	433853.763	2953231.871	434810.4192	2953205.028	434834.7723	2953158.65
1512	91350	433903.697	2953229.292	434860.3526	2953202.449	434884.7058	2953156.072
1513	91400	433953.630	2953226.714	434910.2861	2953199.871	434934.6393	2953153.493
1514	91450	434003.564	2953224.135	434960.2196	2953197.292	434984.5727	2953150.915

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1515	91500	434053.497	2953221.556	435010.1531	2953194.714	435034.5062	2953148.336
1516	91550	434103.431	2953218.978	435060.0865	2953192.135	435084.4397	2953145.758
1517	91600	434153.364	2953216.399	435110.02	2953189.556	435134.3731	2953143.179
1518	91650	434203.298	2953213.821	435159.9535	2953186.978	435184.3066	2953140.6
1519	91700	434253.231	2953211.242	435209.8869	2953184.399	435234.2404	2953138.029
1520	91750	434303.164	2953208.663	435259.8193	2953181.805	435284.1758	2953135.499
1521	91800	434353.098	2953206.085	435309.7539	2953179.248	435334.1104	2953132.942
1522	91850	434403.031	2953203.506	435359.6885	2953176.692	435384.045	2953130.386
1523	91900	434452.965	2953200.928	435409.6231	2953174.135	435433.9796	2953127.829
1524	91950	434502.898	2953198.349	435459.5559	2953171.546	435483.8867	2953124.855
1525	92000	434552.832	2953195.771	435509.4801	2953168.801	435533.5416	2953119.011
1526	92050	434602.765	2953193.192	435559.3721	2953165.596	435583.3271	2953114.596
1527	92100	434652.699	2953190.613	435609.0395	2953159.851	435633.2465	2953111.778
1528	92150	434702.632	2953188.035	435658.8041	2953155.08	435683.1238	2953108.282
1529	92200	434752.566	2953185.456	435708.6976	2953151.82	435733.0252	2953105.144
1530	92250	434802.499	2953182.878	435758.5994	2953148.688	435782.9271	2953102.012
1531	92300	434852.433	2953180.299	435808.5013	2953145.558	435832.8322	2953098.934
1532	92350	434902.366	2953177.720	435858.4124	2953142.578	435882.7511	2953096.089
1533	92400	434952.300	2953175.142	435908.3377	2953139.848	435932.6836	2953093.493
1534	92450	435002.233	2953172.563	435958.282	2953137.53	435982.3556	2953088.32
1535	92500	435052.166	2953169.985	436008.215	2953139.358	436032.0164	2953083.235
1536	92550	435102.100	2953167.406	436058.1047	2953137.295	436082.0127	2953082.624
1537	92600	435152.033	2953164.828	436107.9671	2953133.781	436131.8058	2953078.553
1538	92650	435201.967	2953162.249	436157.9658	2953134.137	436181.4742	2953072.856
1539	92700	435251.905	2953159.760	436207.9149	2953132.542	436231.3496	2953073.037
1540	92750	435301.882	2953158.280	436256.8567	2953122.501	436281.2014	2953074.277
1541	92800	435351.880	2953157.886	436306.5408	2953117.627	436331.0719	2953070.68
1542	92850	435401.825	2953155.919	436356.4112	2953114.03	436380.9423	2953067.083
1543	92900	435451.597	2953151.146	436406.2859	2953110.494	436430.8422	2953063.939
1544	92950	435501.365	2953146.335	436456.2171	2953107.899	436480.8036	2953062.009
1545	93000	435551.133	2953141.524	436506.1979	2953106.567	436530.7974	2953061.314
1546	93050	435600.926	2953136.983	436556.1965	2953106.498	436580.7955	2953061.707
1547	93100	435650.772	2953133.064	436606.1934	2953107.053	436630.7923	2953062.266
1548	93150	435700.662	2953129.750	436656.1734	2953108.205	436680.7806	2953061.4
1549	93200	435750.564	2953126.618	436706.1369	2953109.646	436730.7446	2953062.733
1550	93250	435800.465	2953123.486	436756.1258	2953108.739	436780.7229	2953063.941
1551	93300	435850.374	2953120.473	436806.1231	2953109.255	436830.7194	2953064.531
1552	93350	435900.298	2953117.708	436856.12	2953109.813	436880.7163	2953065.09
1553	93400	435950.235	2953115.194	436906.1072	2953110.762	436930.711	2953064.683
1554	93450	436000.178	2953112.814	436956.0705	2953112.677	436980.7038	2953063.836
1555	93500	436050.121	2953110.435	437006.034	2953114.587	437030.6958	2953063.618
1556	93550	436100.063	2953108.029	437056.0253	2953114.5	437080.6592	2953065.532
1557	93600	436149.992	2953105.362	437106.0189	2953113.697	437130.6224	2953067.45
1558	93650	436199.903	2953102.384	437156.0133	2953113.17	437180.6087	2953068.441
1559	93700	436249.795	2953099.094	437205.8619	2953115.474	437230.2785	2953063.739
1560	93750	436299.668	2953095.534	437255.3218	2953122.389	437280.0974	2953061.446

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1561	93800	436349.538	2953091.937	437305.2881	2953121.349	437329.9658	2953065.071
1562	93850	436399.410	2953088.363	437355.2254	2953118.896	437379.8972	2953067.168
1563	93900	436449.334	2953085.625	437405.2223	2953119.455	437429.894	2953067.727
1564	93950	436499.311	2953084.137	437455.2123	2953119.658	437479.7683	2953071.139
1565	94000	436549.309	2953083.898	437505.142	2953117.027	437529.737	2953072.314
1566	94050	436599.306	2953084.445	437555.1373	2953117.66	437579.7339	2953072.873
1567	94100	436649.303	2953085.004	437605.1342	2953118.219	437629.7307	2953073.432
1568	94150	436699.300	2953085.563	437655.131	2953118.778	437679.7276	2953073.991
1569	94200	436749.297	2953086.122	437705.1279	2953119.337	437729.7245	2953074.549
1570	94250	436799.293	2953086.681	437755.1248	2953119.896	437779.7214	2953075.108
1571	94300	436849.290	2953087.240	437805.1217	2953120.455	437829.7183	2953075.667
1572	94350	436899.287	2953087.798	437855.1185	2953121.013	437879.7151	2953076.226
1573	94400	436949.284	2953088.357	437905.1154	2953121.572	437929.712	2953076.785
1574	94450	436999.281	2953088.916	437955.1123	2953122.131	437979.7089	2953077.344
1575	94500	437049.278	2953089.475	438005.1092	2953122.69	438029.7058	2953077.903
1576	94550	437099.275	2953090.034	438055.106	2953123.249	438079.7026	2953078.461
1577	94600	437149.272	2953090.593	438105.1029	2953123.808	438129.6995	2953079.02
1578	94650	437199.268	2953091.152	438155.0998	2953124.367	438179.6964	2953079.579
1579	94700	437249.265	2953091.710	438205.0967	2953124.925	438229.6933	2953080.138
1580	94750	437299.262	2953092.269	438255.0935	2953125.484	438279.6901	2953080.697
1581	94800	437349.259	2953092.828	438305.0904	2953126.043	438329.687	2953081.256
1582	94850	437399.256	2953093.387	438355.0876	2953126.572	438379.6835	2953081.844
1583	94900	437449.253	2953093.946	438405.0844	2953127.131	438429.6804	2953082.401
1584	94950	437499.250	2953094.505	438455.0641	2953128.067	438479.6141	2953079.999
1585	95000	437549.247	2953095.064	438504.9337	2953131.638	438529.5988	2953079.848
1586	95050	437599.243	2953095.622	438554.932	2953132.05	438579.5973	2953080.23
1587	95100	437649.240	2953096.181	438604.8802	2953133.719	438629.5273	2953077.739
1588	95150	437699.237	2953096.740	438654.7692	2953137.046	438679.4818	2953076.189
1589	95200	437749.234	2953097.299	438704.6011	2953135.217	438729.0311	2953082.235
1590	95250	437799.231	2953097.858	438754.1949	2953129.567	438778.857	2953084.626
1591	95300	437849.228	2953098.417	438804.1948	2953129.668	438828.8569	2953084.694
1592	95350	437899.225	2953098.976	438854.1948	2953129.721	438878.8568	2953084.671
1593	95400	437949.222	2953099.534	438904.1947	2953129.71	438928.8568	2953084.614
1594	95450	437999.218	2953100.093	438954.1947	2953129.623	438978.8567	2953084.496
1595	95500	438049.215	2953100.652	439004.1944	2953129.473	439028.8563	2953084.316
1596	95550	438099.212	2953101.211	439054.194	2953129.26	439078.8557	2953084.072
1597	95600	438149.209	2953101.770	439104.1932	2953128.985	439128.8549	2953083.778
1598	95650	438199.206	2953102.329	439154.1923	2953128.687	439178.854	2953083.48
1599	95700	438249.203	2953102.887	439204.179	2953129.061	439228.8293	2953081.991
1600	95750	438299.200	2953103.446	439254.1402	2953131.013	439278.802	2953080.34
1601	95800	438349.197	2953104.005	439304.1256	2953132.062	439328.7876	2953079.171
1602	95850	438399.193	2953104.564	439354.1074	2953130.713	439378.7769	2953078.658
1603	95900	438449.191	2953105.105	439404.0801	2953129.06	439428.753	2953080.138
1604	95950	438499.188	2953105.586	439454.0527	2953127.405	439478.719	2953081.693
1605	96000	438549.186	2953106.005	439504.0412	2953126.603	439528.7181	2953081.394
1606	96050	438599.185	2953106.361	439554.0406	2953126.42	439578.7163	2953081.628

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1607	96100	438649.184	2953106.655	439604.0308	2953127.323	439628.6916	2953083.153
1608	96150	438699.184	2953106.886	439653.9793	2953129.558	439678.6103	2953085.977
1609	96200	438749.183	2953107.054	439703.8505	2953133.122	439728.4387	2953090.099
1610	96250	438799.183	2953107.161	439753.6117	2953137.989	439778.1398	2953095.545
1611	96300	438849.183	2953107.204	439803.2234	2953144.195	439827.6936	2953102.202
1612	96350	438899.183	2953107.186	439852.7302	2953151.201	439877.1987	2953109.219
1613	96400	438949.183	2953107.105	439902.2354	2953158.218	439926.7039	2953116.236
1614	96450	438999.183	2953106.960	439951.7405	2953165.235	439976.209	2953123.253
1615	96500	439049.183	2953106.754	440001.2463	2953172.247	440025.7517	2953129.971
1616	96550	439099.182	2953106.485	440050.6972	2953179.59	440075.5324	2953134.642
1617	96600	439149.181	2953106.187	440100.2654	2953186.066	440125.3057	2953139.397
1618	96650	439199.180	2953105.889	440150.1248	2953189.504	440175.0457	2953144.489
1619	96700	439249.179	2953105.591	440200.078	2953191.651	440224.9242	2953147.849
1620	96750	439299.178	2953105.293	440250.0272	2953193.882	440274.8929	2953149.59
1621	96800	439349.177	2953104.995	440300.0124	2953195.06	440324.8874	2953150.259
1622	96850	439399.177	2953104.697	440350.0113	2953195.348	440374.8873	2953150.377
1623	96900	439449.176	2953104.399	440400.0108	2953195.553	440424.8851	2953150.783
1624	96950	439499.175	2953104.101	440449.9996	2953196.521	440474.8543	2953152.475
1625	97000	439549.174	2953103.867	440499.9302	2953199.106	440524.7463	2953155.735
1626	97050	439599.167	2953104.632	440549.7829	2953202.937	440574.5855	2953159.741
1627	97100	439649.122	2953106.712	440599.6191	2953206.98	440624.4218	2953163.784
1628	97150	439699.005	2953110.106	440649.4553	2953211.024	440674.258	2953167.828
1629	97200	439748.782	2953114.812	440699.2916	2953215.067	440724.0942	2953171.871
1630	97250	439798.418	2953120.826	440749.0891	2953219.513	440773.9953	2953174.947
1631	97300	439847.929	2953127.795	440798.7877	2953224.994	440823.9091	2953177.879
1632	97350	439897.435	2953134.812	440848.4566	2953230.739	440873.7798	2953181.409
1633	97400	439946.940	2953141.830	440898.3087	2953234.502	440923.4542	2953187.098
1634	97450	439996.445	2953148.846	440948.2155	2953237.553	440973.1219	2953192.853
1635	97500	440046.009	2953155.431	440998.1051	2953240.83	441022.8725	2953197.793
1636	97550	440095.700	2953160.965	441047.9102	2953245.24	441072.6784	2953202.194
1637	97600	440145.499	2953165.440	441097.7161	2953249.641	441122.4844	2953206.595
1638	97650	440195.381	2953168.854	441147.522	2953254.042	441172.2904	2953210.995
1639	97700	440245.325	2953171.207	441197.3286	2953258.437	441222.0963	2953215.396
1640	97750	440295.307	2953172.497	441247.1365	2953262.815	441271.8995	2953219.827
1641	97800	440345.306	2953172.819	441296.9425	2953267.216	441321.7055	2953224.228
1642	97850	440395.306	2953172.988	441346.7106	2953271.849	441371.5608	2953225.343
1643	97900	440445.298	2953173.815	441395.3441	2953283.458	441421.4395	2953224.899
1644	97950	440495.238	2953176.210	441445.1109	2953287.471	441470.9793	2953231.533
1645	98000	440545.097	2953179.953	441495.0928	2953288.815	441520.5054	2953238.281
1646	98050	440594.933	2953183.996	441544.9318	2953292.641	441570.3114	2953242.681
1647	98100	440644.770	2953188.040	441594.7373	2953297.047	441619.877	2953249.073
1648	98150	440694.606	2953192.083	441644.7065	2953298.543	441669.5035	2953254.959
1649	98200	440744.442	2953196.127	441694.5457	2953302.348	441719.3095	2953259.36
1650	98250	440794.274	2953200.216	441744.3517	2953306.749	441769.1154	2953263.761
1651	98300	440844.081	2953204.613	441794.1577	2953311.149	441818.9213	2953268.162
1652	98350	440893.887	2953209.014	441843.9636	2953315.55	441868.7273	2953272.563

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1653	98400	440943.693	2953213.414	441893.7695	2953319.952	441918.5327	2953276.97
1654	98450	440993.499	2953217.815	441943.5736	2953324.374	441968.3359	2953281.402
1655	98500	441043.305	2953222.216	441993.376	2953328.814	442018.1381	2953285.845
1656	98550	441093.110	2953226.617	442043.1783	2953333.257	442067.9404	2953290.287
1657	98600	441142.916	2953231.018	442092.9806	2953337.699	442117.7427	2953294.729
1658	98650	441192.722	2953235.419	442142.7828	2953342.141	442167.5449	2953299.172
1659	98700	441242.528	2953239.820	442192.5851	2953346.583	442217.3472	2953303.614
1660	98750	441292.334	2953244.221	442242.3874	2953351.026	442267.1495	2953308.056
1661	98800	441342.140	2953248.621	442292.1897	2953355.468	442316.9518	2953312.498
1662	98850	441391.946	2953253.022	442341.9919	2953359.91	442366.754	2953316.941
1663	98900	441441.752	2953257.423	442391.7942	2953364.353	442416.5563	2953321.383
1664	98950	441491.558	2953261.824	442441.5965	2953368.795	442466.3586	2953325.825
1665	99000	441541.364	2953266.225	442491.3987	2953373.237	442516.1608	2953330.268
1666	99050	441591.170	2953270.626	442541.201	2953377.679	442565.9631	2953334.71
1667	99100	441640.976	2953275.027	442591.0032	2953382.122	442615.7654	2953339.152
1668	99150	441690.782	2953279.428	442640.8055	2953386.564	442665.5677	2953343.594
1669	99200	441740.588	2953283.828	442690.6078	2953391.006	442715.3699	2953348.037
1670	99250	441790.394	2953288.229	442740.41	2953395.449	442765.1722	2953352.479
1671	99300	441840.200	2953292.630	442790.2123	2953399.891	442814.9745	2953356.921
1672	99350	441890.006	2953297.031	442840.0146	2953404.333	442864.7767	2953361.364
1673	99400	441939.810	2953301.450	442889.8168	2953408.776	442914.579	2953365.806
1674	99450	441989.613	2953305.889	442939.6191	2953413.218	442964.3813	2953370.248
1675	99500	442039.415	2953310.332	442989.4214	2953417.66	443014.1836	2953374.69
1676	99550	442089.217	2953314.774	443039.2237	2953422.102	443063.9858	2953379.133
1677	99600	442139.019	2953319.216	443089.0259	2953426.545	443113.7881	2953383.575
1678	99650	442188.822	2953323.658	443138.8282	2953430.987	443163.5904	2953388.017
1679	99700	442238.624	2953328.101	443188.6305	2953435.429	443213.3926	2953392.46
1680	99750	442288.426	2953332.543	443238.4327	2953439.872	443263.1949	2953396.902
1681	99800	442338.228	2953336.985	443288.235	2953444.314	443312.9972	2953401.344
1682	99850	442388.031	2953341.428	443338.0373	2953448.756	443362.7994	2953405.787
1683	99900	442437.833	2953345.870	443387.8396	2953453.198	443412.6017	2953410.229
1684	99950	442487.635	2953350.312	443437.6418	2953457.641	443462.404	2953414.671
1685	100000	442537.438	2953354.754	443487.4441	2953462.083	443512.2063	2953419.113
1686	100050	442587.240	2953359.197	443537.2464	2953466.525	443562.0085	2953423.556
1687	100100	442637.042	2953363.639	443587.0486	2953470.968	443611.8108	2953427.998
1688	100150	442686.844	2953368.081	443636.8509	2953475.41	443661.6131	2953432.44
1689	100200	442736.647	2953372.524	443686.6532	2953479.852	443711.4153	2953436.883
1690	100250	442786.449	2953376.966	443736.4555	2953484.294	443761.2176	2953441.325
1691	100300	442836.251	2953381.408	443786.2577	2953488.737	443811.0198	2953445.767
1692	100350	442886.053	2953385.851	443836.06	2953493.179	443860.8221	2953450.209
1693	100400	442935.856	2953390.293	443885.8622	2953497.621	443910.6244	2953454.652
1694	100450	442985.658	2953394.735	443935.6645	2953502.064	443960.4266	2953459.094
1695	100500	443035.460	2953399.177	443985.4668	2953506.506	444010.2289	2953463.536
1696	100550	443085.262	2953403.620	444035.269	2953510.948	444060.0312	2953467.979
1697	100600	443135.065	2953408.062	444085.0703	2953515.402	444109.8315	2953472.442
1698	100650	443184.867	2953412.504	444134.8704	2953519.869	444159.6316	2953476.909

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1699	100700	443234.669	2953416.947	444184.6704	2953524.336	444209.4316	2953481.376
1700	100750	443284.472	2953421.389	444234.4705	2953528.803	444259.2317	2953485.843
1701	100800	443334.274	2953425.831	444284.2706	2953533.269	444309.0318	2953490.31
1702	100850	443384.076	2953430.273	444334.0707	2953537.736	444358.8319	2953494.776
1703	100900	443433.878	2953434.716	444383.8707	2953542.203	444408.632	2953499.243
1704	100950	443483.681	2953439.158	444433.6708	2953546.67	444458.432	2953503.71
1705	101000	443533.483	2953443.600	444483.4709	2953551.137	444508.2321	2953508.177
1706	101050	443583.285	2953448.043	444533.2658	2953555.66	444558.0091	2953512.89
1707	101100	443633.087	2953452.485	444582.9756	2953561.02	444607.6394	2953518.93
1708	101150	443682.890	2953456.927	444632.4192	2953568.424	444656.9508	2953527.17
1709	101200	443732.692	2953461.369	444681.4447	2953578.222	444705.8247	2953537.699
1710	101250	443782.494	2953465.812	444729.9419	2953590.37	444754.1773	2953550.413
1711	101300	443832.296	2953470.254	444777.9816	2953604.229	444802.1548	2953564.488
1712	101350	443882.099	2953474.696	444825.8793	2953618.575	444850.0502	2953578.842
1713	101400	443931.901	2953479.139	444873.7746	2953632.929	444897.9455	2953593.196
1714	101450	443981.703	2953483.581	444921.6699	2953647.283	444945.8408	2953607.55
1715	101500	444031.506	2953488.023	444969.5652	2953661.638	444993.7361	2953621.904
1716	101550	444081.307	2953492.474	445017.4603	2953675.992	445041.6313	2953636.259
1717	101600	444131.107	2953496.941	445065.378	2953690.271	445089.5671	2953650.477
1718	101650	444180.907	2953501.408	445113.3846	2953704.248	445137.5965	2953664.375
1719	101700	444230.707	2953505.875	445161.4831	2953717.906	445185.7174	2953677.953
1720	101750	444280.507	2953510.341	445209.6712	2953731.243	445233.9282	2953691.209
1721	101800	444330.307	2953514.808	445257.9426	2953744.277	445282.2116	2953704.198
1722	101850	444380.108	2953519.275	445306.2337	2953757.237	445330.503	2953717.157
1723	101900	444429.908	2953523.742	445354.5584	2953770.071	445378.872	2953729.821
1724	101950	444479.708	2953528.209	445403.1578	2953781.811	445427.6031	2953740.994
1725	102000	444529.505	2953532.704	445452.2056	2953791.505	445476.7607	2953750.121
1726	102050	444579.235	2953537.884	445501.4954	2953799.9	445526.0782	2953758.353
1727	102100	444628.727	2953544.959	445550.8645	2953807.813	445575.5147	2953765.822
1728	102150	444677.828	2953554.376	445600.4868	2953813.888	445625.2745	2953770.585
1729	102200	444726.426	2953566.114	445650.4085	2953816.418	445675.2568	2953771.29
1730	102250	444774.533	2953579.734	445700.3933	2953815.488	445725.2109	2953769.206
1731	102300	444822.438	2953594.055	445750.3237	2953812.86	445775.1309	2953766.378
1732	102350	444870.334	2953608.409	445800.2432	2953810.024	445825.0505	2953763.543
1733	102400	444918.229	2953622.763	445850.1628	2953807.189	445874.97	2953760.707
1734	102450	444966.124	2953637.118	445900.0829	2953804.365	445924.8995	2953758.059
1735	102500	445014.019	2953651.472	445950.0209	2953801.877	445974.8391	2953755.602
1736	102550	445061.926	2953665.790	445999.9605	2953799.42	446024.7787	2953753.145
1737	102600	445109.913	2953679.832	446049.9001	2953796.963	446074.5882	2953749.095
1738	102650	445157.994	2953693.553	446099.876	2953796.601	446124.3739	2953744.74
1739	102700	445206.164	2953706.954	446149.8397	2953795.55	446174.3135	2953742.283
1740	102750	445254.422	2953720.036	446199.7793	2953793.093	446224.1313	2953738.3
1741	102800	445302.714	2953732.996	446249.7736	2953793.57	446273.8284	2953732.805
1742	102850	445351.020	2953745.899	446299.7442	2953792.789	446323.6969	2953733.172
1743	102900	445399.546	2953757.941	446348.9272	2953784.175	446373.5102	2953735.987
1744	102950	445448.525	2953767.973	446398.6318	2953779.806	446423.4498	2953733.53

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1745	103000	445497.796	2953776.479	446448.5714	2953777.349	446473.3894	2953731.073
1746	103050	445547.147	2953784.505	446498.511	2953774.892	446523.329	2953728.617
1747	103100	445596.725	2953790.946	446548.4506	2953772.435	446573.2686	2953726.16
1748	103150	445646.625	2953793.878	446598.3947	2953770.43	446622.7447	2953719.48
1749	103200	445696.613	2953793.132	446648.374	2953771.869	446672.0983	2953711.526
1750	103250	445746.545	2953790.539	446698.0764	2953768.301	446721.1562	2953702.049
1751	103300	445796.464	2953787.703	446746.8012	2953757.214	446768.5248	2953686.166
1752	103350	445846.384	2953784.868	446793.9234	2953740.585	446813.3097	2953664.021
1753	103400	445896.303	2953782.034	446838.7882	2953718.579	446854.7078	2953636.053
1754	103450	445946.241	2953779.536	446880.7938	2953691.514	446891.9716	2953602.774
1755	103500	445996.181	2953777.079	446919.3972	2953659.783	446924.3864	2953564.756
1756	103550	446046.120	2953774.622	446954.0318	2953623.762	446951.5255	2953522.803
1757	103600	446096.060	2953772.165	446984.26	2953583.972	446974.5803	2953478.445
1758	103650	446145.999	2953769.708	447009.9719	2953541.113	446996.0688	2953433.298
1759	103700	446195.939	2953767.251	447032.4986	2953496.481	447017.4627	2953388.107
1760	103750	446245.879	2953764.794	447053.9277	2953451.306	447038.8575	2953342.915
1761	103800	446295.818	2953762.338	447075.322	2953406.114	447060.2517	2953297.724
1762	103850	446345.758	2953759.881	447096.7168	2953360.923	447081.6465	2953252.532
1763	103900	446395.697	2953757.424	447118.1107	2953315.731	447103.0408	2953207.341
1764	103950	446445.637	2953754.967	447139.5058	2953270.54	447124.4733	2953162.167
1765	104000	446495.577	2953752.510	447160.8997	2953225.348	447146.6722	2953117.367
1766	104050	446545.516	2953750.053	447182.3809	2953180.198	447170.8902	2953073.632
1767	104100	446595.456	2953747.594	447204.8961	2953135.557	447197.3797	2953031.23
1768	104150	446645.358	2953744.511	447229.7669	2953092.191	447225.0277	2952989.57
1769	104200	446694.969	2953738.412	447256.7645	2953050.11	447252.842	2952948.021
1770	104250	446743.595	2953726.905	447284.5371	2953008.532	447280.6566	2952906.471
1771	104300	446790.407	2953709.429	447312.3514	2952966.983	447308.4712	2952864.922
1772	104350	446834.676	2953686.252	447340.1662	2952925.434	447336.2858	2952823.373
1773	104400	446875.709	2953657.737	447367.9804	2952883.884	447364.1005	2952781.823
1774	104450	446912.868	2953624.329	447395.7954	2952842.335	447391.9149	2952740.274
1775	104500	446945.571	2953586.548	447423.6097	2952800.785	447419.7294	2952698.725
1776	104550	446973.351	2953545.011	447451.4243	2952759.236	447447.5438	2952657.175
1777	104600	446996.958	2953500.947	447479.2393	2952717.687	447475.3588	2952615.626
1778	104650	447018.578	2953455.863	447507.0532	2952676.137	447503.1729	2952574.076
1779	104700	447039.973	2953410.672	447534.8683	2952634.588	447530.9877	2952532.527
1780	104750	447061.367	2953365.480	447562.6823	2952593.038	447558.8026	2952490.978
1781	104800	447082.761	2953320.289	447590.4972	2952551.489	447586.6167	2952449.428
1782	104850	447104.156	2953275.097	447618.3115	2952509.94	447614.4387	2952407.884
1783	104900	447125.550	2953229.905	447646.1261	2952468.39	447642.8671	2952366.755
1784	104950	447146.953	2953184.718	447674.0178	2952426.893	447673.4697	2952327.23
1785	105000	447168.888	2953139.788	447703.1045	2952386.232	447707.2236	2952290.364
1786	105050	447192.658	2953095.806	447735.1727	2952347.895	447744.0427	2952256.559
1787	105100	447218.863	2953053.229	447770.7646	2952312.806	447783.6348	2952226.05
1788	105150	447246.436	2953011.520	447809.568	2952281.305	447825.6996	2952199.052
1789	105200	447274.250	2952969.970	447851.2082	2952253.664	447869.9277	2952175.765
1790	105250	447302.065	2952928.421	447895.3041	2952230.135	447916.0087	2952156.4

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1791	105300	447329.880	2952886.872	447941.4686	2952210.98	447963.5829	2952141.069
1792	105350	447357.693	2952845.322	447989.2539	2952196.333	448012.2973	2952129.878
1793	105400	447385.508	2952803.773	448038.222	2952186.327	448061.7938	2952122.911
1794	105450	447413.323	2952762.223	448087.9262	2952181.081	448111.7083	2952120.268
1795	105500	447441.137	2952720.674	448137.9041	2952180.64	448161.6644	2952121.92
1796	105550	447468.952	2952679.124	448187.6946	2952184.985	448211.2943	2952127.854
1797	105600	447496.767	2952637.575	448236.8406	2952194.08	448260.2312	2952138.033
1798	105650	447524.581	2952596.026	448284.8778	2952207.881	448308.1012	2952152.417
1799	105700	447552.396	2952554.477	448331.3724	2952226.217	448354.5586	2952170.857
1800	105750	447580.210	2952512.927	448376.0109	2952248.711	448399.3301	2952193.088
1801	105800	447608.025	2952471.378	448419.3664	2952273.613	448442.8005	2952217.788
1802	105850	447635.840	2952429.829	448462.4358	2952299.011	448485.8744	2952243.177
1803	105900	447664.110	2952388.590	448505.5041	2952324.41	448528.9428	2952268.577
1804	105950	447694.460	2952348.869	448548.5725	2952349.809	448572.0113	2952293.975
1805	106000	447728.105	2952311.905	448591.641	2952375.208	448615.0797	2952319.375
1806	106050	447764.967	2952278.148	448634.7094	2952400.607	448658.1482	2952344.773
1807	106100	447804.741	2952247.877	448677.778	2952426.006	448701.217	2952370.172
1808	106150	447847.099	2952221.341	448720.8463	2952451.405	448744.2855	2952395.571
1809	106200	447891.692	2952198.761	448763.9149	2952476.804	448787.3539	2952420.97
1810	106250	447938.150	2952180.323	448806.9833	2952502.203	448830.4225	2952446.369
1811	106300	447986.090	2952166.178	448850.0518	2952527.602	448873.4908	2952471.768
1812	106350	448035.116	2952156.444	448893.1202	2952553.001	448916.5591	2952497.167
1813	106400	448084.824	2952151.201	448936.1887	2952578.399	448959.6277	2952522.566
1814	106450	448134.802	2952150.492	448979.2571	2952603.799	449002.6961	2952547.965
1815	106500	448184.638	2952154.323	449022.3254	2952629.198	449045.7646	2952573.364
1816	106550	448233.921	2952162.663	449065.394	2952654.597	449088.833	2952598.763
1817	106600	448282.243	2952175.443	449108.4623	2952679.996	449131.9015	2952624.162
1818	106650	448329.205	2952192.557	449151.5309	2952705.395	449174.9699	2952649.561
1819	106700	448374.439	2952213.825	449194.5993	2952730.794	449218.0385	2952674.96
1820	106750	448418.136	2952238.119	449237.6678	2952756.193	449261.1068	2952700.359
1821	106800	448461.231	2952263.472	449280.7362	2952781.592	449304.1754	2952725.758
1822	106850	448504.299	2952288.871	449323.8047	2952806.99	449347.2437	2952751.157
1823	106900	448547.368	2952314.270	449366.8731	2952832.39	449390.3121	2952776.556
1824	106950	448590.436	2952339.669	449409.8803	2952857.892	449433.3493	2952802.008
1825	107000	448633.504	2952365.068	449452.5496	2952883.955	449476.0855	2952827.961
1826	107050	448676.573	2952390.468	449494.8383	2952910.631	449518.4499	2952854.517
1827	107100	448719.641	2952415.866	449536.738	2952937.915	449560.4333	2952881.671
1828	107150	448762.710	2952441.266	449578.2405	2952965.798	449602.0281	2952909.417
1829	107200	448805.778	2952466.664	449619.3369	2952994.277	449643.2256	2952937.749
1830	107250	448848.847	2952492.063	449660.0186	2953023.345	449684.0179	2952966.662
1831	107300	448891.915	2952517.462	449700.2776	2953052.996	449724.3963	2952996.15
1832	107350	448934.984	2952542.861	449740.1051	2953083.224	449764.3528	2953026.207
1833	107400	448978.052	2952568.260	449779.4928	2953114.022	449803.8803	2953056.826
1834	107450	449021.120	2952593.659	449818.4324	2953145.386	449842.9695	2953088.003
1835	107500	449064.190	2952619.057	449856.9165	2953177.306	449881.6139	2953119.73
1836	107550	449107.258	2952644.457	449894.9367	2953209.778	449919.8044	2953152.001

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1837	107600	449150.326	2952669.856	449932.4854	2953242.794	449957.5343	2953184.81
1838	107650	449193.395	2952695.255	449969.5538	2953276.348	449994.7957	2953218.149
1839	107700	449236.463	2952720.654	450006.1357	2953310.432	450031.5815	2953252.013
1840	107750	449279.532	2952746.052	450042.2222	2953345.04	450067.8837	2953286.395
1841	107800	449322.600	2952771.452	450077.8062	2953380.165	450103.6953	2953321.287
1842	107850	449365.669	2952796.850	450112.8952	2953415.784	450139.0093	2953356.683
1843	107900	449408.730	2952822.262	450147.8255	2953451.559	450173.9589	2953392.44
1844	107950	449451.544	2952848.086	450182.7563	2953487.334	450208.8898	2953428.215
1845	108000	449493.985	2952874.520	450217.6866	2953523.11	450243.8201	2953463.99
1846	108050	449536.043	2952901.558	450252.6168	2953558.885	450278.7499	2953499.766
1847	108100	449577.711	2952929.193	450287.5472	2953594.66	450313.6807	2953535.541
1848	108150	449618.981	2952957.421	450322.4776	2953630.436	450348.611	2953571.316
1849	108200	449659.842	2952986.236	450357.4084	2953666.21	450383.5418	2953607.091
1850	108250	449700.288	2953015.631	450392.4758	2953701.851	450418.4805	2953642.858
1851	108300	449740.310	2953045.602	450428.888	2953736.103	450454.0779	2953677.963
1852	108350	449779.899	2953076.140	450468.0795	2953767.111	450492.122	2953710.371
1853	108400	449819.048	2953107.242	450510.5206	2953793.492	450533.864	2953737.826
1854	108450	449857.750	2953138.899	450555.7116	2953814.819	450578.893	2953759.472
1855	108500	449895.995	2953171.106	450603.0407	2953830.851	450626.3892	2953774.974
1856	108550	449933.775	2953203.856	450651.902	2953841.328	450675.5275	2953784.023
1857	108600	449971.084	2953237.143	450701.7097	2953842.823	450724.8876	2953791.983
1858	108650	450007.915	2953270.958	450751.6807	2953841.422	450774.5191	2953797.049
1859	108700	450044.258	2953305.297	450801.6611	2953842.823	450824.4999	2953798.437
1860	108750	450080.106	2953340.152	450851.6468	2953843.991	450874.4932	2953799.164
1861	108800	450115.453	2953375.515	450901.6454	2953844.033	450924.4593	2953798.141
1862	108850	450150.410	2953411.264	450951.6235	2953844.898	450974.2144	2953793.199
1863	108900	450185.341	2953447.039	451001.5934	2953846.117	451024.1017	2953790.894
1864	108950	450220.271	2953482.814	451051.3756	2953847.264	451073.5916	2953785.877
1865	109000	450255.201	2953518.590	451101.3143	2953844.972	451123.5419	2953787.855
1866	109050	450290.132	2953554.365	451151.2499	2953842.937	451173.5343	2953787.821
1867	109100	450325.062	2953590.140	451201.2492	2953842.677	451223.5194	2953788.068
1868	109150	450359.993	2953625.915	451251.2028	2953840.803	451273.4253	2953791.134
1869	109200	450394.926	2953661.687	451301.0997	2953837.594	451323.3909	2953791.914
1870	109250	450430.412	2953696.908	451351.0771	2953836.465	451373.3811	2953790.946
1871	109300	450468.094	2953729.746	451401.0598	2953835.163	451423.3552	2953789.348
1872	109350	450509.193	2953758.167	451451.0244	2953833.287	451473.3157	2953787.361
1873	109400	450553.480	2953781.311	451500.9846	2953831.292	451523.2759	2953785.366
1874	109450	450600.279	2953798.825	451550.9448	2953829.297	451573.2361	2953783.371
1875	109500	450648.879	2953810.442	451600.9049	2953827.302	451623.1963	2953781.376
1876	109550	450698.504	2953816.400	451650.8651	2953825.307	451673.1565	2953779.381
1877	109600	450748.441	2953818.817	451700.8253	2953823.312	451723.1167	2953777.386
1878	109650	450798.421	2953820.224	451750.7855	2953821.317	451773.0769	2953775.392
1879	109700	450848.406	2953821.449	451800.7457	2953819.323	451823.0371	2953773.397
1880	109750	450898.404	2953821.572	451850.7059	2953817.328	451872.9973	2953771.402
1881	109800	450948.390	2953820.446	451900.6661	2953815.333	451922.9574	2953769.407
1882	109850	450998.360	2953818.713	451950.6263	2953813.338	451972.9176	2953767.412

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1883	109900	451048.330	2953816.980	452000.5865	2953811.343	452022.8778	2953765.417
1884	109950	451098.314	2953815.759	452050.5448	2953809.304	452072.8304	2953763.244
1885	110000	451148.313	2953815.452	452100.4927	2953807.022	452122.7779	2953760.952
1886	110050	451198.313	2953815.192	452150.4401	2953804.729	452172.7253	2953758.659
1887	110100	451248.312	2953814.932	452200.3875	2953802.437	452222.6727	2953756.367
1888	110150	451298.311	2953814.668	452250.335	2953800.145	452272.6201	2953754.075
1889	110200	451348.307	2953814.017	452300.2824	2953797.852	452322.5675	2953751.782
1890	110250	451398.290	2953812.742	452350.2298	2953795.56	452372.515	2953749.49
1891	110300	451448.255	2953810.880	452400.1772	2953793.268	452422.4624	2953747.198
1892	110350	451498.215	2953808.885	452450.1247	2953790.975	452472.4098	2953744.905
1893	110400	451548.176	2953806.890	452500.0721	2953788.683	452522.3572	2953742.613
1894	110450	451598.136	2953804.895	452550.0195	2953786.39	452572.3047	2953740.321
1895	110500	451648.096	2953802.900	452599.9669	2953784.098	452622.2521	2953738.028
1896	110550	451698.056	2953800.905	452649.9143	2953781.806	452672.1995	2953735.736
1897	110600	451748.016	2953798.910	452699.8618	2953779.513	452722.1469	2953733.443
1898	110650	451797.977	2953796.916	452749.8092	2953777.221	452772.0944	2953731.151
1899	110700	451847.937	2953794.921	452799.7566	2953774.929	452822.0418	2953728.859
1900	110750	451897.897	2953792.926	452849.704	2953772.636	452871.9892	2953726.566
1901	110800	451947.857	2953790.931	452899.6514	2953770.344	452921.9366	2953724.274
1902	110850	451997.817	2953788.936	452949.5989	2953768.052	452971.884	2953721.982
1903	110900	452047.776	2953786.905	452999.5463	2953765.759	453021.8315	2953719.689
1904	110950	452097.724	2953784.625	453049.4937	2953763.467	453071.7789	2953717.397
1905	111000	452147.671	2953782.333	453099.4412	2953761.174	453121.7263	2953715.105
1906	111050	452197.619	2953780.040	453149.3886	2953758.882	453171.6737	2953712.812
1907	111100	452247.566	2953777.748	453199.336	2953756.59	453221.6212	2953710.52
1908	111150	452297.514	2953775.456	453249.2834	2953754.297	453271.5686	2953708.227
1909	111200	452347.461	2953773.163	453299.2308	2953752.005	453321.5167	2953705.951
1910	111250	452397.409	2953770.871	453349.1833	2953750.209	453371.2318	2953700.676
1911	111300	452447.356	2953768.579	453399.173	2953750.87	453421.138	2953697.859
1912	111350	452497.303	2953766.286	453449.1254	2953748.784	453471.0862	2953695.585
1913	111400	452547.251	2953763.994	453499.0943	2953747.413	453520.8902	2953691.199
1914	111450	452597.198	2953761.702	453549.0941	2953747.278	453570.7505	2953687.629
1915	111500	452647.146	2953759.409	453599.0447	2953745.115	453620.6979	2953685.336
1916	111550	452697.093	2953757.117	453648.9531	2953742.262	453670.6833	2953684.81
1917	111600	452747.040	2953754.824	453698.7499	2953739.499	453720.3514	2953680.122
1918	111650	452796.988	2953752.532	453748.67	2953738.885	453770.2988	2953677.83
1919	111700	452846.935	2953750.240	453798.6168	2953736.579	453820.2384	2953675.379
1920	111750	452896.883	2953747.947	453848.5326	2953733.701	453870.0989	2953671.693
1921	111800	452946.830	2953745.655	453898.3083	2953729.017	453919.7364	2953665.72
1922	111850	452996.778	2953743.363	453947.8452	2953722.245	453969.1696	2953658.217
1923	111900	453046.725	2953741.070	453997.2458	2953714.527	454018.5575	2953650.417
1924	111950	453096.672	2953738.778	454046.6335	2953706.726	454067.9452	2953642.616
1925	112000	453146.620	2953736.486	454096.0214	2953698.925	454117.3331	2953634.816
1926	112050	453196.567	2953734.193	454145.4092	2953691.125	454166.7209	2953627.016
1927	112100	453246.515	2953731.901	454194.7971	2953683.325	454216.1088	2953619.216
1928	112150	453296.462	2953729.608	454244.1849	2953675.526	454265.4966	2953611.416

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1929	112200	453346.410	2953727.316	454293.5728	2953667.726	454314.8845	2953603.616
1930	112250	453396.357	2953725.024	454342.9606	2953659.925	454364.2723	2953595.816
1931	112300	453446.304	2953722.731	454392.3484	2953652.125	454413.66	2953588.015
1932	112350	453496.252	2953720.439	454441.7362	2953644.324	454463.0479	2953580.215
1933	112400	453546.199	2953718.147	454491.124	2953636.525	454512.4358	2953572.415
1934	112450	453596.147	2953715.854	454540.5119	2953628.725	454561.8236	2953564.615
1935	112500	453646.094	2953713.562	454589.8997	2953620.925	454611.2115	2953556.815
1936	112550	453696.042	2953711.270	454639.2876	2953613.124	454660.5993	2953549.015
1937	112600	453745.989	2953708.977	454688.6754	2953605.324	454709.9589	2953541.041
1938	112650	453795.936	2953706.674	454737.9801	2953597.022	454759.1256	2953531.958
1939	112700	453845.853	2953703.818	454787.0671	2953587.518	454808.0456	2953521.628
1940	112750	453895.628	2953699.127	454835.9052	2953576.808	454856.6878	2953510.061
1941	112800	453945.159	2953692.312	454884.4647	2953564.898	454905.0209	2953497.264
1942	112850	453994.557	2953684.579	454932.7162	2953551.796	454953.0137	2953483.244
1943	112900	454043.945	2953676.778	454980.6307	2953537.511	455000.6353	2953468.011
1944	112950	454093.333	2953668.978	455028.1788	2953522.05	455047.8548	2953451.574
1945	113000	454142.721	2953661.178	455075.3317	2953505.423	455094.6425	2953433.946
1946	113050	454192.109	2953653.378	455122.0611	2953487.64	455140.9676	2953415.135
1947	113100	454241.497	2953645.578	455168.3383	2953468.711	455186.8005	2953395.155
1948	113150	454290.884	2953637.778	455214.1356	2953448.649	455232.1119	2953374.019
1949	113200	454340.272	2953629.978	455259.4237	2953427.463	455276.8724	2953351.739
1950	113250	454389.660	2953622.177	455304.176	2953405.167	455321.0533	2953328.332
1951	113300	454439.048	2953614.377	455348.3659	2953381.776	455364.6498	2953303.852
1952	113350	454488.436	2953606.577	455391.9839	2953357.335	455408.5044	2953279.915
1953	113400	454537.823	2953598.777	455435.0654	2953332.014	455454.1881	2953259.592
1954	113450	454587.211	2953590.977	455475.8203	2953303.048	455498.3442	2953236.251
1955	113500	454636.599	2953583.177	455518.2479	2953276.703	455541.7787	2953211.483
1956	113550	454685.987	2953575.377	455561.6825	2953251.935	455585.2133	2953186.715
1957	113600	454735.283	2953567.026	455605.1171	2953227.168	455628.648	2953161.948
1958	113650	454784.356	2953557.447	455648.5517	2953202.4	455672.0825	2953137.18
1959	113700	454833.174	2953546.645	455691.9864	2953177.632	455715.5172	2953112.413
1960	113750	454881.706	2953534.626	455735.421	2953152.865	455758.9518	2953087.645
1961	113800	454929.923	2953521.396	455778.8555	2953128.097	455802.3863	2953062.877
1962	113850	454977.795	2953506.967	455822.2902	2953103.33	455845.821	2953038.11
1963	113900	455025.290	2953491.345	455865.7248	2953078.562	455889.164	2953013.185
1964	113950	455072.380	2953474.540	455909.1595	2953053.794	455928.6752	2952982.553
1965	114000	455119.036	2953456.564	455955.5587	2953035.247	455972.0039	2952957.777
1966	114050	455165.227	2953437.427	455999.1624	2953011.003	456016.8721	2952935.713
1967	114100	455210.926	2953417.142	456041.0106	2952983.64	456060.6445	2952911.582
1968	114150	455256.103	2953395.720	456083.9913	2952958.129	456104.3256	2952887.281
1969	114200	455300.731	2953373.176	456127.426	2952933.362	456149.1571	2952865.156
1970	114250	455344.781	2953349.523	456169.5393	2952906.436	456193.0295	2952841.18
1971	114300	455388.299	2953324.902	456212.8785	2952881.579	456238.374	2952820.155
1972	114350	455431.733	2953300.135	456258.2609	2952860.643	456285.7036	2952804.132
1973	114400	455475.168	2953275.368	456305.8325	2952845.371	456334.5914	2952793.788
1974	114450	455518.602	2953250.599	456355.0025	2952836.513	456384.3608	2952789.291

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
1975	114500	455562.037	2953225.832	456404.9082	2952833.960	456434.3477	2952789.597
1976	114550	455605.472	2953201.064	456454.8734	2952835.639	456484.2712	2952792.337
1977	114600	455648.906	2953176.297	456504.7793	2952838.704	456534.1741	2952795.451
1978	114650	455692.341	2953151.530	456554.6802	2952841.85	456584.059	2952798.835
1979	114700	455735.775	2953126.761	456604.5266	2952845.745	456633.8286	2952803.594
1980	114750	455779.210	2953101.994	456654.1978	2952851.446	456683.4179	2952809.981
1981	114800	455822.645	2953077.227	456703.7342	2952858.238	456733.0109	2952816.316
1982	114850	455866.079	2953052.458	456753.1279	2952865.987	456782.8092	2952820.754
1983	114900	455909.514	2953027.691	456802.7695	2952871.886	456832.7805	2952821.662
1984	114950	455952.949	2953002.923	456852.7126	2952874.056	456882.6764	2952818.854
1985	115000	455996.383	2952978.156	456902.3915	2952868.621	456932.1917	2952812.05
1986	115050	456039.818	2952953.389	456951.8364	2952861.223	456981.6684	2952804.852
1987	115100	456083.252	2952928.620	457000.9803	2952852.041	457031.1626	2952797.76
1988	115150	456126.687	2952903.853	457049.9568	2952841.976	457080.4129	2952789.205
1989	115200	456170.149	2952879.134	457098.9087	2952831.812	457129.4592	2952779.486
1990	115250	456214.285	2952855.652	457147.9551	2952822.093	457178.5055	2952769.767
1991	115300	456260.167	2952835.839	457197.0994	2952812.91	457227.227	2952758.577
1992	115350	456308.087	2952821.679	457246.4453	2952804.85	457276.1168	2952748.1
1993	115400	456357.398	2952813.602	457295.8689	2952797.281	457325.3904	2952739.681
1994	115450	456407.329	2952811.455	457344.996	2952788.024	457374.9157	2952732.807
1995	115500	456457.292	2952813.238	457394.0495	2952778.341	457424.4695	2952726.146
1996	115550	456507.197	2952816.311	457443.2185	2952769.299	457474.0258	2952719.529
1997	115600	456557.098	2952819.460	457492.8452	2952763.253	457523.8594	2952715.547
1998	115650	456606.943	2952823.373	457542.7455	2952760.246	457573.8425	2952714.518
1999	115700	456656.615	2952829.070	457592.7405	2952760.131	457623.8313	2952715.505
2000	115750	456706.152	2952835.857	457642.721	2952761.51	457673.6868	2952713.9
2001	115800	456755.710	2952842.488	457692.0719	2952769.109	457723.4787	2952710.761
2002	115850	456805.500	2952846.957	457741.8511	2952772.192	457773.315	2952714.569
2003	115900	456855.480	2952847.032	457791.8301	2952770.741	457823.1395	2952718.563
2004	115950	456905.248	2952842.369	457841.8062	2952771.186	457873.114	2952720.161
2005	116000	456954.676	2952834.842	457891.7812	2952772.768	457923.0018	2952723.282
2006	116050	457004.003	2952826.670	457941.7321	2952771.403	457972.919	2952724.576
2007	116100	457053.195	2952817.723	457991.6492	2952768.697	458022.776	2952720.930
2008	116150	457102.244	2952808.015	458041.4339	2952764.134	458072.4006	2952714.830
2009	116200	457151.290	2952798.296	458091.0181	2952757.707	458121.9412	2952708.069
2010	116250	457200.338	2952788.584	458140.5707	2952751.035	458171.5955	2952702.216
2011	116300	457249.448	2952779.192	458190.2748	2952745.627	458221.4142	2952697.989
2012	116350	457298.649	2952770.292	458240.1334	2952741.903	458271.3448	2952695.401
2013	116400	457347.934	2952761.869	458290.0893	2952739.867	458321.3334	2952694.438
2014	116450	457397.245	2952753.597	458340.0858	2952739.391	458371.3333	2952694.361
2015	116500	457446.643	2952745.871	458390.0857	2952739.342	458421.3333	2952694.312
2016	116550	457496.308	2952740.145	458440.0857	2952739.294	458471.3333	2952694.263
2017	116600	457546.227	2952737.441	458490.0857	2952739.245	458521.3332	2952694.215
2018	116650	457596.223	2952737.492	458540.0857	2952739.197	458571.3332	2952694.166
2019	116700	457646.203	2952738.915	458590.0856	2952739.148	458621.3332	2952694.118
2020	116750	457696.177	2952740.514	458640.0856	2952739.089	458671.3321	2952693.856

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2021	116800	457746.152	2952742.113	458690.0809	2952738.496	458721.302	2952692.233
2022	116850	457796.126	2952743.711	458740.0207	2952736.14	458771.1552	2952688.442
2023	116900	457846.100	2952745.310	458789.8364	2952731.871	458820.9146	2952683.545
2024	116950	457896.076	2952746.885	458839.5878	2952726.892	458870.6631	2952678.536
2025	117000	457946.068	2952747.642	458889.3363	2952721.883	458920.4115	2952673.526
2026	117050	457996.027	2952745.876	458939.0847	2952716.873	458970.1598	2952668.516
2027	117100	458045.780	2952740.965	458988.833	2952711.863	459019.9082	2952663.506
2028	117150	458095.347	2952734.401	459038.5815	2952706.854	459069.6567	2952658.497
2029	117200	458144.912	2952727.822	459088.3298	2952701.844	459119.3839	2952653.285
2030	117250	458194.640	2952722.638	459138.0335	2952696.415	459169.004	2952647.14
2031	117300	458244.514	2952719.115	459187.6206	2952690.01	459218.4898	2952639.994
2032	117350	458294.477	2952717.257	459237.0712	2952682.624	459267.8214	2952631.851
2033	117400	458344.475	2952716.887	459286.3657	2952674.259	459316.9785	2952622.713
2034	117450	458394.475	2952716.838	459335.4847	2952664.919	459365.9413	2952612.586
2035	117500	458444.475	2952716.790	459384.4092	2952654.608	459414.7651	2952601.805
2036	117550	458494.474	2952716.741	459433.2288	2952643.808	459463.5845	2952591.004
2037	117600	458544.474	2952716.693	459482.0481	2952633.006	459512.4038	2952580.202
2038	117650	458594.474	2952716.644	459530.8675	2952622.205	459561.2232	2952569.401
2039	117700	458644.474	2952716.577	459579.687	2952611.404	459610.0426	2952558.6
2040	117750	458694.468	2952715.877	459628.5064	2952600.603	459658.8621	2952547.799
2041	117800	458744.396	2952713.274	459677.3258	2952589.802	459707.6815	2952536.998
2042	117850	458794.198	2952708.838	459726.1451	2952579.000	459756.5008	2952526.196
2043	117900	458843.947	2952703.839	459774.9645	2952568.199	459805.3176	2952515.383
2044	117950	458893.695	2952698.830	459823.7755	2952557.360	459854.0486	2952504.191
2045	118000	458943.444	2952693.820	459872.4842	2952546.072	459902.6455	2952492.431
2046	118050	458993.192	2952688.810	459921.0591	2952534.22	459951.111	2952480.139
2047	118100	459042.941	2952683.801	459969.5118	2952521.878	459999.5457	2952467.726
2048	118150	459092.689	2952678.790	460017.9465	2952509.465	460047.9803	2952455.313
2049	118200	459142.378	2952673.233	460066.3811	2952497.052	460096.415	2952442.900
2050	118250	459191.947	2952666.683	460114.8156	2952484.638	460144.8497	2952430.487
2051	118300	459241.374	2952659.143	460163.2503	2952472.225	460193.2843	2952418.074
2052	118350	459290.641	2952650.617	460211.6849	2952459.812	460241.719	2952405.661
2053	118400	459339.727	2952641.107	460260.1196	2952447.399	460290.1537	2952393.248
2054	118450	459388.617	2952630.633	460308.5543	2952434.986	460338.5883	2952380.835
2055	118500	459437.437	2952619.832	460356.9889	2952422.573	460387.023	2952368.422
2056	118550	459486.256	2952609.031	460405.4236	2952410.16	460435.4577	2952356.009
2057	118600	459535.076	2952598.230	460453.8583	2952397.747	460483.8923	2952343.596
2058	118650	459583.895	2952587.429	460502.2929	2952385.334	460532.327	2952331.183
2059	118700	459632.715	2952576.628	460550.7276	2952372.921	460580.7617	2952318.77
2060	118750	459681.534	2952565.826	460599.1623	2952360.508	460629.2168	2952306.437
2061	118800	459730.353	2952555.025	460647.6345	2952348.244	460677.8643	2952294.891
2062	118850	459779.173	2952544.224	460696.3207	2952336.861	460726.7314	2952284.311
2063	118900	459827.973	2952533.337	460745.2267	2952326.463	460775.7983	2952274.701
2064	118950	459876.657	2952521.941	460794.3325	2952317.054	460825.0272	2952265.959
2065	119000	459925.204	2952509.979	460843.6572	2952308.911	460873.9579	2952255.674
2066	119050	459973.645	2952497.591	460893.1943	2952302.123	460923.2447	2952247.366

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2067	119100	460022.080	2952485.178	460942.2632	2952292.537	460972.7631	2952240.448
2068	119150	460070.515	2952472.765	460991.3229	2952282.906	461022.0322	2952231.93
2069	119200	460118.949	2952460.352	461040.5957	2952274.41	461071.3926	2952223.966
2070	119250	460167.384	2952447.939	461090.0017	2952266.734	461120.9345	2952217.222
2071	119300	460215.819	2952435.526	461139.5857	2952260.309	461170.6282	2952211.708
2072	119350	460264.253	2952423.113	461189.313	2952255.105	461216.1837	2952203.362
2073	119400	460312.688	2952410.700	461239.0804	2952250.288	461258.6412	2952203.185
2074	119450	460361.123	2952398.287	461288.848	2952245.472	461307.4975	2952198.049
2075	119500	460409.557	2952385.874	461338.6154	2952240.655	461357.2542	2952193.641
2076	119550	460457.992	2952373.461	461384.6099	2952240.277	461407.0217	2952188.825
2077	119600	460506.427	2952361.048	461430.3666	2952231.776	461456.7891	2952184.008
2078	119650	460554.862	2952348.635	461480.1338	2952226.97	461506.5567	2952179.192
2079	119700	460603.296	2952336.222	461528.9589	2952222.234	461556.3241	2952174.376
2080	119750	460651.799	2952324.082	461573.4762	2952223.793	461606.0916	2952169.559
2081	119800	460700.529	2952312.885	461616.8691	2952213.726	461655.841	2952164.563
2082	119850	460749.472	2952302.664	461666.6093	2952208.643	461705.4266	2952158.168
2083	119900	460798.610	2952293.424	461716.1696	2952202.053	461754.7187	2952149.8
2084	119950	460847.874	2952284.878	461765.4443	2952193.58	461803.8576	2952140.56
2085	120000	460897.143	2952276.358	461814.5813	2952184.33	461852.9902	2952131.287
2086	120050	460946.412	2952267.839	461863.7139	2952175.058	461902.1228	2952122.014
2087	120100	460995.681	2952259.319	461912.8465	2952165.785	461951.2576	2952112.753
2088	120150	461044.962	2952250.872	461961.9829	2952156.532	462000.5109	2952104.15
2089	120200	461094.398	2952243.392	462011.2474	2952147.993	462049.8764	2952096.21
2090	120250	461144.005	2952237.148	462060.6144	2952140.062	462099.2442	2952088.284
2091	120300	461193.746	2952232.071	462109.9821	2952132.136	462148.6259	2952080.446
2092	120350	461243.513	2952227.254	462159.3689	2952124.33	462198.1619	2952073.672
2093	120400	461293.281	2952222.438	462208.9293	2952117.743	462247.9676	2952069.359
2094	120450	461343.048	2952217.621	462258.7697	2952113.866	462297.9426	2952068.066
2095	120500	461392.816	2952212.805	462308.7562	2952113.18	462347.9194	2952069.447
2096	120550	461442.583	2952207.989	462358.7187	2952115.039	462397.8438	2952072.19
2097	120600	461492.351	2952203.172	462408.6366	2952117.901	462447.7592	2952075.097
2098	120650	461542.118	2952198.356	462458.5568	2952120.721	462497.7212	2952076.906
2099	120700	461591.886	2952193.539	462508.5353	2952121.895	462547.6536	2952074.859
2100	120750	461641.649	2952188.684	462558.4241	2952118.963	462596.9353	2952066.638
2101	120800	461691.314	2952182.919	462607.6473	2952110.352	462644.6873	2952051.939
2102	120850	461740.710	2952175.196	462655.4949	2952095.941	462690.2012	2952031.309
2103	120900	461789.875	2952166.097	462701.3593	2952076.098	462733.8467	2952006.929
2104	120950	461839.008	2952156.824	462745.3334	2952052.321	462776.8177	2951981.365
2105	121000	461888.140	2952147.550	462788.3699	2952026.869	462819.7627	2951955.758
2106	121050	461937.273	2952138.277	462831.3153	2952001.262	462862.7081	2951930.152
2107	121100	461986.462	2952129.315	462874.2605	2951975.655	462905.6536	2951904.545
2108	121150	462035.808	2952121.257	462917.2059	2951950.049	462948.5987	2951878.938
2109	121200	462085.176	2952113.331	462960.1512	2951924.442	462991.5439	2951853.331
2110	121250	462134.545	2952105.415	463003.0964	2951898.835	463034.4895	2951827.725
2111	121300	462184.005	2952098.093	463046.0418	2951873.229	463077.5529	2951802.319
2112	121350	462233.721	2952092.834	463089.0245	2951847.685	463121.6386	2951778.752

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2113	121400	462283.664	2952090.614	463132.768	2951823.484	463167.6557	2951759.268
2114	121450	462333.653	2952091.357	463178.4486	2951803.23	463215.6265	2951745.273
2115	121500	462383.588	2952093.893	463226.3383	2951788.986	463264.9201	2951737.077
2116	121550	462433.502	2952096.822	463275.696	2951781.235	463314.8339	2951734.741
2117	121600	462483.445	2952099.174	463325.6432	2951780.048	463364.6771	2951738.291
2118	121650	462533.426	2952098.579	463375.3255	2951785.367	463413.8959	2951747.01
2119	121700	462583.030	2952092.557	463424.2693	2951795.541	463462.521	2951758.644
2120	121750	462631.498	2952080.401	463472.778	2951807.66	463510.9912	2951770.917
2121	121800	462678.077	2952062.310	463521.2537	2951819.911	463559.548	2951782.839
2122	121850	462722.521	2952039.431	463569.9725	2951831.14	463608.6342	2951792.285
2123	121900	462765.685	2952014.199	463619.3295	2951839.022	463658.4184	2951796.551
2124	121950	462808.631	2951988.592	463669.2316	2951841.654	463708.3565	2951794.727
2125	122000	462851.576	2951962.985	463719.1353	2951838.91	463757.975	2951788.623
2126	122050	462894.521	2951937.379	463768.7198	2951832.52	463807.3856	2951780.97
2127	122100	462937.466	2951911.772	463818.1257	2951824.836	463856.7831	2951773.231
2128	122150	462980.412	2951886.165	463867.5232	2951817.097	463906.1807	2951765.493
2129	122200	463023.357	2951860.559	463916.9208	2951809.359	463955.5783	2951757.755
2130	122250	463066.307	2951834.960	463966.3184	2951801.621	464004.8744	2951749.529
2131	122300	463109.709	2951810.143	464015.8085	2951794.756	464053.2569	2951736.914
2132	122350	463154.712	2951788.397	464065.7309	2951791.971	464102.2407	2951727.188
2133	122400	463201.900	2951771.960	464115.3023	2951785.874	464151.6383	2951719.45
2134	122450	463250.769	2951761.535	464164.6998	2951778.135	464201.0013	2951711.497
2135	122500	463300.556	2951757.284	464214.0562	2951770.141	464250.2301	2951702.753
2136	122550	463350.485	2951759.273	464263.2776	2951761.355	464299.3046	2951693.18
2137	122600	463399.857	2951767.047	464312.3471	2951751.757	464348.2112	2951682.784
2138	122650	463448.563	2951778.332	464361.2515	2951741.35	464396.942	2951671.592
2139	122700	463497.036	2951790.594	464409.9831	2951730.161	464445.6206	2951660.172
2140	122750	463545.552	2951802.682	464458.6617	2951718.742	464494.2992	2951648.754
2141	122800	463594.501	2951812.836	464507.3403	2951707.323	464542.9776	2951637.333
2142	122850	463644.150	2951818.527	464556.0187	2951695.903	464591.6562	2951625.915
2143	122900	463694.122	2951818.371	464604.6973	2951684.484	464640.3348	2951614.495
2144	122950	463743.858	2951813.349	464653.3759	2951673.065	464689.0134	2951603.076
2145	123000	463793.307	2951805.949	464702.0545	2951661.646	464737.6917	2951591.656
2146	123050	463842.704	2951798.211	464750.7328	2951650.226	464786.3704	2951580.238
2147	123100	463892.102	2951790.472	464799.4115	2951638.807	464835.049	2951568.819
2148	123150	463941.499	2951782.734	464848.0901	2951627.388	464883.7276	2951557.399
2149	123200	463990.897	2951774.996	464896.7687	2951615.969	464932.406	2951545.98
2150	123250	464040.295	2951767.258	464945.4471	2951604.549	464981.0845	2951534.56
2151	123300	464089.692	2951759.519	464994.1256	2951593.13	465029.7632	2951523.142
2152	123350	464139.090	2951751.781	465042.8043	2951581.711	465078.4417	2951511.722
2153	123400	464188.478	2951743.988	465091.4828	2951570.292	465127.1204	2951500.303
2154	123450	464237.759	2951735.538	465140.1614	2951558.873	465175.7987	2951488.883
2155	123500	464286.892	2951726.269	465188.8398	2951547.453	465224.4773	2951477.465
2156	123550	464335.863	2951716.182	465237.5184	2951536.034	465273.1559	2951466.045
2157	123600	464384.659	2951705.279	465286.197	2951524.615	465321.8345	2951454.626
2158	123650	464433.340	2951693.868	465334.8756	2951513.196	465369.9187	2951441.767

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2159	123700	464482.018	2951682.448	465383.6419	2951503.034	465412.4789	2951415.525
2160	123750	464530.697	2951671.029	465433.4351	2951507.577	465458.2064	2951396.957
2161	123800	464579.375	2951659.610	465482.6756	2951504.203	465506.8849	2951385.537
2162	123850	464628.054	2951648.191	465531.354	2951492.783	465555.5634	2951374.118
2163	123900	464676.732	2951636.771	465580.0326	2951481.364	465604.2419	2951362.699
2164	123950	464725.411	2951625.352	465628.7112	2951469.945	465652.9205	2951351.28
2165	124000	464774.089	2951613.933	465677.3898	2951458.526	465701.599	2951339.86
2166	124050	464822.768	2951602.514	465726.0682	2951447.106	465750.2775	2951328.441
2167	124100	464871.446	2951591.094	465774.7467	2951435.687	465798.9561	2951317.022
2168	124150	464920.125	2951579.675	465823.4253	2951424.268	465847.6347	2951305.603
2169	124200	464968.804	2951568.256	465872.1039	2951412.849	465896.3133	2951294.184
2170	124250	465017.482	2951556.837	465920.7825	2951401.43	465944.9917	2951282.764
2171	124300	465066.161	2951545.417	465969.4609	2951390.01	465993.6703	2951271.345
2172	124350	465114.839	2951533.998	466018.1395	2951378.591	466042.3489	2951259.926
2173	124400	465163.518	2951522.579	466066.8181	2951367.172	466091.0779	2951248.726
2174	124450	465212.196	2951511.160	466115.5477	2951355.975	466140.1655	2951239.254
2175	124500	465260.875	2951499.740	466164.6814	2951346.76	466189.8008	2951233.365
2176	124550	465309.553	2951488.321	466214.4426	2951342.157	466239.762	2951231.924
2177	124600	465358.232	2951476.902	466264.4057	2951343.126	466289.6502	2951234.988
2178	124650	465406.911	2951465.483	466313.9448	2951349.698	466339.0607	2951242.524
2179	124700	465455.589	2951454.064	466362.4316	2951361.792	466387.5921	2951254.479
2180	124750	465504.267	2951442.644	466409.2661	2951379.223	466434.8519	2951270.749
2181	124800	465552.946	2951431.225	466453.8411	2951401.816	466480.4557	2951291.207
2182	124850	465601.625	2951419.806	466496.1425	2951428.454	466524.0749	2951315.616
2183	124900	465650.303	2951408.387	466537.2944	2951456.852	466565.972	2951342.894
2184	124950	465698.982	2951396.967	466578.3114	2951485.446	466607.0546	2951371.393
2185	125000	465747.660	2951385.548	466619.3287	2951514.039	466648.0723	2951399.986
2186	125050	465796.339	2951374.129	466660.346	2951542.633	466689.0892	2951428.58
2187	125100	465845.017	2951362.710	466701.3633	2951571.226	466730.1066	2951457.173
2188	125150	465893.696	2951351.290	466742.3803	2951599.82	466771.1235	2951485.767
2189	125200	465942.374	2951339.871	466783.3976	2951628.413	466812.1412	2951514.36
2190	125250	465991.053	2951328.452	466824.4149	2951657.007	466853.1581	2951542.954
2191	125300	466039.732	2951317.033	466865.4322	2951685.6	466894.1755	2951571.547
2192	125350	466088.423	2951305.668	466906.4496	2951714.193	466935.1924	2951600.141
2193	125400	466137.376	2951295.511	466947.4665	2951742.787	466976.2101	2951628.734
2194	125450	466186.901	2951288.761	466988.4842	2951771.38	467017.227	2951657.328
2195	125500	466236.845	2951286.874	467029.5012	2951799.974	467058.2444	2951685.921
2196	125550	466286.728	2951289.980	467070.5185	2951828.567	467099.2618	2951714.514
2197	125600	466336.052	2951298.053	467111.5355	2951857.161	467140.279	2951743.108
2198	125650	466384.324	2951311.008	467152.5531	2951885.754	467181.2964	2951771.701
2199	125700	466431.060	2951328.719	467193.5701	2951914.348	467222.3133	2951800.295
2200	125750	466475.796	2951351.005	467234.5874	2951942.941	467263.3307	2951828.888
2201	125800	466518.383	2951377.184	467275.6044	2951971.535	467304.3476	2951857.482
2202	125850	466559.660	2951405.399	467316.622	2952000.128	467345.3653	2951886.075
2203	125900	466600.677	2951433.992	467357.6394	2952028.721	467386.3822	2951914.669
2204	125950	466641.694	2951462.586	467398.6563	2952057.315	467427.3996	2951943.262

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2205	126000	466682.712	2951491.179	467439.6737	2952085.908	467468.4165	2951971.856
2206	126050	466723.729	2951519.772	467480.691	2952114.502	467509.4342	2952000.449
2207	126100	466764.746	2951548.366	467521.7083	2952143.095	467550.4516	2952029.042
2208	126150	466805.764	2951576.959	467562.7252	2952171.689	467591.4685	2952057.636
2209	126200	466846.781	2951605.553	467603.7426	2952200.282	467632.4859	2952086.229
2210	126250	466887.798	2951634.146	467644.7596	2952228.876	467673.5031	2952114.823
2211	126300	466928.815	2951662.740	467685.7772	2952257.469	467714.5205	2952143.416
2212	126350	466969.833	2951691.333	467726.7941	2952286.063	467755.5374	2952172.01
2213	126400	467010.850	2951719.927	467767.8115	2952314.656	467796.5548	2952200.603
2214	126450	467051.867	2951748.520	467808.8289	2952343.249	467837.572	2952229.197
2215	126500	467092.884	2951777.114	467849.8461	2952371.843	467878.5894	2952257.79
2216	126550	467133.902	2951805.707	467890.8635	2952400.436	467919.6063	2952286.384
2217	126600	467174.919	2951834.300	467931.8805	2952429.03	467960.6237	2952314.977
2218	126650	467215.936	2951862.894	467972.8978	2952457.623	468001.6414	2952343.57
2219	126700	467256.954	2951891.487	468013.915	2952486.217	468042.6583	2952372.164
2220	126750	467297.970	2951920.081	468054.9324	2952514.81	468083.6757	2952400.757
2221	126800	467338.988	2951948.674	468095.9494	2952543.404	468124.6926	2952429.351
2222	126850	467380.005	2951977.268	468136.9667	2952571.997	468165.7103	2952457.944
2223	126900	467421.022	2952005.861	468177.9839	2952600.591	468206.7272	2952486.538
2224	126950	467462.039	2952034.455	468219.0013	2952629.184	468247.7446	2952515.131
2225	127000	467503.057	2952063.048	468260.0187	2952657.777	468288.7615	2952543.725
2226	127050	467544.074	2952091.642	468301.0356	2952686.371	468329.7792	2952572.318
2227	127100	467585.091	2952120.235	468342.0532	2952714.964	468370.7961	2952600.912
2228	127150	467626.109	2952148.828	468383.0702	2952743.558	468411.8135	2952629.505
2229	127200	467667.126	2952177.422	468424.0876	2952772.151	468452.8308	2952658.098
2230	127250	467708.143	2952206.015	468465.1045	2952800.745	468493.8481	2952686.692
2231	127300	467749.160	2952234.609	468506.1221	2952829.338	468534.8654	2952715.285
2232	127350	467790.178	2952263.202	468547.1391	2952857.932	468575.8824	2952743.879
2233	127400	467831.195	2952291.796	468588.1565	2952886.525	468616.8997	2952772.472
2234	127450	467872.212	2952320.389	468629.1734	2952915.119	468657.917	2952801.066
2235	127500	467913.229	2952348.983	468670.191	2952943.712	468698.9343	2952829.659
2236	127550	467954.246	2952377.576	468711.2084	2952972.305	468739.9513	2952858.253
2237	127600	467995.263	2952406.170	468752.2254	2953000.899	468780.9687	2952886.846
2238	127650	468036.281	2952434.763	468793.2427	2953029.492	468821.9859	2952915.44
2239	127700	468077.298	2952463.356	468834.26	2953058.086	468863.0033	2952944.033
2240	127750	468118.315	2952491.950	468875.2773	2953086.679	468904.0206	2952972.626
2241	127800	468159.333	2952520.543	468916.2943	2953115.273	468945.0376	2953001.22
2242	127850	468200.350	2952549.137	468957.3116	2953143.866	468986.0552	2953029.813
2243	127900	468241.367	2952577.730	468998.3289	2953172.46	469027.0722	2953058.407
2244	127950	468282.384	2952606.324	469039.3462	2953201.053	469068.0895	2953087
2245	128000	468323.402	2952634.917	469080.3632	2953229.647	469109.1065	2953115.594
2246	128050	468364.419	2952663.511	469121.3805	2953258.24	469150.1241	2953144.187
2247	128100	468405.436	2952692.104	469162.3982	2953286.833	469191.1411	2953172.781
2248	128150	468446.453	2952720.698	469203.4151	2953315.427	469232.1584	2953201.374
2249	128200	468487.471	2952749.291	469244.4325	2953344.02	469273.1754	2953229.968
2250	128250	468528.488	2952777.884	469285.4495	2953372.614	469314.1927	2953258.561

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2251	128300	468569.505	2952806.478	469326.4671	2953401.207	469355.2104	2953287.154
2252	128350	468610.523	2952835.071	469367.4841	2953429.801	469396.2273	2953315.748
2253	128400	468651.539	2952863.665	469408.5014	2953458.394	469437.2447	2953344.341
2254	128450	468692.557	2952892.258	469449.5184	2953486.988	469478.2616	2953372.935
2255	128500	468733.574	2952920.852	469490.536	2953515.581	469519.2793	2953401.528
2256	128550	468774.591	2952949.445	469531.553	2953544.175	469560.2962	2953430.122
2257	128600	468815.608	2952978.039	469572.5703	2953572.768	469601.3136	2953458.715
2258	128650	468856.626	2953006.632	469613.5877	2953601.361	469642.3305	2953487.309
2259	128700	468897.643	2953035.226	469654.6046	2953629.955	469683.3482	2953515.902
2260	128750	468938.660	2953063.819	469695.6223	2953658.548	469724.3651	2953544.496
2261	128800	468979.678	2953092.412	469736.6393	2953687.142	469765.3825	2953573.089
2262	128850	469020.695	2953121.006	469777.6566	2953715.735	469806.3999	2953601.682
2263	128900	469061.712	2953149.599	469818.6736	2953744.329	469847.4171	2953630.276
2264	128950	469102.729	2953178.193	469859.6912	2953772.922	469888.4345	2953658.869
2265	129000	469143.747	2953206.786	469900.7082	2953801.516	469929.4514	2953687.463
2266	129050	469184.764	2953235.380	469941.7255	2953830.109	469970.4688	2953716.056
2267	129100	469225.781	2953263.973	469982.7425	2953858.703	470011.486	2953744.65
2268	129150	469266.798	2953292.567	470023.7601	2953887.296	470052.5034	2953773.243
2269	129200	469307.816	2953321.160	470064.7775	2953915.889	470093.5203	2953801.837
2270	129250	469348.832	2953349.754	470105.7944	2953944.483	470134.5377	2953830.43
2271	129300	469389.850	2953378.347	470146.8118	2953973.076	470175.5549	2953859.024
2272	129350	469430.868	2953406.940	470187.8291	2954001.67	470216.5723	2953887.617
2273	129400	469471.884	2953435.534	470228.8464	2954030.263	470257.5897	2953916.21
2274	129450	469512.902	2953464.127	470269.8634	2954058.857	470298.6066	2953944.804
2275	129500	469553.919	2953492.721	470310.8807	2954087.45	470339.6243	2953973.397
2276	129550	469594.936	2953521.314	470351.898	2954116.044	470380.6412	2954001.991
2277	129600	469635.953	2953549.908	470392.9153	2954144.637	470421.6586	2954030.584
2278	129650	469676.971	2953578.501	470433.9323	2954173.231	470462.6755	2954059.178
2279	129700	469717.988	2953607.095	470474.9496	2954201.824	470503.6932	2954087.771
2280	129750	469759.005	2953635.688	470515.9673	2954230.417	470544.7101	2954116.365
2281	129800	469800.022	2953664.282	470556.9842	2954259.011	470585.7275	2954144.958
2282	129850	469841.040	2953692.875	470598.0016	2954287.604	470626.7444	2954173.552
2283	129900	469882.057	2953721.468	470639.0186	2954316.198	470667.7621	2954202.145
2284	129950	469923.074	2953750.062	470680.0362	2954344.791	470708.7795	2954230.738
2285	130000	469964.092	2953778.655	470720.8965	2954373.607	470749.7964	2954259.332
2286	130050	470005.109	2953807.249	470761.0523	2954403.395	470790.5803	2954288.255
2287	130100	470046.126	2953835.842	470800.4295	2954434.206	470830.6616	2954318.145
2288	130150	470087.143	2953864.436	470839.0021	2954466.018	470870.0042	2954349
2289	130200	470128.161	2953893.029	470876.7455	2954498.81	470908.5847	2954380.802
2290	130250	470169.177	2953921.623	470913.6341	2954532.56	470946.3813	2954413.533
2291	130300	470210.195	2953950.216	470949.6408	2954567.25	470983.371	2954447.172
2292	130350	470251.212	2953978.810	470985.0504	2954602.453	471019.5321	2954481.701
2293	130400	470292.229	2954007.403	471028.9486	2954626.39	471054.8397	2954517.103
2294	130450	470333.247	2954035.996	471067.8196	2954656.624	471079.2821	2954560.05
2295	130500	470374.264	2954064.590	471100.1759	2954694.741	471101.779	2954604.379
2296	130550	470415.281	2954093.183	471131.5543	2954733.668	471134.4714	2954642.208

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2297	130600	470456.298	2954121.777	471161.9355	2954773.377	471166.2223	2954680.831
2298	130650	470497.316	2954150.370	471191.395	2954813.776	471197.0131	2954720.224
2299	130700	470538.333	2954178.964	471220.6799	2954854.303	471226.8236	2954760.364
2300	130750	470579.350	2954207.557	471249.9642	2954894.829	471256.109	2954800.89
2301	130800	470620.367	2954236.151	471279.2493	2954935.356	471285.3935	2954841.417
2302	130850	470661.385	2954264.744	471308.5341	2954975.882	471314.6782	2954881.943
2303	130900	470702.402	2954293.338	471337.8187	2955016.409	471343.9634	2954922.47
2304	130950	470743.354	2954322.023	471367.1034	2955056.936	471373.2481	2954962.996
2305	131000	470783.699	2954351.556	471396.3881	2955097.462	471402.5327	2955003.523
2306	131050	470823.293	2954382.087	471425.6731	2955137.989	471431.8174	2955044.05
2307	131100	470862.112	2954413.599	471454.9578	2955178.515	471461.1021	2955084.576
2308	131150	470900.130	2954446.072	471484.2424	2955219.042	471490.3873	2955125.103
2309	131200	470937.326	2954479.484	471513.5272	2955259.568	471519.6714	2955165.63
2310	131250	470973.674	2954513.816	471542.8119	2955300.095	471548.9565	2955206.156
2311	131300	471009.152	2954549.046	471572.097	2955340.621	471578.2413	2955246.682
2312	131350	471043.739	2954585.151	471601.3812	2955381.148	471607.5264	2955287.209
2313	131400	471077.412	2954622.111	471630.6662	2955421.675	471636.8105	2955327.736
2314	131450	471110.152	2954659.900	471659.9511	2955462.201	471666.0952	2955368.262
2315	131500	471141.936	2954698.495	471689.236	2955502.728	471695.3804	2955408.789
2316	131550	471172.746	2954737.873	471718.5961	2955543.2	471724.6651	2955449.315
2317	131600	471202.562	2954778.009	471748.8912	2955582.972	471753.9523	2955489.84
2318	131650	471231.847	2954818.536	471780.9863	2955621.305	471783.6819	2955530.04
2319	131700	471261.132	2954859.062	471814.9113	2955658.029	471815.0585	2955568.962
2320	131750	471290.416	2954899.589	471850.5772	2955693.063	471848.3953	2955606.219
2321	131800	471319.701	2954940.115	471887.8994	2955726.328	471883.606	2955641.71
2322	131850	471348.986	2954980.642	471926.7901	2955757.744	471920.5971	2955675.341
2323	131900	471378.271	2955021.169	471967.1586	2955787.237	471959.2702	2955707.024
2324	131950	471407.555	2955061.695	472008.9096	2955814.739	471999.5248	2955736.673
2325	132000	471436.840	2955102.222	472051.9467	2955840.182	472041.259	2955764.199
2326	132050	471466.125	2955142.748	472096.1721	2955863.498	472084.3545	2955789.54
2327	132100	471495.409	2955183.275	472141.4756	2955884.642	472128.6976	2955812.629
2328	132150	471524.695	2955223.801	472187.7506	2955903.565	472174.1704	2955833.405
2329	132200	471553.979	2955264.328	472234.8887	2955920.223	472220.6523	2955851.813
2330	132250	471583.264	2955304.854	472282.7791	2955934.575	472268.0206	2955867.803
2331	132300	471612.549	2955345.381	472331.3014	2955946.622	472316.1521	2955881.324
2332	132350	471641.833	2955385.908	472380.1814	2955957.143	472364.8678	2955892.571
2333	132400	471671.118	2955426.434	472429.111	2955967.434	472413.7895	2955902.899
2334	132450	471700.403	2955466.961	472478.0407	2955977.724	472462.7191	2955913.19
2335	132500	471729.690	2955507.486	472526.9701	2955988.015	472511.6487	2955923.48
2336	132550	471759.411	2955547.692	472575.8999	2955998.305	472560.5782	2955933.771
2337	132600	471790.726	2955586.665	472624.8293	2956008.596	472609.508	2955944.061
2338	132650	471823.948	2955624.025	472673.759	2956018.886	472658.4374	2955954.352
2339	132700	471858.997	2955659.677	472722.6885	2956029.177	472707.3672	2955964.642
2340	132750	471895.783	2955693.534	472771.6182	2956039.467	472756.2966	2955974.933
2341	132800	471934.215	2955725.510	472820.5477	2956049.758	472805.2263	2955985.223
2342	132850	471974.198	2955755.524	472869.4774	2956060.048	472854.1558	2955995.514

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2343	132900	472015.631	2955783.503	472918.4069	2956070.339	472903.0855	2956005.804
2344	132950	472058.409	2955809.377	472967.3366	2956080.629	472952.015	2956016.095
2345	133000	472102.428	2955833.080	473016.2661	2956090.92	473000.9447	2956026.385
2346	133050	472147.577	2955854.553	473065.1958	2956101.21	473049.8742	2956036.676
2347	133100	472193.742	2955873.743	473114.1253	2956111.501	473098.8037	2956046.967
2348	133150	472240.809	2955890.602	473163.055	2956121.791	473147.7334	2956057.257
2349	133200	472288.660	2955905.087	473211.9845	2956132.082	473196.6629	2956067.548
2350	133250	472337.167	2955917.193	473260.9142	2956142.372	473245.5926	2956077.838
2351	133300	472386.046	2955927.720	473309.8437	2956152.663	473294.5221	2956088.129
2352	133350	472434.975	2955938.011	473358.7734	2956162.953	473343.4518	2956098.419
2353	133400	472483.905	2955948.301	473407.6622	2956173.433	473392.3807	2956108.712
2354	133450	472532.835	2955958.592	473456.2986	2956185.025	473441.1829	2956119.585
2355	133500	472581.764	2955968.882	473504.6254	2956197.846	473489.7028	2956131.656
2356	133550	472630.694	2955979.173	473552.6112	2956211.89	473537.911	2956144.916
2357	133600	472679.624	2955989.463	473600.2253	2956227.146	473585.7768	2956159.364
2358	133650	472728.553	2955999.754	473647.4369	2956243.606	473633.2726	2956174.985
2359	133700	472777.483	2956010.044	473694.2158	2956261.258	473680.3691	2956191.772
2360	133750	472826.412	2956020.335	473740.5315	2956280.091	473727.038	2956209.713
2361	133800	472875.342	2956030.625	473786.3549	2956300.093	473773.2508	2956228.798
2362	133850	472924.271	2956040.916	473831.6557	2956321.252	473818.9801	2956249.014
2363	133900	472973.201	2956051.206	473876.4053	2956343.553	473864.1973	2956270.351
2364	133950	473022.131	2956061.497	473920.5745	2956366.983	473908.8755	2956292.795
2365	134000	473071.060	2956071.787	473964.1347	2956391.526	473952.9877	2956316.332
2366	134050	473119.990	2956082.078	474007.057	2956417.169	473996.5068	2956340.948
2367	134100	473168.920	2956092.368	474049.3144	2956443.893	474039.407	2956366.628
2368	134150	473217.849	2956102.659	474090.8802	2956471.68	474081.6616	2956393.356
2369	134200	473266.779	2956112.949	474131.7275	2956500.514	474123.2454	2956421.117
2370	134250	473315.708	2956123.240	474171.8301	2956530.374	474164.132	2956449.895
2371	134300	473364.638	2956133.530	474211.1624	2956561.242	474204.2964	2956479.672
2372	134350	473413.529	2956144.002	474249.6985	2956593.098	474243.7157	2956510.429
2373	134400	473462.172	2956155.565	474287.4144	2956625.921	474282.3652	2956542.148
2374	134450	473510.511	2956168.340	474324.285	2956659.691	474320.2225	2956574.808
2375	134500	473558.516	2956182.319	474360.287	2956694.386	474357.264	2956608.391
2376	134550	473606.156	2956197.494	474395.3968	2956729.983	474393.4669	2956642.876
2377	134600	473653.402	2956213.856	474429.5926	2956766.459	474428.8102	2956678.241
2378	134650	473700.224	2956231.392	474462.8515	2956803.792	474463.2718	2956714.466
2379	134700	473746.594	2956250.095	474495.1503	2956841.958	474496.8309	2956751.529
2380	134750	473792.481	2956269.950	474526.4701	2956880.931	474529.4676	2956789.407
2381	134800	473837.858	2956290.946	474556.7904	2956920.687	474561.1616	2956828.077
2382	134850	473882.695	2956313.069	474586.0931	2956961.199	474591.8938	2956867.515
2383	134900	473926.966	2956336.307	474614.358	2957002.442	474621.6459	2956907.699
2384	134950	473970.641	2956360.645	474641.5671	2957044.389	474650.3963	2956948.604
2385	135000	474013.695	2956386.066	474667.7033	2957087.012	474678.1311	2956990.206
2386	135050	474056.100	2956412.555	474692.7501	2957130.285	474704.8326	2957032.477
2387	135100	474097.830	2956440.097	474716.6905	2957174.179	474730.4854	2957075.393
2388	135150	474138.857	2956468.673	474739.5098	2957218.666	474755.0738	2957118.928

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2389	135200	474179.158	2956498.265	474761.3056	2957263.665	474778.5819	2957163.056
2390	135250	474218.707	2956528.856	474782.9185	2957308.753	474800.9972	2957207.748
2391	135300	474257.478	2956560.426	474804.5314	2957353.84	474822.644	2957252.819
2392	135350	474295.448	2956592.955	474826.1438	2957398.928	474844.2565	2957297.907
2393	135400	474332.593	2956626.423	474847.7564	2957444.015	474865.8695	2957342.994
2394	135450	474368.890	2956660.809	474869.3686	2957489.103	474887.4819	2957388.082
2395	135500	474404.316	2956696.092	474890.9816	2957534.191	474909.0945	2957433.17
2396	135550	474438.849	2956732.249	474912.5937	2957579.279	474930.7071	2957478.258
2397	135600	474472.467	2956769.259	474934.2066	2957624.366	474952.3194	2957523.345
2398	135650	474505.150	2956807.096	474955.8195	2957669.454	474973.932	2957568.433
2399	135700	474536.877	2956845.740	474977.4317	2957714.542	474995.545	2957613.52
2400	135750	474567.628	2956885.164	474999.0444	2957759.629	475017.1576	2957658.608
2401	135800	474597.383	2956925.344	475020.6568	2957804.717	475038.7699	2957703.696
2402	135850	474626.125	2956966.256	475042.2695	2957849.804	475060.3825	2957748.783
2403	135900	474653.836	2957007.874	475063.8823	2957894.892	475081.9951	2957793.871
2404	135950	474680.497	2957050.171	475085.4947	2957939.98	475103.6075	2957838.959
2405	136000	474706.092	2957093.121	475107.1074	2957985.067	475125.2204	2957884.046
2406	136050	474730.607	2957136.698	475128.7196	2958030.155	475146.833	2957929.134
2407	136100	474754.023	2957180.874	475150.3325	2958075.243	475168.4456	2957974.222
2408	136150	474776.328	2957225.622	475171.9447	2958120.33	475190.058	2958019.309
2409	136200	474797.949	2957270.706	475193.5575	2958165.418	475211.6705	2958064.397
2410	136250	474819.562	2957315.793	475215.1704	2958210.506	475233.2835	2958109.485
2411	136300	474841.175	2957360.881	475236.7827	2958255.593	475254.8959	2958154.572
2412	136350	474862.787	2957405.969	475258.7329	2958300.516	475276.5085	2958199.66
2413	136400	474884.400	2957451.056	475281.7517	2958344.901	475298.1337	2958244.741
2414	136450	474906.012	2957496.144	475305.8571	2958388.705	475320.4421	2958289.487
2415	136500	474927.625	2957541.231	475331.033	2958431.903	475343.8786	2958333.653
2416	136550	474949.237	2957586.319	475357.2653	2958474.467	475368.428	2958377.209
2417	136600	474970.850	2957631.407	475384.5375	2958516.373	475394.0743	2958420.129
2418	136650	474992.463	2957676.494	475412.8332	2958557.595	475420.8015	2958462.385
2419	136700	475014.075	2957721.582	475442.1352	2958598.107	475448.593	2958503.948
2420	136750	475035.688	2957766.670	475472.4261	2958637.886	475477.4302	2958544.793
2421	136800	475057.300	2957811.757	475503.6871	2958676.906	475507.2965	2958584.891
2422	136850	475078.913	2957856.845	475535.8994	2958715.146	475538.1709	2958624.218
2423	136900	475100.526	2957901.932	475569.0466	2958752.578	475570.0332	2958662.749
2424	136950	475122.138	2957947.020	475603.1048	2958789.182	475602.8628	2958700.46
2425	137000	475143.751	2957992.108	475638.0547	2958824.937	475636.6385	2958737.325
2426	137050	475165.363	2958037.196	475673.8737	2958859.82	475671.3389	2958773.322
2427	137100	475186.976	2958082.283	475710.5415	2958893.811	475706.941	2958808.426
2428	137150	475208.589	2958127.371	475748.0346	2958926.888	475743.4227	2958842.616
2429	137200	475230.201	2958172.459	475786.3309	2958959.033	475780.76	2958875.87
2430	137250	475251.814	2958217.546	475825.407	2958990.224	475818.9293	2958908.164
2431	137300	475273.454	2958262.621	475865.2394	2959020.444	475857.9053	2958939.481
2432	137350	475295.874	2958307.310	475905.6653	2959049.867	475897.6638	2958969.798
2433	137400	475319.404	2958351.426	475946.148	2959079.213	475938.0686	2958999.25
2434	137450	475344.030	2958394.940	475986.6305	2959108.558	475978.5512	2959028.596

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2435	137500	475369.735	2958437.825	476027.1135	2959137.903	476019.0337	2959057.941
2436	137550	475396.504	2958480.054	476067.5964	2959167.248	476059.5167	2959087.286
2437	137600	475424.322	2958521.600	476108.0793	2959196.593	476099.9997	2959116.631
2438	137650	475453.168	2958562.438	476148.5623	2959225.938	476140.4826	2959145.976
2439	137700	475483.026	2958602.542	476189.0446	2959255.284	476180.9656	2959175.321
2440	137750	475513.878	2958641.888	476229.5276	2959284.629	476221.4478	2959204.667
2441	137800	475545.704	2958680.449	476270.0106	2959313.974	476261.9308	2959234.012
2442	137850	475578.483	2958718.203	476310.4934	2959343.32	476302.4138	2959263.357
2443	137900	475612.196	2958755.127	476350.9763	2959372.665	476342.8967	2959292.702
2444	137950	475646.822	2958791.195	476391.4587	2959402.01	476383.3797	2959322.047
2445	138000	475682.338	2958826.387	476431.9417	2959431.355	476423.8619	2959351.394
2446	138050	475718.723	2958860.680	476472.4246	2959460.7	476464.3449	2959380.738
2447	138100	475755.953	2958894.053	476512.9076	2959490.045	476504.8279	2959410.083
2448	138150	475794.007	2958926.485	476553.3905	2959519.391	476545.3108	2959439.428
2449	138200	475832.859	2958957.955	476594.0008	2959548.559	476585.7938	2959468.773
2450	138250	475872.486	2958988.444	476634.9336	2959577.272	476626.3851	2959497.968
2451	138300	475912.816	2959017.998	476676.1882	2959605.522	476667.3013	2959526.705
2452	138350	475953.299	2959047.343	476717.7591	2959633.304	476708.5443	2959554.972
2453	138400	475993.781	2959076.689	476759.6406	2959660.615	476750.108	2959582.764
2454	138450	476034.264	2959106.034	476801.828	2959687.452	476791.9865	2959610.08
2455	138500	476074.747	2959135.379	476844.3152	2959713.811	476834.1752	2959636.915
2456	138550	476115.230	2959164.724	476887.0974	2959739.689	476876.6679	2959663.265
2457	138600	476155.713	2959194.069	476930.1688	2959765.082	476919.4594	2959689.128
2458	138650	476196.195	2959223.415	476973.5244	2959789.987	476962.5438	2959714.499
2459	138700	476236.678	2959252.760	477017.1587	2959814.401	477005.9158	2959739.376
2460	138750	476277.161	2959282.105	477061.065	2959838.322	477049.5697	2959763.754
2461	138800	476317.644	2959311.450	477105.2393	2959861.744	477093.4993	2959787.632
2462	138850	476358.127	2959340.795	477149.6747	2959884.667	477137.6996	2959811.005
2463	138900	476398.609	2959370.141	477194.3659	2959907.087	477182.1642	2959833.871
2464	138950	476439.092	2959399.486	477239.3076	2959929.001	477226.8874	2959856.228
2465	139000	476479.575	2959428.831	477284.4936	2959950.407	477271.8636	2959878.071
2466	139050	476520.058	2959458.176	477329.9184	2959971.301	477317.0866	2959899.398
2467	139100	476560.541	2959487.521	477375.576	2959991.681	477362.5509	2959920.206
2468	139150	476601.087	2959516.779	477421.4607	2960011.545	477408.2501	2959940.493
2469	139200	476641.939	2959545.608	477467.5665	2960030.89	477454.1786	2959960.255
2470	139250	476683.116	2959573.971	477513.8879	2960049.712	477500.3299	2959979.491
2471	139300	476724.612	2959601.864	477560.4189	2960068.011	477546.6985	2959998.197
2472	139350	476766.423	2959629.284	477607.1533	2960085.784	477593.2781	2960016.372
2473	139400	476808.542	2959656.226	477654.0851	2960103.028	477640.0624	2960034.013
2474	139450	476850.965	2959682.689	477701.2088	2960119.741	477687.0454	2960051.117
2475	139500	476893.686	2959708.667	477748.518	2960135.922	477734.2214	2960067.682
2476	139550	476936.700	2959734.159	477796.0069	2960151.567	477781.5834	2960083.707
2477	139600	476980.000	2959759.160	477843.6692	2960166.676	477829.1259	2960099.189
2478	139650	477023.581	2959783.668	477891.4992	2960181.245	477876.8423	2960114.126
2479	139700	477067.439	2959807.679	477939.4904	2960195.275	477924.7268	2960128.516
2480	139750	477111.566	2959831.189	477987.637	2960208.761	477972.7725	2960142.357

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2481	139800	477155.958	2959854.197	478035.9327	2960221.703	478020.9736	2960155.647
2482	139850	477200.608	2959876.699	478084.3714	2960234.099	478069.3237	2960168.384
2483	139900	477245.511	2959898.692	478132.9469	2960245.948	478117.8163	2960180.568
2484	139950	477290.661	2959920.173	478181.6529	2960257.248	478166.4451	2960192.196
2485	140000	477336.052	2959941.140	478230.4835	2960267.998	478215.2038	2960203.267
2486	140050	477381.679	2959961.590	478279.4324	2960278.195	478264.086	2960213.779
2487	140100	477427.534	2959981.520	478328.4931	2960287.839	478313.0851	2960223.732
2488	140150	477473.614	2960000.928	478377.6596	2960296.929	478362.1951	2960233.122
2489	140200	477519.911	2960019.811	478426.9257	2960305.463	478411.4092	2960241.951
2490	140250	477566.420	2960038.166	478476.2849	2960313.44	478460.721	2960250.216
2491	140300	477613.134	2960055.992	478525.731	2960320.86	478510.1243	2960257.916
2492	140350	477660.047	2960073.286	478575.2577	2960327.722	478559.6123	2960265.051
2493	140400	477707.155	2960090.045	478624.8587	2960334.024	478609.1787	2960271.619
2494	140450	477754.449	2960106.269	478674.5277	2960339.765	478658.8171	2960277.619
2495	140500	477801.925	2960121.953	478724.2582	2960344.947	478708.5208	2960283.052
2496	140550	477849.576	2960137.098	478774.0442	2960349.566	478758.2835	2960287.914
2497	140600	477897.396	2960151.699	478823.879	2960353.622	478808.0985	2960292.208
2498	140650	477945.379	2960165.757	478873.7565	2960357.117	478857.9594	2960295.931
2499	140700	477993.519	2960179.268	478923.6702	2960360.048	478907.8596	2960299.084
2500	140750	478041.809	2960192.231	478973.6138	2960362.416	478957.7927	2960301.665
2501	140800	478090.243	2960204.645	479023.581	2960364.22	479007.7519	2960303.675
2502	140850	478138.815	2960216.507	479073.5653	2960365.46	479057.731	2960305.114
2503	140900	478187.519	2960227.818	479123.5604	2960366.136	479107.7232	2960305.98
2504	140950	478236.348	2960238.574	479173.56	2960366.247	479157.722	2960306.274
2505	141000	478285.297	2960248.773	479223.5577	2960365.794	479207.721	2960305.996
2506	141050	478334.358	2960258.417	479273.547	2960364.777	479257.7135	2960305.147
2507	141100	478383.525	2960267.502	479323.5218	2960363.196	479307.693	2960303.725
2508	141150	478432.792	2960276.028	479373.4754	2960361.051	479357.653	2960301.732
2509	141200	478482.154	2960283.993	479423.4017	2960358.342	479407.5869	2960299.167
2510	141250	478531.602	2960291.398	479473.2943	2960355.07	479457.4881	2960296.03
2511	141300	478581.131	2960298.239	479523.1467	2960351.235	479507.3503	2960292.323
2512	141350	478630.735	2960304.518	479572.9527	2960346.837	479557.1666	2960288.045
2513	141400	478680.408	2960310.232	479622.7059	2960341.878	479606.9308	2960283.198
2514	141450	478730.141	2960315.382	479672.4	2960336.359	479656.6364	2960277.782
2515	141500	478779.931	2960319.966	479722.0286	2960330.277	479706.2766	2960271.797
2516	141550	478829.769	2960323.983	479771.5854	2960323.637	479755.8452	2960265.245
2517	141600	478879.649	2960327.435	479821.0641	2960316.437	479805.3356	2960258.127
2518	141650	478929.566	2960330.319	479870.4582	2960308.679	479854.7412	2960250.442
2519	141700	478979.512	2960332.637	479919.7616	2960300.364	479904.0557	2960242.192
2520	141750	479029.481	2960334.385	479968.9681	2960291.493	479953.2725	2960233.379
2521	141800	479079.466	2960335.567	480018.0714	2960282.067	480002.3854	2960224.004
2522	141850	479129.462	2960336.180	480067.0651	2960272.088	480051.3878	2960214.067
2523	141900	479179.462	2960336.225	480115.9431	2960261.556	480100.2733	2960203.571
2524	141950	479229.459	2960335.702	480164.6991	2960250.473	480149.0354	2960192.515
2525	142000	479279.447	2960334.611	480213.3269	2960238.841	480197.6679	2960180.903
2526	142050	479329.419	2960332.951	480261.8204	2960226.661	480246.1644	2960168.735

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2527	142100	479379.369	2960330.725	480310.1733	2960213.934	480294.5185	2960156.012
2528	142150	479429.291	2960327.930	480358.3794	2960200.662	480342.7238	2960142.738
2529	142200	479479.178	2960324.569	480406.4327	2960186.847	480390.7742	2960128.913
2530	142250	479529.023	2960320.641	480454.327	2960172.491	480438.6631	2960114.538
2531	142300	479578.820	2960316.147	480502.0563	2960157.595	480486.3847	2960099.618
2532	142350	479628.563	2960311.086	480549.6143	2960142.161	480533.9322	2960084.151
2533	142400	479678.245	2960305.462	480596.9953	2960126.192	480581.2997	2960068.142
2534	142450	479727.861	2960299.273	480644.1929	2960109.689	480628.481	2960051.593
2535	142500	479777.402	2960292.521	480691.2014	2960092.655	480675.47	2960034.504
2536	142550	479826.864	2960285.206	480738.0144	2960075.09	480722.2602	2960016.879
2537	142600	479876.240	2960277.329	480784.6265	2960056.999	480768.846	2959998.72
2538	142650	479925.522	2960268.893	480831.0314	2960038.383	480815.2206	2959980.029
2539	142700	479974.706	2960259.895	480877.2229	2960019.244	480861.3783	2959960.808
2540	142750	480023.784	2960250.341	480923.1958	2959999.585	480907.3129	2959941.06
2541	142800	480072.751	2960240.229	480968.9436	2959979.408	480953.0187	2959920.788
2542	142850	480121.599	2960229.561	481014.4611	2959958.716	480998.4893	2959899.994
2543	142900	480170.324	2960218.339	481059.742	2959937.512	481043.7194	2959878.682
2544	142950	480218.917	2960206.564	481104.7809	2959915.799	481088.7024	2959856.853
2545	143000	480267.373	2960194.238	481149.5717	2959893.578	481133.433	2959834.511
2546	143050	480315.687	2960181.361	481194.109	2959870.854	481177.9048	2959811.659
2547	143100	480363.851	2960167.937	481238.3866	2959847.627	481222.1124	2959788.3
2548	143150	480411.859	2960153.966	481282.3991	2959823.902	481266.0497	2959764.436
2549	143200	480459.705	2960139.450	481326.1413	2959799.683	481309.7114	2959740.071
2550	143250	480507.383	2960124.392	481369.607	2959774.97	481353.0913	2959715.208
2551	143300	480554.888	2960108.793	481412.7914	2959749.769	481396.1839	2959689.851
2552	143350	480602.211	2960092.655	481455.6886	2959724.083	481438.9835	2959664.002
2553	143400	480649.349	2960075.981	481498.2928	2959697.913	481481.4847	2959637.666
2554	143450	480696.294	2960058.771	481540.599	2959671.264	481523.6816	2959610.844
2555	143500	480743.040	2960041.030	481582.6021	2959644.14	481565.5691	2959583.542
2556	143550	480789.582	2960022.758	481624.2963	2959616.544	481607.1416	2959555.762
2557	143600	480835.913	2960003.959	481665.6763	2959588.479	481648.3932	2959527.509
2558	143650	480882.027	2959984.634	481706.737	2959559.948	481689.3191	2959498.785
2559	143700	480927.919	2959964.787	481747.473	2959530.956	481729.9137	2959469.595
2560	143750	480973.582	2959944.419	481787.8792	2959501.506	481770.1717	2959439.943
2561	143800	481019.011	2959923.534	481827.9506	2959471.601	481810.0875	2959409.831
2562	143850	481064.200	2959902.135	481867.6816	2959441.247	481849.6567	2959379.266
2563	143900	481109.142	2959880.223	481907.0677	2959410.446	481888.8732	2959348.249
2564	143950	481153.833	2959857.801	481946.1039	2959379.202	481927.7324	2959316.786
2565	144000	481198.266	2959834.873	481984.7847	2959347.52	481966.2289	2959284.88
2566	144050	481242.435	2959811.442	482023.1055	2959315.403	482004.3581	2959252.536
2567	144100	481286.336	2959787.511	482061.0615	2959282.856	482042.1147	2959219.758
2568	144150	481329.962	2959763.082	482098.6478	2959249.883	482079.4934	2959186.549
2569	144200	481373.307	2959738.158	482135.8594	2959216.487	482116.4894	2959152.915
2570	144250	481416.366	2959712.744	482172.6921	2959182.674	482153.0986	2959118.86
2571	144300	481459.134	2959686.843	482209.1404	2959148.447	482189.3158	2959084.388
2572	144350	481501.605	2959660.457	482245.2002	2959113.811	482225.1355	2959049.504

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2573	144400	481543.772	2959633.590	482280.867	2959078.77	482260.5545	2959014.213
2574	144450	481585.633	2959606.246	482316.1363	2959043.329	482295.5676	2958978.519
2575	144500	481627.179	2959578.428	482351.0026	2959007.492	482330.1693	2958942.426
2576	144550	481668.407	2959550.139	482385.4627	2958971.264	482364.3564	2958905.94
2577	144600	481709.311	2959521.384	482419.511	2958934.648	482398.1236	2958869.065
2578	144650	481749.885	2959492.166	482453.1437	2958897.651	482431.4664	2958831.806
2579	144700	481790.125	2959462.488	482486.357	2958860.276	482464.3812	2958794.169
2580	144750	481830.024	2959432.355	482519.1468	2958822.53	482496.8629	2958756.157
2581	144800	481869.580	2959401.772	482551.5079	2958784.415	482528.9077	2958717.776
2582	144850	481908.784	2959370.740	482583.4367	2958745.938	482560.5114	2958679.031
2583	144900	481947.634	2959339.265	482614.93	2958707.103	482591.6698	2958639.927
2584	144950	481986.123	2959307.350	482645.9823	2958667.914	482622.379	2958600.469
2585	145000	482024.247	2959275.000	482676.5904	2958628.378	482652.6341	2958560.662
2586	145050	482062.002	2959242.219	482706.7506	2958588.499	482682.4321	2958520.512
2587	145100	482099.381	2959209.011	482736.4586	2958548.282	482711.7689	2958480.023
2588	145150	482136.380	2959175.381	482765.7111	2958507.733	482740.6408	2958439.202
2589	145200	482172.995	2959141.332	482794.504	2958466.855	482769.0433	2958398.052
2590	145250	482209.221	2959106.870	482822.8335	2958425.656	482796.9734	2958356.581
2591	145300	482245.052	2959071.997	482850.6963	2958384.139	482824.427	2958314.793
2592	145350	482280.486	2959036.720	482878.0888	2958342.311	482851.4006	2958272.693
2593	145400	482315.516	2959001.043	482905.0075	2958300.176	482877.8908	2958230.287
2594	145450	482350.138	2958964.970	482931.4486	2958257.739	482903.895	2958187.582
2595	145500	482384.348	2958928.506	482957.41	2958215.008	482929.4077	2958144.581
2596	145550	482418.142	2958891.655	482982.8864	2958171.986	482954.4273	2958101.291
2597	145600	482451.514	2958854.423	483007.8764	2958128.679	482978.9496	2958057.718
2598	145650	482484.462	2958816.814	483032.3759	2958085.093	483002.9715	2958013.867
2599	145700	482516.980	2958778.833	483056.3819	2958041.233	483026.4901	2957969.744
2600	145750	482549.064	2958740.484	483079.8913	2957997.105	483049.5021	2957925.354
2601	145800	482580.711	2958701.774	483102.9009	2957952.714	483072.0049	2957880.704
2602	145850	482611.915	2958662.707	483125.4083	2957908.067	483093.9956	2957835.8
2603	145900	482642.674	2958623.288	483147.4105	2957863.168	483115.4711	2957790.647
2604	145950	482672.982	2958583.521	483168.9046	2957818.024	483136.4288	2957745.252
2605	146000	482702.837	2958543.413	483189.888	2957772.641	483156.8656	2957699.62
2606	146050	482732.234	2958502.968	483210.357	2957727.023	483176.7782	2957653.756
2607	146100	482761.170	2958462.192	483230.3091	2957681.176	483196.1656	2957607.668
2608	146150	482789.640	2958421.090	483249.7434	2957635.108	483215.0246	2957561.362
2609	146200	482817.642	2958379.666	483268.6566	2957588.824	483233.5604	2957514.924
2610	146250	482845.171	2958337.928	483287.2017	2957542.39	483252.0898	2957468.484
2611	146300	482872.223	2958295.879	483305.7307	2957495.95	483270.6191	2957422.045
2612	146350	482898.797	2958253.525	483324.26	2957449.51	483289.149	2957375.605
2613	146400	482924.887	2958210.872	483342.7899	2957403.07	483307.678	2957329.165
2614	146450	482950.491	2958167.926	483361.3189	2957356.63	483326.2075	2957282.725
2615	146500	482975.605	2958124.690	483379.8488	2957310.191	483344.7369	2957236.285
2616	146550	483000.227	2958081.173	483398.3778	2957263.751	483363.2659	2957189.845
2617	146600	483024.352	2958037.379	483416.9068	2957217.311	483381.7958	2957143.405
2618	146650	483047.978	2957993.313	483435.4367	2957170.871	483400.3248	2957096.965

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2619	146700	483071.102	2957948.982	483453.9657	2957124.431	483418.8546	2957050.526
2620	146750	483093.720	2957904.391	483472.4959	2957077.991	483437.384	2957004.086
2621	146800	483115.831	2957859.545	483491.0249	2957031.551	483455.913	2956957.646
2622	146850	483137.430	2957814.452	483509.5539	2956985.111	483474.4429	2956911.206
2623	146900	483158.515	2957769.115	483528.0838	2956938.672	483492.9719	2956864.766
2624	146950	483179.084	2957723.542	483546.6128	2956892.232	483511.5014	2956818.326
2625	147000	483199.135	2957677.739	483565.1427	2956845.792	483530.0308	2956771.886
2626	147050	483218.662	2957631.710	483583.6717	2956799.352	483548.5601	2956725.447
2627	147100	483237.666	2957585.463	483602.201	2956752.912	483567.09	2956679.007
2628	147150	483256.238	2957539.040	483620.7309	2956706.472	483585.619	2956632.567
2629	147200	483274.767	2957492.600	483639.2599	2956660.032	483604.1485	2956586.127
2630	147250	483293.297	2957446.160	483657.7898	2956613.593	483622.6779	2956539.687
2631	147300	483311.827	2957399.720	483676.3188	2956567.153	483641.2069	2956493.247
2632	147350	483330.356	2957353.280	483694.8478	2956520.713	483659.7368	2956446.807
2633	147400	483348.885	2957306.841	483713.3777	2956474.273	483678.2658	2956400.367
2634	147450	483367.415	2957260.401	483731.9067	2956427.833	483696.7956	2956353.928
2635	147500	483385.944	2957213.961	483750.4369	2956381.393	483715.325	2956307.488
2636	147550	483404.473	2957167.521	483768.9659	2956334.953	483733.854	2956261.048
2637	147600	483423.002	2957121.081	483787.4949	2956288.513	483752.3839	2956214.608
2638	147650	483441.533	2957074.641	483806.0248	2956242.074	483770.9129	2956168.168
2639	147700	483460.062	2957028.201	483824.5538	2956195.634	483789.4424	2956121.728
2640	147750	483478.591	2956981.761	483843.0837	2956149.194	483807.9718	2956075.288
2641	147800	483497.121	2956935.322	483861.6127	2956102.754	483826.5009	2956028.848
2642	147850	483515.650	2956888.882	483880.1417	2956056.314	483845.031	2955982.409
2643	147900	483534.179	2956842.442	483898.6719	2956009.874	483863.56	2955935.969
2644	147950	483552.708	2956796.002	483917.2009	2955963.434	483882.0895	2955889.529
2645	148000	483571.237	2956749.562	483935.7308	2955916.995	483900.6189	2955843.089
2646	148050	483589.768	2956703.122	483954.2598	2955870.555	483919.1479	2955796.649
2647	148100	483608.297	2956656.682	483972.7888	2955824.115	483937.6778	2955750.209
2648	148150	483626.827	2956610.243	483991.3187	2955777.675	483956.2068	2955703.769
2649	148200	483645.356	2956563.803	484009.8477	2955731.235	483974.7366	2955657.33
2650	148250	483663.885	2956517.363	484028.3779	2955684.795	483993.266	2955610.89
2651	148300	483682.414	2956470.923	484046.9069	2955638.355	484011.795	2955564.45
2652	148350	483700.943	2956424.483	484065.4359	2955591.915	484030.3249	2955518.01
2653	148400	483719.474	2956378.043	484083.9658	2955545.476	484048.8539	2955471.57
2654	148450	483738.003	2956331.603	484102.4948	2955499.036	484067.3834	2955425.13
2655	148500	483756.532	2956285.163	484121.0247	2955452.596	484085.9128	2955378.69
2656	148550	483775.062	2956238.724	484139.5537	2955406.156	484104.4418	2955332.25
2657	148600	483793.591	2956192.284	484158.0827	2955359.716	484122.972	2955285.811
2658	148650	483812.120	2956145.844	484176.6129	2955313.276	484141.3277	2955239.303
2659	148700	483830.649	2956099.404	484195.0362	2955266.795	484158.6759	2955192.41
2660	148750	483849.178	2956052.964	484212.5409	2955219.96	484174.8872	2955145.112
2661	148800	483867.709	2956006.524	484228.9423	2955172.728	484189.9519	2955097.437
2662	148850	483886.238	2955960.084	484244.2305	2955125.124	484203.8607	2955049.412
2663	148900	483904.768	2955913.645	484258.3972	2955077.174	484216.6056	2955001.065
2664	148950	483923.297	2955867.205	484271.4347	2955028.905	484228.6148	2954952.529

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

DESIGN CENTERLINE				LHS		RHS	
SL	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
2665	149000	483941.826	2955820.765	484283.5343	2954980.391	484240.6089	2954903.988
2666	149050	483960.355	2955774.325	484295.5283	2954931.851	484252.6029	2954855.448
2667	149100	483978.884	2955727.885	484307.5224	2954883.311	484264.5969	2954806.908
2668	149150	483997.415	2955681.445	484319.5164	2954834.771	484276.5909	2954758.368
2669	149200	484015.944	2955635.005	484331.5104	2954786.231	484288.585	2954709.828
2670	149250	484034.473	2955588.565	484343.5045	2954737.691	484300.5788	2954661.288
2671	149300	484053.003	2955542.126	484355.4983	2954689.151	484312.5728	2954612.748
2672	149350	484071.532	2955495.686	484367.4923	2954640.611	484324.5668	2954564.208
2673	149400	484090.061	2955449.246	484379.4863	2954592.07	484336.5609	2954515.667
2674	149450	484108.590	2955402.806	484391.4803	2954543.53	484348.5541	2954467.127
2675	149500	484127.119	2955356.366	484403.4744	2954494.99	484360.5481	2954418.587
2676	149550	484145.650	2955309.926	484415.4684	2954446.45	484372.5422	2954370.047
2677	149600	484164.139	2955263.471	484427.4624	2954397.91	484384.5358	2954321.507
2678	149650	484181.817	2955216.701	484439.4558	2954349.37	484396.5298	2954272.967
2679	149700	484198.376	2955169.524	484451.4498	2954300.83	484408.5239	2954224.426
2680	149750	484213.807	2955121.966	484463.4439	2954252.289	484420.5179	2954175.886
2681	149800	484228.102	2955074.054	484475.4379	2954203.749	484432.5119	2954127.346
2682	149850	484241.252	2955025.816	484487.4314	2954155.209	484444.506	2954078.806
2683	149900	484253.393	2954977.312	484499.4254	2954106.669	484456.5	2954030.266
2684	149950	484265.387	2954928.772	484511.4195	2954058.129	484468.4938	2953981.726
2685	150000	484277.381	2954880.232	484523.4144	2954009.589	484442.5177	2953948.81
2686	150050	484289.375	2954831.692	484552.982	2953978.438	484394.4692	2953935.022
2687	150100	484301.369	2954783.152	484601.3085	2953991.265	484347.3412	2953918.445
2688	150150	484313.363	2954734.612	484649.6351	2954004.092	484302.0893	2953897.361
2689	150200	484325.357	2954686.072	484697.9617	2954016.92	484259.798	2953870.808
2690	150250	484337.351	2954637.532	484746.2919	2954029.734	484220.9089	2953839.437
2691	150300	484349.345	2954588.991	484794.6248	2954042.537	484186.6871	2953803.001
2692	150350	484361.339	2954540.451	484842.9732	2954055.282	484156.9287	2953762.856
2693	150400	484373.333	2954491.911	484891.3363	2954067.971	484132.5876	2953719.198
2694	150450	484385.327	2954443.371	484939.6994	2954080.66	484113.549	2953673.027
2695	150500	484397.321	2954394.831	484988.0565	2954093.372	484100.4766	2953624.811
2696	150550	484409.315	2954346.291	485036.4099	2954106.097	484093.5283	2953575.373
2697	150600	484421.309	2954297.751	485084.7623	2954118.827	484092.8824	2953525.443
2698	150650	484433.303	2954249.210	485133.1106	2954131.573	484096.5076	2953475.607
2699	150700	484445.297	2954200.670	485181.459	2954144.318	484102.6028	2953425.984
2700	150750	484457.290	2954152.130	485229.9719	2954156.414	484110.1554	2953376.558
2701	150800	484469.284	2954103.590	485278.7651	2954167.3	484118.2033	2953327.21
2702	150850	484481.278	2954055.050	485327.8156	2954176.997	484126.2854	2953277.868
2703	150900	484493.272	2954006.510	485348.8022	2954181.146	484134.41	2953228.532

3. Cloverleaf Interchange 4+700 Coordinate

Centre line Coordinate				PROW LHS Coordinate		Centre line Coordinate			PROW RHS Coordinate	
CHAINAGE	EASTING	NORTHING		EASTING	NORTHING	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING
0	377145.451	2913244.873		377128.281	2913231.933	0	377145.45	2913244.873	377162.62	2913257.814
10	377139.432	2913252.859		377122.263	2913239.919	10	377139.43	2913252.859	377156.602	2913265.8

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

20	377133.413	2913260.845		377116.244	2913247.904	20	377133.41	2913260.845	377150.583	2913273.785
30	377127.395	2913268.831		377110.224	2913255.89	30	377127.4	2913268.831	377144.563	2913281.771
40	377121.376	2913276.817		377104.205	2913263.876	40	377121.38	2913276.817	377138.545	2913289.757
50	377115.357	2913284.802		377098.187	2913271.861	50	377115.36	2913284.802	377132.526	2913297.742
60	377109.338	2913292.788		377092.167	2913279.847	60	377109.34	2913292.788	377126.506	2913305.728
70	377103.319	2913300.774		377086.148	2913287.833	70	377103.32	2913300.774	377120.635	2913313.825
80	377097.3	2913308.76		377080.13	2913295.819	80	377097.3	2913308.76	377115.123	2913322.193
90	377091.281	2913316.746		377074.11	2913303.804	90	377091.28	2913316.746	377109.611	2913330.561
100	377085.263	2913324.732		377068.091	2913311.79	100	377085.26	2913324.732	377104.1	2913338.929
110	377079.244	2913332.717		377062.072	2913319.776	110	377079.24	2913332.717	377098.588	2913347.297
120	377073.225	2913340.703		377056.053	2913327.761	120	377073.23	2913340.703	377093.076	2913355.665
130	377067.206	2913348.689		377050.034	2913335.747	130	377067.21	2913348.689	377087.16	2913363.728
140	377061.187	2913356.675		377044.015	2913343.732	140	377061.19	2913356.675	377081.141	2913371.714
150	377055.168	2913364.661		377037.871	2913351.624	150	377055.17	2913364.661	377075.122	2913379.699
160	377049.149	2913372.647		377031.346	2913359.228	160	377049.15	2913372.647	377069.103	2913387.685
170	377043.131	2913380.632		377024.822	2913366.833	170	377043.13	2913380.632	377063.083	2913395.671
180	377037.112	2913388.618		377018.297	2913374.438	180	377037.11	2913388.618	377057.064	2913403.656
190	377031.093	2913396.604		377011.773	2913382.043	190	377031.09	2913396.604	377051.045	2913411.642
200	377025.074	2913404.59		377005.249	2913389.648	200	377025.07	2913404.59	377045.026	2913419.627
210	377019.055	2913412.576		376999.089	2913397.527	210	377019.06	2913412.576	377039.007	2913427.613
220	377013.036	2913420.562		376993.07	2913405.513	220	377013.04	2913420.562	377033.15	2913435.721
230	377007.017	2913428.547		376987.052	2913413.499	230	377007.02	2913428.547	377027.674	2913444.116
240	377000.999	2913436.533		376981.033	2913421.485	240	377001	2913436.533	377022.198	2913452.511
250	376994.98	2913444.519		376975.015	2913429.471	250	376994.98	2913444.519	377016.722	2913460.906
260	376988.961	2913452.505		376968.996	2913437.457	260	376988.96	2913452.505	377011.246	2913469.301
270	376982.942	2913460.491		376962.978	2913445.443	270	376982.94	2913460.491	377005.77	2913477.696
280	376976.923	2913468.476		376956.959	2913453.43	280	376976.92	2913468.476	377000.295	2913486.091
290	376970.904	2913476.462		376950.654	2913461.2	290	376970.9	2913476.462	376994.819	2913494.486
300	376964.886	2913484.448		376944.252	2913468.897	300	376964.89	2913484.448	376989.343	2913502.881
310	376958.867	2913492.434		376937.85	2913476.594	310	376958.87	2913492.434	376983.867	2913511.277
320	376952.848	2913500.42		376931.447	2913484.29	320	376952.85	2913500.42	376978.391	2913519.672
330	376946.829	2913508.406		376925.045	2913491.987	330	376946.83	2913508.406	376972.915	2913528.067
340	376940.81	2913516.391		376918.643	2913499.684	340	376940.81	2913516.391	376967.44	2913536.462
350	376934.791	2913524.377		376912.24	2913507.381	350	376934.79	2913524.377	376961.964	2913544.857
360	376928.772	2913532.363		376905.838	2913515.078	360	376928.77	2913532.363	376957.816	2913554.253
370	376922.754	2913540.349		376899.436	2913522.774	370	376922.75	2913540.349	376954.396	2913564.197
380	376916.735	2913548.335		376893.033	2913530.471	380	376916.74	2913548.335	376951.487	2913574.527
390	376910.716	2913556.321		376886.631	2913538.168	390	376910.72	2913556.321	376949.125	2913585.269
400	376904.697	2913564.306		376880.229	2913545.865	400	376904.7	2913564.306	376947.353	2913596.456
410	376898.678	2913572.292		376873.826	2913553.562	410	376898.68	2913572.292	376946.232	2913608.133
420	376892.659	2913580.278		376866.477	2913560.545	420	376892.66	2913580.278	376945.914	2913620.416
430	376886.64	2913588.264		376857.825	2913566.546	430	376886.64	2913588.264	376946.673	2913633.51
440	376880.622	2913596.25		376848.495	2913572.036	440	376880.62	2913596.25	376948.464	2913647.382
450	376874.603	2913604.236		376838.321	2913576.89	450	376874.6	2913604.236	376950.255	2913661.254
460	376868.584	2913612.221		376827.248	2913581.066					
470	376862.565	2913620.207		376814.434	2913583.931	Main Carriageway Crossing				
480	376856.546	2913628.193		376801.184	2913586.467	1130	376465.32	2914147.272	376539.585	2914203.244
490	376850.527	2913636.179		376787.933	2913589.002	1140	376459.3	2914155.258	376524.621	2914204.488
500	376844.508	2913644.165		376774.305	2913591.253	1150	376453.28	2914163.243	376509.656	2914205.731

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

510	376838.49	2913652.15		376760.293	2913593.215		1160	376447.26	2914171.229	376495.321	2914207.449
							1170	376441.25	2914179.215	376483.1	2914210.761
Main Carriageway Crossing							1180	376435.23	2914187.201	376471.99	2914214.909
							1190	376429.21	2914195.187	376461.778	2914219.735
1200	376423.189	2914203.172		376345.234	2914144.419		1200	376423.19	2914203.172	376452.353	2914225.153
1210	376417.17	2914211.158		376347.936	2914158.977		1210	376417.17	2914211.158	376443.703	2914231.156
1220	376411.151	2914219.144		376349.777	2914172.887		1220	376411.15	2914219.144	376436.22	2914238.038
1230	376405.132	2914227.13		376351.619	2914186.797		1230	376405.13	2914227.13	376429.804	2914245.725
1240	376399.113	2914235.116		376353.46	2914200.707		1240	376399.11	2914235.116	376423.394	2914253.416
1250	376393.095	2914243.102		376354.141	2914213.743		1250	376393.1	2914243.102	376417.006	2914261.124
1260	376387.076	2914251.087		376352.753	2914225.219		1260	376387.08	2914251.087	376410.659	2914268.862
1270	376381.059	2914259.075		376350.275	2914236.023		1270	376381.06	2914259.075	376404.426	2914276.572
1280	376375.142	2914267.137		376346.008	2914246.183		1280	376375.14	2914267.137	376398.557	2914283.977
1290	376369.382	2914275.311		376341.484	2914256.049		1290	376369.38	2914275.311	376392.765	2914291.455
1300	376363.78	2914283.594		376336.621	2914265.604		1300	376363.78	2914283.594	376387.069	2914299.02
1310	376358.338	2914291.983		376331.339	2914274.837		1310	376358.34	2914291.983	376381.485	2914306.684
1320	376353.058	2914300.476		376326.231	2914284.154		1320	376353.06	2914300.476	376376.034	2914314.455
1330	376347.943	2914309.068		376321.316	2914293.562		1330	376347.94	2914309.068	376370.732	2914322.34
1340	376342.994	2914317.758		376316.596	2914303.057		1340	376342.99	2914317.758	376365.584	2914330.338
1350	376338.213	2914326.54		376312.074	2914312.635		1350	376338.21	2914326.54	376360.592	2914338.445
1360	376333.602	2914335.414		376307.75	2914322.293		1360	376333.6	2914335.414	376356.087	2914346.826
1370	376329.162	2914344.374		376303.626	2914332.025		1370	376329.16	2914344.374	376351.853	2914355.347
1380	376324.895	2914353.418		376299.704	2914341.828		1380	376324.9	2914353.418	376347.79	2914363.951
1390	376320.803	2914362.542		376295.982	2914351.696		1390	376320.8	2914362.542	376343.899	2914372.634
1400	376316.888	2914371.743		376292.464	2914361.626		1400	376316.89	2914371.743	376340.184	2914381.394
1410	376313.149	2914381.018		376289.15	2914371.613		1410	376313.15	2914381.018	376336.645	2914390.226
1420	376309.59	2914390.363		376286.04	2914381.653		1420	376309.59	2914390.363	376333.284	2914399.127
1430	376306.212	2914399.775		376282.882	2914391.652		1430	376306.21	2914399.775	376330.102	2914408.093
1440	376303.015	2914409.25		376279.573	2914401.591		1440	376303.02	2914409.25	376326.796	2914417.021
1450	376300	2914418.785		376276.463	2914411.592		1450	376300	2914418.785	376323.385	2914425.931
1460	376297.17	2914428.376		376273.55	2914421.651		1460	376297.17	2914428.376	376320.148	2914434.917
1470	376294.524	2914438.019		376270.818	2914431.761		1470	376294.52	2914438.019	376317.069	2914443.971
1480	376292.065	2914447.712		376268.247	2914441.911		1480	376292.07	2914447.712	376314.128	2914453.085
1490	376289.792	2914457.45		376265.814	2914452.097		1490	376289.79	2914457.45	376311.292	2914462.25
1500	376287.707	2914467.23		376263.498	2914462.312		1500	376287.71	2914467.23	376309.075	2914471.571
1510	376285.724	2914477.031		376261.37	2914472.103		1510	376285.72	2914477.031	376306.949	2914481.327
1520	376283.74	2914486.833		376259.35	2914481.897		1520	376283.74	2914486.833	376304.888	2914491.113
1530	376281.756	2914496.634		376257.954	2914491.817		1530	376281.76	2914496.634	376302.873	2914500.908
1540	376279.773	2914506.435		376256.578	2914501.741		1540	376279.77	2914506.435	376300.882	2914510.707
1550	376277.789	2914516.237		376255.209	2914511.667		1550	376277.79	2914516.237	376298.895	2914520.508
1560	376275.805	2914526.038		376253.84	2914521.592		1560	376275.81	2914526.038	376296.91	2914530.309
1570	376273.822	2914535.839		376252.472	2914531.518		1570	376273.82	2914535.839	376294.924	2914540.11
1580	376271.838	2914545.64		376250.793	2914541.381		1580	376271.84	2914545.64	376292.939	2914549.911
1590	376269.854	2914555.442		376248.807	2914551.182		1590	376269.85	2914555.442	376290.953	2914559.712
1600	376267.871	2914565.243		376246.821	2914560.983		1600	376267.87	2914565.243	376288.966	2914569.512
1610	376265.887	2914575.044		376244.835	2914570.784		1610	376265.89	2914575.044	376286.98	2914579.313
1620	376263.903	2914584.846		376242.849	2914580.584		1620	376263.9	2914584.846	376284.995	2914589.114
1630	376261.92	2914594.647		376240.863	2914590.385		1630	376261.92	2914594.647	376283.008	2914598.915
1640	376259.936	2914604.448		376238.877	2914600.186		1640	376259.94	2914604.448	376281.023	2914608.716

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

1650	376257.953	2914614.249		376236.891	2914609.987		1650	376257.95	2914614.249	376279.036	2914618.516
1660	376255.969	2914624.051		376234.905	2914619.788		1660	376255.97	2914624.051	376277.05	2914628.317
1670	376253.985	2914633.852		376232.919	2914629.588		1670	376253.99	2914633.852	376275.065	2914638.118
1680	376252.002	2914643.653		376230.933	2914639.389		1680	376252	2914643.653	376273.079	2914647.919
1690	376250.018	2914653.454		376228.948	2914649.19		1690	376250.02	2914653.454	376271.093	2914657.72
1700	376248.034	2914663.256		376226.962	2914658.991		1700	376248.03	2914663.256	376269.108	2914667.521

4. Trumpet Interchange 151+000 Coordinate

PROW Centre line Coordinate			PROW LHS Coordinate		PROW Centre line Coordinate			PROW RHS Coordinate	
CHAINAGE	EASTING	NORTHING	EASTING	NORTHING	CHAINAGE	EASTING	NORTHING	EASTING	NORTHING
0	484182.059	2953123.814	484152.458	2953118.939	0	484182.059	2953123.814	484152.456	2953118.953
10	484180.439	2953133.682	484210.038	2953138.542	10	484180.439	2953133.682	484150.831	2953128.82
20	484178.819	2953143.55	484208.413	2953148.409	20	484178.819	2953143.55	484149.206	2953138.688
30	484177.199	2953153.418	484206.788	2953158.276	30	484177.199	2953153.418	484147.581	2953148.555
40	484175.578	2953163.285	484205.163	2953168.143	40	484175.578	2953163.285	484145.956	2953158.422
50	484173.958	2953173.153	484203.538	2953178.01	50	484173.958	2953173.153	484144.331	2953168.289
60	484172.338	2953183.021	484201.913	2953187.877	60	484172.338	2953183.021	484142.706	2953178.156
70	484170.718	2953192.889	484200.288	2953197.744	70	484170.718	2953192.889	484141.081	2953188.023
80	484169.098	2953202.757	484198.663	2953207.611	80	484169.098	2953202.757	484139.456	2953197.89
90	484167.478	2953212.625	484197.039	2953217.478	90	484167.478	2953212.625	484137.831	2953207.757
100	484165.857	2953222.493	484195.414	2953227.346	100	484165.857	2953222.493	484136.206	2953217.624
110	484164.237	2953232.361	484193.789	2953237.213	110	484164.237	2953232.361	484134.581	2953227.491
120	484162.617	2953242.228	484192.164	2953247.08	120	484162.617	2953242.228	484132.956	2953237.359
130	484160.997	2953252.096	484190.539	2953256.947	130	484160.997	2953252.096	484131.332	2953247.226
140	484159.377	2953261.964	484188.914	2953266.814	140	484159.377	2953261.964	484129.707	2953257.093
150	484157.756	2953271.832	484187.289	2953276.681	150	484157.756	2953271.832	484128.082	2953266.96
160	484156.136	2953281.7	484185.664	2953286.548	160	484156.136	2953281.7	484126.457	2953276.827
170	484154.516	2953291.568	484184.039	2953296.415	170	484154.516	2953291.568	484124.832	2953286.694
180	484152.896	2953301.436	484182.414	2953306.282	180	484152.896	2953301.436	484123.207	2953296.561
190	484151.276	2953311.304	484180.8	2953316.151	190	484151.276	2953311.304	484121.592	2953306.43
200	484149.655	2953321.171	484179.19	2953326.021	200	484149.655	2953321.171	484119.983	2953316.3
210	484148.035	2953331.039	484177.58	2953335.89	210	484148.035	2953331.039	484118.373	2953326.169
220	484146.415	2953340.907	484175.971	2953345.76	220	484146.415	2953340.907	484116.763	2953336.039
230	484144.795	2953350.775	484174.361	2953355.63	230	484144.795	2953350.775	484115.154	2953345.908
240	484143.175	2953360.643	484172.752	2953365.499	240	484143.175	2953360.643	484113.544	2953355.778
250	484141.555	2953370.511	484171.142	2953375.369	250	484141.555	2953370.511	484111.935	2953365.648
260	484139.934	2953380.379	484169.532	2953385.238	260	484139.934	2953380.379	484110.325	2953375.517
270	484138.369	2953390.255	484168.03	2953394.769	270	484138.369	2953390.255	484108.712	2953385.743
280	484136.865	2953400.142	484166.529	2953404.655	280	484136.865	2953400.142	484107.211	2953395.629
290	484135.361	2953410.028	484165.028	2953414.542	290	484135.361	2953410.028	484105.71	2953405.516

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

300	484133.856	2953419.914	484163.526	2953424.429	300	484133.856	2953419.914	484104.209	2953415.403
310	484132.352	2953429.8	484162.025	2953434.315	310	484132.352	2953429.8	484102.708	2953425.29
320	484130.848	2953439.686	484160.559	2953444.207	320	484130.848	2953439.686	484101.207	2953435.176
330	484129.343	2953449.573	484159.404	2953454.147	330	484129.343	2953449.573	484100.05	2953445.115
340	484127.839	2953459.459	484158.25	2953464.086	340	484127.839	2953459.459	484098.895	2953455.055
350	484126.335	2953469.345	484157.095	2953474.026	350	484126.335	2953469.345	484097.741	2953464.994
360	484124.83	2953479.231	484155.94	2953483.965	360	484124.83	2953479.231	484096.586	2953474.933
370	484123.372	2953489.124	484154.843	2953493.413	370	484123.372	2953489.124	484095.38	2953485.309
380	484122.152	2953499.049	484153.93	2953502.531	380	484122.152	2953499.049	484094.157	2953495.982
390	484121.194	2953509.003	484153.533	2953511.687	390	484121.194	2953509.003	484093.692	2953506.72
400	484120.498	2953518.978	484153.138	2953520.824	400	484120.498	2953518.978	484093.229	2953517.436
410	484120.064	2953528.969	484152.743	2953529.955	410	484120.064	2953528.969	484092.766	2953528.144
420	484119.894	2953538.967	484152.348	2953539.092	420	484119.894	2953538.967	484092.302	2953538.86
430	484119.987	2953548.966	484152.011	2953548.247	430	484119.987	2953548.966	484091.984	2953549.595
440	484120.343	2953558.96	484152.558	2953557.387	440	484120.343	2953558.96	484092.626	2953560.312
450	484120.962	2953568.94	484153.106	2953566.522	450	484120.962	2953568.94	484093.268	2953571.023
460	484121.843	2953578.901	484153.653	2953575.664	460	484121.843	2953578.901	484093.91	2953581.743
470	484122.986	2953588.835	484154.498	2953584.789	470	484122.986	2953588.835	484094.979	2953592.431
480	484124.39	2953598.736	484156.348	2953593.774	480	484124.39	2953598.736	484096.515	2953603.063
490	484126.054	2953608.596	484158.455	2953602.689	490	484126.054	2953608.596	484098.052	2953613.701
500	484127.977	2953618.409	484160.778	2953611.532	500	484127.977	2953618.409	484100.335	2953624.204
510	484130.157	2953628.168	484163.543	2953620.246	510	484130.157	2953628.168	484102.771	2953634.666
520	484132.594	2953637.867	484166.741	2953628.808	520	484132.594	2953637.867	484105.207	2953645.131
530	484135.285	2953647.497	484170.366	2953637.196	530	484135.285	2953647.497	484107.89	2953655.541
540	484138.228	2953657.054	484174.407	2953645.388	540	484138.228	2953657.054	484111.2	2953665.769
550	484141.422	2953666.53	484178.854	2953653.363	550	484141.422	2953666.53	484114.51	2953675.996
560	484144.864	2953675.919	484183.693	2953661.101	560	484144.864	2953675.919	484118.248	2953686.075
570	484148.551	2953685.214	484188.912	2953668.582	570	484148.551	2953685.214	484122.359	2953696.007
580	484152.483	2953694.408	484194.497	2953675.787	580	484152.483	2953694.408	484126.47	2953705.937
590	484156.654	2953703.496	484200.433	2953682.699	590	484156.654	2953703.496	484130.727	2953715.813
600	484161.064	2953712.471	484206.703	2953689.298	600	484161.064	2953712.471	484135.91	2953725.243
610	484165.708	2953721.327	484213.291	2953695.571	610	484165.708	2953721.327	484141.084	2953734.656
620	484170.583	2953730.058	484220.179	2953701.5	620	484170.583	2953730.058	484146.257	2953744.065
630	484175.687	2953738.657	484227.348	2953707.071	630	484175.687	2953738.657	484151.435	2953753.485
640	484181.015	2953747.119	484234.778	2953712.272	640	484181.015	2953747.119	484156.869	2953762.77
650	484186.563	2953755.438	484242.45	2953717.089	650	484186.563	2953755.438	484163.002	2953771.606
660	484192.329	2953763.608	484250.343	2953721.513	660	484192.329	2953763.608	484169.134	2953780.439
670	484198.308	2953771.624	484258.435	2953725.532	670	484198.308	2953771.624	484175.554	2953789.066
680	484204.496	2953779.479	484266.704	2953729.138	680	484204.496	2953779.479	484182.266	2953797.468

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

690	484210.888	2953787.169	484275.128	2953732.325	690	484210.888	2953787.169	484189.005	2953805.852
700	484217.48	2953794.688	484283.685	2953735.085	700	484217.48	2953794.688	484196.411	2953813.657
710	484224.268	2953802.031	484292.351	2953737.413	710	484224.268	2953802.031	484203.806	2953821.451
720	484231.246	2953809.193	484301.103	2953739.307	720	484231.246	2953809.193	484211.202	2953829.246
					730	484238.411	2953816.169	484218.608	2953837.051
					740	484245.757	2953822.954	484226.617	2953844.232
					750	484253.279	2953829.543	484234.85	2953851.147
					760	484260.971	2953835.932	484243.08	2953858.06
					770	484268.829	2953842.116	484251.351	2953864.937
					780	484276.847	2953848.091	484260.184	2953871.076
					790	484285.02	2953853.854	484269.008	2953877.209
					800	484293.341	2953859.399	484277.835	2953883.344
					810	484301.805	2953864.724	484286.981	2953888.992
					820	484310.407	2953869.823	484296.384	2953894.2
Project Road NH-15			Project Road NH-15		830	484319.14	2953874.695	484305.778	2953899.404
					840	484327.997	2953879.336	484315.178	2953904.611
					850	484336.974	2953883.741	484324.905	2953909.175
					860	484346.064	2953887.909	484334.834	2953913.277
					870	484355.26	2953891.837	484344.749	2953917.374
					880	484364.557	2953895.52	484354.666	2953921.471
					890	484373.947	2953898.959	484364.607	2953925.546
					900	484383.424	2953902.148	484374.844	2953928.795
					910	484392.982	2953905.088	484385.079	2953932.043
					920	484402.614	2953907.775	484395.326	2953935.294
					930	484412.283	2953910.326	484404.893	2953938.33
					940	484421.952	2953912.878	484414.452	2953941.299
					950	484431.621	2953915.429	484424.112	2953943.884
					960	484441.29	2953917.98	484433.772	2953946.47
					970	484450.959	2953920.532	484443.433	2953949.055
					980	484460.628	2953923.083	484453.093	2953951.64
1050	484528.311	2953940.943	484540.385	2953895.188	990	484470.297	2953925.635	484462.382	2953955.629
1060	484537.98	2953943.495	484546.341	2953911.812	1000	484479.966	2953928.186	484469.739	2953966.944
1070	484547.649	2953946.046	484555.343	2953916.891	1070	484547.649	2953946.046	484538.854	2953979.377
1080	484557.318	2953948.597	484565.003	2953919.476	1080	484557.318	2953948.597	484549.612	2953977.804
1090	484566.988	2953951.149	484574.663	2953922.061	1090	484566.988	2953951.149	484559.341	2953980.126
1100	484576.657	2953953.7	484584.323	2953924.646	1100	484576.657	2953953.7	484569.007	2953982.691
1110	484586.326	2953956.252	484593.983	2953927.231	1110	484586.326	2953956.252	484578.672	2953985.257
1120	484595.995	2953958.803	484603.646	2953929.808	1120	484595.995	2953958.803	484588.337	2953987.822
1130	484605.664	2953961.355	484613.311	2953932.373	1130	484605.664	2953961.355	484598.003	2953990.388

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

1140	484615.333	2953963.906	484622.976	2953934.939	1140	484615.333	2953963.906	484607.668	2953992.953
1150	484625.002	2953966.457	484632.642	2953937.504	1150	484625.002	2953966.457	484617.333	2953995.519
1160	484634.671	2953969.009	484642.307	2953940.07	1160	484634.671	2953969.009	484626.999	2953998.084
1170	484644.34	2953971.56	484651.972	2953942.635	1170	484644.34	2953971.56	484636.664	2954000.649
1180	484654.009	2953974.112	484661.638	2953945.201	1180	484654.009	2953974.112	484646.329	2954003.215
1190	484663.678	2953976.663	484671.303	2953947.766	1190	484663.678	2953976.663	484655.995	2954005.78
1200	484673.347	2953979.215	484680.968	2953950.332	1200	484673.347	2953979.215	484665.66	2954008.346
1210	484683.016	2953981.766	484690.634	2953952.897	1210	484683.016	2953981.766	484675.325	2954010.911
1220	484692.685	2953984.317	484700.299	2953955.463	1220	484692.685	2953984.317	484684.99	2954013.477
1230	484702.354	2953986.869	484709.964	2953958.028	1230	484702.354	2953986.869	484694.656	2954016.042
1240	484712.023	2953989.42	484719.63	2953960.594	1240	484712.023	2953989.42	484704.321	2954018.608
1250	484721.692	2953991.972	484729.295	2953963.159	1250	484721.692	2953991.972	484713.986	2954021.173
1260	484731.361	2953994.523	484738.961	2953965.722	1260	484731.361	2953994.523	484723.652	2954023.736
1270	484741.03	2953997.075	484748.628	2953968.283	1270	484741.03	2953997.075	484733.319	2954026.297
1280	484750.699	2953999.626	484758.294	2953970.843	1280	484750.699	2953999.626	484742.986	2954028.858
1290	484760.368	2954002.177	484767.961	2953973.404	1290	484760.368	2954002.177	484752.652	2954031.418
1300	484770.037	2954004.729	484777.627	2953975.965	1300	484770.037	2954004.729	484762.319	2954033.979
1310	484779.706	2954007.28	484787.294	2953978.526	1310	484779.706	2954007.28	484771.985	2954036.54
1320	484789.375	2954009.832	484796.961	2953981.086	1320	484789.375	2954009.832	484781.652	2954039.101
1330	484799.044	2954012.383	484806.627	2953983.647	1330	484799.044	2954012.383	484791.319	2954041.661
1340	484808.713	2954014.934	484816.294	2953986.208	1340	484808.713	2954014.934	484800.985	2954044.222
1350	484818.382	2954017.486	484825.96	2953988.768	1350	484818.382	2954017.486	484810.652	2954046.783
1360	484828.051	2954020.037	484835.628	2953991.324	1360	484828.051	2954020.037	484820.32	2954049.338
1370	484837.72	2954022.589	484845.301	2953993.862	1370	484837.72	2954022.589	484829.992	2954051.876
1380	484847.39	2954025.14	484854.974	2953996.399	1380	484847.39	2954025.14	484839.665	2954054.414
1390	484857.059	2954027.692	484864.646	2953998.937	1390	484857.059	2954027.692	484849.338	2954056.952
1400	484866.728	2954030.243	484874.319	2954001.475	1400	484866.728	2954030.243	484859.01	2954059.489
1410	484876.397	2954032.794	484883.991	2954004.013	1410	484876.397	2954032.794	484868.683	2954062.027
1420	484886.066	2954035.346	484893.664	2954006.551	1420	484886.066	2954035.346	484878.355	2954064.565
1430	484895.735	2954037.897	484903.337	2954009.089	1430	484895.735	2954037.897	484888.028	2954067.103
1440	484905.404	2954040.449	484913.009	2954011.626	1440	484905.404	2954040.449	484897.701	2954069.641
1450	484915.073	2954043	484922.682	2954014.164	1450	484915.073	2954043	484907.373	2954072.179
1460	484924.742	2954045.552	484932.354	2954016.702	1460	484924.742	2954045.552	484917.046	2954074.716
1470	484934.411	2954048.103	484942.027	2954019.24	1470	484934.411	2954048.103	484926.719	2954077.254
1480	484944.08	2954050.654	484951.7	2954021.778	1480	484944.08	2954050.654	484936.391	2954079.792
1490	484953.749	2954053.206	484961.372	2954024.316	1490	484953.749	2954053.206	484946.064	2954082.33
1500	484963.418	2954055.757	484971.045	2954026.853	1500	484963.418	2954055.757	484955.736	2954084.868
1510	484973.087	2954058.309	484980.716	2954029.397	1510	484973.087	2954058.309	484965.408	2954087.411
1520	484982.756	2954060.86	484990.387	2954031.942	1520	484982.756	2954060.86	484975.078	2954089.956

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

1530	484992.425	2954063.412	485000.058	2954034.487	1530	484992.425	2954063.412	484984.749	2954092.501
1540	485002.094	2954065.963	485009.728	2954037.032	1540	485002.094	2954065.963	484994.42	2954095.046
1550	485011.763	2954068.514	485019.399	2954039.577	1550	485011.763	2954068.514	485004.09	2954097.592
1560	485021.432	2954071.066	485029.07	2954042.123	1560	485021.432	2954071.066	485013.761	2954100.137
1570	485031.101	2954073.617	485038.74	2954044.668	1570	485031.101	2954073.617	485023.432	2954102.682
1580	485040.77	2954076.169	485048.411	2954047.213	1580	485040.77	2954076.169	485033.102	2954105.227
1590	485050.439	2954078.72	485058.082	2954049.758	1590	485050.439	2954078.72	485042.773	2954107.772
1600	485060.108	2954081.272	485067.752	2954052.303	1600	485060.108	2954081.272	485052.444	2954110.317
1610	485069.777	2954083.823	485077.423	2954054.848	1610	485069.777	2954083.823	485062.115	2954112.862
1620	485079.446	2954086.374	485087.094	2954057.393	1620	485079.446	2954086.374	485071.785	2954115.408
1630	485089.115	2954088.926	485096.764	2954059.941	1630	485089.115	2954088.926	485081.455	2954117.956
1640	485098.784	2954091.477	485106.433	2954062.49	1640	485098.784	2954091.477	485091.125	2954120.505
1650	485108.453	2954094.029	485116.103	2954065.039	1650	485108.453	2954094.029	485100.794	2954123.054
1660	485118.123	2954096.58	485125.773	2954067.588	1660	485118.123	2954096.58	485110.464	2954125.603
1670	485127.792	2954099.131	485135.442	2954070.137	1670	485127.792	2954099.131	485120.134	2954128.152
1680	485137.461	2954101.683	485145.112	2954072.686	1680	485137.461	2954101.683	485129.803	2954130.701
1690	485147.13	2954104.234	485154.782	2954075.236	1690	485147.13	2954104.234	485139.473	2954133.25
1700	485156.799	2954106.786	485164.451	2954077.785	1700	485156.799	2954106.786	485149.143	2954135.799
1710	485166.468	2954109.337	485174.121	2954080.334	1710	485166.468	2954109.337	485158.812	2954138.348
1720	485176.137	2954111.889	485183.791	2954082.883	1720	485176.137	2954111.889	485168.482	2954140.897
1730	485185.806	2954114.44	485193.46	2954085.432	1730	485185.806	2954114.44	485178.152	2954143.446
1740	485195.475	2954116.991	485203.13	2954087.981	1740	485195.475	2954116.991	485187.821	2954145.995
1750	485205.147	2954119.531	485212.695	2954090.453	1750	485205.147	2954119.531	485197.618	2954148.535
1760	485214.834	2954122.011	485222.217	2954092.772	1760	485214.834	2954122.011	485207.528	2954150.949
1770	485224.538	2954124.427	485231.737	2954095.09	1770	485224.538	2954124.427	485217.438	2954153.362
1780	485234.258	2954126.778	485241.258	2954097.409	1780	485234.258	2954126.778	485227.347	2954155.774
1790	485243.993	2954129.064	485250.78	2954099.721	1790	485243.993	2954129.064	485237.259	2954158.177
1800	485253.743	2954131.285	485260.324	2954101.944	1800	485253.743	2954131.285	485247.192	2954160.492
1810	485263.508	2954133.441	485269.869	2954104.168	1810	485263.508	2954133.441	485257.127	2954162.807
1820	485273.287	2954135.532	485279.441	2954106.272	1820	485273.287	2954135.532	485267.091	2954164.992
1830	485283.08	2954137.558	485289.056	2954108.173	1830	485283.08	2954137.558	485277.098	2954166.97
1840	485292.886	2954139.519	485298.702	2954110.08	1840	485292.886	2954139.519	485287.072	2954168.942
1850	485302.696	2954141.457	485308.512	2954112.02	1850	485302.696	2954141.457	485296.882	2954170.882
1860	485312.506	2954143.395	485318.322	2954113.959	1860	485312.506	2954143.395	485306.692	2954172.821
1870	485322.317	2954145.334	485328.132	2954115.899	1870	485322.317	2954145.334	485316.503	2954174.761
1880	485332.127	2954147.272	485337.942	2954117.838	1880	485332.127	2954147.272	485326.313	2954176.7
1890	485341.937	2954149.21	485347.752	2954119.778	1890	485341.937	2954149.21	485336.123	2954178.64
1900	485351.748	2954151.148	485357.563	2954121.717	1900	485351.748	2954151.148	485345.933	2954180.579

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

SCHEDULE – B
(See Clause 2.1)
DEVELOPMENT OF THE PROJECT HIGHWAY

1 Development of the Project Highway

The Project Highway shall generally follow the horizontal alignment shown in the plan specified in **III of Schedule-A**, unless otherwise specified by the Authority. Notwithstanding anything to the contrary contained in this Agreement or IRC:SP:84-2019, the proposed plan & profile, locations of different structures/drains/service & slip road/RE walls, chainage of different structures/drains/service & slip road/RE walls, length of different structures/drains/service & slip road/RE walls etc. of the project highway as indicated in the Schedule A, Schedule B, Schedule C and their Annexures shall be treated as an approximate assessment and as minimum requirement. The proposed levels/Finished Road Top Levels (FRLs) as indicated in the alignment plan shall be minimum requirement. Based on site/design requirement, the Concessionaire shall finalize their Detailed Designs (During Development stage) including plan & profile of the project highway as described in this **Schedule-B** and in **Schedule-C** and shall submit the same to Independent Engineer for its Consent/Approval and Safety Audit by Safety Auditor, before the start of the execution of project. The designs so approved shall not be in contradiction with the scope of project. For avoidance of doubt, the provisions mentioned in schedule B & C cannot be changed, only the design of the components is to be submitted for consent/approval. Any changes in the finally accepted/approved/consented Detail Designs in respect of the provision in Schedule B and Schedule C shall not constitute a change of scope, save and except any variations arising out of a change of scope expressly undertaken in accordance with the provision of Article 16.

The concessionaire/contractor shall, at its own cost and expense adopt Automated & Intelligent Machine aided Construction (AI-MC) for execution of the project in line with MoRTH circular No. RW/NH-33044/31/2024-S&R(P&B)(Computer No. 245397) dated 23.06.2025. The Concessionaire shall, at its own cost and expense, deploy grading, paving and compaction equipment fitted with Machine Guidance & Control System (MGCS) for finishing of all grades including Embankment, Subgrade, GSB/CTSB, WMM/CTB, DBM/DLC & BC/SMA/PQC. The Machine Guidance & Control System used by the Concessionaire shall be capable of delivering accuracy as per the applicable IRC specifications and MoRTH circular No. RW/NH-33044/31/2024-S&R(P&B)(Computer No. 245397) dt. 23.06.2025. During the construction period, the Concessionaire shall furnish all the physical Progress Data (All types of Surface Grading Data, Compaction, Temperature Data, etc.) obtained through Machine Control and Guidance System/CMS to Authority & Independent Engineer for monitoring of construction on daily basis. These digital data and desired output shall be made available at the location (Server/Cloud) finalised by Authority.

NHIDCL reserves the right to check/verify design calculations and drawings of all components of the stretch of National Highway including the structures falling within the scope of work. The Concessionaire shall be required to furnish all data pertaining to detailed

designs, drawings, calculations, Design Basis Report, input files of Design Software used in the project, etc. to the Authority and/or the Independent Engineer free of cost within a time as specified by the Authority and/or the Independent Engineer.

2 Four-Laning with Paved Shoulder

Four Laning shall include Four lane road with Paved shoulders configuration & Four/Six Lane structures including approaches as described in Annexure-I of this Schedule-B, Schedule-B1 and in Schedule-C.

3 Specifications & Standards

The Project Highway shall be designed and constructed in conformity with the Specifications and Standards of IRC SP 84-2019 & specified in Annexure-I of Schedule-D.

ANNEX – I
(Schedule-B)
Description of the Project

Construction of Four-lane of Lane NH 15 from Baihata Chariali (Km 0.000) to Start Mangaldoi Bypass (Km 28) connecting NH-15 to NH-27 (Old NH-31) (Missing Link) with Junction design and 4 Lane of NH-15 from Mangaldoi (excluding Mangaldoi Bypass) (Km 42) to Mission Chariali (Km 135) Ch. 0+000 to Ch. 150+971 in the State of Assam Toll BOT.

The coordinates of start and end point of project road are given below:

Co-ordinates of Start and End of Project Stretch

Location		UTM Co-Ordinate	
Description	Design Chainage	Easting (m)	Northing (m)
Section - Baihata Chariali to Start of Mangaldoi Bypass			
Start of Project Road	0+000	372087.184	2912741.638
End of Project Road	28+000	396620.361	2921684.402
Section - Mangaldoi (excluding Mangaldoi bypass) to Mission Chariali			
Start of Project Road	42+590	407443.5223	2928334.023
End of Project Road	150+972	484510.704	2953935.977

Note: The project alignment shall be merged with Preceding & Succeeding packages as per alignment plans.

1 DEVELOPMENT OF THE PROJECT HIGHWAY

a. The Project Highway shall generally follow the horizontal alignment shown in the plan specified in Annexure-III of Schedule-A, unless otherwise specified by the Authority. Notwithstanding anything to the contrary contained in this Agreement or IRC:SP:84-2019, the proposed plan & profile, locations of different structures/drains/service & slip road/RE walls, chainage of different structures/drains/service & slip road/RE walls, length of different structures/drains/service & slip road/RE walls etc. of the project highway as indicated in the Schedule A, Schedule B, Schedule C and their Annexures shall be treated as an approximate assessment and as minimum requirement. The proposed levels/Finished Road Top Levels (FRLs) as indicated in the alignment plan shall be minimum requirement. Based on site/design requirement, the Concessionaire shall finalize their Detailed Designs (During Development stage) including plan & profile of the project highway as described in this Schedule-B and in Schedule-C and shall submit the same to Independent Engineer for its Consent/Approval and Safety Audit by Safety Auditor, before the start of the execution of project. The designs so approved shall not be in contradiction with the scope of project. For avoidance of doubt, the provisions mentioned in schedule B & C cannot be changed, only the design of the components is to be submitted for consent/approval. Any changes in the finally accepted/approved/consented Detail Designs in respect of the provision in Schedule B and Schedule C shall not constitute a change of scope, save and except any variations arising out of a change of scope expressly undertaken in accordance with the provision of Article 16.

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b. Based on the Accepted Detailed Design, including the Plan and Profile prepared by the Concessionaire, a comprehensive Detailed Work Programme shall be developed using the Network Method (PERT/CPM), Primavera, TILOS, or equivalent project management software. The programme shall include the planned sequence of activities along with the corresponding deployment of all requisite resources and shall be submitted to the Engineer for review and approval prior to the commencement of civil works. Any required changes in scope of work given in Schedule B and Schedule C, including any variation in standard, shall be finalized by both the parties before start of actual civil work.

c. The concessionaire/contractor shall, at its own cost and expense adopt Automated & Intelligent Machine aided Construction (AI-MC) for execution of the project in line with MoRTH circular No. RW/NH-33044/31/2024-S&R(P&B)(Computer No. 245397) dt. 23.06.2025. The Concessionaire shall, at its own cost and expense, deploy grading, paving and compaction equipment fitted with Machine Guidance & Control System (MGCS) for finishing of all grades including Embankment, Subgrade, GSB/CTSB, WMM/CTB, DBM/DLC & BC/SMA/PQC. The Machine Guidance & Control System used by the Concessionaire shall be capable of delivering accuracy as per the applicable IRC specifications and MoRTH circular No. RW/NH-33044/31/2024-S&R(P&B)(Computer No. 245397) dt. 23.06.2025. During the construction period, the Concessionaire shall furnish all the physical Progress Data (All types of Surface Grading Data, Compaction, Temperature Data, etc.) obtained through Machine Control and Guidance System/CMS to Authority & Independent Engineer for monitoring of construction on daily basis. These digital data and desired output shall be made available at the location (Server/Cloud) finalised by the Authority.

d. NHIDCL reserves the right to check/verify design calculations and drawings of all components of the stretch of National Highway including the structures falling within the scope of work. The Concessionaire shall be required to furnish all data pertaining to detailed designs, drawings, calculations, Design Basis Report, input files of Design Software used in the project, etc. to the Authority and/or the Independent Engineer free of cost within a time as specified by the Authority and/or the Independent Engineer.

e. The Concessionaire shall, at its own cost, implement Building Information Modelling (BIM) throughout the Design, Construction, Testing, Commissioning, Operation and Maintenance Period of the Project in accordance with the BIM Standards, Employer's Information Requirements (EIR), BIM Execution Plan (BEP), Common Data Environment (CDE) requirements and such other guidelines, standards and protocols as may be specified by the Authority from time to time.

f. Implementation of Building Information Modelling (BIM) and Digital Twin: The BIM Model shall be progressively developed and maintained throughout the Concession Period and shall include all permanent works, temporary works (where applicable), utilities, structures, pavements, road furniture, Intelligent Transport Systems (ITS), tolling systems and all other Project Assets. The Concessionaire shall ensure that the BIM Model remains accurate, current and synchronized with the actual physical works and all approved design changes.

g. Concessionaire shall develop BIM models to a minimum Level of Development (LOD) 350 for the design and construction phases. Critical structures such as major bridges, tunnels, interchanges, ROB/RUBs, toll plazas and ITS installations shall be developed to LOD 400. Upon project completion, the verified Asset Information Model (AIM) shall be delivered at LOD 500 for operation and maintenance.

h. Upon completion of construction, the Concessionaire shall deliver and thereafter maintain a verified Asset Information Model (AIM) and an operational Digital Twin of the Project, integrated with relevant asset, inspection, maintenance, traffic, safety and operational data. The Digital Twin shall be continuously updated throughout the Operation and Maintenance Period to reflect all additions, alterations, renewals, repairs and maintenance activities undertaken during the Concession Period vis a vis

i. The Concessionaire shall ensure interoperability of all BIM and Digital Twin data using open industry standards, including IFC and other formats as prescribed by the Authority, and shall provide the Authority and Independent Engineer unrestricted access to the Common Data Environment, BIM Models, Digital Twin, associated databases, metadata and all related digital assets throughout the Concession Period.

j. Failure to develop, maintain and update the BIM Model and Digital Twin in accordance with this Agreement shall constitute a material non-compliance under the Concession Agreement and shall be subject to the applicable contractual remedies.

1.1 Width of Carriageway

1.1.1 Four Laning with paved shoulders shall be undertaken. The paved carriageway shall be as per TCS for four lining (including paved shoulder and kerb shyness/edge strip), and as reference (Circular: NHAI/ Bharatmala/ EC/ DPR/ 2016/ 143430) and Edge strip shall be minimum 0.6m as clause No. 2.5.3 IRC: SP:84-2019 in case of depressed median.

1.1.2 In built-up sections/areas the width of paved carriageway shall be as per TCS for four laning (including paved shoulder and kerb shyness/edge strip).

The project road is passing through the built-up areas as given below:

Sl. No.	Built-up stretch (Township)	Location (km to km)	Width (m) of carriageway	Typical cross section (Ref. to Manual)
1	Baihata-Chariali	Km 0+000 to Km 08+100	2x7.5m	Refer TCS-2 of Schedule B
2	Salmara	Km 08+500 to Km 09+500	2x7.5m	Refer TCS-2 of Schedule B
3	Dumunichowki	Km 10+000 to Km 14+500	2x7.5m	Refer TCS-2 of Schedule B
4	singimari	Km 15+050 to Km 15+180	2x7.5m	Refer TCS-2 of Schedule B
5	Bijulibari	Km 15+850 to Km 16+200	2x7.5m	Refer TCS-2 of Schedule B
6	Sipajhar	Km 16+240 to Km 26+200	2x7.5m	Refer TCS-2 of Schedule B
7	pipra dokan (mangaldoi)	Km 26+200 to Km 27+500	2x7.5m	Refer TCS-2 of Schedule B
8	Mazgaon	Km 42+590 to Km 43+310	2x7.5m	Refer TCS-2 of Schedule B
9	Gelaidingi	Km 43+600 to Km 43+900	2x7.5m	Refer TCS-2 of Schedule B
10	Dhula	Km 44+000 to Km 44+300	2x7.5m	Refer TCS-2 of Schedule B
11	Bezpara	Km 44+900 to Km 45+450	2x7.5m	Refer TCS-2 of Schedule B
12	Thekerabari	Km 47+050 to Km 50+200	2x7.5m	Refer TCS-2 of Schedule B
13	Kharupetia	Km 50+250 to Km 57+830	2x7.5m	Refer TCS-2 of Schedule B
14	Dalgaon	Km 57+830 to Km 66+500	2x7.5m	Refer TCS-2 of Schedule B

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15	Besimari	Km 67+200 to Km 69+800	2x7.5m	Refer TCS-2 of Schedule B
16	Alisinga	Km 70+300 to Km 71+000	2x7.5m	Refer TCS-2 of Schedule B
17	Lalpool	Km 71+300 to Km 75+000	2x7.5m	Refer TCS-2 of Schedule B
18	Jhargaon	Km 76+700 to Km 76+970	2x7.5m	Refer TCS-2 of Schedule B
19	RE-alignment jhargaon to rowta	Km 76+970 to Km 79+790	2x7.5m	Refer TCS-2 of Schedule B
20	Rowta	Km 79+970 to Km 82+800	2x7.5m	Refer TCS-2 of Schedule B
21	Dhansirighat	Km 82+800 to Km 85+700	2x7.5m	Refer TCS-2 of Schedule B
22	Gelabil	Km 86+100 to Km 90+500	2x7.5m	Refer TCS-2 of Schedule B
23	Sirajuli	Km 90+850 to Km 103+600	2x7.5m	Refer TCS-2 of Schedule B
24	Dhekiajuli	Km 104+190 to Km 109+530	2x7.5m	Refer TCS-2 of Schedule B
25	Thelamara	Km 114+700 to Km 119+150	2x7.5m	Refer TCS-2 of Schedule B
26	Baligaon	Km 119+600 to Km 122+000	2x7.5m	Refer TCS-2 of Schedule B
27	Mission Chariali	Km 123+250 to Km 150+971	2x7.5m	Refer TCS-2 of Schedule B

Except as otherwise provided in this Agreement, the width shall be adjusted to fit into appropriate plans and cross sections developed in accordance with TCS enclosed.

1.1.4 The entire cross-sectional elements shall be accommodated in the proposed ROW. Consultant has to mention specifically such areas in Schedule-B. If required, suitable retaining structures shall be provided to accommodate the highway cross section within the available/proposed ROW. The details of such sections are mentioned in Schedule-B. In case of any other section not included in Schedule-B, where retaining structures are to be provided, shall not be considered a Change of Scope.

1.2 Width of Median

1.2.1 The width of median including kerb shyness shall be 5m for raised median or as per TCS enclosed in this schedule.

1.2.2 A suitable dense median planation measures shall be executed in accordance with IRC SP 84 2019.

2 GEOMETRIC DESIGN & GENERAL FEATURES OF PROJECT HIGHWAY

2.1 General

Geometric design and general features of the Project Highway shall be in accordance with Section 2 of the manual. Intermediate Sight distance (Desirable Minimum Sight Distance) shall be followed for design of all vertical curves including structures as well as highways. (Clause No. 2.9.5 IRC: SP: 84-2019 & IRC:73-2023).

2.2 Design Speed

The project road shall be designed for 100 Km/h for plain and rolling terrain. The design speed for Loop/Ramps & Slip/Service Road shall be as per IRC codal provisions.

2.3 Improvement of the existing road geometrics

2.3.1 The existing road geometrics shall be improved as per the codal provisions and Manual.

2.3.2 The entire cross-sectional elements shall be accommodated in the available/proposed ROW. If required, suitable full height retaining structures shall be provided to

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accommodate the highway cross section within the available/ proposed ROW. The details of such sections are mentioned in Schedule-B. In case of any other section not included in Schedule-B, where retaining structures are to be provided, shall not be considered a Change of Scope.

2.3.3 Realignments

The existing road shall improve to the standards as specified in the Manual at the following locations:

Sl. No.	Existing Chainage (Km.)		Design Chainage (Km.)		Length (km.)
	From	To	From	To	
1	58+020	58+460	60+070	60+430	360
2	75+020	78+900	76+970	79+790	2820
3	80+100	80+830	80+910	81+550	640
4	90+180	91+080	90+910	91+750	840
5	110+620	112+760	112+590	114+310	1720

2.3.4 Bypasses

The existing road shall be bypassed to the standards as specified in the Manual at the following locations:

Sl. No.	Location	Existing Chainage (Km)		Design Chainage (Km)		Design Length (m)
		From	To	From	To	
1	Bypass-1 (Baihata Chariali)	0+000	7+940	0+000	8+100	8100
2	Bypass-2 (Sipajhar)	16+140	26+250	16+240	26+200	9960
3	Bypass-3 (Kharupetia)	49+840	56+460	50+250	57+830	7580
4	Bypass-4 (Dekiajuli)	104+220	108+220	104+190	109+530	5340
5	Bypass-5 (Mission Chariali/Tezpur Bypass)	123+440	137+100	123+250	150+971	27721

2.4 Right of Way

Details of the Right of Way along Project Highways and service/slip road are given in Annexure-II of Schedule-A.

2.5 Type of shoulders

2.5.1 The Design Specification of paved shoulders shall conform to the requirements specified in paragraph 5.10 of the manual.

2.5.2 Paved shoulders and strip on median side shall be of same specification and pavement composition as of main carriageway (clause No. 5. 10 IRC: SP: 84-2019).

2.5.3 In Built-up sections, footpaths/fully paved shoulder shall be provided with width 2.5m respectively. (Clause No. 2. 15 & clause No. 2.6 IRC: SP: 84-2019).

2.5.4 The width of paved shoulders and earthen shoulders shall be as indicated in Annexure-II of Schedule B.

2.5.5 The Design Specification of paved shoulder shall conform to the requirements specified in paragraph 5.11 of the manual.

2.5.6 The earthen shoulder shall be well graded with granular material / gravel crust stones (150mm) or combination thereof, conforming to Clause 401 of MoRTH specification. (Clause No. 5. 11 IRC: SP: 84-2019).

2.6 Lateral and Vertical Clearance at Underpasses

2.6.1 In case of VUP/ LVUP/ SVUP, the proposed structure, the finish road level in VUP/ LVUP/ SVUP shall be kept 150 mm above the ground level/Service Road/ crossroad (whichever is higher) to ensure that these VUP/ LVUP/ SVUP don't become water accumulation points. (Clause No. 2.10 IRC: SP: 84-2019)

2.6.2 The vertical and horizontal clearance at the underpasses shall be as per Clause 2.10.2 of the Manual unless specified in Schedule-D (for deviation if, any). The provision of guardrails/crash barriers shall be as per clause 2.10.1 of the Manual.

Sr. No	Design Chainage	Type	No x Span	Length
1	0+000	Flyover Loop-1 (Tezpur Side to Rangia Side)	10 x 35	1
2	0+000	Flyover Loop-2 (Guwahati Side to Tezpur Side)	30 x 35	2
3	0+650	MNB	1 x 35	3
4	1+112	LVUP	1 x 12 x 5.5	4
5	2+285	LVUP	1 x 12 x 5.5	5
6	2+885	MNB	1x20	6
7	3+694	MNB	1x20	7
8	4+223	SVUP	1X7X4	8
9	4+305	MNB	2x10	9
10	4+700	Flyover at cloverleaf over NHAI Ring Road	2 X 30	10
11	RAMP-2(0+157)	MNB	2x10	11
12	RAMP-2(0+410)	SVUP	1X7X4	12
13	RAMP-2(0+539)	MNB	1X20	13
14	RAMP-3(0+100)	MNB	1X20	14
15	RAMP-3(0+150)	SVUP	1X7X4	15
16	Clover Leaf, RAMP-3 (Ch 0+520)	Structure for GAIL Pipe Line	1X40	16
17	Clover Leaf, RAMP-4 (Ch 0+435)	Structure for GAIL Pipe Line	1X55	17
18	Clover Leaf, RAMP-1 & RAMP-4	LVUP WIDENING	1X12X5.5	18

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Sr. No	Design Chainage	Type	No x Span	Length
19	Clover Leaf, LOOP-4	Structure for GAIL Pipe Line	2x21.9 + 1x40+ 6x41.9+ 1x40+ 1x21.9	19
20	4+940	Structure for GAIL Pipe Line	1x30	20
21	5+342	LVUP	1 x 12 x 5.5	21
22	6+342	VUP	1x 20 x 5.5	22
23	6+815	MNB	2x10	23
24	7+935	Flyover	15+30+15	24
25	8+588	VUP	1x20x5.5	25
26	9+055	MNB	2X7.5	26
27	10+320	MJB	3 x 28	27
28	11+014	VUP	2x20x5.5	28
29	12+285	MNB	2x7.5	29
30	13+240	MNB	2x7.5	30
31	13+674	MNB	3x7.5	31
32	14+345	MJB	2x35	32
33	15+062	LVUP	1 x 12 x 5.5	33
34	15+677	MJB	2x35	34
35	16+385	Flyover	15+30+15	35
36	17+655	SVUP	1 X 7 X 4	36
37	20+805	LVUP	1 x 12 x 5.5	37
38	21+385	SVUP	1x4x7	38
39	22+665	LVUP	1 x 12 x 5.5	39
40	23+425	LVUP	1 x 12 x 5.5	40
41	24+342	MJB	5 x 30	41
42	24+920	SVUP	1 X 7 X 4	42
43	26+075	Flyover	15+30+15	43
44	26+857	VUP	2x20x5.5	44
45	43+910	Flyover	2 x 30	45
46	46+730	VUP	1x20x5.5	46
47	48+934	MJB	2X38.5	47
48	50+310	Flyover	3x30	48
49	51+240	Flyover	2 x 30	49
50	52+208	LVUP	1 x 12 x 5.5	50
51	53+065	LVUP	1 x 12 x 5.5	51
52	53+490	MNB	4 x 7.5	52
53	53+530	LVUP	1 x 12 x 5.5	53

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Sr. No	Design Chainage	Type	No x Span	Length
54	54+436	LVUP	1 x 12 x 5.5	54
55	55+472	LVUP	1 x 12 x 5.5	55
56	56+042	LVUP	1 x 12 x 5.5	56
57	57+700	Flyover	15+30+15	57
58	60+185	Flyover	15+30+15	58
59	62+638	MJB	4 x 35	59
60	64+080	MNB cum VUP	1x20+ 1x 8(SR)	60
61	64+895	VUP	1x20x5.5	61
62	67+860	MNB cum VUP	1x20+ 1x 8(SR)	62
63	68+297	flyover	5 x 30	63
64	69+229	Structure for Pipe Line	1 x 30	64
65	70+860	MNB	1x10	65
66	71+320	MNB CUM FLYOVER	20+40+20	66
67	74+350	MNB Cum VUP	1x20 + 1x 8 (SR)	67
68	77+110	Flyover	15+30+15	68
69	78+720	MNB cum VUP	1x30+ 1x10 (SR)	69
70	79+019	MNB cum VUP	1x20+1x10 (SR)	70
71	79+645	Flyover	15+30+15	71
72	83+377	MJB	5x40 (Minimum vertical clearance shall be 4.5m above HFL shall be ensured)	72
73	84+205	Flyover	15+30+15	73
74	84+755	MJB	2x30	74
75	86+030	MNB	4x7.5	75
76	86+960	MNB	2x7.5	76
77	87+620	MNB	1X20	77
78	89+418	MNB	2x25	78
79	90+850	LVUP	2 x 12 x 5.5	79
80	91+352	MJB	4 x 35	80
81	93+005	MNB	2x7.5	81
82	93+470	MNB	2x7.5	82
83	94+145	MNB cum VUP	2x20 + 1 x 10(SR)	83
84	94+470	SVUP	1 X 7 X 4	84
85	96+780	Flyover	15+30+15	85
86	97+558	MNB	1x40	86
87	98+320	LVUP	1 x 12 x 5.5	87

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Sr. No	Design Chainage	Type	No x Span	Length
88	102+723	MJB	2x40	88
89	104+320	Flyover	15+30+15	89
90	104+788	MNB	1x30	90
91	105+948	LVUP	1 x 12 x 5.5	91
92	106+136	MJB	6 x 30	92
93	106+553	LVUP	1 x 12 x 5.5	93
94	107+212	LVUP	1 x 12 x 5.5	94
95	107+695	LVUP	1 x 12 x 5.5	95
96	109+375	Flyover	15+30+15	96
97	112+900	LVUP	1 x 12 x 5.5	97
98	113+132	MJB	7x40	98
99	114+190	MNB	1x30	99
100	115+905	VUP	2x20x5.5	100
101	116+024	MNB	1x40	101
102	116+354	VUP	1x20x5.5	102
103	120+003	MNB	1x20	103
104	122+033	MJB	4 x 47	104
105	123+497	Structure for Pipe Line	1 x 30 (with minimum vertical clearance 4.5m). This is separate dedicated structure under Flyover at 123+542. Positioning will be as per P&P	105
106	123+542	Flyover	15+30+30+15	106
107	124+178	MNB	1X26.3	107
108	124+970	VUP	1 x 30 x 5.5	108
109	128+494	MNB	4 x 7.5	109
110	131+312	MNB CUM VUP	2 x 30	110
111	131+940	MJB	2 x 30	111
112	132+660	LVUP	1 x 12 x 5.5	112
113	133+050	LVUP	1 x 12 x 5.5	113
114	133+743	ROB	(20+37.5+20) x 7.5* (* means 7.5m clear vertical clearance is minimum requirement) or shall be executed	114

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Sr. No	Design Chainage	Type	No x Span	Length
			as per approved GAD of Railways	
115	133+801	Viaduct for merging ROB to Elephant Under Pass (EUP)	1 x 37.35	115
116	134+309	Elephant Underpass	29 x 35 x 7* (* means 7m clear vertical clearance is minimum requirement) or shall be executed as per approved GAD by Wildlife/Forest Department	116
117	135+130	VUP	1x30x5.5	117
118	136+504	MNB	1x20	118
119	136+913	Structure for Pipe Line	1 x 30	119
120	138+376	VUP	1 x 20 x 5.5	120
121	140+570	VUP	1x 30 x 5.5	121
122	141+408	MNB	1x25	122
123	142+737	LVUP	1X12X5.5	123
124	143+578	MNB	1x35	124
125	144+156	LVUP	1 x 12 x 5.5	125
126	145+852	MJB	3 X 30	126
127	147+013	Structure for Pipe Line	1 x 30	127
128	147+130	VUP	1x30x5.5	128
129	149+394	LVUP	1 X 12 X 5.5	129
130	150+971	Flyover - trumpet interchange	2 x 30	130

*Note- Any requirement of Ground Improvement at the locations of proposed Retaining Wall / Toe Wall / High Embankment shall not be treated as COS and will be incidental to work.

2.7 Lateral and vertical clearances at Overpasses

2.7.1 Lateral and vertical clearances for overpasses shall be as per paragraph 2.11 of the Manual.

2.7.2 Lateral Clearance: The width of the opening at the Overpasses shall be as follows:

Sl. No.	Location Chainage (Km.)	Span / opening (m)	Vertical Clearance	Remarks
NIL				

2.8 Service Roads/Slip Roads/Connecting Roads:

2.8.1 Service Road: The height of embankment of Service Road shall confirm to clause 4.2.1

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

of IRC: SP 84-2019.

2.8.2 The Service Roads shall be constructed at the locations and for the lengths indicated below:

Sr No.	Chainage		Length (Km)	Side	Width (M)	Remarks
	From	To				
1	-0+430	0+900	1.330	LHS	7.000	LHS (From Rangia side towards Tezpur) at Level "0"
2	-0+720	0+900	1.620	RHS	7.000	RHS (From Tezpur side towards Guwahati) at level "0"
3	0+896	1+105	0.209	BHS	5.500	
4	1+117	1+510	0.393	LHS	5.500	
5	1+510	1+860	0.350	LHS	5.500	
6	1+860	2+279	0.419	LHS	5.500	
7	6+352	6+730	0.378	BHS	5.500	
8	6+730	6+805	0.075	BHS	5.500	
9	6+825	7+465	0.640	BHS	5.500	
10	7+505	7+905	0.400	BHS	5.500	
11	7+965	8+578	0.613	BHS	5.500	
12	8+598	8+960	0.362	BHS	5.500	
13	8+960	9+048	0.088	BHS	5.500	
14	9+063	9+500	0.437	BHS	5.500	
15	9+500	10+000	0.500	BHS	5.500	
16	10+000	10+278	0.278	BHS	5.500	
17	10+362	10+640	0.278	BHS	5.500	
18	10+640	10+994	0.354	BHS	5.500	
19	11+034	11+480	0.446	BHS	5.500	
20	11+510	12+277	0.767	BHS	5.500	
21	12+293	13+232	0.939	BHS	5.500	
22	13+248	13+661	0.413	BHS	5.500	
23	13+683	14+035	0.352	BHS	5.500	
24	14+035	14+310	0.275	BHS	5.500	
25	14+380	14+660	0.280	BHS	5.500	
26	14+660	14+770	0.110	BHS	5.500	
27	14+770	15+056	0.286	BHS	5.500	
28	15+068	15+300	0.232	BHS	5.500	
29	15+300	15+641	0.341	BHS	5.500	
30	15+711	16+030	0.319	BHS	5.500	
31	16+030	16+355	0.325	BHS	5.500	
32	16+415	16+870	0.455	BHS	5.500	
33	16+870	17+360	0.490	BHS	5.500	
34	17+390	17+651	0.261	BHS	5.500	
35	17+658	17+940	0.282	LHS	5.500	
36	17+940	20+330	2.390	LHS	5.500	
37	20+330	20+799	0.469	LHS	5.500	
38	22+671	23+419	0.748	RHS	5.500	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr No.	Chainage		Length (Km)	Side	Width (M)	Remarks
	From	To				
39	23+431	23+760	0.329	BHS	5.500	
40	23+760	24+040	0.280	BHS	5.500	
41	26+105	26+650	0.545	BHS	5.500	
42	26+650	26+837	0.187	BHS	5.500	
43	26+877	27+230	0.353	BHS	5.500	
44	27+260	28+000	0.740	BHS	5.500	
45	42+590	42+840	0.250	BHS	5.500	
46	43+100	43+350	0.250	BHS	5.500	
47	43+350	43+880	0.530	BHS	5.500	
48	43+940	44+450	0.510	BHS	5.500	
49	44+480	46+250	1.770	BHS	5.500	
50	46+280	46+720	0.440	BHS	5.500	
51	46+740	47+200	0.460	BHS	5.500	
52	47+230	48+620	1.390	BHS	5.500	
53	48+620	48+895	0.275	BHS	5.500	
54	48+972	49+200	0.228	BHS	5.500	
55	49+200	49+670	0.470	BHS	5.500	
56	49+700	50+265	0.565	BHS	5.500	
57	50+355	51+210	0.855	BHS	5.500	
58	51+270	52+202	0.932	BHS	5.500	
59	53+069	53+475	0.406	BHS	5.500	
60	53+536	54+430	0.894	BHS	5.500	
61	57+730	58+250	0.520	BHS	5.500	
62	58+280	59+530	1.250	BHS	5.500	
63	59+560	60+155	0.595	BHS	5.500	
64	60+215	60+610	0.395	BHS	5.500	
65	60+640	61+200	0.560	BHS	5.500	
66	61+200	62+300	1.100	BHS	5.500	
67	62+300	62+568	0.268	BHS	5.500	
68	62+708	62+980	0.272	BHS	5.500	
69	62+980	63+580	0.600	BHS	5.500	
70	63+610	64+070	0.460	BHS	5.500	
71	64+090	64+885	0.795	BHS	5.500	
72	64+905	65+570	0.665	BHS	5.500	
73	65+600	67+460	1.860	BHS	5.500	
74	67+460	67+850	0.390	BHS	5.500	
75	67+870	68+222	0.352	BHS	5.500	
76	68+372	69+214	0.842	BHS	5.500	
77	69+244	69+580	0.336	BHS	5.500	
78	69+610	70+855	1.245	BHS	5.500	
79	70+865	71+280	0.415	BHS	5.500	
80	71+360	71+900	0.540	BHS	5.500	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr No.	Chainage		Length (Km)	Side	Width (M)	Remarks
	From	To				
81	71+900	72+900	1.000	BHS	5.500	
82	72+900	73+820	0.920	BHS	5.500	
83	73+850	74+340	0.490	BHS	5.500	
84	74+360	74+800	0.440	BHS	5.500	
85	74+830	75+700	0.870	BHS	5.500	
86	75+900	76+500	0.600	BHS	5.500	
87	76+530	77+080	0.550	BHS	5.500	
88	77+140	77+510	0.370	BHS	5.500	
89	77+510	78+310	0.800	BHS	5.500	
90	78+340	78+705	0.365	BHS	5.500	
91	78+745	79+008	0.263	BHS	5.500	
92	79+030	79+615	0.585	BHS	5.500	
93	79+675	80+500	0.825	BHS	5.500	
94	80+500	80+810	0.310	BHS	5.500	
95	81+550	83+000	1.450	BHS	5.500	
96	83+000	83+277	0.277	BHS	5.500	
97	83+477	83+810	0.333	BHS	5.500	
98	83+810	84+175	0.365	BHS	5.500	
99	84+235	84+600	0.365	BHS	5.500	
100	84+600	84+725	0.125	BHS	5.500	
101	84+785	86+015	1.230	BHS	5.500	
102	86+045	86+500	0.455	BHS	5.500	
103	86+500	86+952	0.452	BHS	5.500	
104	86+967	87+610	0.643	BHS	5.500	
105	87+630	88+100	0.470	BHS	5.500	
106	88+100	89+393	1.293	BHS	5.500	
107	89+443	89+600	0.157	BHS	5.500	
108	89+600	90+400	0.800	BHS	5.500	
109	90+430	90+838	0.408	BHS	5.500	
110	90+862	91+282	0.420	BHS	5.500	
111	91+422	92+997	1.575	BHS	5.500	
112	93+012	93+462	0.450	BHS	5.500	
113	93+477	93+630	0.153	BHS	5.500	
114	93+630	94+115	0.485	BHS	5.500	
115	94+155	94+466	0.311	BHS	5.500	
116	94+473	94+700	0.227	BHS	5.500	
117	94+730	96+110	1.380	BHS	5.500	
118	96+140	96+770	0.630	BHS	5.500	
119	96+830	97+538	0.708	BHS	5.500	
120	97+578	98+314	0.736	BHS	5.500	
121	98+326	98+860	0.534	BHS	5.500	
122	98+890	101+500	2.610	BHS	5.500	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr No.	Chainage		Length (Km)	Side	Width (M)	Remarks
	From	To				
123	101+500	101+900	0.400	BHS	5.500	
124	101+900	102+412	0.512	BHS	5.500	
125	102+412	102+683	0.271	BHS	5.500	
126	102+763	103+035	0.272	BHS	5.500	
127	103+035	103+780	0.745	BHS	5.500	
128	103+810	104+290	0.480	BHS	5.500	
129	104+350	104+773	0.423	BHS	5.500	
130	104+803	105+220	0.417	BHS	5.500	
131	105+500	105+700	0.200	BHS	5.500	
132	105+700	105+942	0.242	BHS	5.500	
133	105+954	106+046	0.092	BHS	5.500	
134	106+226	106+547	0.321	BHS	5.500	
135	106+559	106+794	0.235	BHS	5.500	
136	106+794	107+005	0.211	BHS	5.500	
137	107+090	107+206	0.116	BHS	5.500	
138	107+218	107+689	0.471	BHS	5.500	
139	107+701	108+110	0.409	BHS	5.500	
140	108+110	108+900	0.790	BHS	5.500	
141	108+930	109+345	0.415	BHS	5.500	
142	109+405	109+900	0.495	BHS	5.500	
143	109+930	112+195	2.265	BHS	5.500	
144	112+195	112+405	0.210	BHS	5.500	
145	112+490	112+894	0.404	BHS	5.500	
146	112+906	112+992	0.086	BHS	5.500	
147	113+272	114+175	0.903	BHS	5.500	
148	114+205	114+890	0.685	BHS	5.500	
149	114+920	115+200	0.280	BHS	5.500	
150	115+200	115+885	0.685	BHS	5.500	
151	115+925	116+004	0.079	BHS	5.500	
152	116+044	116+344	0.300	BHS	5.500	
153	116+364	116+760	0.396	BHS	5.500	
154	116+790	119+993	3.203	BHS	5.500	
155	120+013	120+375	0.362	BHS	5.500	
156	120+650	121+000	0.350	BHS	5.500	
157	121+000	121+685	0.685	BHS	5.500	
158	121+685	121+933	0.248	BHS	5.500	
159	122+121	122+400	0.279	BHS	5.500	
160	122+400	122+820	0.420	BHS	5.500	
161	122+820	123+497	0.677	BHS	5.500	
162	123+587	123+740	0.153	BHS	5.500	
163	123+740	124+165	0.425	BHS	5.500	
164	124+191	124+650	0.459	BHS	5.500	

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Sr No.	Chainage		Length (Km)	Side	Width (M)	Remarks
	From	To				
165	124+650	124+955	0.305	BHS	7.000	
166	124+985	125+340	0.355	BHS	7.000	
167	125+340	125+900	0.560	BHS	7.000	
168	125+900	130+800	4.900	BHS	7.000	
169	130+800	130+980	0.180	BHS	7.000	
170	130+980	131+282	0.302	BHS	7.000	
171	135+145	135+400	0.255	BHS	7.000	
172	135+400	136+494	1.094	BHS	7.000	
173	136+514	136+898	0.384	BHS	7.000	
174	136+514	136+898	0.384	BHS	7.000	
175	136+928	137+300	0.372	BHS	7.000	
176	137+300	137+900	0.600	BHS	7.000	
177	137+930	138+366	0.436	BHS	7.000	
178	138+386	138+800	0.414	BHS	5.500	
179	138+800	140+250	1.450	BHS	5.500	
180	140+250	140+555	0.305	BHS	7.000	
181	140+585	141+030	0.445	BHS	7.000	
182	141+060	141+395	0.335	BHS	5.500	
183	141+420	142+300	0.880	BHS	5.500	
184	142+300	142+731	0.431	BHS	5.500	
185	142+743	143+100	0.357	BHS	5.500	
186	143+100	143+560	0.460	BHS	5.500	
187	143+595	143+750	0.155	BHS	5.500	
188	143+750	144+150	0.400	BHS	5.500	
189	144+162	145+550	1.388	BHS	5.500	
190	145+550	145+807	0.257	BHS	5.500	
191	145+897	146+200	0.303	BHS	5.500	
192	146+200	146+740	0.540	BHS	5.500	
193	146+740	146+998	0.258	BHS	5.500	
194	147+028	147+115	0.087	BHS	5.500	
195	147+145	147+620	0.475	BHS	5.500	
196	147+650	148+970	1.320	BHS	5.500	
197	148+970	149+388	0.418	BHS	5.500	
198	149+400	149+770	0.370	BHS	5.500	
199	149+800	150+450	0.650	BHS	7.000	
200	150+480	150+942	0.462	BHS	7.000	Single Trumpet

(MCW – main carriageway, LHS – Left Hand Side and RHS – Right Hand Side)

Note:

- a) Above length of the service/slip/connecting roads is indicative and minimum specified. The actual length of the service/slip/connecting roads shall be determined by the Contractor in accordance with the manual, plan & profile and design approved from the Authority Engineer. Any increase in the length specified in this Clause of Schedule-B shall not constitute a Change of Scope.

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- b) The realignment of existing track to the VUP/LVUP/SVUP outside the PROW and connecting roads between consecutive underpasses wherever required as per plan & profile uploaded with bid document and specified in Annexure-III of schedule A is to be constructed by the Contractor as per site requirement in consultation with Independent Engineer and the same would not constitute any change of scope.
- c) Length of service/slip/connecting roads given in above table excludes length across the project highway for proper connectivity of crossroads on either side of project highway which shall be deemed to be included in scope of work.
- d) The Acceleration lane, deceleration lane and transition lane shall be constructed in addition to length given in above table.
- e) Retaining wall shall be provided as per actual site condition

2.8.3 The Parking bays shall be provided along service road.

Sr. No.	Design Chainage of Parking Bay		Remarks
	LHS Service Road	RHS Service Road	
1	Nil		

2.8.4 Slip Road: The height of embankment of slip road shall confirm to clause 4.2.1. (Clause No. 4.2.1 IRC: SP: 84-2019)

The Slip roads shall be constructed at the locations and for the lengths indicated below:

Sl. No.	Location of slip road (from km to km)		Right hand side (RHS)/Left hand side (LHS)/ or Both sides	Length (km) of Service Road	Remark
	From	To			
Nil					

(MCW – main carriageway, LHS – Left Hand Side and RHS – Right Hand Side)

2.8.5 Separator between Main Carriageway and Service/Slip Road (clause No. 2.15.1 IRC: SP.:84-2019)

A separator along with pedestrian railing between main carriageway and service/slip road shall be provided to prevent the pedestrians, local vehicles and animals entering the highway.

Sr. No.	Design Chainage (Km)		Length of Separator (km)		Total	Remarks
	From	To	LHS	RHS		
Nil						

(MCW – main carriageway, LHS – Left Hand Side and RHS – Right Hand Side)

2.8.6 Merging & De-Merging or tapering between the Main Carriageway (MCW) and the Service Road/Slip Road:

Sr No.	Chainage		Length (Km)	TCS Type
	From	To		
1	7+465	7+505	0.040	TCS-8
2	11+480	11+510	0.030	TCS-8
3	17+360	17+390	0.030	TCS-8
4	27+230	27+260	0.030	TCS-8
5	44+450	44+480	0.030	TCS-8
6	46+250	46+280	0.030	TCS-8
7	47+200	47+230	0.030	TCS-8

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Sr No.	Chainage		Length (Km)	TCS Type
	From	To		
8	49+670	49+700	0.030	TCS-8
9	58+250	58+280	0.030	TCS-8
10	59+530	59+560	0.030	TCS-8
11	60+610	60+640	0.030	TCS-8
12	63+580	63+610	0.030	TCS-8
13	65+570	65+600	0.030	TCS-8
14	69+580	69+610	0.030	TCS-8
15	73+820	73+850	0.030	TCS-8
16	74+800	74+830	0.030	TCS-8
17	76+500	76+530	0.030	TCS-8
18	78+310	78+340	0.030	TCS-8
19	90+400	90+430	0.030	TCS-8
20	94+700	94+730	0.030	TCS-8
21	96+110	96+140	0.030	TCS-8
22	98+860	98+890	0.030	TCS-8
23	103+780	103+810	0.030	TCS-8
24	105+220	105+500	0.280	TCS-8
25	107+005	107+090	0.085	TCS-8
26	108+900	108+930	0.030	TCS-8
27	109+900	109+930	0.030	TCS-8
28	112+405	112+490	0.085	TCS-8
29	114+890	114+920	0.030	TCS-8
30	116+760	116+790	0.030	TCS-8
31	135+545	135+575	0.030	TCS-8
32	137+900	137+930	0.030	TCS-8
33	141+030	141+060	0.030	TCS-8
34	147+620	147+650	0.030	TCS-8
35	149+770	149+800	0.030	TCS-8
36	150+450	150+480	0.030	TCS-8

Note:

- i. Above length of the service/slip roads is minimum specified. The actual length of the service/slip/connecting roads shall be determined by the Concessionaire in accordance with the approved plan & profile and design approved from the Independent Engineer. Any increase up to 5 percent length from the length specified in this Clause of Schedule-B shall not constitute a Change of Scope (COS). For increase beyond 5%, COS as per provision of the contract shall be given on incremental basis. Any additional requirement at new location shall be dealt in CoS clause as per respective CA.

For avoidance of doubt, if the total length of service roads for the project to be constructed is 100 km, and the total length of service roads for the project constructed is 130 km

then the length for COS shall be determined as follows:

L= total length of service roads for the project as stipulated to be constructed= 100 Km

L1= total length of service roads actually executed= 130 Km

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Length qualifying for COS: = {130-(100+5%)} =25 Km

- ii. The Acceleration, deceleration lane, right turning storage lane, entry/exit lanes shall be constructed in addition to length given in above table and shall be deemed to be part of the scope and no Change of Scope shall be considered for the same. (Clause No. 2.12.2 IRC: SP:84-2019)
- iii. Any structures falling within acceleration / deceleration lane /taper shall be constructed to the required length and width. Such work is incidental to and included in the items covered under this Schedule-B. Any increase in length and width shall not be treated as change of scope.
- iv. The Merging & De-Merging or tapering length between the Main Carriageway (MCW) and the Service Road/Slip Road/Ramp/loop shall be constructed in accordance with the applicable Codal provisions. Such work shall be deemed incidental to and included in the items covered under this Schedule-B. Any increase in length and width shall not be treated as Change of Scope.

2.9 Grade Separated Structures

Grade separated structures shall be constructed as per Clause 2.13 of the Manual. Proposed levels at structure locations as shown in plan & profile specified in Annex-III of Schedule-A are minimum requirement and only for guidance and any increase in levels shall not constitute any change of scope. Entry/Exit arrangement from main carriageway shall be 50m before/after the start/end of approach road to grade separator i.e., start/end of valley curve (Clause No. 2.12.2.2 IRC:SP:84). RCC barrier shall start from start of valley curve and end after grade separator at end of valley curve.

The sub-structure shall be continued in the median portion with RCC barrier wherever superstructure has not been proposed in median portion. (Clause 7.1 (vii) IRC: SP: 84). Where, crash barrier on the median side is not continuous along the project highway, 50m long MBCB Safety barriers on median side shall be provided on both sides approaches of the structures. MBCB provided towards median side of each of the structure shall be joined on ends in semi-circular shape. (Clause No. 4.3.5 and 4.9, IRC 119).

2.5m/1.5m/0.75m wide footpaths shall be provided at grade intersection below structures for each direction of pedestrian movement (refer fig 3.1 to 3.6 IRC: SP: 84-2019).

The requisite particulars are given below:

2.9.1 Vehicle Overpass (VOP)

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Roadway width (m)	Super-structure provision in median	Span arrangement (m)	Minimum vertical clearance	Skew angle	Remarks
NIL								

2.9.2 Vehicular Underpasses (VUP)

S.N	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimu m vertical clearan ce (m)	Skew Angle	Remarks
1	6+342	As per GAD		No	1x20	5.5	6	VUP
2	8+588			No	1x20	5.5	-	VUP
3	11+014			No	2x20	5.5	42	VUP
4	26+857			No	2x20	5.5	-	VUP
5	46+730			No	1x20	5.5	-	VUP
6	64+895			No	1x20	5.5	-	VUP
7	115+905			No	2x20	5.5	-	VUP
8	116+354			No	1x20	5.5	-	VUP
9	124+970			No	1 x 30	5.5	-	VUP
10	135+130			No	1x30	5.5	-	VUP
11	138+376			No	1 x 20	5.5	49	VUP
12	140+570			No	1x30	5.5	27	VUP
13	147+130			No	1x30	5.5	50	VUP

2.9.3 Light Vehicular Underpasses (LVUP)

Sr. No.	Design Chainage (Km)	LHS Roadway width (m)	RHS Road way width (m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance (m)	Skew Angle	Remarks
1	1+112	As per GAD		No	1 x 12	5.5	-	LVUP
2	2+285			No	1 x 12	5.5	7	LVUP
3	RAMP-1 & RAMP-4			No	1X12	As per site condition	-	LVUP WIDENING (b/w RAMP-1 & RAMP-4) in Cloverleaf Interchange section on NHAI Ring Road. The Extension shall be undertaken outer to outer of Ramp 1 to Ramp 4.
4	5+342	As per GAD		No	1 x 12	5.5	-	LVUP
5	15+062			No	1 x 12	5.5	-	LVUP
6	20+805			No	1 x 12	5.5	-	LVUP
7	22+665			No	1 x 12	5.5	12	LVUP
8	23+425			No	1 x 12	5.5	17	LVUP
9	52+208			No	1 x 12	5.5	18	LVUP
10	53+065			No	1 x 12	5.5	7	LVUP
11	53+530			No	1 x 12	5.5	49	LVUP
12	54+436			No	1 x 12	5.5	28	LVUP

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Sr. No.	Design Chainage (Km)	LHS Roadway width (m)	RHS Road way width (m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance (m)	Skew Angle	Remarks
13	55+472			No	1 x 12	5.5	17	LVUP
14	56+042			No	1 x 12	5.5	39	LVUP
15	90+850			No	2 x 12	5.5	11	LVUP
16	98+320			No	1 x 12	5.5	-	LVUP
17	105+948			No	1 x 12	5.5	-	LVUP
18	106+553			No	1 x 12	5.5	7	LVUP
19	107+212			No	1 x 12	5.5	18	LVUP
20	107+695			No	1 x 12	5.5	32	LVUP
21	112+900			No	1 x 12	5.5	-	LVUP
22	132+660			No	1 x 12	5.5	19	LVUP
23	133+050			No	1 x 12	5.5	29	LVUP
24	142+737			No	1 x 12	5.5	22	LVUP
25	144+156			No	1 x 12	5.5	43	LVUP
26	149+394			No	1 x 12	5.5	-	LVUP

2.9.4 Small Vehicular Underpasses (SVUP)

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Roadway width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance (m)	Skew Angle	Remarks
1	4+223	As per GAD		No	1X7	4	12	SVUP
2	Clover Leaf, RAMP-2 (Ch 0+410)			No	1X7	4	-	SVUP
3	Clover Leaf, RAMP-3 (Ch 0+150)			No	1X7	4	-	SVUP
4	17+655			No	1X7	4	30	SVUP
5	21+385			No	1 X 7	4	0	SVUP
6	24+920			No	1X7	4	8	SVUP
7	94+470			No	1 X 7	4	-	SVUP

2.9.5 Flyover

Sr.no.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance (m)	Skew Angle	Remarks
1	0+000	1X11		-	10 x 35	6.0	-	Flyover Loop-1 at Level-1 (Minimum 6.0 m Vertical Clearance over NH-27) – Tezpur to Rangia Direction
2	0+000	1X11		-	30 x 35	6.0m over Loop 1	-	Flyover Loop-2 at Level-2

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Sr.no.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance (m)	Skew Angle	Remarks
								(Minimum 6.0 m Vertical Clearance over Loop-1) – Guwahati to Tezpur Direction
3	4+700	11	11	No	2 X 30	6.0	-	Minimum Vertical clearance of 6m over NHA1 Ring Road is required.
4	7+935	11	11	No	15+30+15	5.5	-	
5	16+385	11	11	No	15+30+15	5.5	-	
6	26+075	11	11	No	15+30+15	5.5	-	
7	43+910	11	11	No	2 x 30	5.5	-	
8	50+310	11	11	No	3x30	5.5	-	
9	51+240	11	11	No	2 x 30	5.5	-	
10	57+700	11	11	No	15+30+15	5.5	-	
11	60+185	11	11	No	15+30+15	5.5	-	
12	68+297	11	11	No	5 x 30	5.5	-	
13	77+110	11	11	No	15+30+15	5.5	-	
14	79+645	11	11	No	15+30+15	5.5	-	
15	84+205	11	11	No	15+30+15	5.5	-	
16	96+780	11	11	No	15+30+15	5.5	-	
17	104+320	11	11	No	15+30+15	5.5	-	
18	109+375	11	11	No	15+30+15	5.5	-	
19	123+542	11	11	No	15+30+30+15	5.5	9	
20	150+972	11	11	No	2 x 30	5.5	-	

2.9.6 Gas Pipe Structure

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width (m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance	Skew Angle	Remarks
1	Clover Leaf, RAMP-3 (Ch 0+520)	As per GAD		-	1x40	4.5	-	RAMP-3 CLOVERLEAF
2	Clover Leaf, RAMP-4 (Ch 0+435)	As per GAD		-	1x55	4.5	-	RAMP-4 CLOVERLEAF
3	Clover Leaf, LOOP-4	As per GAD		-	2x21.9 + 1x40+ 6x41.9+ 1x40+ 1x21.9	4.5	-	LOOP-4 CLOVERLEAF
4	4+940	1X11	1X11	-	1x30	4.5	0	

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Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Roadway width (m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance	Skew Angle	Remarks
5	69+229	1X11	1X11	-	1 x 30	4.5	0	
6	123+497	1X11	1X11	-	1 x 30	4.5	13	1 x 30 (with minimum vertical clearance 4.5m). Separate dedicated structure under Flyover at 123+542. Positioning will be as per P&P
7	136+913	1X11	1X11	-	1 x 30	4.5	8	
8	147+013	1X11	1X11	-	1 x 30	4.5	17	

Note: Layout, Geometric Design and Typical Cross Sections of Interchange are included in Annexure to Schedule-B.

2.9.7 Interchanges (IC) (clause No. 3.4 IRC: SP:84-2019)

Sr. No.	Design Chainage (km)	Name of Structure	Span Arrangement (m)	Total Width (m)	Typical Cross Section	Remarks
1	0+000	Three level Interchange	As Per GAD			Interchange-01
2	4+700	Cloverleaf	As Per GAD			Interchange-02
3	150+971	Single Trumpet	As Per GAD			Interchange-03

Note: Construction of RS walls over 10m height (w.r.t. NGL) shall be avoided. Wherever, height of approaches in grade separated structures / ROB etc. is over 10m height, the length of viaduct portion shall be increased to achieve the maximum height limit of RS wall approaches i.e. 10m. For ensuring such arrangement, no additional cost/Change of Scope will be admissible and such cost would be deemed to be included in the overall bid price quoted by the Concessionaire.

2.9.8 Details of Ramps, Crossroads and Connecting Roads at Interchanges (IC)

Sr.no.	Carriageway width including Kerb shyness (m)	Length (m)	Description of Ramps, Loop, Crossroads and connecting roads	Remarks
1	10	1426	Loop-1 at Level-1 – Tezpur to Rangia Direction	Three level Interchange (Ch 0+000)
2	10	1796	Loop-2 at Level-2– Guwahati to Tezpur Direction	Three level Interchange (Ch 0+000)
3	10	610	LOOP-1	Cloverleaf (Ch 4+700)
4	10	540	LOOP-2	Cloverleaf (Ch 4+700)
5	10	618	LOOP-3	Cloverleaf (Ch 4+700)
6	10	557	LOOP-4	Cloverleaf (Ch 4+700)
7	10	975	Ramp-1	Cloverleaf (Ch 4+700)
8	10	700	Ramp-2	Cloverleaf (Ch 4+700)
9	10	825	Ramp-3	Cloverleaf (Ch 4+700)

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Sr.no.	Carriageway width including Kerb shyness (m)	Length (m)	Description of Ramps, Loop, Crossroads and connecting roads	Remarks
10	10	790	Ramp-4	Cloverleaf (Ch 4+700)
11	5.5	1000	Construction of a cross road having minimum width of 5.5 m, 10 MSA originating from the SVUP at Chainage 4+223, running along Ramp-2 and passing through the SVUP at Ramp-2 (Chainage 0+410), connecting to the SVUP under NHAI Ring Road, and further linking to the SVUP at Ramp-3 (Chainage 0+150), including the development of tapering/transition sections for seamless integration with the existing local roads on both sides to facilitate local traffic movement.	Cloverleaf (4+700)
13	10	595	Loop	Single Trumpet (Ch 150+971)
14	10	730	Ramp	(Single Trumpet)- (Ch 150+971)

2.9.9 Minor bridge Cum Vehicular Underpass: -

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance	Skew Angle	Remarks
1	64+080	As per GAD		No	1x20x5.5 (MCW) + 1x 11(SR)	-	-	MNB cum VUP
2	67+860	As per GAD		No	1x20x5.5 (MCW) + 1x 11(SR)	-	-	MNB cum VUP
3	74+350	As per GAD		No	1x20x5.5 (MCW) + 1x 11(SR)	-	-	MNB cum VUP
4	78+720	As per GAD		No	1x30x5.5 (MCW) + 1x11 (SR)	-	-	MNB cum VUP
5	79+019	As per GAD		No	1x20x5.5 (MCW) + 1x 11(SR)	-	-	MNB cum VUP
6	94+145	As per GAD		No	2x20.0x 5.5 (MCW) + 1 x 11(SR)	-	-	MNB cum VUP
7	131+312	As per GAD		No	2 x 30 (MCW)	-	-	MNB cum VUP

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2.9.10 Minor bridge Cum Flyover

Sr. No.	Design Chainage (Km)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance	Skew Angle	Remarks
1	71+320	1x11.5 (MCW) + 1x 11 (SR)	1x11.5 (MCW) + 1x 11 (SR)	No	1x20+ 1x40+ 1x20	-	-	MNB cum Flyover (New Construction.)

2.9.11 Viaduct Cum Elephant Underpass

Sr. No.	Design Chainage (Km)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance(m)	Skew Angle
1	Viaduct for merging ROB to Elephant Under Pass (EUP)	1X11	1X11	No	1 x 37.35	7.0 to 7.5	-
2	134+309	1X11	1X11	No	29 x 35	7	-

2.9.12 Foot Over Bridge Locations

Sr.no.	Design Chainage (Km.)
1	50+000
2	61+600
3	90+500
4	119+600

2.9.13 Toll Plaza Locations

It shall be provided as per the details mentioned in Schedule-C

2.9.14 Truck Layby

Sr.no.	Design Chainage (Km.)
1	12+400
2	75+800
3	119+400

2.10 Typical Cross Section (TCS) of the Project Highway (Clause No. 2. 17 IRC: SP: 84-2019)

The Project Highway shall be constructed to Four lane configuration. Typical cross sections required to be developed in different sections of the Project Highway are given below:

Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
1	-0+530	0+896	1426	Loop-1 at Level-1 – Tezpur to Rangia Direction
2	-0+900	0+896	1796	Loop-2 at Level-2– Guwahati to Tezpur Direction
1	0+896	1+105	209	TCS-4
2	1+105	1+117	12	LVUP
3	1+117	1+510	393	TCS-4C

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Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
4	1+510	1+860	350	TCS-1B
5	1+860	2+279	419	TCS-4C
6	2+279	2+291	12	LVUP
7	2+291	2+650	359	TCS-4B
8	2+650	2+875	225	TCS-1A
9	2+875	2+895	20	Minor Bridge
10	2+895	4+000	1105	TCS-1A
11	4+000	4+200	200	TCS-7B
12	4+200	5+160	960	Cloverleaf (Interchange)
13	5+160	5+336	176	TCS-4A
14	5+336	5+348	12	LVUP
15	5+348	5+445	97	TCS-4A
16	5+445	5+710	265	TCS-4B
17	5+710	5+960	250	TCS-1A
18	5+960	6+332	372	TCS-4B
19	6+332	6+352	20	VUP
20	6+352	6+730	378	TCS-4
21	6+730	6+805	75	TCS-1
22	6+805	6+825	20	Minor Bridge
23	6+825	7+465	640	TCS-1
24	7+465	7+505	40	TCS-8
25	7+505	7+905	400	TCS-4
26	7+905	7+965	60	Flyover
27	7+965	8+578	613	TCS-3
28	8+578	8+598	20	VUP
29	8+598	8+960	362	TCS-3
30	8+960	9+048	88	TCS-2A
31	9+048	9+063	15	Minor Bridge
32	9+063	9+500	437	TCS-2A
33	9+500	10+000	500	TCS-2
34	10+000	10+278	278	TCS-7
35	10+278	10+362	84	Major Bridge
36	10+362	10+640	278	TCS-7
37	10+640	10+994	354	TCS-3
38	10+994	11+034	40	VUP
39	11+034	11+480	446	TCS-3
40	11+480	11+510	30	TCS-8
41	11+510	12+277	767	TCS-2

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Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
42	12+277	12+293	16	Minor Bridge
43	12+293	13+232	939	TCS-2
46	13+232	13+248	16	Minor Bridge
47	13+248	13+661	413	TCS-2
48	13+661	13+683	22.5	Minor Bridge
49	13+683	14+035	352	TCS-2
50	14+035	14+310	275	TCS-7
51	14+310	14+380	70	Major Bridge
52	14+380	14+660	280	TCS-7
53	14+660	14+770	110	TCS-2
54	14+770	15+056	286	TCS-3
55	15+056	15+068	12	LVUP
56	15+068	15+300	232	TCS-3
57	15+300	15+641	341	TCS-7
58	15+641	15+711	70	Major Bridge
59	15+711	16+030	319	TCS-7
60	16+030	16+355	325	TCS-3
61	16+355	16+415	60	Flyover
62	16+415	16+870	455	TCS-3
63	16+870	17+360	490	TCS-1
64	17+360	17+390	30	TCS-8
65	17+390	17+651	261	TCS-4
66	17+651	17+658	7	SVUP
67	17+658	17+940	282	TCS-4C
68	17+940	20+330	2390	TCS-1B
69	20+330	20+799	469	TCS-4C
70	20+799	20+811	12	LVUP
71	20+811	21+381	570	TCS-4B
72	21+381	21+388	7	SVUP
73	21+388	22+659	1271	TCS-4B
74	22+659	22+671	12	LVUP
75	22+671	23+419	748	TCS-4D
76	23+419	23+431	12	LVUP
77	23+431	23+760	329	TCS-4
78	23+760	24+040	280	TCS-7
79	24+040	24+215	175	TCS-7B
80	24+215	24+265	50	TCS-2B
81	24+265	24+415	150	Major Bridge

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Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
82	24+415	24+916	501	TCS-2B
83	24+916	24+923	7	SVUP
84	24+923	25+450	527	TCS-2B
85	25+450	26+045	595	TCS-4B
86	26+045	26+105	60	Flyover
87	26+105	26+650	545	TCS-4
88	26+650	26+837	187	TCS-3
89	26+837	26+877	40	VUP
90	26+877	27+230	353	TCS-3
91	27+230	27+260	30	TCS-8
92	27+260	28+000	740	TCS-2
93	42+590	42+840	250	TCS-2
94	42+840	43+100	260	Toll Plaza
95	43+100	43+350	250	TCS-2
96	43+350	43+880	530	TCS-3
97	43+880	43+940	60	Flyover
98	43+940	44+450	510	TCS-3
99	44+450	44+480	30	TCS-8
100	44+480	46+250	1770	TCS-2
101	46+250	46+280	30	TCS-8
102	46+280	46+720	440	TCS-3
103	46+720	46+740	20	VUP
104	46+740	47+200	460	TCS-3
105	47+200	47+230	30	TCS-8
106	47+230	48+620	1390	TCS-2
107	48+620	48+895	275	TCS-7
108	48+895	48+972	77	Major Bridge
109	48+972	49+200	228	TCS-7
110	49+200	49+670	470	TCS-2
111	49+670	49+700	30	TCS-8
112	49+700	50+265	565	TCS-3
113	50+265	50+355	90	Flyover
114	50+355	51+210	855	TCS-4
115	51+210	51+270	60	Flyover
116	51+270	52+202	932	TCS-4
117	52+202	52+214	12	LVUP
118	52+214	53+057	843	TCS-4B
119	53+057	53+069	12	LVUP

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Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
120	53+069	53+475	406	TCS-4
121	53+475	53+524	49	Major Bridge
122	53+524	53+536	12	LVUP
123	53+536	54+430	894	TCS-4
124	54+430	54+442	12	LVUP
125	54+442	55+466	1024	TCS-4B
126	55+466	55+478	12	LVUP
127	55+478	56+036	558	TCS-4B
128	56+036	56+048	12	LVUP
129	56+048	56+360	312	TCS-4B
130	56+360	57+160	800	TCS-1A
131	57+160	57+670	510	TCS-4B
132	57+670	57+730	60	Flyover
133	57+730	58+250	520	TCS-4
134	58+250	58+280	30	TCS-8
135	58+280	59+530	1250	TCS-2
136	59+530	59+560	30	TCS-8
137	59+560	60+155	595	TCS-3
138	60+155	60+215	60	Flyover
139	60+215	60+610	395	TCS-3
140	60+610	60+640	30	TCS-8
141	60+640	61+200	560	TCS-2
142	61+200	62+300	1100	TCS-2A
143	62+300	62+568	268	TCS-7
144	62+568	62+708	140	Major Bridge
145	62+708	62+980	272	TCS-7
146	62+980	63+580	600	TCS-2
147	63+580	63+610	30	TCS-8
148	63+610	64+070	460	TCS-3
149	64+070	64+090	20	Minor Bridge cum VUP
150	64+090	64+885	795	TCS-3
151	64+885	64+905	20	VUP
152	64+905	65+570	665	TCS-3
153	65+570	65+600	30	TCS-8
154	65+600	67+200	1600	TCS-2A
155	67+200	67+460	260	TCS-2A
155	67+460	67+490	30	TCS-8
156	67+490	67+850	360	TCS-3

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Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
157	67+850	67+870	20	Minor Bridge cum VUP
158	67+870	68+222	352	TCS-3
159	68+222	68+372	150	Flyover
160	68+372	69+214	842	TCS-3
161	69+214	69+244	30	Structure for Pipe Line
162	69+244	69+580	336	TCS-3
163	69+580	69+610	30	TCS-8
164	69+610	70+855	1245	TCS-2
165	70+855	70+865	10	Minor Bridge
166	70+865	71+280	415	TCS-3
167	71+280	71+360	80	Minor Bridge cum VUP
168	71+360	71+900	540	TCS-3
169	71+900	72+900	1000	TCS-2
170	72+900	73+820	920	TCS-2A
171	73+820	73+850	30	TCS-8
172	73+850	74+340	490	TCS-3
173	74+340	74+360	20	Minor Bridge cum VUP
174	74+360	74+800	440	TCS-3
175	74+800	74+830	30	TCS-8
178	74+830	76+500	1670	TCS-2A
179	76+500	76+530	30	TCS-8
180	76+530	77+080	550	TCS-3
181	77+080	77+140	60	Flyover
182	77+140	77+510	370	TCS-3
183	77+510	78+310	800	TCS-1
184	78+310	78+340	30	TCS-8
185	78+340	78+705	365	TCS-4
186	78+705	78+745	40	Minor Bridge cum VUP
187	78+745	79+008	263	TCS-4
188	79+008	79+030	22	Minor Bridge cum VUP
189	79+030	79+615	585	TCS-4
190	79+615	79+675	60	Flyover
191	79+675	80+500	825	TCS-4
192	80+500	80+810	310	TCS-2A
193	80+810	81+550	740	TCS-7B
194	81+550	83+000	1450	TCS-2A
195	83+000	83+277	277	TCS-7
196	83+277	83+477	200	Major Bridge

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
197	83+477	83+810	333	TCS-7
198	83+810	84+175	365	TCS-3
199	84+175	84+235	60	Flyover
200	84+235	84+600	365	TCS-3
201	84+600	84+725	125	TCS-7
202	84+725	84+785	60	Major Bridge
203	84+785	86+015	1230	TCS-2A
204	86+015	86+045	30	Minor Bridge
205	86+045	86+500	455	TCS-2A
206	86+500	86+952	452	TCS-2
207	86+952	86+967	15	Minor Bridge
208	86+967	87+610	643	TCS-2
209	87+610	87+630	20	Minor Bridge
210	87+630	88+100	470	TCS-2
211	88+100	89+393	1293	TCS-2A
212	89+393	89+443	50	Minor Bridge
213	89+443	89+600	157	TCS-2A
214	89+600	90+400	800	TCS-2
215	90+400	90+430	30	TCS-8
216	90+430	90+838	408	TCS-3
217	90+838	90+862	24	LVUP
218	90+862	91+282	420	TCS-3
219	91+282	91+422	140	Major Bridge
220	91+422	92+997	1575	TCS-2A
221	92+997	93+012	15	Minor Bridge
222	93+012	93+462	450	TCS-2A
223	93+462	93+477	15	Minor Bridge
223	93+477	93+600	123	TCS-2A
224	93+600	93+630	30	TCS-8
225	93+630	94+115	485	TCS-3
226	94+115	94+155	40	Minor Bridge cum VUP
227	94+155	94+466	311	TCS-3
228	94+466	94+473	7	SVUP
229	94+473	94+700	227	TCS-3
230	94+700	94+730	30	TCS-8
231	94+730	96+110	1380	TCS-2A
232	96+110	96+140	30	TCS-8
233	96+140	96+770	630	TCS-3

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
234	96+770	96+830	60	Flyover
235	96+830	97+538	708	TCS-3
236	97+538	97+578	40	Minor Bridge
237	97+578	98+314	736	TCS-3
238	98+314	98+326	12	LVUP
239	98+326	98+860	534	TCS-3
240	98+860	98+890	30	TCS-8
241	98+890	101+500	2610	TCS-2
242	101+500	101+900	400	TCS-2A
243	101+900	102+412	512	TCS-2
244	102+412	102+683	271	TCS-7A
245	102+683	102+763	80	Major Bridge
246	102+763	103+035	272	TCS-7A
247	103+035	103+780	745	TCS-2A
248	103+780	103+810	30	TCS-8
249	103+810	104+290	480	TCS-3
250	104+290	104+350	60	Flyover
251	104+350	104+773	423	TCS-3
252	104+773	104+803	30	Minor Bridge
253	104+803	105+220	417	TCS-1
254	105+220	105+500	280	TCS-8
255	105+500	105+700	200	TCS-1
256	105+700	105+942	242	TCS-4
257	105+942	105+954	12	LVUP
258	105+954	106+046	92	TCS-4
259	106+046	106+226	180	Major Bridge
260	106+226	106+547	321	TCS-7A
261	106+547	106+559	12	LVUP
262	106+559	106+794	235	TCS-4
263	106+794	107+005	211	TCS-7
264	107+005	107+090	85	TCS-8
265	107+090	107+206	116	TCS-4
266	107+206	107+218	12	LVUP
267	107+218	107+689	471	TCS-4
268	107+689	107+701	12	LVUP
269	107+701	108+110	409	TCS-4
270	108+110	108+900	790	TCS-1
271	108+900	108+930	30	TCS-8

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
272	108+930	109+345	415	TCS-4
273	109+345	109+405	60	Flyover
274	109+405	109+900	495	TCS-4
275	109+900	109+930	30	TCS-8
276	109+930	112+195	2265	TCS-2
277	112+195	112+405	210	TCS-2A
278	112+405	112+490	85	TCS-8
279	112+490	112+894	404	TCS-3
280	112+894	112+906	12	LVUP
281	112+906	112+992	86	TCS-3
282	112+992	113+272	280	Minor Bridge
283	113+272	114+175	903	TCS-2
284	114+175	114+205	30	Minor Bridge
285	114+205	114+890	685	TCS-2
286	114+890	114+920	30	TCS-8
287	114+920	115+200	280	TCS-2
288	115+200	115+885	685	TCS-4
289	115+885	115+925	40	VUP
290	115+925	116+004	79	TCS-4
291	116+004	116+044	40	Minor Bridge
292	116+044	116+344	300	TCS-3
293	116+344	116+364	20	VUP
294	116+364	116+760	396	TCS-3
295	116+760	116+790	30	TCS-8
298	116+790	119+993	3203	TCS-2
299	119+993	120+013	20	Minor bridge
300	120+013	120+375	362	TCS-2
301	120+375	120+650	275	Toll Plaza
302	120+650	121+000	350	TCS-2
303	121+000	121+685	685	TCS-2A
304	121+685	121+933	248	TCS-7
305	121+933	122+121	188	Major Bridge
306	122+121	122+400	279	TCS-7
307	122+400	122+820	420	TCS-2A
308	122+820	123+497	677	TCS-3
309	123+497	123+587	90	Flyover
310	123+587	123+740	153	TCS-4
311	123+740	124+165	425	TCS-1

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
312	124+165	124+191	26	Minor Bridge
313	124+191	124+650	459	TCS-1
314	124+650	125+955	305	TCS-5A
315	124+955	124+985	30	VUP
316	124+985	125+340	355	TCS-5A
317	125+340	125+900	560	TCS-9A
318	125+900	130+800	4900	TCS-9
319	130+800	130+980	180	TCS-9A
320	130+980	131+282	302	TCS-4
321	131+282	131+342	60	Minor Bridge Cum VUP
322	131+342	131+910	568	TCS-7B
323	131+910	131+970	60	Major Bridge
324	131+970	132+300	330	TCS-7B
325	132+300	132+654	354	TCS-4B
326	132+654	132+666	12	LVUP
327	132+666	133+044	378	TCS-4B
328	133+044	133+056	12	LVUP
329	133+056	133+704	648	TCS-4B
330	133+704	134+840	1136	ROB + Viaduct + EUP
331	134+840	135+115	275	TCS-4B
332	135+115	135+145	30	VUP
333	135+145	135+400	255	TCS-5
336	135+400	136+494	1094	TCS-7C
337	136+494	136+514	20	Minor Bridge
338	136+514	136+898	384	TCS-5
339	136+898	136+928	30	Structure for Pipe Line
340	136+928	137+300	372	TCS-5
341	137+300	137+900	600	TCS-7C
342	137+900	137+930	30	TCS-8
343	137+930	138+366	436	TCS-5
344	138+366	138+386	20	VUP
345	138+386	138+800	414	TCS-4
346	138+800	140+250	1450	TCS-1
347	140+250	140+555	305	TCS-5
348	140+555	140+585	30	VUP
349	140+585	141+030	445	TCS-5
350	141+030	141+060	30	TCS-8
351	141+060	141+395	335	TCS-1

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)	TCS TYPE
	FROM	TO		
352	141+395	141+420	25	Minor Bridge
353	141+420	142+300	880	TCS-1
354	142+300	142+731	431	TCS-4
355	142+731	142+743	12	LVUP
356	142+743	143+100	357	TCS-4
357	143+100	143+560	460	TCS-1
358	143+560	143+595	35	Minor Bridge
359	143+595	143+750	155	TCS-1
360	143+750	144+150	400	TCS-4
361	144+150	144+162	12	LVUP
362	144+162	144+562	400	TCS-4
363	144+562	145+550	988	TCS-1
364	145+550	145+807	257	TCS-7A
365	145+807	145+897	90	MAJOR BRIDGE
366	145+897	146+200	303	TCS-7A
367	146+200	146+740	540	TCS-1
368	146+740	146+998	258	TCS-4
369	146+998	147+028	30	Structure for Pipe Line
370	147+028	147+115	87	TCS-4
371	147+115	147+145	30	VUP
372	147+145	147+620	475	TCS-4
373	147+620	147+650	30	TCS-8
374	147+650	148+970	1320	TCS-1
375	148+970	149+388	418	TCS-4
376	149+388	149+400	12	LVUP
377	149+400	149+770	370	TCS-4
378	149+770	149+800	30	TCS-8
379	149+800	150+450	650	TCS-1
380	150+450	150+480	30	TCS-8
381	150+480	150+942	462	TCS-4
382	150+942	151+002	60	Flyover
383	150+002	150+552	500	Loop
384	150+002	150+971	969	Ramp

Note:

1. Any variations in the lengths of various TCS as specified in the Table 2.10 shall not constitute a Change of Scope.
2. Lengths mentioned in the above list for cross section types concerned to structures are inclusive of structure length.
3. RE wall shall be provided for full height on all structures.

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4. Toe wall /RS wall as per site condition to be provided where ROW is restricted and water bodies along the proposed highway on the sections specified in Schedule-B.
5. Chainage may be adjusted according to location of structures as per Site conditions.
6. Carriageway width tapering shall be provided 1 in 50 as per manual.
7. Intermediate Sight Distance (Desirable Minimum Sight Distance) shall be followed for design of all summit vertical curves and Headlight Sight Distance for all Valley Curves including structures as well as highways.
8. A utility corridor, along with earthen Drain/ Lined drain/Covered Drain as per TCS shall be accommodated in the ROW.
9. Placement and specification of Railing, Fencing and electric poles, etc shall be in accordance with IRC: SP:84-2019

3. Intersections and Grade Separated Intersections

All at-grade intersections and grade separated intersections shall be as per Section 3 of the Manual. Existing at-grade intersections shall be improved to the prescribed standards.

The service road pavement composition shall be continued on crossroads of the intersections for the length specified for at-grade and grade separated intersections.

Properly designed intersections shall be provided at the locations and of types and features given in the tables below:

3.1 At-grade intersections Major Junctions:

3.1.1 Major Junctions:

Improvement of major junctions shall be carried out at the following locations:

Sr. No	Design Chainage	Junction Type	Leads to		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
1	0+000 (Rangia side) (i.e LHS)	Y	Rangia	Guwahati/Tezpur side	NH-27	11	Varies b/w 100 to 130m including island
2	0+000 (Guwahati side) (i.e. RHS)	Y	Rangia	Guwahati	NH-27	11	Varies b/w 100 to 150m including island
3	4+700	X	NH-27	TO GUWAHATI/RANGIA	GUWAHATI RING ROAD	29	Varies b/w 100 to 250m
4	6+342	+	TO BEZERA	TO MANDAKATA	SH-2	7	100
5	7+935	Y	TO BAIHATA CHARIALI		NH-15	10.5	100
6	8+588	+	TO TITKUCHI	TO SARAI GHAT SALMARA	SH-2	7	100
7	11+014	+	HINDUMAIZALI	TO DUMUNI CHOWKI	MDR	7	100
8	16+385	Y	TO SIPAJHAR		NH-15	10.5	100
9	26+075	Y	TO SIPAJHAR		NH-15	10.5	100
10	26+857	X	PIPRADUKAN JANARAN CHOWK ROAD	UTTAR CHUBA	BT ROAD	4.5	100
11	43+910	X	TO BEZPARA	TO BANDIA GAON	MDR	3.5	100
12	46+730	+	TO SHERPUR	TO MAZGAON	MDR	7	100
13	50+310	Y	TO KHARUPETIA		NH-15	10.5	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr No	Design Chainage	Junction Type	Leads to		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
14	51+240	X	TO KHARUPETIA	TO TANGNIJHAR	MDR	3.5	100
15	57+700	Y	TO KHARUPETIA		NH-15	10.5	100
16	60+185	Y		TO KOUPATI JATIA	NH-15 & SH-067	16	100
17	64+895	+	TO BATABARI	TO KOPATI	MDR	3.5	100
18	68+297	X	TO Besimari Kalaigaon		Besimari Kalaigaon BT Road	3.5	100
19	77+110	Y	TO ROWTA		NH-15	10.5	100
20	79+645	Y	TO ROWTA		NH-15	10.5	100
21	80+900	Y	TO ROWTA		NH-15	10.5	100
22	81+600	Y	TO ROWTA		NH-15	10.5	100
23	84+205	X	TO SILONGKHUTI ROAD	TO BHANSRIGHAT SILBORI	MDR	5	100
24	90+850	+	TO ROWTA/MAZBA T	TO ORANG NATIONAL PARK	MDR +NH-15	10/10.5	100
25	91+770	Y	ALISINGA	TO DEKIAJULI	NH-15	10.5	100
26	96+780	X	TO NATUN PAN GAON	TO SIRAJULI BARSALA ROAD	MDR	6.5	100
27	104+320	Y	TO DEKIAJULI		NH-15	10.5	100
28	109+470	Y	TO DEKIAJULI	THELAMARA	NH-15	10.5	100
29	112+590	Y	KEHERUKHNA DA PATHAR	TO TEZPUR	NH-15	10.5	100
30	114+300	Y	RANGA GARA BILLA GAON	TO MISSION CHARIALI	NH-15	10.5	100
31	115+905	+	DISTRICT HOSPITAL ROAD	NALANIDUB GAON	MDR	5.5	100
32	116+354	T	TO NAHARBARI GAON		MDR	7	100
33	109+375	Y	TO DEKIAJULI		NH-15	10.5	100
34	123+512	Y			NH-15	10.5	100
35	124+970	+	TO GERUA GAON	NH-15	MDR	5.5	100
36	135+130	+	TO RANGAPARA GAON	TO GOGRA TEA FACTORY	MDR	7	100
37	139+638	+	KACHAMARI GRANT	TO PANBARI	VILLAGE ROAD	7	100
38	140+570	+	TO KHELMATI	TO SOLAGAON	NH-15	10.5	100
39	147+130	+	TO MALIJAN	TO BHALUK JHARANI	ODR/PMGSY	7	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads to		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
40	150+971 (RHS)	Y	Dolabari/Tezpur City	Jiabharali River/Chowkighat Bridge	NH-15 (Tezpur Bypass)	11	Varies b/w 450 to 500m including island
41	150+971 (LHS)	Y	Dolabari/Tezpur City	Jiabharali River/Chowkighat Bridge	NH-15 (Tezpur Bypass)	11	Varies b/w 300 to 400m including island

3.1.2 Minor Intersections:

Improvement of Minor junctions shall be carried out at the following locations:

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
1	1+112	+	PIALIKHATA GAON	KAMRUP POLYTECHNIC COLLAGE	PAVER BLOCK	2.6	100
2	2+087	x	PIALIKHATA GAON	KAMRUP POLYTECHNIC COLLAGE	BT ROAD	3.5	1000
3	2+285	+	ALIPUV GAON	MADAN KAMDEV HIGH SCHOOL	BT ROAD	5	100
4	4+223	+	U-TURN		BT ROAD	3.5	100
5	5+342	+	TO KHEHEANIPARA	TO BARPALAHA GAON	BT ROAD	3.5	100
6	8+200	T		TO VILLAGE	BT ROAD	3.5	100
7	8+500	T		To Village	Paver Block	3m	100
8	8+550	T		To Village	BT Road	3.5m	100
9	9+510	Y		TO VILLAGE	BT ROAD	3.5	100
10	9+785	Y	TO BATHAN VILLAGE		BT ROAD	3.5	100
11	10+000	T		To Village	BT Road	3.5m	100
12	10+083	T		TO VILLAGE	BT ROAD	2	100
13	10+185	T	TO BATHAN VILLAGE		BT ROAD	3.5	100

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Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
14	12+877	T	TO KAMAKHYA BIOFUELS		BT ROAD	7.5	100
15	13+100	T		DUMUNIC CHOWKI	BT ROAD	3.5	100
16	14+270	Y	TO SOLPAM		BT ROAD	3.5	100
17	14+443	T	TO GHORASAL VILLAGE		BT ROAD	5.57	100
18	15+062	+	META PARA	TO SINGIMARI	BT ROAD	4.5	100
19	15+400	T	To Village		BT Road	3.5m	100
20	15+500	T		To Village	Paver Block	3m	100
21	15+850	T		To Village	Paver Block	3m	100
22	17+655	+	TO PUNIA	TO NARIKALI	CART TRACK	5.5	100
23	20+805	+	TO NH-15	TO BHOTARDAL	BT ROAD	3.5	100
24	22+665	+	TO KALIRAM CHOWK	TO MAHARIDAL	BT ROAD	5	100
25	23+425	+	TO BORDAULGURI	TO KUWARI GAON	PAVER BLOCK	3.5	100
26	26+350	T		To Village	Cart Road	3m	100
27	26+400	T	To Village		Cart Road	2m	100
28	43+200	T	TO VILLAGE		GSB ROAD	3	100
29	43+210	Y		TO BANDIA	GSB ROAD	3.5	100
30	43+573			TO VILLAGE	PAVER BLOCK	5	100
31	43+585	Y	TO VILLAGE		PAVER BLOCK	3.5	100
32	44+290	T		KHATONIAPARA	PAVER BLOCK	3	100
33	44+330	T	To Village		Cart Road	3m	100
34	44+670	T		TO GELAIDINGI	BT ROAD	3	100
35	44+890	T	TO BEZPARA		BT ROAD	3.8	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
36	45+100	Y		TO DUHULA	WBM	4.5	100
37	45+140	Y		TO RUSTAM ALI ROAD	BT ROAD	3.6	100
38	45+450	T	To Village		Metal Road	5m	100
39	47+040	Y	TO THEKERABARI		BT ROAD	4	100
40	48+055	Y	TO GENDA CHOWK		BT ROAD	4.8	100
41	48+533	T	FAKIRPARA NEPALI BAZAR		BT ROAD	5	100
42	48+900	T		To Village	Cart Road	3m	100
43	49+000	T		To Village	Cart Road	3m	100
44	49+564	Y	TO GOVT COLAGE	TO OZAGAON	WBM	3	100
45	49+900	Y		To Village	Cart Road	3m	100
46	50+120	T		To Village	BT Road	3m	100
47	52+208	+	TO KHARUPETIA	TO TANGNI JHAR	BT ROAD	3	100
48	53+065	+	TO KHARUPETIA	TO ARIMARI	BT ROAD	4.8	100
49	53+530	+	TO KHARUPETIA	TO ALA HAZRAT CHOWK	BT ROAD	3.5	100
50	54+436	+	TO KHARUPETIA	TO KEOT CHUBA	BT ROAD	3.5	100
51	55+472	+	TO KHARUPETIA	TO KHUTASWAR	BT ROAD	3.75	100
52	56+042	+	TO BALUGAON DAILY MARKET	TO KHUTASWAR	BT ROAD	3.8	100
53	57+759	T		To Village	BT Road	3.5m	100
54	57+820	T	To Village		Cart Road	3m	100
55	59+800	T		To Village	BT Road	3.5m	100
56	64+073	T	TO VILLAGE	TO VILLAGE	CART TRACK	3	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
57	64+087	T	TO VILLAGE	TO VILLAGE	CART TRACK	3	100
58	58+758	T		TO VILLAGE	BT ROAD	2.5	100
59	59+139	T		DALGAON	BT ROAD	4	100
60	59+241	T		TO SHYAM SHREE FOOD FACTORY	PAVER BLOCK ROAD	6.28	100
61	59+900	T	TO VILLAGE	YO VILLAGE	BT ROAD	2.7	100
62	59+967	Y	TO DARUL OUL MADRASSA	TO DALGAON DEGREE COLLAGE	BT ROAD	3.5	100
63	61+810	Y	TO GADHAIJHAR	YO VILLAGE	BT ROAD	3.2	100
64	62+156	Y		TO PANBARI	BT ROAD	4	100
65	62+478	Y	TO VILLAGE	YO VILLAGE	GRAVEL ROAD	2.5	100
66	63+050	T		TO VILLAGE	BT ROAD	3	100
67	64+367	T		TO HARIJAN BASTI	BT ROAD	3	100
68	64+449	T	TO DONGAPARA	TO VILLAGE	BT ROAD	3.5	100
69	65+265	Y	TO VILLAGE	YO VILLAGE	PAVER BLOCK	3.5	100
70	66+050	T	To Village		BT Road	5.m	100
71	66+500	T	To Village		Gravel Road	3.75m	100
72	66+650	T		To Village	Gravel Road	3.m	100
73	66+820	T	To Village		Paver Block	3.m	100
74	67+350	T	To Village		Paver Block	3.5m	100
75	67+780	T	To Village		Gravel Road	3.m	100
76	67+860	+	TO VILLAGE	TO HARIJAN BASTI	CART TRACK	3	100
77	67+900	T	To Village		BT Road	5.m	100
78	68+050	T		To Village	BT Road	5.m	100
79	68+980	T		To Village	BT Road	3.5m	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
80	69+800	T		To Village	Paver Block	3.5m	100
81	70+220	T	To Village		Gravel Road	3.m	100
82	70+270	Y	TO ALISINGA BALI GAON	YO VILLAGE	BT ROAD	4	100
83	70+600	T	To Village	To Village	Gravel Road	3.m	100
84	71+120	Y		TO LAL POOL NADRIKASH ROAD	BT/PAVER BLOCK	3.5	100
85	71+300	T		To Village	Paver Block	3.m	100
86	71+500	T		To Village	Gravel Road	3.5m	100
87	71+600	T	To Village		Gravel Road	5.m	100
88	72+065	+	TO CHUTYAPARA	YO VILLAGE	PAVER BLOCK	2.83	100
89	72+080	+	TO BARGULI GAON	TO VILLAGE	BT ROAD	5.8	100
90	72+815	Y		TO NADIRKASH	BT ROAD	4.29	100
91	73+180	T	To Village		Cart Road	3.m	100
92	73+180	T	To Village		Cart Road	3.m	100
93	73+590	T		To Village	Cart Road	3.m	100
94	74+053	Y	TO PADUPARI	YO VILLAGE	PAVER BLOCK	4.38	100
95	74+095	Y		BATHBARI	PAVER BLOCK	4.09	100
96	74+350	+	TO VILLAGE	TO LAILANGPARA VILLAGE	CART TRACK	3	100
97	75+000	T	To Village		Gravel Road	3.5m	100
98	75+600	T	To Village		Cart Road	5.m	100
99	76+000	+	To Village		Canal		100
100	76+040	T		TO VILLAGE	BT ROAD	2.5	100
101	76+145	T	TO IKORABARI	TO VILLAGE	BT ROAD	3.2	100
102	76+745	+		PANI KHAITI	GRAVEL ROAD	3	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
103	78+720	+	TO NH-15	TO JHAR GAON	BT ROAD	4	100
104	79+019	+	TO NH-15	TO ROWTA PATHAR	CART TRACK	3	100
105	79+800	T		To Village	BT Road	7.m	100
106	79+950	T		To Village	BT Road	3.5m	100
107	80+324	T	TO JHAR GAON	TO VILLAGE	PAVER BLOCK	3.5	100
108	81+606	T		TO RAWAT PATTAR	BT ROAD	3.5	100
109	82+050	Y	To Village		Cart Road	3.m	100
110	82+850	Y	TO DHANSHIRI RIVER	RTO AITHAANJHAR	BT ROAD	3.5	100
111	83+850	Y	To Village		Cart Road	3.m	100
112	84+690	T		To Village	Paver Block	3.5m	100
113	85+067	T		NALBARI GAON	BT ROAD	3.5	100
114	85+370	T	To Village		Cart Road	2.5m	100
115	85+650	T	To Village		Cart Road	2.5m	100
116	85+753	Y		TO VILLAGE	BT ROAD	3	100
117	86+111	Y	TO SONAJULI	YO VILLAGE	PAVER BLOCK	3	100
118	86+935	Y	TO MEZBAT GELABIL ROAD	TO VILLAGE	BT ROAD	4.57	100
119	87+242	T	JAMUGOURI	YO VILLAGE	BT ROAD	3.5	100
120	87+360	T		TO VILLAGE	PAVER BLOCK	3.5	100
121	87+720	T		To Village	Paver Block	3.5m	100
122	88+050	+	To Village		L-Paver Block/R-BT Road	3.5m	100
123	89+235	Y		TO SAIKIA CHUBURI	BT ROAD	3	100
124	89+641	Y	TO VILLAGE	YO VILLAGE	BT ROAD	3.5	100
125	89+920	T	To Village		Cart Road	3.m	100
126	90+050	T	To Village		BT Road	3.5m	100
127	90+310	T	To Village		Paver Block	3.5m	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
128	90+500	T		TO CHAMUA GAON	BT ROAD	3.35	100
129	90+850	U-TURN					100
130	92+300	T		To Village	BT Road	3.5m	100
131	92+580	T		To Village	Cart Road	2.5m	100
132	92+700	T	To Village		Paver Block	2.5m	100
133	93+120	T	TO HIGH SCHOOL ROAD	YO VILLAGE	PAVER BLOCK	3.5	100
134	93+750	T		To Village	BT Road	3.5m	100
135	94+145	+	TO ALISINGA GAON	TO MOILAALI GAON	CART TRACK	3	100
136	94+240	+	TO BHER GAON	TO SINGIMARI	BT ROAD	5	100
137	94+470	+	U-TURN (Approach in MNB cum VUP 94+145)				100
138	94+750	T			To Village	Cart Road	100
139	95+290	T	To Village			Cart Road	100
140	95+546	T		TO DHEKIAJULI GRID SUB STATION	DBM	3	100
141	95+910	T	To Village		Cart Road	95+910	100
142	96+280	T		To Village	Cart Road	2.5m	100
143	96+900	T		To Village	BT Road	3.5m	100
144	97+000	T	To Village		BT Road	3.5m	100
145	97+220	T		To Village	Cart Road	3.5	100
146	97+773	T	TO MOLANPUKHURI GAON	TO VILLAGE	PAVER BLOCK	3	100
147	98+050	T		To Village	Cart Road	2.5m	100
148	98+246	T	NATUAN GAON	TO VILLAGE	BT ROAD	3.5	100
149	98+320	T	TO NARAYANPUR		BT ROAD	5	100
150	98+558	T	TO VILLAGE	YO VILLAGE	BT ROAD	4	100
151	98+850	T	To Village		Cart Road	2.5m	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
152	98+970	T		To Village	Cart Road	2.5m	100
153	99+650	T	To Village		Paver Block	3.m	100
154	99+727	T		TO PALASH BASTI	BT ROAD	3.5	100
155	100+722	Y	TO TULIP BAGAN	TO VILLAGE	BT ROAD	3	100
156	100+900	T		To Village	Paver Block	3.m	100
157	101+000	T		To Village	Paver Block	3.5m	100
158	101+450	T	To Village		BT Road	3.5m	100
159	101+850	T		To Village	Cart Road	2.5m	100
160	101+993	Y		TO VILLAGE	PAVER BLOCK	2.84	100
161	102+234	Y	BHOT PARA GAON	YO VILLAGE	PAVER BLOCK	2.5	100
162	102+386	T		TO VILLAGE	BT ROAD	3.5	100
163	102+450	T		To Village	Paver Block	3.m	100
164	102+850	T	To Village		BT Road	3.5m	100
165	103+420	T	To Village		Gravel Road	3.m	100
166	103+600	T	To Village		Cart Road	3.5m	100
167	105+948	+	TO BHEKIAJULI	TO SINGRI ROAD	BT ROAD	3	100
168	106+553	+	TO BHEKIAJULI	TO NATUN CHIRAJULI	BT ROAD	3.5	100
169	107+212	+	TO BHEKIAJULI	TO SIDINANGCOLONY	BT ROAD	3	100
170	107+695	+	TO BHEKIAJULI	TO BAGARI BARI GAON	BT ROAD	3.5	100
171	109+827	Y	TO BALI SIHA GAON	YO VILLAGE	PAVER BLOCK	3.5	100
172	110+027	T	TO VILLAGE	TO VILLAGE	PAVER BLOCK	3.5	100
173	110+765	Y	TO KEHERU KHANDA ROAD	YO VILLAGE	PAVER BLOCK	4	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
174	110+946	T		TO RANGAGORA ROAD	BT ROAD	4	100
175	112+253	Y	TO KEHERU KHANDA ROAD	YO VILLAGE	BT ROAD	5.5	100
176	112+900		U-TURN		BT ROAD	5.5	100
177	114+720	Y	TO RANGA GARA BIL	YO VILLAGE	PAVER BLOCK	3.5	100
178	115+347	Y		TO KAMAR CHUBURI GAON	PAVER BLOCK	4	100
179	116+240	T		TO THELAMARA JATIYA BIDYALAY	BT ROAD	4.5	100
180	116+690	Y		TO KAMAR PATAR GAON	PAVER BLOCK	3.5	100
181	117+370	T		TO VILLAGE	PAVER BLOCK	2.5	100
182	118+105	T		TO ARASUTI GAON	PAVER BLOCK	3.5	100
183	118+962	T		TO VILLAGE	BT ROAD	4	100
184	119+143	Y	TO BAMUNPUKHRI	YO VILLAGE	BT ROAD	3.5	100
185	119+505	Y		TO BARGON CHAPARI	BT ROAD	2.5	100
186	119+533	Y	TO KRISHNA GURU VIDYAJYOTI	YO VILLAGE	BT ROAD	2	100
187	120+081	T	TO BARPUKHURI GAON	TO VILLAGE	BT ROAD	3.5	100
188	120+946	Y	TO GABHRU PICKNIC SPOT	YO VILLAGE	PAVER BLOCK	3	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
189	122+200	Y		TO PUNIANI GAON	PAVER BLOCK	3.5	100
190	122+935	Y		TO TUMUKI GAON	BT ROAD	4	100
191	123+210	Y	TO PN RICE MILL	YO VILLAGE	PAVER BLOCK	3.5	100
192	132+660	+	TO NIZ BAHBARI	TO DEKACHUBURI	CART TRACK	3	100
193	133+234	+	TO RUPAJULI TEA ESTATE	TO TEJPUR	BT ROAD	3	100
194	134+449	+	TO DEKAR GAON	TO SALONIBARI	CONSTRUCTION BT ROAD	3	100
195	137+132	+	TO BINDUKURI GAON	TO SOLANIBARI	PAVER BLOCK	3	100
196	137+418	+	TO VILLAGE	TO BOTABARI	PAVER BLOCK NEW	3	100
197	139+184	Y	TO PANBARI		BT ROAD	3	100
198	140+252	+	TO DABR INDIA LIMITED	TO PANBARI	BT ROAD	4	100
199	141+885	T	TO VILLAGE		CART TRACK	3	100
200	142+737	+	TO GHORAMARI	TO BAITHA BHANGA GAON	PAVER BLOCK	3.5	100
201	143+913	+	TO GHORAMARI	TO CHALA T.E	BT ROAD	3.5	100
202	144+156	+	TO KACHUBIL	TO BAITHA BHANGA GAON	PAVER BLOCK	5	100
203	144+600	+	TO KACHUBIL	TO VILLAGE	CART TRACK	2.5	100
204	145+080	Y		TO BORGHULI	CART TRACK	2.5	100
205	145+642	+	TO MALIJAN	TO BORGHULI	BT ROAD	3	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width Of cross road (m)	Minimum Length of Cross Road To be Developed (m)
			Left	Right			
206	146+380	+	TO RAJEN BORTHAKRE PATH	TO DEBENDRA NAGAR	BT ROAD	3	100
207	147+913	+	TO BARGHAT	TO RAJEN BORTHAKRE PATH	BT ROAD	3.5	100
208	148+652	+	TO BARGHAT	TO RAJEN BORTHAKRE PATH	BT ROAD	3.5	100
209	148+920	+	TO KHAIHAMARI GAON	TO VILLAGE	BT ROAD	2.5	100
210	149+394	+	TO DIKRAIJAN UTTAR CHUK L.P SCHOOL	TO RAJEN BORTHAKRE PATH	BT ROAD	3	100

Note:

1. Type of Junction to be improved as per Manual. (IRC: SP:84)
2. The Contractor shall take up 'Detailed Engineering study' to ascertain further details of all intersections and treatment of the intersections shall be designed in accordance with the latest guidelines mentioned out in section-3 of the Manual. Auxiliary lanes including storage, acceleration and deceleration lane along with physical islands to be provided if required in consultation with Independent Engineer.
3. The cross road at the junctions which are having a level difference from the Service Road/Slip Road/Main carriageway, are to be improved at the level of Service Road/Slip Road/Main carriageway (as the case may be) for the appropriate length as per manual but not less than 50 metre and then to be merged with the cross road at the gradient not more than 1:50.
4. Location of grade-separated structures are indicative. Exact location should be decided in consultation with Independent Engineer. The list of above major & minor junctions is indicative only and any additional junctions required in the Project Highway shall have to be constructed by the Contractor/Concessionaire in consultation with the Independent Engineer. However, no change of scope on such account of additional junction will be admissible.
5. Only Entry or Exit shall be designed at any location (provision of entry/exit by ghost island not permitted).
6. No U-turn facility shall be created on MCW and Service Road. All U turn shall be from designated structures provided in the Schedule-B.
7. The Concessionaire shall design and construct all Major/Minor Junctions, other than those specifically identified herein, if encountered or required during the construction period, ensuring proper connectivity with the adjoining road network at all locations, including Three-Level Interchanges, Cloverleaf Interchanges, and Single Trumpet Interchanges. Such Major/Minor Junctions shall be designed and constructed in accordance with the applicable IRC Codes, MoRTH Specifications, and other relevant standards and guidelines to ensure safe, efficient, and uninterrupted traffic movement in consultation with Independent Engineer. The design and construction of such Major/Minor Junctions shall be deemed to form part of the Scope of the Project, and no claim for additional cost, extension of time, or Change of Scope shall be admissible on this account.
8. For cross road drainage facility load bearing drain on cross / approach roads shall be constructed.
9. Improvement of culverts/drain up to 50m on the cross/connecting roads on Major & Minor junctions shall be in the scope of contractor.

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

3.2 At-Grade Intersections below Grade Separators/ interchanges: These shall be provided as given at para 2.9 as and where required of this Annexure-I of Schedule B (Clause No. 3.4.7 of IRC: SP:84)

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width of cross road (m)	Minimum Length of Cross Road To be Developed
			Left	Right			
1	1+112	+	PIALIKHATA GAON	KAMRUP POLYTECHNIC COLLAGE	PAVER BLOCK	2.6	100
2	2+285	+	ALIPUV GAON	MADAN KAMDEV HIGH SCHOOL	BT ROAD	5	100
3	4+223	+	MANGADOI ROAD	ALIPUV GAON	BT ROAD	3.5	100
4	4+700	+	MANGADOI ROAD	TO BARPALAHA GAON	BT ROAD	7	100
5	5+342	+	TO KHEHEANIPARA	TO BARPALAHA GAON	BT ROAD	3.5	100
6	6+342	+	TO BEZERA	TO MANDAKATA	SH-2	7	100
7	7+935	Y	TO Dumunichowki	To Narakli Temple	Nh-15	10	100
8	8+588	+	TO TITKUCHI	TO SARAI GHAT SALMARA	SH-2	7	100
9	11+014	+	HINDUMAIZ ALI	TO DUMUNI CHOWKI	MDR	7	100
10	15+062	+	META PARA	TO SINGIMARI	BT ROAD	4.5	100
11	16+385	Y	TO Sipajhar	To Mangaldoi	Nh-15	10	100
12	17+655	+	TO PUNIA	TO NARIKALI	CART TRACK	5.5	100
13	20+805	+	TO NH-15	TO BHOTARDAL	BT ROAD	3.5	100
14	22+665	+	TO KALIRAM CHOWK	TO MAHARIDAL	BT ROAD	5	100
15	23+425	+	TO BORDAULGURI	TO KUWARI GAON	PAVER BLOCK	3.5	100
16	26+075	Y	To Sipjhar	To Mangaldoi	Nh-15	10	100
17	26+857	X	PIPRADUKAN JANARAN CHOWK ROAD	UTTAR CHUBA	BT ROAD	4.5	100
18	43+910	Y	TO Sarkar Chowk	To Tangani	Nh- 15	10	100
19	46+730	+	TO SHERPUR	TO MAZGAON	MDR	7	100
20	50+310	Y	To kharupetia	To Burigaon	Nh-15	10	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width of cross road (m)	Minimum Length of Cross Road To be Developed
			Left	Right			
21	51+240	Y	To kharupetia	To Burigaon	MDR	3.5	100
22	52+208	+	TO KHARUPETIA	TO TANGNI JHAR	BT ROAD	3	100
23	53+065	+	TO KHARUPETIA	TO ARIMARI	BT ROAD	4.8	100
24	53+530	+	TO KHARUPETIA	TO ALA HAZRAT CHOWK	BT ROAD	3.5	100
25	54+436	+	TO KHARUPETIA	TO KEOT CHUBA	BT ROAD	3.5	100
26	55+472	+	TO KHARUPETIA	TO KHUTASWAR	BT ROAD	3.75	100
27	56+042	+	TO BALUGAON DAILY MARKET	TO KHUTASWAR	BT ROAD	3.8	100
28	57+700	Y	To buri gaon	To Dalgaon	Nh-15	10	100
29	60+185	Y	To Dalgaon	To Besimari market	Nh-15	10	100
30	64+895	+	TO BATABARI	TO KOPATI	MDR	3.5	100
31	67+860	Y	Niz Dalgaon	To Besimari market	NH-15	10	100
32	68+297	Y	To Besimari market	Lalpool	NH-15	10	100
33	71+320	Y	Lalpool	jhargaon	NH-15	10	100
34	74+350	Y	jhargaon	Rowta	NH-15	10	100
35	77+110	Y	Rowta	Rowta Town	NH-15	10	100
36	79+019	Y	Rowta Town	Dhansiri	NH-15	10	100
37	79+645	Y	Rowta Town	Dhansiri Ghat	NH-15	10	100
38	84+205	Y	Dhansiri Ghat	Gelabil	NH-15	10	100
39	90+850	+	Orang	TO ORANG NATIONAL PARK	MDR	10.5	100
40	94+145	Y	Alisina gaon	Moila ali gaon	Cart road	3	100
41	94+470	Y	Moila ali	Singhi Mari	BT ROAD	3	100
42	96+780	Y	Sirajuli	Barsala road	BT ROAD	5	100
43	98+320	Y	TO NARAYANPUR	Alisingha	BT ROAD	3	100
44	104+320	Y	TO DHEKIAJULI	TO SINGRI ROAD	BT ROAD	10	100
45	105+948	+	TO SINGRI ROAD	Natun Chirajuli gaon	BT ROAD	3	100

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width of cross road (m)	Minimum Length of Cross Road To be Developed
			Left	Right			
46	106+553	+	Natun Chirajuli gaon	TO Ratnajuli gaon	BT ROAD	3.5	100
47	107+212	+	TO Ratnajuli gaon	TO Balisiha Gaon	BT ROAD	3	100
48	107+695	+	TO Balisiha Gaon	TO Medhichubri gaon	BT ROAD	3.5	100
49	109+375	Y	TO Medhichubri gaon	Nh-15	Nh-15	10	100
50	112+900	Y	Kherukhanda	Rangabil gaon	BT ROAD	3.5	100
51	115+905	+	DISTRICT HOSPITAL ROAD	NALANIDUB GAON	MDR	5.5	100
52	116+354	T	TO NAHARBARI GAON	Thelamra Ghat	MDR	7	100
53	123+542	Y	Nirati	likha	MDR	5.5	100
54	124+970	+	tumuki	Medical	MDR	5.5	100
55	131+312	+	Medical	TO NIZ BAHBARI	BT ROAD	3	100
56	132+660	+	TO NIZ BAHBARI	TO DEKACHUBURI	CART TRACK	3	100
57	133+050	+	TO DEKACHUBURI	Kathal guri	BT ROAD	3	100
58	135+130	+	TO RANGAPARA GAON	TO GOGRA TEA FEACTORY	MDR	10	100
59	138+376	+	TO RANGAPARA GAON	TO GOGRA TEA FEACTORY	MDR	10	100
60	140+570	+	TO KHELMATI	TO SOLAGAON	MDR	10	100
61	142+737	+	TO GHORAMARI	TO BAITHA BHANGA GAON	BT ROAD	3.5	100
62	144+156	+	TO KACHUBIL	TO BAITHA BHANGA GAON	BT ROAD	5	100
63	147+130	+	TO MALIJAN	TO BHALUK JHARANI	MDR	7	100

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Sr. No	Design Chainage	Junction Type	Leads type		Category of Cross Road	Carriageway Width of cross road (m)	Minimum Length of Cross Road To be Developed
			Left	Right			
64	149+394	+	TO DIKRAIJAN UTTAR CHUK L.P SCHOOL	TO RAJEN BORTHAKRE PATH	BT ROAD	3	100
65	150+971	Y	Dekrijan	NH-15	BT ROAD	10	100

Note:

1. Type of Junction to be improved as per Manual. (IRC: SP:84)
2. The Contractor shall take up 'Detailed Engineering study' to ascertain further details of all intersections and treatment of the intersections shall be designed in accordance with the latest guidelines mentioned out in section-3 of the Manual. Auxiliary lanes including storage, acceleration and deceleration lane along with physical islands to be provided if required in consultation with Independent Engineer.
3. The cross road at the junctions which are having a level difference from the Service Road/Slip Road/Main carriageway, are to be improved at the level of Service Road/Slip Road/Main carriageway (as the case may be) for the appropriate length as per manual but not less than 50 metre and then to be merged with the cross road at the gradient not more than 1:50.
4. Location of grade-separated structures are indicative. Exact location should be decided in consultation with Independent Engineer. The list of above major & minor junctions is indicative only and any additional junctions required in the Project Highway shall have to be constructed by the Contractor/Concessionaire in consultation with the Independent Engineer. However, no change of scope on such account of additional junction will be admissible.
5. Only Entry or Exit shall be designed at any location (provision of entry/exit by ghost island not permitted).
6. No U-turn facility shall be created on MCW and Serviceroad. All U turn shall be from designated structures provided in the Schedule-B.
7. The Concessionaire shall design and construct all Major/Minor Junctions, other than those specifically identified herein, if encountered or required during the construction period, ensuring proper connectivity with the adjoining road network at all locations, including Three-Level Interchanges, Cloverleaf Interchanges, and Single Trumpet Interchanges. Such Major/Minor Junctions shall be designed and constructed in accordance with the applicable IRC Codes, MoRTH Specifications, and other relevant standards and guidelines to ensure safe, efficient, and uninterrupted traffic movement in consultation with Independent Engineer. The design and construction of such Major/Minor Junctions shall be deemed to form part of the Scope of the Project, and no claim for additional cost, extension of time, or Change of Scope shall be admissible on this account.
8. For cross road drainage facility load bearing drain on cross / approach roads shall be constructed.
9. Improvement of culverts/drain up to 50m on the cross/connecting roads on Major & Minor junctions shall be in the scope of contractor/Concessionaire.

4. Road Embankment and Cut Section

4.1 Construction of road embankment/cuttings shall conform to the Specifications and Standards given in Section 4 of the manual. Notwithstanding anything to the contrary contained in this Agreement or manual, the difference of the proposed profile and the existing ground level of the project highway as indicated in the Annexure-III of Schedule A shall be treated as minimum requirement.

4.2 Based on site/design requirement, the Concessionaire shall design the alignment plans and profiles of the project highway based on site/design requirement mentioned in Schedule B with approval from the Independent Engineer within the available Right of Way. However, it is clarified that bottom of subgrade level shall be at-least 1500 mm above HFL/Existing ground level for a Greenfield/ bypass stretch.

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4.3 The side slopes shall not be steeper than 2H:1V. In case, there is a ROW constraint than, suitable soil retaining structures shall be provided.

4.4 For stability of slope up to 3m height the turfing can be adapted. For the slope from 3-6m suitable, geocell, geo-grid, geo-green etc. with 1.5H: 1V slope can be provided with suitable drainage chutes as per IRC 56. For the slope more than 6m height, a complete slope stability analysis as per IRC:75 shall be done and the slopes shall be (1.5H:1V) compulsory protected with stone pitching within stone masonry grid structure of 4mx4m and suitable drains/chutes etc. shall be provided for effective drainage of the water.

4.5 Where Pond ash is used for embankment construction, the embankment shall be designed and constructed in accordance with IRC: SP: 58 (Clause No. 4.2.4 & 4.4.4.i (d) IRC: SP: 84-2019)

4.6 The Concessionaire shall deploy grading, paving and compaction equipment fitted with Machine Guidance & Control System (MGCS) for finishing of all grades including Embankment, and Subgrade. 3D Machine Guidance and Control Systems for Motor Graders / Paver and 3D Machine Guidance System in Compactors and Dozers shall be done with help of 3D Digital model generated from Design to ensure quality standards as per IRC specifications and productivity improvement. Further, Concessionaire shall ensure the generation of measurable digital records that can be shared on a digital drive or can viewed in real time. The hardware and software used by the Concessionaire shall have features and specifications mentioned at Schedule D.

5. Pavement Design

5.1 Pavement design shall be carried out in accordance with Section 5 of the Manual.

5.1.1 Contractor shall develop 3D digital models and use 3D Machine Guidance and Control Systems for Motor Graders and Paver and 3D Machine Guidance System in Compactors and Dozers to ensure quality standards as per IRC specifications and productivity improvement. Further, Concessionaire shall generate measurable digital records that can be shared on a digital drive or can be viewed in real time. The hardware and software used by the Concessionaire shall have features and specifications mentioned at Schedule D.

5.2 Type of Pavement and Design requirement

5.2.1 The pavement shall be flexible type for entire length of project highway except for toll plaza location and Emergency Landing Facility (ELF) where rigid pavement shall be provided.

5.2.2 Design Period and Strategy: - Pavement shall be constructed for the entire length of Project Highway including paved shoulders. Flexible Pavement shall be designed for a minimum design period of 20 years and minimum sub grade CBR of (effective) 8%. Whereas Rigid pavement shall be designed for a minimum design period of 30 years. Stage construction shall not be permitted.

5.2.3 Recommended Pavement Design: - Notwithstanding anything contained elsewhere in this Agreement, the Manual, or any other document forming part of the Contract, the pavement for the Main Carriageway, 7m wide Service Road/Slip Road, entry/exit, merging/demerging locations and Interchanges including its loop/ramp/slip road/service road envisaged in the project shall be designed by the Contractor/Concessionaire as per the actual detailed traffic survey subject to minimum design traffic of 150 Million Standard Axles (MSA) in accordance with IRC:37, IRC:SP:84, and relevant MoRTH specifications. Similarly, pavement for service / slip road (other than 7m wide Service Road/Slip Road, entry/exit, merging/demerging locations and Interchanges including its loop/ramp/slip road/service road) shall be designed by the Contractor/Concessionaire as per the actual detailed traffic survey subject to design traffic of minimum 20 MSA. For both Flexible and Rigid Pavement Main Carriageway, Service Road/Slip Road/Ramp/loop shall be constructed considering effective CBR of 8% (with no special

treatment). Modulus of resilient (MR) value of bituminous mixes shall be taken as per actuals subject to maximum given in IRC: 37-2018.

5.2.4 The pavement composition and layer thicknesses shall be determined on the basis of detailed traffic analysis, axle load survey data, subgrade characteristics, climatic conditions, reliability considerations, and design life requirements, and shall be subject to review and approval of the Independent Engineer.

Any requirement of increased pavement thickness, strengthening, or modification arising from actual site conditions, design methodology, or compliance with applicable standards shall not constitute a Change of Scope and shall be deemed to be included in the Contract Price.

5.2.5 In order to achieve the intended structural performance and functional requirements of each pavement layer, the pavement composition for the Main Carriageway, service roads, slip roads, connecting roads, entry and exit lanes, acceleration and deceleration lanes, and left/right-turning lanes shall be designed by the Contractor/Concessionaire in accordance with IRC:37, IRC:SP:84, and applicable MoRTH Specifications.

5.2.6 Notwithstanding the results of pavement design analysis, the thickness of individual pavement layers provided for any carriageway component shall, in no case, be less than the minimum thickness specified herein below in this Schedule.

5.2.7 The Contractor/Concessionaire shall ensure that the pavement crust is adequate to withstand the design traffic, subgrade strength, climatic conditions, drainage characteristics, and performance requirements throughout the design life of the pavement and shall be responsible for any modification required to meet codal or performance requirements, without constituting a Change of Scope.

5.2.8 The minimum Pavement composition are as follows:

(a) Main carriageway (Flexible):

Pavement composition	Minimum crust thickness in mm
BC	40
DBM	60
AIL	100
CTB	190
CTSB	200
SUBGRADE	500

(b) 7m wide Service Road/Slip Road, entry/exit, merging/demerging locations and Interchanges including its loop/ramp/slip road/service road:

Pavement composition	Minimum crust thickness in mm
BC	40
DBM	60
AIL	100
CTB	190
CTSB	200
SUBGRADE	500

(c) Service Road/ Slip Road (other than 7m wide Service Road/Slip Road, entry/exit, merging/demerging locations and Interchanges including its loop/ramp/slip road/service road) :

Pavement composition	Minimum crust thickness in mm
BC	40
DBM	60

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Pavement composition	Minimum crust thickness in mm
AIL	150
CTSB	200
SUBGRADE	500

(d) Toll Plaza Location

Pavement composition	Minimum crust thickness in mm
PQC	300
DLC	150
GSB	200
SUBGRADE	500

(e) Crossroads /Connecting roads:

Pavement composition	Minimum crust thickness in mm
BC	30
DBM	50
WMM	150
CTSB	150
SUBGRADE	500

(f) Emergency Landing Facility (ELF): Main Airstrip

Pavement composition	Minimum crust thickness in mm
PQC	320
DLC	150
Sand Filling	10
WMM	200
GSB	200
SUBGRADE	500 (Minimum Effective CBR 8%)

(g) Emergency Landing Facility (ELF): ATC Connecting Road

Pavement composition	Minimum crust thickness in mm
PQC	250
DLC	150
Sand Filling	10
WMM	200
GSB	200
SUBGRADE	500 (Minimum Effective CBR 8%)

(h) Emergency Landing Facility (ELF): Perimeter Road

Pavement composition	Minimum crust thickness in mm
BC	40
DBM	60
AIL	100
CTB	190
CTSB	200
SUBGRADE	500 (Minimum Effective CBR 8%)

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5.3 Reconstruction of Stretches with New pavement

The following stretches of the existing road shall be reconstructed. These shall be designed as new pavement.

Sl. no	Design chainage		Pavement composition	Remarks
	From	To		
1	8+598	8+960	Same as mentioned under 5.2 above	
2	8+960	10+278	Same as mentioned under 5.2 above	
3	10+362	10+640	Same as mentioned under 5.2 above	
4	10+640	10+994	Same as mentioned under 5.2 above	
5	11+034	11+510	Same as mentioned under 5.2 above	
6	11+510	12+277	Same as mentioned under 5.2 above	
7	12+293	13+232	Same as mentioned under 5.2 above	
8	13+248	13+662	Same as mentioned under 5.2 above	
9	13+686	14+310	Same as mentioned under 5.2 above	
10	14+380	14+770	Same as mentioned under 5.2 above	
11	14+770	15+056	Same as mentioned under 5.2 above	
12	15+068	15+300	Same as mentioned under 5.2 above	
13	15+300	15+641	Same as mentioned under 5.2 above	
14	15+711	16+034	Same as mentioned under 5.2 above	
15	16+034	16+242	Same as mentioned under 5.2 above	
16	16+302	16+870	Same as mentioned under 5.2 above	
17	25+160	25+450	Same as mentioned under 5.2 above	
18	26+650	28+000	Same as mentioned under 5.2 above	
19	42+590	43+350	Same as mentioned under 5.2 above	
20	43+350	43+880	Same as mentioned under 5.2 above	
21	43+940	44+480	Same as mentioned under 5.2 above	
22	44+480	46+250	Same as mentioned under 5.2 above	
23	46+250	46+720	Same as mentioned under 5.2 above	
24	46+740	47+230	Same as mentioned under 5.2 above	
25	47+230	48+895	Same as mentioned under 5.2 above	
26	48+972	49+670	Same as mentioned under 5.2 above	
27	49+670	50+235	Same as mentioned under 5.2 above	
28	58+490	59+530	Same as mentioned under 5.2 above	
29	59+530	60+088	Same as mentioned under 5.2 above	
30	60+148	60+640	Same as mentioned under 5.2 above	
31	60+640	62+568	Same as mentioned under 5.2 above	
32	62+708	63+580	Same as mentioned under 5.2 above	
33	63+580	64+070	Same as mentioned under 5.2 above	
34	64+090	64+885	Same as mentioned under 5.2 above	
35	64+905	65+380	Same as mentioned under 5.2 above	
36	65+380	67+670	Same as mentioned under 5.2 above	
37	67+670	67+850	Same as mentioned under 5.2 above	
38	67+870	68+222	Same as mentioned under 5.2 above	
39	68+372	69+214	Same as mentioned under 5.2 above	
40	69+214	70+855	Same as mentioned under 5.2 above	
41	70+865	71+300	Same as mentioned under 5.2 above	

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Sl. no	Design chainage		Pavement composition	Remarks
	From	To		
42	71+340	73+820	Same as mentioned under 5.2 above	
43	73+820	74+340	Same as mentioned under 5.2 above	
44	74+360	74+830	Same as mentioned under 5.2 above	
45	74+830	76+420	Same as mentioned under 5.2 above	
46	76+420	76+988	Same as mentioned under 5.2 above	
47	77+048	77+510	Same as mentioned under 5.2 above	
48	80+370	83+277	Same as mentioned under 5.2 above	
49	83+477	83+810	Same as mentioned under 5.2 above	
50	83+810	84+175	Same as mentioned under 5.2 above	
51	84+235	84+710	Same as mentioned under 5.2 above	
52	84+770	86+015	Same as mentioned under 5.2 above	
53	86+045	86+952	Same as mentioned under 5.2 above	
54	86+967	87+610	Same as mentioned under 5.2 above	
55	87+630	89+393	Same as mentioned under 5.2 above	
56	89+443	90+450	Same as mentioned under 5.2 above	
57	90+450	90+842	Same as mentioned under 5.2 above	
58	90+866	91+120	Same as mentioned under 5.2 above	
59	91+120	91+312	Same as mentioned under 5.2 above	
60	91+452	92+997	Same as mentioned under 5.2 above	
61	93+012	93+462	Same as mentioned under 5.2 above	
62	93+477	93+630	Same as mentioned under 5.2 above	
63	93+630	94+115	Same as mentioned under 5.2 above	
64	94+155	94+230	Same as mentioned under 5.2 above	
65	94+250	94+730	Same as mentioned under 5.2 above	
66	94+730	96+140	Same as mentioned under 5.2 above	
67	96+140	96+770	Same as mentioned under 5.2 above	
68	96+830	97+538	Same as mentioned under 5.2 above	
69	97+578	97+870	Same as mentioned under 5.2 above	
70	97+870	98+314	Same as mentioned under 5.2 above	
71	97+882	98+890	Same as mentioned under 5.2 above	
72	98+890	102+683	Same as mentioned under 5.2 above	
73	102+763	103+700	Same as mentioned under 5.2 above	
74	103+700	104+195	Same as mentioned under 5.2 above	
75	104+255	104+773	Same as mentioned under 5.2 above	
76	105+220	105+700	Same as mentioned under 5.2 above	
77	106+810	107+090	Same as mentioned under 5.2 above	
78	110+160	112+140	Same as mentioned under 5.2 above	
79	112+140	112+420	Same as mentioned under 5.2 above	
80	112+420	112+630	Same as mentioned under 5.2 above	
81	112+630	112+894	Same as mentioned under 5.2 above	
82	112+906	112+992	Same as mentioned under 5.2 above	
83	112+420	115+830	Same as mentioned under 5.2 above	
84	115+830	116+004	Same as mentioned under 5.2 above	
85	116+044	116+344	Same as mentioned under 5.2 above	

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Sl. no	Design chainage		Pavement composition	Remarks
	From	To		
86	116+364	116+980	Same as mentioned under 5.2 above	
87	116+980	119+993	Same as mentioned under 5.2 above	
88	120+013	121+933	Same as mentioned under 5.2 above	
89	122+121	122+820	Same as mentioned under 5.2 above	
90	122+820	123+270	Same as mentioned under 5.2 above	

5.4 Bituminous Mix for Overlay

The following stretches of the existing road shall be provided bituminous overlay as follows:

Sr. No.	Design Chainage (km)		Overlay Pavement Composition	Remarks
	From	To		
	Nil			

6. Roadside Drainage

6.1 Drainage system including surface and subsurface drains for the Project Highway including crossroads, service roads, and adjoining sections affected by the Project, shall be designed, constructed, and maintained in accordance with Section-6 of IRC:SP:84-2019, relevant provisions of IRC:SP:42, IRC:SP:50, MoRTH Specifications for Road and Bridge Works, and other applicable IRC guidelines. Concessionaire shall provide a drainage plan along with its drainage profile which should be reviewed and approved by the Independent Engineer. The drainage system shall be designed to ensure efficient collection, conveyance, and disposal of storm water without causing flooding, erosion, pavement deterioration, slope instability, or damage to adjoining properties. Hydraulic design shall be based on appropriate rainfall intensity, catchment characteristics, runoff coefficients, discharge calculations, and outfall conditions, in accordance with good engineering practice. RCC drain/ RCC drain cum-footpaths, PCC open drains, lined drains, chute drains, catch water drains, median drains, and subsurface drainage systems shall conform to the cross-sectional details/features, lining requirements, grades, and other details as given in Annexures to Schedule-B and shall be provided as under.

The Contractor/Concessionaire shall be responsible for verifying the adequacy of the proposed drainage arrangements based on detailed design and site conditions and shall provide any additional drainage measures required for proper performance of the highway drainage system. Such additional provisions shall not constitute a Change of Scope and shall be deemed to be included in the Contract Price.

(i) RCC Cover Drain:

Details of RCC Cover Drain as per TCS at following locations: -

Sr. No.	CHAINAGE		LENGTH (m)		Minimum Bottom width (m) x minimum depth of drain (in m)	REMARKS
	FROM	TO	LHS	RHS	(m)	
1	9+500	10+000	500	500	1.5 x 1.5	
2	11+510	12+277	767	767	1.5 x 1.5	
3	12+293	13+232	939	939	1.5 x 1.5	
4	13+248	13+661	413	413	1.5 x 1.5	
5	13+683	14+035	352	352	1.5 x 1.5	
6	14+660	14+770	110	110	1.5 x 1.5	

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7	27+260	28+000	740	740	1.5 x 1.5	
8	42+590	42+840	250	250	1.5 x 1.5	
9	43+100	43+350	250	250	1.5 x 1.5	
10	44+480	46+250	1770	1770	1.5 x 1.5	
11	47+230	48+620	1390	1390	1.5 x 1.5	
12	49+200	49+670	470	470	1.5 x 1.5	
13	58+280	59+530	1250	1250	1.5 x 1.5	
14	60+640	61+200	560	560	1.5 x 1.5	
15	62+980	63+580	600	600	1.5 x 1.5	
16	67+200	67+460	260	260	1.5 x 1.5	
17	69+610	70+855	1245	1245	1.5 x 1.5	
18	71+900	72+900	1000	1000	1.5 x 1.5	
19	86+500	86+952	452	452	1.5 x 1.5	
20	86+967	87+610	643	643	1.5 x 1.5	
21	87+630	88+100	470	470	1.5 x 1.5	
22	89+600	90+400	800	800	1.5 x 1.5	
23	98+890	101+500	2610	2610	1.5 x 1.5	
24	101+900	102+412	512	512	1.5 x 1.5	
25	109+930	112+195	2265	2265	1.5 x 1.5	
26	113+272	114+175	903	903	1.5 x 1.5	
27	114+205	114+890	685	685	1.5 x 1.5	
28	114+920	115+200	280	280	1.5 x 1.5	
29	116+790	119+250	2460	2460	1.5 x 1.5	
30	119+490	119+993	503	503	1.5 x 1.5	
31	120+013	120+375	362	362	1.5 x 1.5	
32	120+650	121+000	350	350	1.5 x 1.5	
33	125+900	130+800	4900	4900	2 x 2	

Note:

1. Unlined drain and lined covered drain/RCC drain/Footpath cum drain shall conform to the cross- sectional features and other details specified as per section 2.10 of Annex-I of Schedule-B.
2. The water from main carriageway to be drained to the nearest RCC drain through piping network which will be laid below slip/service road. Interval to be decided based on-site conditions.
3. The above locations are minimum. Additional locations, if any required to maintain continuity in drainage to the nearest outfall/cross drainage structure as per site condition shall be provided as per manual. Any increase in length up to 10% of the scope defined above shall not be treated as a change in scope of work.
4. The locations specified herein represent minimum requirements. The Contractor/Concessionaire shall provide such additional locations, structures, or measures as may be necessary based on detailed design, hydraulic analysis, site conditions, and applicable provisions of the Manual and relevant IRC/MoRTH standards. Provision of such additional works, locations, or arrangements shall not constitute a Change of Scope and shall be deemed to be included in the Contract Price. Discharge outlets for storm water shall be designed and connected to the nearest suitable cross-drainage structures, natural watercourses, chute drains, or approved outfall points in accordance with hydraulic design requirements, site conditions, and directions of the Independent Engineer, so as to ensure safe disposal of runoff without causing erosion, flooding, or damage to roadway or adjoining properties.

(ii) PCC Drain: - NIL

Note: The above locations are minimum. Additional locations, if any required as per site condition shall be provided as per manual. It shall not be treated as a change in scope of work.

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(iii) Unlined Drain- Trapezoidal Earthen Drain Locations:

Trapezoidal Earthen Drain shall be provided at the following locations:

Sr. No.	CHAINAGE		LENGTH (m)		Top Width Earthen Drain (m)	Remarks
	From	To	LHS	RHS		
1	0+896	1+105	209	209	1.5	
2	1+117	1+510	393	393	1.5	
3	1+510	1+860	350	350	1.5	
4	1+860	2+279	419	419	1.5	
5	2+650	2+875	225	225	1.5	
6	2+895	4+000	1105	1105	1.5	
7	4+000	4+200	200	200	1.5	
8	5+710	5+960	250	250	1.5	
9	6+352	6+730	378	378	1.5	
10	6+730	6+805	75	75	1.5	
11	6+825	7+465	640	640	1.5	
12	7+465	7+505	40	40	1.5	
13	7+505	7+905	400	400	1.5	
14	10+000	10+278	278	278	1.5	
15	10+362	10+640	278	278	1.5	
16	11+480	11+510	30	30	1.5	
17	14+035	14+310	275	275	1.5	
18	14+380	14+660	280	280	1.5	
19	15+300	15+641	341	341	1.5	
20	15+711	16+030	319	319	1.5	
21	16+870	17+360	490	490	1.5	
22	17+360	17+390	30	30	1.5	
23	17+390	17+651	261	261	1.5	
24	17+658	17+940	282	282	1.5	
25	17+940	20+330	2390	2390	1.5	
26	20+330	20+799	469	469	1.5	
27	22+671	23+419	748	748	1.5	
28	23+431	23+760	329	329	1.5	
29	23+760	24+040	280	280	1.5	
30	24+040	24+215	175	175	1.5	
31	24+215	24+265	50	50	1.5	
32	24+415	24+916	501	501	1.5	
33	24+923	25+450	527	527	1.5	
34	26+105	26+650	545	545	1.5	
35	27+230	27+260	30	30	1.5	
36	44+450	44+480	30	30	1.5	
37	46+250	46+280	30	30	1.5	
38	47+200	47+230	30	30	1.5	
39	48+620	48+895	275	275	1.5	
40	48+972	49+200	228	228	1.5	
41	49+670	49+700	30	30	1.5	
42	50+355	51+210	855	855	1.5	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)		Top Width Earthen Drain (m)	Remarks
	From	To	LHS	RHS		
43	51+270	52+202	932	932	1.5	
44	53+069	53+475	406	406	1.5	
45	53+536	54+430	894	894	1.5	
46	56+360	57+160	800	800	1.5	
47	57+730	58+250	520	520	1.5	
48	58+250	58+280	30	30	1.5	
49	59+530	59+560	30	30	1.5	
50	60+610	60+640	30	30	1.5	
51	62+300	62+568	268	268	1.5	
52	62+708	62+980	272	272	1.5	
53	63+580	63+610	30	30	1.5	
54	65+570	65+600	30	30	1.5	
55	69+580	69+610	30	30	1.5	
56	73+820	73+850	30	30	1.5	
57	74+800	74+830	30	30	1.5	
58	76+500	76+530	30	30	1.5	
59	77+510	78+310	800	800	1.5	
60	78+310	78+340	30	30	1.5	
61	78+340	78+705	365	365	1.5	
62	78+745	79+008	263	263	1.5	
63	79+030	79+615	585	585	1.5	
64	79+675	80+500	825	825	1.5	
65	80+810	81+550	740	740	1.5	
66	83+000	83+277	277	277	1.5	
67	83+477	83+810	333	333	1.5	
68	84+600	84+725	125	125	1.5	
69	90+400	90+430	30	30	1.5	
70	94+700	94+730	30	30	1.5	
71	96+110	96+140	30	30	1.5	
72	98+860	98+890	30	30	1.5	
73	102+412	102+683	271	271	1.5	
74	102+763	103+035	272	272	1.5	
75	103+780	103+810	30	30	1.5	
76	104+803	105+220	417	417	1.5	
77	105+220	105+250	30	30	1.5	
78	105+250	105+700	450	450	1.5	
79	105+700	105+944	244	244	1.5	
80	105+956	106+046	90	90	1.5	
81	106+226	106+547	321	321	1.5	
82	106+559	106+794	235	235	1.5	
83	106+794	107+005	211	211	1.5	
84	107+005	107+090	85	85	1.5	
85	107+090	107+206	116	116	1.5	
86	107+218	107+689	471	471	1.5	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)		Top Width Earthen Drain (m)	Remarks
	From	To	LHS	RHS		
87	107+701	108+110	409	409	1.5	
88	108+110	108+900	790	790	1.5	
89	108+900	108+930	30	30	1.5	
90	108+930	109+345	415	415	1.5	
91	109+405	109+900	495	495	1.5	
92	109+900	109+930	30	30	1.5	
93	112+405	112+490	85	85	1.5	
94	114+890	114+920	30	30	1.5	
95	115+200	115+885	685	685	1.5	
96	115+925	116+004	79	79	1.5	
97	116+760	116+790	30	30	1.5	
98	121+685	121+933	248	248	1.5	
99	122+121	122+400	279	279	1.5	
100	123+587	123+740	153	153	1.5	
101	123+740	124+165	425	425	1.5	
102	124+191	124+650	459	459	1.5	
103	124+650	124+955	305	305	1.5	
104	124+985	125+340	355	355	1.5	
105	125+340	125+900	560	560	1.5	
106	130+800	130+980	180	180	1.5	
107	130+980	131+282	302	302	1.5	
108	131+342	131+910	568	568	1.5	
109	131+970	132+300	330	330	1.5	
110	134+840	135+115	275	275	1.5	
111	135+145	135+400	255	255	1.5	
112	135+400	135+545	145	145	1.5	
113	135+545	135+575	30	30	1.5	
114	135+575	136+494	919	919	1.5	
115	136+514	136+898	384	384	1.5	
116	136+928	137+300	372	372	1.5	
117	137+300	137+900	600	600	1.5	
118	137+900	137+930	30	30	1.5	
119	137+930	138+366	436	436	1.5	
120	138+386	138+800	414	414	1.5	
121	138+800	140+250	1450	1450	1.5	
122	140+250	140+555	305	305	1.5	
123	140+585	141+030	445	445	1.5	
124	141+030	141+060	30	30	1.5	
125	141+060	141+395	335	335	1.5	
126	141+420	142+300	880	880	1.5	
127	142+300	142+731	431	431	1.5	
128	142+743	143+100	357	357	1.5	
129	143+100	143+560	460	460	1.5	
130	143+595	143+750	155	155	1.5	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	CHAINAGE		LENGTH (m)		Top Width Earthen Drain (m)	Remarks
	From	To	LHS	RHS		
131	143+750	144+150	400	400	1.5	
132	144+162	145+550	1388	1388	1.5	
133	145+550	145+807	257	257	1.5	
134	145+897	146+200	303	303	1.5	
135	146+200	146+740	540	540	1.5	
136	146+740	146+998	258	258	1.5	
137	147+028	147+115	87	87	1.5	
138	147+145	147+620	475	475	1.5	
139	147+620	147+650	30	30	1.5	
140	147+650	148+970	1320	1320	1.5	
141	148+970	149+388	418	418	1.5	
142	149+400	149+770	370	370	1.5	
143	149+770	149+800	30	30	1.5	
144	149+800	150+450	650	650	1.5	
145	150+450	150+480	30	30	1.5	
146	150+480	150+942	462	462	1.5	

Note:

1. Trapezoidal Earthen Drain shall conform to the cross- sectional features and other details specified as per section 2.10 of Annex-I of Schedule-B.
2. The above locations are minimum. Additional locations, if any required to maintain continuity in drainage to the nearest outfall/cross drainage structure as per site condition shall be provided as per manual. Any increase in length up to 10% of the scope defined above shall not be treated as a change in scope of work
3. The locations specified herein represent minimum requirements. The Contractor/Concessionaire shall provide such additional locations, structures, or measures as may be necessary based on detailed design, hydraulic analysis, site conditions, and applicable provisions of the Manual and relevant IRC/MoRTH standards. Provision of such additional works, locations, or arrangements shall not constitute a Change of Scope and shall be deemed to be included in the Contract Price. Discharge outlets for storm water shall be designed and connected to the nearest suitable cross-drainage structures, natural watercourses, chute drains, or approved outfall points in accordance with hydraulic design requirements, site conditions, and directions of the Independent Engineer, so as to ensure safe disposal of runoff without causing erosion, flooding, or damage to roadway or adjoining properties.
4. Unlined Drain other than above mentioned locations shall be provided in the entire length within available ROW which gets terminated at all cross road locations connecting to nearest cross road drain/discharge point. In case, locations where a suitable natural or engineered outfall is not available, appropriate storm water disposal arrangements such as rainwater harvesting systems, infiltration trenches, soak pits, recharge structures, or other approved drainage solutions shall be designed and constructed at the lowest feasible points to ensure safe dispersal of runoff without causing waterlogging, erosion, or damage to the roadway or adjoining properties. The Contractor/Concessionaire shall be responsible for hydraulic design, location selection, sizing, and detailing of such drainage and disposal systems based on rainfall data, catchment characteristics, soil permeability, groundwater conditions, and site constraints, in accordance with the Manual and applicable IRC/MoRTH standards. Provision of additional drains, outfall arrangements, or disposal systems required to achieve effective drainage performance shall not constitute a Change of Scope.

6.2 Median Drain

Lined drain shall be provided in the center of the median at super elevation locations in accordance with IRC SP 42 and IRC SP 50. Draining of storm water from one carriageway to another carriageway is not permitted. The Concessionaire / Contractor shall design the median drain based on site/ Design requirement mentioned in Schedule D with approval from the Independent Engineer and shall be connected with the nearest culvert/outfall.

6.3 Drainage arrangement between Main Carriageway and Service/Slip Roads

Suitable drainage arrangements shall be designed and provided between the Main Carriageway and adjoining Service Roads or Slip Roads in order to drain storm water suitably in accordance with IRC:SP:84-2019 and other applicable IRC codes/MoRTH standards.

6.4 Drainage where Embankment Height is more than 3m

Drainage arrangements shall be provided in sections where the embankment height exceeds 3 m, in accordance with IRC:SP:84-2019, IRC SP 42 and IRC SP 50 and other applicable IRC codes/MoRTH standards. Such drainage provisions shall include, as necessary, toe drains, longitudinal drains, berm drains, chute drains, catch water drains, or other suitable arrangements designed to safely and adequately intercept, collect, and discharge surface runoff and seepage water so as to prevent erosion, slope instability, saturation of embankment material, or damage to pavement and adjoining properties. The drainage system shall be designed to ensure that storm water from the Main Carriageway is collected, conveyed, and disposed of independently through properly designed systems i.e. through piping network, without discharging onto Service Roads or Slip Roads. Interval of piping network shall to be decided based on-site conditions in consultation with Independent Engineer as per good industry practice. Direct flow of storm water from the Main Carriageway onto Service Roads or Slip Roads is not permitted.

The Contractor/Concessionaire shall be responsible for detailed hydraulic and geotechnical design of drainage systems for high embankments based on site conditions, rainfall intensity, soil characteristics, groundwater conditions, slope geometry, and outfall availability. Any additional drainage measures required to ensure stability and performance of high embankment sections shall not constitute a Change of Scope.

6.5 Drainage for Structures

A suitable drainage arrangement for draining storm water from deck slab shall be provided. Water shall not fall on any surface of the structures, or remain standing or flowing over the road below structure. The drainage system shall be ensured in accordance with IRC: SP: 84.

6.6 Drainage for Underpass and Subways Structures (Clause No. 6.8.3 IRC: SP: 84-2019)

Drainage arrangements shall be designed, provided, and maintained for all vehicular underpasses, pedestrian subways, cattle underpasses, and similar depressed structures in accordance with IRC: SP:84-2019, relevant provisions of IRC: SP:42, IRC:5, MoRTH Specifications, and other applicable Codal provision and MoRTH standards.

The drainage system shall be designed to effectively collect, intercept, and dispose of storm water and seepage so as to prevent water accumulation, flooding, or operational disruption within and above the underpass. Such arrangements may include longitudinal drains, sump wells, collection chambers, pumping systems, gravity outfalls, or other approved drainage solutions, as required based on site conditions and hydraulic design.

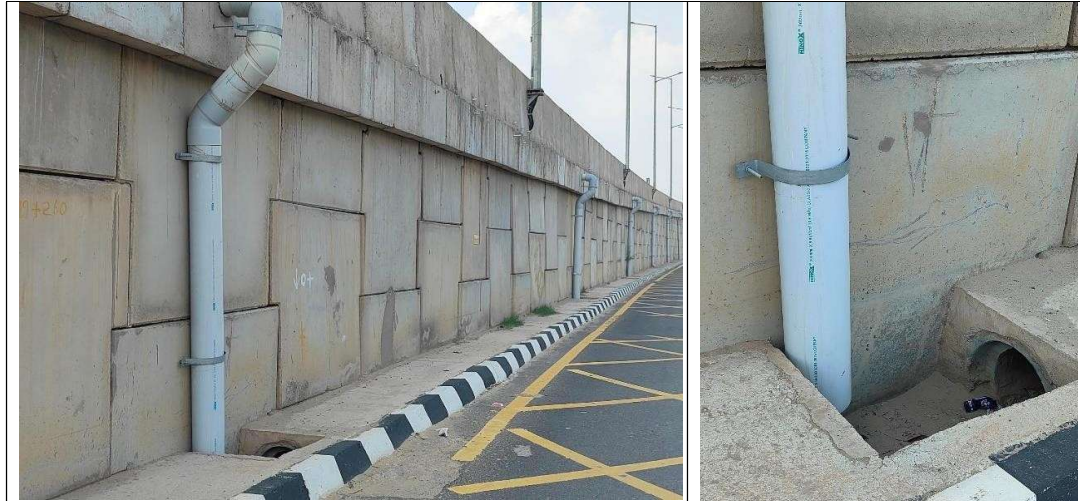
The Contractor/Concessionaire shall carry out detailed hydraulic analysis considering rainfall intensity, catchment area, inflow from approaches, groundwater conditions, and outfall availability and shall provide all necessary drainage and pumping arrangements to ensure uninterrupted usability of the facility during design storm conditions. Any additional drainage or pumping provisions required to achieve the intended performance shall not constitute a Change of Scope.

6.7 Drainage arrangement of Retaining Structures

Vertical drop-down drainage pipes of HDPE with suitable cleaning provision shall be provided at suitable interval. Drainage fixtures and drop-down pipes shall be of HDPE material not less than 100mm dia. Also, weep hole systems with adequate filtration media and cleaning access shall be provided at appropriate spacing to ensure effective drainage of backfill. The spacing and configuration of drainage arrangements

shall be determined by the Contractor/Concessionaire based on hydraulic and geotechnical design considerations and shall be subject to approval of the Independent Engineer. In any case, Storm water from the Main Carriageway shall not be permitted to be discharged onto Service Road/slip road or adjacent carriageways; suitable independent drainage arrangements shall be provided to safely convey runoff to approved outfall locations. Any additional drainage provisions required based on detailed design, site conditions, or stability requirements shall not constitute a Change of Scope.

Few photographs showing the drainage arrangement are presented for reference.



Illustrative Fig: Vertical take down pipe having dia not less than 100mm connected to chambers. Those chambers are further connected to each other and drain in the outer side of Service Road (below crust) with 300 mm dia NP-4 Hume Pipe discharging the outflow appropriately.

7. Design of Structures

7.1 General

Project Highway is proposed to be constructed to Four lane configuration with provision for widening to Six/eight-lane configuration in future. As such, superstructure of all bridges, culverts and structures is to be designed for edge movement of the vehicle considering stitching of new superstructure in future due to widening for additional lane.

All structures including bridges, culverts, flyovers, etc to be designed for Special Vehicle (SV) loading, Class 70R, Class A and congestion factor, whichever is critical, as per latest IRC provisions.

All structures except wherever expansion joints have been provided, the pavement layers (WMM, DBM & BC) shall be continued over the structures for smooth riding quality of the project highway. These structures shall be designed considering the dead load of pavement (WMM, DBM, BC, etc) layers.

All major structures will be designed preferably as continuous slab to reduce the number of expansion joints on the MJB/ ROBs/ flyover/ interchange etc.

7.1.1 All structures to be designed for Special Vehicle (SV) loading, Class 70R, Class A and congestion factor, whichever is critical, as per latest IRC provisions. and constructed in accordance with section-7 of the manual and shall conform to the cross-sectional features and other details specified therein. Seismic Design of Structures to conform as per the latest IS codes and Seismic Zones.

7.1.2 The overall width of the structures shall be per applicable TCS provided at Annexure-II of Schedule- B.

7.1.3 Clear deck width of bridges/grade separated structures/ RoBs (measured from inside to inside of crash barrier) in their approaches shall be equal to the roadway width (carriageway width+ paved shoulder width+ earthen shoulder width+ width of median including shyness for raised median /depressed median as applicable). In case of footpath on bridge/RoB, the width of earthen shoulder shall be tapered at the rate of 1:15 (MORTH Circular: RW/NH-33044/22/2020-S&R dated 4th June, 2024).

7.1.4 The Safety Barrier and Footpath on Bridges and ROB shall continue on approaches. The footpath shall be provided with paved surface & railing till the embankment height is more than 3m (Clause No. 7.17 IRC: 84-2019).

Details of Structures with footpaths:

Sr. No	Location at Km	Skew Angle	Footpath Width (in m)		Remarks
			Left	Right	
1	MJB @ 10+320	-	1.5	1.5	
2	MJB @ 14+345	-	1.5	1.5	
3	MJB @ 15+677	-	1.5	1.5	
4	MJB @ 24+342	-	1.5	1.5	
5	MJB @ 48+934	-	1.5	1.5	
6	MJB @ 62+638	-	1.5	1.5	
7	MJB @ 83+377	-	1.5	1.5	
8	MJB @ 84+755	-	1.5	1.5	
9	MJB @ 91+352	-	1.5	1.5	
10	MJB @ 102+723	-	1.5	1.5	
11	MJB @ 106+136	-	1.5	1.5	
12	MJB @ 113+132	-	1.5	1.5	
13	MJB @ 122+033	-	1.5	1.5	
14	MJB @ 131+940	-	1.5	1.5	
15	ROB @ 133+743	-	1.5	1.5	
16	Via duct (after ROB) + Elephant Under Pass @134+309	-	1.5	1.5	
17	MJB @ 145+852	-	1.5	1.5	

7.1.5 All bridges shall be high-level bridges.

7.1.6 All structures shall be designed to carry utility services on outer side of RCC barrier/Railing as per site requirement. The design loads for the crash barriers shall be as per IRC-6.

7.1.7 Cross section of the structures including new culverts and bridges at deck level for the Project Highway shall conform to the typical cross sections given in Section 2.10 of the Schedule-B to be read in conjunction with GAD and Annexure-II of Schedule-B.

7.2 Culverts

7.2.1 Overall width of all culverts shall be equal to the roadway width of the Approaches. The overall width of culverts shall be including width of main carriageway and slip/Service Roads/Entry ramps/Exit Ramps/ Acceleration/Deceleration lanes, etc. All culverts shall also be continued in median and in gap between main carriageway and Service Road.

7.2.2 New/Reconstruction of existing RCC Box/pipe culverts: The existing culverts at the following locations shall be re-constructed as new culverts:

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
1	8+213	Box Culvert	1X2X2	Reconstruction
2	8+528	Box Culvert	1X2X2	Reconstruction
3	10+718	Box Culvert	1X2X2	Reconstruction
4	11+036	Box Culvert	1X2X2	Reconstruction
5	26+352	Box Culvert	1X2X2	Reconstruction
6	26+768	Box Culvert	1X2X2	Reconstruction
7	27+435	Box Culvert	1X2X2	Reconstruction
8	42+986	Box Culvert	1X2X2	Reconstruction
9	45+233	Box Culvert	1X2X2	Reconstruction
10	45+710	Box Culvert	1X2X2	Reconstruction
11	46+756	Box Culvert	1X2.5X2	Reconstruction
12	47+050	Box Culvert	1X2X2	Reconstruction
13	47+376	Box Culvert	1X2X2	Reconstruction
14	48+104	Box Culvert	1X2X2	Reconstruction
15	58+531	Box Culvert	1X2X2	Reconstruction
16	58+871	Box Culvert	1X2X2	Reconstruction
17	62+148	Box Culvert	1X2X2	Reconstruction
18	66+372	Box Culvert	1X2X2	Reconstruction
19	67+885	Box Culvert	1X2X2	Reconstruction
20	69+292	Box Culvert	1X2X2	Reconstruction
21	72+735	Box Culvert	1X2X2	Reconstruction
22	74+112	Box Culvert	1X2X2	Reconstruction
23	76+003	Box Culvert	1X2X2	Reconstruction
24	76+490	Box Culvert	1X2X2	Reconstruction
25	80+854	Box Culvert	1X2X2	Reconstruction
26	82+006	Box Culvert	1X2X2	Reconstruction
27	82+206	Box Culvert	1X2X2	Reconstruction
28	84+395	Box Culvert	1X2X2	Reconstruction
29	85+198	Box Culvert	1X2.5X2.0	Reconstruction
30	85+476	Box Culvert	1X2X2	Reconstruction
31	86+124	Box Culvert	1X2X2	Reconstruction
32	87+122	Box Culvert	1X3X3	Reconstruction
33	88+311	Box Culvert	1X2X2	Reconstruction
34	88+743	Box Culvert	1X2X2	Reconstruction
35	89+089	Box Culvert	1X2X2	Reconstruction
36	90+568	Box Culvert	1X2X2	Reconstruction
37	91+805	Box Culvert	1X3X3	Reconstruction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
38	92+157	Box Culvert	1X3X3	Reconstruction
39	92+290	Box Culvert	1X2X2	Reconstruction
40	92+336	Box Culvert	1X2X2	Reconstruction
41	93+640	Box Culvert	1X2X2	Reconstruction
42	94+793	Box Culvert	1X2X2	Reconstruction
43	95+368	Box Culvert	1X2X2	Reconstruction
44	96+028	Box Culvert	1X2X2	Reconstruction
45	96+212	Box Culvert	1X3X3	Reconstruction
46	97+925	Box Culvert	1X2X2	Reconstruction
47	98+892	Box Culvert	1X2X2	Reconstruction
48	99+613	Box Culvert	1X2X2	Reconstruction
49	99+969	Box Culvert	1x3x3	Reconstruction
50	100+210	Box Culvert	1X2X2	Reconstruction
51	101+824	Box Culvert	1X2X2	Reconstruction
52	103+118	Box Culvert	1X2X2	Reconstruction
53	103+802	Box Culvert	1X2X2	Reconstruction
54	109+475	Box Culvert	1X3X3	Reconstruction
55	110+288	Box Culvert	1X2X2	Reconstruction
56	112+032	Box Culvert	1X3X3	Reconstruction
57	112+572	Box Culvert	1X5X5	Reconstruction
58	115+360	Box Culvert	1X2X2	Reconstruction
59	116+392	Box Culvert	1X2X2	Reconstruction
60	117+356	Box Culvert	1X2X2	Reconstruction
61	118+474	Box Culvert	1X2X2	Reconstruction
62	118+747	Box Culvert	1X2X2	Reconstruction
63	120+805	Box Culvert	1X2X2	Reconstruction
64	121+160	Box Culvert	1X3X2	Reconstruction
65	122+858	Box Culvert	1X2X2	Reconstruction

Note: Chainages of Box Culvert may vary as per site condition. Location may be verified and executed as per site condition with the approval of Independent Engineer.

7.2.3 Widening of existing RCC Pipe culverts

All existing culverts which are to be retained shall be widened to the proposed roadway width of the Project Highway as per the typical cross section given in section 7 of the Manual. Repairs and strengthening of existing structures where required shall be carried out.

Sr. No	Design Chainage	Culvert Type	Skew Angle	Span/ Opening (m)	Repairs / Rehabilitation proposals	Culvert Crossing Type (Balancing/ Stream, etc.)	Remarks
Nil							

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

7.2.4 Construction of Box Culverts:

(i) **New culverts** (given in table below) shall be constructed for width equal to the proposed roadway width of the Project Highway & as per typical cross-section given in schedule B. The details are given as under:

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
1	1+100	Box Culvert	1X2X2	New Construction
2	1+640	Box Culvert	1X2X2	New Construction
3	2+190	Box Culvert	1X2X2	New Construction
4	2+470	Box Culvert	1X2X2	New Construction
5	3+540	Box Culvert	1X2X2	New Construction
6	4+525	Box Culvert	1X2X2	New Construction
7	5+275	Box Culvert	1X2X2	New Construction
8	5+400	Box Culvert	1X2X2	New Construction
9	5+900	Box Culvert	1X4X4	New Construction
10	6+670	Box Culvert	1X2X2	New Construction
11	7+560	Box Culvert	1X2X2	New Construction
12	7+750	Box Culvert	1X2X2	New Construction
13	8+450	Box Culvert	1x2x2	New Construction
14	8+850	Box Culvert	1X2X2	New Construction
15	9+360	Box Culvert	1X2X2	New Construction
16	10+085	Box Culvert	1X2X2	New Construction
17	10+610	Box Culvert	1X2X2	New Construction
18	11+585	Box Culvert	1x2x2	New Construction
19	12+090	Box Culvert	1X2X2	New Construction
20	12+450	Box Culvert	1X2X2	New Construction
21	12+690	Box Culvert	1X2X2	New Construction
22	13+080	Box Culvert	1X2X2	New Construction
23	13+450	Box Culvert	1X3X2	New Construction
24	13+825	Box Culvert	1X2X2	New Construction
25	14+000	Box Culvert	1X3X3	New Construction
26	14+575	Box Culvert	1X3X3	New Construction
27	14+915	Box Culvert	1X4X4	New Construction
28	15+410	Box Culvert	1X3X3	New Construction
29	16+315	Box Culvert	1X2X2	New Construction
30	16+460	Box Culvert	1X2X2	New Construction
31	16+842	Box Culvert	1X3X3	New Construction
32	17+240	Box Culvert	1X2X2	New Construction
33	17+690	Box Culvert	1X2X2	New Construction
34	18+020	Box Culvert	1X2X2	New Construction
35	18+360	Box Culvert	1X3X3	New Construction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
36	18+625	Box Culvert	1X2X2	New Construction
37	19+210	Box Culvert	1X2X2	New Construction
38	19+395	Box Culvert	1X2X2	New Construction
39	20+330	Box Culvert	1X2X2	New Construction
40	20+790	Box Culvert	1X2X2	New Construction
41	21+200	Box Culvert	1X2X2	New Construction
42	21+385	Box Culvert	1X3X3	New Construction
43	21+575	Box Culvert	1X2X2	New Construction
44	21+920	Box Culvert	1X2X2	New Construction
45	22+235	Box Culvert	1X2X2	New Construction
46	22+390	Box Culvert	1X2X2	New Construction
47	22+440	Box Culvert	1X2X2	New Construction
48	22+765	Box Culvert	1X2X2	New Construction
49	22+915	Box Culvert	1X3X3	New Construction
50	23+110	Box Culvert	1X2X2	New Construction
51	23+555	Box Culvert	1X2X2	New Construction
52	25+010	Box Culvert	1X2X2	New Construction
53	25+200	Box Culvert	1X2X2	New Construction
54	27+085	Box Culvert	1X2X2	New Construction
55	27+660	Box Culvert	1X2X2	New Construction
56	43+225	Box Culvert	1X2X2	New Construction
57	43+620	Box Culvert	1X2X2	New Construction
58	44+270	Box Culvert	1X2X2	New Construction
59	44+530	Box Culvert	1X2X2	New Construction
60	45+500	Box Culvert	1X2X2	New Construction
61	46+200	Box Culvert	1X2X2	New Construction
62	46+580	Box Culvert	1X2X2	New Construction
63	48+580	Box Culvert	1X2X2	New Construction
64	49+310	Box Culvert	1X2X2	New Construction
65	49+580	Box Culvert	1X2X2	New Construction
66	49+958	Box Culvert	1X2X2	New Construction
67	50+370	Box Culvert	1X2X2	New Construction
68	51+290	Box Culvert	1x2x2	New Construction
69	51+600	Box Culvert	1X3X3	New Construction
70	51+990	Box Culvert	1X2X2	New Construction
71	52+190	Box Culvert	1X2X2	New Construction
72	52+230	Box Culvert	1X2X2	New Construction
73	53+275	Box Culvert	1X2X2	New Construction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
74	53+695	Box Culvert	1X3X3	New Construction
75	53+850	Box Culvert	1X2X2	New Construction
76	54+225	Box Culvert	1X2X2	New Construction
77	55+000	Box Culvert	1X2X2	New Construction
78	55+730	Box Culvert	1X2X2	New Construction
79	56+365	Box Culvert	1X2X2	New Construction
80	56+800	Box Culvert	1X2X2	New Construction
81	57+010	Box Culvert	1X2X2	New Construction
82	57+465	Box Culvert	1X2X2	New Construction
83	57+650	Box Culvert	1X2X2	New Construction
84	58+131	Box Culvert	1X2X2	New Construction
85	58+410	Box Culvert	1X2X2	New Construction
86	59+030	Box Culvert	1X2X2	New Construction
87	60+750	Box Culvert	1X2X2	New Construction
88	61+100	Box Culvert	1X2X2	New Construction
89	61+335	Box Culvert	1X2X2	New Construction
90	61+795	Box Culvert	1X2X2	New Construction
91	63+425	Box Culvert	1X2X2	New Construction
92	64+580	Box Culvert	1X2X2	New Construction
93	65+260	Box Culvert	1X2X2	New Construction
94	65+420	Box Culvert	1X2X2	New Construction
95	65+775	Box Culvert	1X2X2	New Construction
96	66+010	Box Culvert	1X2X2	New Construction
97	69+157	Box Culvert	1X2X2	New Construction
98	70+585	Box Culvert	1X2X2	New Construction
99	71+840	Box Culvert	1X2X2	New Construction
100	73+600	Box Culvert	1X2X2	New Construction
101	74+855	Box Culvert	1X2X2	New Construction
102	75+120	Box Culvert	1X2X2	New Construction
103	75+340	Box Culvert	1X2X2	New Construction
104	76+720	Box Culvert	1X2X2	New Construction
105	77+220	Box Culvert	1X2X2	New Construction
106	77+897	Box Culvert	1X2X2	New Construction
107	78+300	Box Culvert	1X2X2	New Construction
108	78+800	Box Culvert	1X2X2	New Construction
109	79+270	Box Culvert	1X2X2	New Construction
110	79+555	Box Culvert	1x3x3	New Construction
111	80+496	Box Culvert	1X2X2	New Construction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
112	81+150	Box Culvert	1X2X2	New Construction
113	81+440	Box Culvert	1X2X2	New Construction
114	82+500	Box Culvert	1x2x2	New Construction
115	83+080	Box Culvert	1X2X2	New Construction
116	83+750	Box Culvert	1X2X2	New Construction
117	84+005	Box Culvert	1X2X2	New Construction
118	85+860	Box Culvert	1X2X2	New Construction
119	86+265	Box Culvert	1X2X2	New Construction
120	86+653	Box Culvert	1X2X2	New Construction
121	87+395	Box Culvert	1X2X2	New Construction
122	89+645	Box Culvert	1X2X2	New Construction
123	90+202	Box Culvert	2x2	New Construction
124	90+975	Box Culvert	1X2X2	New Construction
125	92+343	Box Culvert	1x2x2	New Construction
126	92+615	Box Culvert	1X2X2	New Construction
127	97+300	Box Culvert	1X2X2	New Construction
128	100+831	Box Culvert	1X2X2	New Construction
129	102+290	Box Culvert	1X2X2	New Construction
130	102+452	Box Culvert	1X2X2	New Construction
131	104+235	Box Culvert	1X2X2	New Construction
132	104+490	Box Culvert	1X2X2	New Construction
133	104+963	Box Culvert	1X2X2	New Construction
134	105+565	Box Culvert	1X2X2	New Construction
135	105+900	Box Culvert	1x5x3	New Construction, (Height of Culvert may vary as per site condition as this Box Culvert is to be constructed in the approach of LVUP). The Size may be executed in consultation with Independent Engineer.
136	106+280	Box Culvert	1X3X3	New Construction
137	106+698	Box Culvert	1X3X3	New Construction
138	107+390	Box Culvert	1X3X3	New Construction
139	108+148	Box Culvert	1X2X2	New Construction
140	108+850	Box Culvert	1X2X2	New Construction
141	109+961	Box Culvert	1X2X2	New Construction
142	111+350	Box Culvert	1X2X2	New Construction
143	113+595	Box Culvert	1X3X3	New Construction
144	113+690	Box Culvert	1X2X2	New Construction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
145	114+857	Box Culvert	1X2X2	New Construction
146	115+635	Box Culvert	1X2X2	New Construction
147	116+150	Box Culvert	1X2X2	New Construction
148	118+100	Box Culvert	1X2X2	New Construction
149	119+220	Box Culvert	1X2X2	New Construction
150	119+530	Box Culvert	1X2X2	New Construction
151	119+770	Box Culvert	1X2X2	New Construction
152	120+310	Box Culvert	1X2X2	New Construction
153	121+601	Box Culvert	1X2X2	New Construction
154	122+321	Box Culvert	1X2X2	New Construction
155	122+680	Box Culvert	1X2X2	New Construction
156	123+400	Box Culvert	1X2X2	New Construction
157	123+760	Box Culvert	1X2X2	New Construction
158	124+560	Box Culvert	1X2X2	New Construction
159	124+920	Box Culvert	1X2X2	New Construction
160	132+010	Box Culvert	1X2X2	New Construction
161	132+210	Box Culvert	1x2x2	New Construction
162	132+680	Box Culvert	1x2x2	New Construction
163	133+000	Box Culvert	1X2X2	New Construction
164	133+010	Box Culvert	1x2x2	New Construction
165	133+100	Box Culvert	1x2x2	New Construction
166	134+280	Box Culvert	1X2X2	New Construction
167	134+814	Box Culvert	1X2X2	New Construction
168	135+160	Box Culvert	1x2x2	New Construction
169	135+483	Box Culvert	1X2X2	New Construction
170	135+861	Box Culvert	1X2X2	New Construction
171	136+790	Box Culvert	1X2X2	New Construction
172	137+540	Box Culvert	1X3X3	New Construction
173	137+830	Box Culvert	1X3X3	New Construction
174	138+341	Box Culvert	1X2X2	New Construction
175	138+910	Box Culvert	1X4X4	New Construction
176	139+170	Box Culvert	1X2X2	New Construction
177	139+465	Box Culvert	1X2X2	New Construction
178	140+200	Box Culvert	1X2X2	New Construction
179	140+520	Box Culvert	1X2X2	New Construction
180	140+605	Box Culvert	1X2X2	New Construction
181	141+160	Box Culvert	1X2X2	New Construction
182	142+325	Box Culvert	1X2X2	New Construction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Type of Proposal
183	143+075	Box Culvert	1X2X2	New Construction
184	144+215	Box Culvert	1X2X2	New Construction
185	144+540	Box Culvert	1X2X2	New Construction
186	145+345	Box Culvert	1X2X2	New Construction
187	145+600	Box Culvert	1X4X4	New Construction
188	146+085	Box Culvert	1X2X2	New Construction
189	146+420	Box Culvert	1X2X2	New Construction
190	147+410	Box Culvert	1X2X2	New Construction
191	148+150	Box Culvert	1X2X2	New Construction
192	148+460	Box Culvert	1X2X2	New Construction
193	149+175	Box Culvert	1X2X2	New Construction
194	149+665	Box Culvert	1X2X2	New Construction
195	150+190	Box Culvert	1X2X2	New Construction
196	150+420	Box Culvert	1X2X2	New Construction

Note:

- Chainages of Box Culvert may vary as per site condition and locations may change. This will be verified and executed as per site condition with the approval of Independent Engineer.
- Additional Culverts: Notwithstanding anything contained elsewhere in this Agreement, 36 Nos. of additional culverts (18 Nos. of 2 m × 2 m and 18 Nos. of 3 m × 3 m) are deemed to have been included in the Contract Price and form an integral part of the Project Scope. The Concessionaire shall, at its own cost and without any additional payment or extension of time, design and construct these culverts at any location within the Project Corridor, as directed by the Independent Engineer, based on site-specific requirements and with the approval of the Independent Engineer.

(ii) Box Culverts on Interchange:

New culverts (given in table below) shall be constructed for width equal to the proposed roadway width of the Project Highway & as per typical cross-section given in schedule B. The details are given as under

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Remark
0+000 JUNCTION (Three level Interchange)				
1	Flyover Ramp-1 (Rangia Side to Tezpur Side) (Ch 0+200)	Box Type	1X2X2	New Construction
2	Flyover Ramp-1 (Rangia Side to Tezpur Side) (Ch 0+350)	Box Type	1X2X2	New Construction
3	Flyover Loop-1 (Tezpur side to Rangia Side) (Ch 0+220)	Box Type	1X3X3	New Construction
4	Flyover Loop-1 (Tezpur side to Rangia Side) (Ch 0+360)	Box Type	1X3X3	New Construction
5	Flyover Ramp-2	Box Type	1X2X2	New Construction

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Design Chainage	Type of Structure	Span Arrangement	Remark
	(Tezpur side to Guwahati Side) (Ch 0+190)			
6	Flyover Ramp-2 (Tezpur side to Guwahati Side) (Ch 0+340)	Box Type	1X2X2	New Construction
CLOVERLEAF LOCATION 4+700				
7	RAMP-1 (Ch 0+510)	Box Type	1X3X3	New Construction
8	RAMP-2 (0+320)	Box Type	1X3X3	New Construction
9	RAMP-3 (0+420)	Box Type	1X3X3	New Construction
10	RAMP-4 (0+360)	Box Type	1X3X3	New Construction
11	LOOP-1 (Ch 0+305)	Box Type	1X3X3	New Construction
12	LOOP-2 (0+110)	Box Type	1X3X3	New Construction
13	LOOP-2 (0+290)	Box Type	1X3X3	New Construction
14	LOOP-3 (0+305)	Box Type	1X3X3	New Construction
TRUMPET LOCATION 150+971				
15	RAMP (Ch 0+200)	Box Type	1X3X3	New Construction
16	RAMP (Ch 0+352)	Box Type	1X3X3	New Construction
17	LOOP (Ch 0+200)	Box Type	1X3X3	New Construction
18	LOOP (Ch 0+340)	Box Type	1X3X3	New Construction

Note: Chainages of Box Culvert may vary as per site condition and location may change. This will be verified and executed as per site condition with the approval of Independent Engineer.

7.2.5 Widening of existing box culverts: All existing culverts which are to be retained shall be widened to the proposed roadway width of the Project Highway as per the typical cross section given in Schedule-B. Repairs and strengthening of existing structures where required shall be carried out.

Sr. No	Design Chainage	Culvert Type	Skew Angle	Span/Opening (m)	Repairs / Rehabilitation proposals	Culvert Crossing Type (Balancing/ Stream, etc.)	Remarks
Nil							

7.2.6 Culverts/Load Bearing Drain on Crossroads

(i) Load Bearing Drain on Cross road (Minor Junction):-

Sr. No.	Chainage	Type	Span	Remarks
1	1+112	Load Bearing Drain	1.5x1.5	Cross road
2	2+087	Load Bearing Drain	1.5x1.5	Cross road
3	2+285	Load Bearing Drain	1.5x1.5	Cross road
4	4+223	Load Bearing Drain	1.5x1.5	Cross road
5	5+342	Load Bearing Drain	1.5x1.5	Cross road
6	8+200	Load Bearing Drain	1.5x1.5	Cross road
7	8+500	Load Bearing Drain	1.5x1.5	Cross road
8	8+550	Load Bearing Drain	1.5x1.5	Cross road
9	9+510	Load Bearing Drain	1.5x1.5	Cross road

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Chainage	Type	Span	Remarks
10	9+785	Load Bearing Drain	1.5x1.5	Cross road
11	10+000	Load Bearing Drain	1.5x1.5	Cross road
12	10+083	Load Bearing Drain	1.5x1.5	Cross road
13	10+185	Load Bearing Drain	1.5x1.5	Cross road
14	12+877	Load Bearing Drain	1.5x1.5	Cross road
15	13+100	Load Bearing Drain	1.5x1.5	Cross road
16	14+270	Load Bearing Drain	1.5x1.5	Cross road
17	14+443	Load Bearing Drain	1.5x1.5	Cross road
18	15+062	Load Bearing Drain	1.5x1.5	Cross road
19	15+400	Load Bearing Drain	1.5x1.5	Cross road
20	15+500	Load Bearing Drain	1.5x1.5	Cross road
21	15+850	Load Bearing Drain	1.5x1.5	Cross road
22	17+655	Load Bearing Drain	1.5x1.5	Cross road
23	20+805	Load Bearing Drain	1.5x1.5	Cross road
24	22+665	Load Bearing Drain	1.5x1.5	Cross road
25	23+425	Load Bearing Drain	1.5x1.5	Cross road
26	26+350	Load Bearing Drain	1.5x1.5	Cross road
27	26+400	Load Bearing Drain	1.5x1.5	Cross road
28	43+200	Load Bearing Drain	1.5x1.5	Cross road
29	43+210	Load Bearing Drain	1.5x1.5	Cross road
30	43+573	Load Bearing Drain	1.5x1.5	Cross road
31	43+585	Load Bearing Drain	1.5x1.5	Cross road
32	44+290	Load Bearing Drain	1.5x1.5	Cross road
33	44+330	Load Bearing Drain	1.5x1.5	Cross road
34	44+670	Load Bearing Drain	1.5x1.5	Cross road
35	44+890	Load Bearing Drain	1.5x1.5	Cross road
36	45+100	Load Bearing Drain	1.5x1.5	Cross road
37	45+140	Load Bearing Drain	1.5x1.5	Cross road
38	45+450	Load Bearing Drain	1.5x1.5	Cross road
39	47+040	Load Bearing Drain	1.5x1.5	Cross road
40	48+055	Load Bearing Drain	1.5x1.5	Cross road
41	48+533	Load Bearing Drain	1.5x1.5	Cross road
42	48+900	Load Bearing Drain	1.5x1.5	Cross road
43	49+000	Load Bearing Drain	1.5x1.5	Cross road
44	49+564	Load Bearing Drain	1.5x1.5	Cross road
45	49+900	Load Bearing Drain	1.5x1.5	Cross road
46	50+120	Load Bearing Drain	1.5x1.5	Cross road
47	52+208	Load Bearing Drain	1.5x1.5	Cross road
48	53+065	Load Bearing Drain	1.5x1.5	Cross road
49	53+530	Load Bearing Drain	1.5x1.5	Cross road
50	54+436	Load Bearing Drain	1.5x1.5	Cross road
51	55+472	Load Bearing Drain	1.5x1.5	Cross road
52	56+042	Load Bearing Drain	1.5x1.5	Cross road

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Chainage	Type	Span	Remarks
53	57+759	Load Bearing Drain	1.5x1.5	Cross road
54	57+820	Load Bearing Drain	1.5x1.5	Cross road
55	59+800	Load Bearing Drain	1.5x1.5	Cross road
56	64+073	Load Bearing Drain	1.5x1.5	Cross road
57	64+087	Load Bearing Drain	1.5x1.5	Cross road
58	58+758	Load Bearing Drain	1.5x1.5	Cross road
59	59+139	Load Bearing Drain	1.5x1.5	Cross road
60	59+241	Load Bearing Drain	1.5x1.5	Cross road
61	59+900	Load Bearing Drain	1.5x1.5	Cross road
62	59+967	Load Bearing Drain	1.5x1.5	Cross road
63	61+810	Load Bearing Drain	1.5x1.5	Cross road
64	62+156	Load Bearing Drain	1.5x1.5	Cross road
65	62+478	Load Bearing Drain	1.5x1.5	Cross road
66	63+050	Load Bearing Drain	1.5x1.5	Cross road
67	64+367	Load Bearing Drain	1.5x1.5	Cross road
68	64+449	Load Bearing Drain	1.5x1.5	Cross road
69	65+265	Load Bearing Drain	1.5x1.5	Cross road
70	66+050	Load Bearing Drain	1.5x1.5	Cross road
71	66+500	Load Bearing Drain	1.5x1.5	Cross road
72	66+650	Load Bearing Drain	1.5x1.5	Cross road
73	66+820	Load Bearing Drain	1.5x1.5	Cross road
74	67+350	Load Bearing Drain	1.5x1.5	Cross road
75	67+780	Load Bearing Drain	1.5x1.5	Cross road
76	67+860	Load Bearing Drain	1.5x1.5	Cross road
77	67+900	Load Bearing Drain	1.5x1.5	Cross road
78	68+050	Load Bearing Drain	1.5x1.5	Cross road
79	68+980	Load Bearing Drain	1.5x1.5	Cross road
80	69+800	Load Bearing Drain	1.5x1.5	Cross road
81	70+220	Load Bearing Drain	1.5x1.5	Cross road
82	70+270	Load Bearing Drain	1.5x1.5	Cross road
83	70+600	Load Bearing Drain	1.5x1.5	Cross road
84	71+120	Load Bearing Drain	1.5x1.5	Cross road
85	71+300	Load Bearing Drain	1.5x1.5	Cross road
86	71+500	Load Bearing Drain	1.5x1.5	Cross road
87	71+600	Load Bearing Drain	1.5x1.5	Cross road
88	72+065	Load Bearing Drain	1.5x1.5	Cross road
89	72+080	Load Bearing Drain	1.5x1.5	Cross road
90	72+815	Load Bearing Drain	1.5x1.5	Cross road
91	73+180	Load Bearing Drain	1.5x1.5	Cross road
92	73+180	Load Bearing Drain	1.5x1.5	Cross road
93	73+590	Load Bearing Drain	1.5x1.5	Cross road
94	74+053	Load Bearing Drain	1.5x1.5	Cross road
95	74+095	Load Bearing Drain	1.5x1.5	Cross road

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Chainage	Type	Span	Remarks
96	74+350	Load Bearing Drain	1.5x1.5	Cross road
97	75+000	Load Bearing Drain	1.5x1.5	Cross road
98	75+600	Load Bearing Drain	1.5x1.5	Cross road
99	76+000	Load Bearing Drain	1.5x1.5	Cross road
100	76+040	Load Bearing Drain	1.5x1.5	Cross road
101	76+145	Load Bearing Drain	1.5x1.5	Cross road
102	76+745	Load Bearing Drain	1.5x1.5	Cross road
103	78+720	Load Bearing Drain	1.5x1.5	Cross road
104	79+019	Load Bearing Drain	1.5x1.5	Cross road
105	79+800	Load Bearing Drain	1.5x1.5	Cross road
106	79+950	Load Bearing Drain	1.5x1.5	Cross road
107	80+324	Load Bearing Drain	1.5x1.5	Cross road
108	81+606	Load Bearing Drain	1.5x1.5	Cross road
109	82+050	Load Bearing Drain	1.5x1.5	Cross road
110	82+850	Load Bearing Drain	1.5x1.5	Cross road
111	83+850	Load Bearing Drain	1.5x1.5	Cross road
112	84+690	Load Bearing Drain	1.5x1.5	Cross road
113	85+067	Load Bearing Drain	1.5x1.5	Cross road
114	85+370	Load Bearing Drain	1.5x1.5	Cross road
115	85+650	Load Bearing Drain	1.5x1.5	Cross road
116	85+753	Load Bearing Drain	1.5x1.5	Cross road
117	86+111	Load Bearing Drain	1.5x1.5	Cross road
118	86+935	Load Bearing Drain	1.5x1.5	Cross road
119	87+242	Load Bearing Drain	1.5x1.5	Cross road
120	87+360	Load Bearing Drain	1.5x1.5	Cross road
121	87+720	Load Bearing Drain	1.5x1.5	Cross road
122	88+050	Load Bearing Drain	1.5x1.5	Cross road
123	89+235	Load Bearing Drain	1.5x1.5	Cross road
124	89+641	Load Bearing Drain	1.5x1.5	Cross road
125	89+920	Load Bearing Drain	1.5x1.5	Cross road
126	90+050	Load Bearing Drain	1.5x1.5	Cross road
127	90+310	Load Bearing Drain	1.5x1.5	Cross road
128	90+500	Load Bearing Drain	1.5x1.5	Cross road
129	90+850	Load Bearing Drain	1.5x1.5	Cross road
130	92+300	Load Bearing Drain	1.5x1.5	Cross road
131	92+580	Load Bearing Drain	1.5x1.5	Cross road
132	92+700	Load Bearing Drain	1.5x1.5	Cross road
133	93+120	Load Bearing Drain	1.5x1.5	Cross road
134	93+750	Load Bearing Drain	1.5x1.5	Cross road
135	94+145	Load Bearing Drain	1.5x1.5	Cross road
136	94+240	Load Bearing Drain	1.5x1.5	Cross road
137	94+470	Load Bearing Drain	1.5x1.5	Cross road
138	94+750	Load Bearing Drain	1.5x1.5	Cross road

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Chainage	Type	Span	Remarks
139	95+290	Load Bearing Drain	1.5x1.5	Cross road
140	95+546	Load Bearing Drain	1.5x1.5	Cross road
141	95+910	Load Bearing Drain	1.5x1.5	Cross road
142	96+280	Load Bearing Drain	1.5x1.5	Cross road
143	96+900	Load Bearing Drain	1.5x1.5	Cross road
144	97+000	Load Bearing Drain	1.5x1.5	Cross road
145	97+220	Load Bearing Drain	1.5x1.5	Cross road
146	97+773	Load Bearing Drain	1.5x1.5	Cross road
147	98+050	Load Bearing Drain	1.5x1.5	Cross road
148	98+246	Load Bearing Drain	1.5x1.5	Cross road
149	98+320	Load Bearing Drain	1.5x1.5	Cross road
150	98+558	Load Bearing Drain	1.5x1.5	Cross road
151	98+850	Load Bearing Drain	1.5x1.5	Cross road
152	98+970	Load Bearing Drain	1.5x1.5	Cross road
153	99+650	Load Bearing Drain	1.5x1.5	Cross road
154	99+727	Load Bearing Drain	1.5x1.5	Cross road
155	100+722	Load Bearing Drain	1.5x1.5	Cross road
156	100+900	Load Bearing Drain	1.5x1.5	Cross road
157	101+000	Load Bearing Drain	1.5x1.5	Cross road
158	101+450	Load Bearing Drain	1.5x1.5	Cross road
159	101+850	Load Bearing Drain	1.5x1.5	Cross road
160	101+993	Load Bearing Drain	1.5x1.5	Cross road
161	102+234	Load Bearing Drain	1.5x1.5	Cross road
162	102+386	Load Bearing Drain	1.5x1.5	Cross road
163	102+450	Load Bearing Drain	1.5x1.5	Cross road
164	102+850	Load Bearing Drain	1.5x1.5	Cross road
165	103+420	Load Bearing Drain	1.5x1.5	Cross road
166	103+600	Load Bearing Drain	1.5x1.5	Cross road
167	105+948	Load Bearing Drain	1.5x1.5	Cross road
168	106+553	Load Bearing Drain	1.5x1.5	Cross road
169	107+212	Load Bearing Drain	1.5x1.5	Cross road
170	107+695	Load Bearing Drain	1.5x1.5	Cross road
171	109+827	Load Bearing Drain	1.5x1.5	Cross road
172	110+027	Load Bearing Drain	1.5x1.5	Cross road
173	110+765	Load Bearing Drain	1.5x1.5	Cross road
174	110+946	Load Bearing Drain	1.5x1.5	Cross road
175	112+253	Load Bearing Drain	1.5x1.5	Cross road
176	112+900	Load Bearing Drain	1.5x1.5	Cross road
177	114+720	Load Bearing Drain	1.5x1.5	Cross road
178	115+347	Load Bearing Drain	1.5x1.5	Cross road
179	116+240	Load Bearing Drain	1.5x1.5	Cross road
180	116+690	Load Bearing Drain	1.5x1.5	Cross road
181	117+370	Load Bearing Drain	1.5x1.5	Cross road

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sr. No.	Chainage	Type	Span	Remarks
182	118+105	Load Bearing Drain	1.5x1.5	Cross road
183	118+962	Load Bearing Drain	1.5x1.5	Cross road
184	119+143	Load Bearing Drain	1.5x1.5	Cross road
185	119+505	Load Bearing Drain	1.5x1.5	Cross road
186	119+533	Load Bearing Drain	1.5x1.5	Cross road
187	120+081	Load Bearing Drain	1.5x1.5	Cross road
188	120+946	Load Bearing Drain	1.5x1.5	Cross road
189	122+200	Load Bearing Drain	1.5x1.5	Cross road
190	122+935	Load Bearing Drain	1.5x1.5	Cross road
191	123+210	Load Bearing Drain	1.5x1.5	Cross road
192	132+660	Load Bearing Drain	1.5x1.5	Cross road
193	133+234	Load Bearing Drain	1.5x1.5	Cross road
194	134+449	Load Bearing Drain	1.5x1.5	Cross road
195	137+132	Load Bearing Drain	1.5x1.5	Cross road
196	137+418	Load Bearing Drain	1.5x1.5	Cross road
197	139+184	Load Bearing Drain	1.5x1.5	Cross road
198	140+252	Load Bearing Drain	1.5x1.5	Cross road
199	141+885	Load Bearing Drain	1.5x1.5	Cross road
200	142+737	Load Bearing Drain	1.5x1.5	Cross road
201	143+913	Load Bearing Drain	1.5x1.5	Cross road
202	144+156	Load Bearing Drain	1.5x1.5	Cross road
203	144+600	Load Bearing Drain	1.5x1.5	Cross road
204	145+080	Load Bearing Drain	1.5x1.5	Cross road
205	145+642	Load Bearing Drain	1.5x1.5	Cross road
206	146+380	Load Bearing Drain	1.5x1.5	Cross road
207	147+913	Load Bearing Drain	1.5x1.5	Cross road
208	148+652	Load Bearing Drain	1.5x1.5	Cross road
209	148+920	Load Bearing Drain	1.5x1.5	Cross road
210	149+394	Load Bearing Drain	1.5x1.5	Cross road

(ii) Culvert/ Load Bearing Drain on Cross road (Major Junction):-

Sr. No	Chainage	Type	Span	Remarks
1	0+000	Load Bearing Drain	1.5x1.5	Cross road
2	4+700	Load Bearing Drain	1.5x1.5	Cross road
3	6+342	Load Bearing Drain	1.5x1.5	Cross road
4	7+935	Load Bearing Drain	1.5x1.5	Cross road
5	8+588	Load Bearing Drain	1.5x1.5	Cross road
6	11+014	Load Bearing Drain	1.5x1.5	Cross road
7	16+385	Load Bearing Drain	1.5x1.5	Cross road
8	26+075	Load Bearing Drain	1.5x1.5	Cross road
9	26+857	Load Bearing Drain	1.5x1.5	Cross road
10	43+910	Load Bearing Drain	1.5x1.5	Cross road
11	46+730	Load Bearing Drain	1.5x1.5	Cross road
12	50+310	Load Bearing Drain	1.5x1.5	Cross road

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Sr. No	Chainage	Type	Span	Remarks
13	51+240	Load Bearing Drain	1.5x1.5	Cross road
14	57+700	Load Bearing Drain	1.5x1.5	Cross road
15	60+185	Load Bearing Drain	1.5x1.5	Cross road
16	64+895	Load Bearing Drain	1.5x1.5	Cross road
17	68+297	Load Bearing Drain	1.5x1.5	Cross road
18	77+110	Load Bearing Drain	1.5x1.5	Cross road
19	79+645	Load Bearing Drain	1.5x1.5	Cross road
20	80+900	Load Bearing Drain	1.5x1.5	Cross road
21	81+600	Load Bearing Drain	1.5x1.5	Cross road
22	84+205	Load Bearing Drain	1.5x1.5	Cross road
23	90+850	Load Bearing Drain	1.5x1.5	Cross road
24	91+770	Load Bearing Drain	1.5x1.5	Cross road
25	96+780	Load Bearing Drain	1.5x1.5	Cross road
26	104+320	Load Bearing Drain	1.5x1.5	Cross road
27	112+590	Load Bearing Drain	1.5x1.5	Cross road
28	114+300	Load Bearing Drain	1.5x1.5	Cross road
29	115+905	Load Bearing Drain	1.5x1.5	Cross road
30	116+354	Load Bearing Drain	1.5x1.5	Cross road
31	109+375	Load Bearing Drain	1.5x1.5	Cross road
32	123+542	Load Bearing Drain	1.5x1.5	Cross road
33	124+970	Load Bearing Drain	1.5x1.5	Cross road
34	135+130	Load Bearing Drain	1.5x1.5	Cross road
35	138+376	Load Bearing Drain	1.5x1.5	Cross road
36	140+570	Load Bearing Drain	1.5x1.5	Cross road
37	147+130	Load Bearing Drain	1.5x1.5	Cross road
38	150+920	Load Bearing Drain	1.5x1.5	Cross road

Note:

1. Width and length of Culvert/ Load Bearing Drain have already been taken in the scope of work as per cross road width and it's intended tapering portion. Such Culvert/ Load Bearing Drain shall be constructed end to end of cross road to discharge proper flow of water. Such work is incidental to and included in the items covered under this Schedule-B. Any increase in width and length of the Load Bearing Drain for proper discharge of water at any given location shall not constitute Change of Scope.
2. Chainage of Culvert/Load Bearing Drain may vary as per site condition and location may change. This will be verified and executed as per site condition with the approval of Independent Engineer

7.2.7 Utility ducts shall be provided in project reach including bypass sections (i.e. Greenfield sections and Brownfield sections being developed in accordance with Clause 2.16 of IRC: SP:84-2019 and Clause 2.15 of IRC SP 73 2018 and other applicable IRC/MoRTH standards. Such ducts shall consist of NP-4 class RCC pipes of minimum 600 mm diameter shall be laid across the Project Highway at intervals not exceeding 500 m center-to-center along with inspection chamber for crossing of utilities. Location/end point for such utility crossing shall be finalized in consultation with Independent Engineer which may not be exact at every 500m. Additional ducts are also to be provided at Interchanges, loops, ramps, etc. to accommodate site specific requirements. Accordingly, a total 282 numbers of such ducts are to be provided in the project reach.

7.3 Bridges**7.3.1 Existing Bridges to be reconstructed/widened:****(i) Existing bridges proposed for reconstructed as new structures:**

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew° Angle	Remarks
1	9+055	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00 (Service Road)	2X7.5	-	New Structure
2	70+860	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00 (Service Road)	1x10.0	-	New Structure
3	86+030	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00 (Service Road)	4x7.5	-	New Structure
4	87+620	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00 (Service Road)	1X20	-	New Structure
5	89+418	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00 (Service Road)	2x25.0	-	New Structure

Note:

1. The bridge lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

2. All Major and Minor Bridges to be designed for approach protection with concrete Toe wall with filter media and stone/ block pitching up to HFL of bridge +0.6 m with full height stone/ block pitching in cone filling portion of all four sides of abutments.

(ii) Existing narrow bridges proposed to be retained and widened:**a) Minor Bridge (MNB): -Retain/ Reconstruction**

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew Angle°	Remarks
1	12+285	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x7.5	-	
2	13+240	1 X 11.00 (Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x7.5	-	

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Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew Angle°	Remarks
		+ Existing MNB Retained (MCW)				
3	13+674	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	3x7.5	-	
4	86+960	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x7.5	-	
5	93+005	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x7.5	-	
6	93+470	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x7.5	-	
7	97+558	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x40	-	
8	116+024	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x40	-	
9	120+003	1 X 11.00 (Service Road) + Existing MNB Retained (MCW)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x20	-	

Note:

1. The bridge lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

2. Methods/arrangement for replacement of Railings for existing bridges with crash barrier will be governed by MoRTH Circular RW/NH-36098/17/2022-S&R (B) dated 02.01.2023. No additional cost/Change of Scope would be admissible on account of such activity/arrangement.

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3. Retained/Reconstruction Existing Structures: The Concessionaire shall, at its own cost and risk, undertake a detailed assessment of all existing structures proposed to be retained/reconstructed to establish their structural adequacy, stability, functionality, durability and serviceability in accordance with the Applicable Technical Standards and Specifications. Based on such assessment, the Concessionaire shall carry out all repairs, rehabilitation, strengthening, replacement or renewal works, including replacement of expansion joints, bearings and any other structural or non-structural components, as may be necessary to ensure that the retained structures are capable of safely performing their intended function throughout their Design Service Life and/or the Concession Period, as applicable. In the event that any retained structure is found to be unsuitable for rehabilitation and requires partial or complete reconstruction, the Concessionaire shall undertake such reconstruction at its own cost after preparing the necessary designs and drawings and obtaining the approval of the Independent Engineer in accordance with the provisions of this Agreement. The Concessionaire shall be deemed to have fully satisfied itself regarding the condition of such existing structures before submitting its Bid, and no Change of Scope, Variation, extension of time, additional payment, compensation or claim of any nature whatsoever shall be admissible or entertained by the Authority on account of any rehabilitation, strengthening, repair, replacement or reconstruction of such retained structures, irrespective of the extent of work ultimately found necessary.

b) Major Bridge: -Retain/Reconstruction

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew Angle°	Remarks
1	10+320	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	3 x 28	-	River
2	14+345	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	2x35	-	Nala
3	15+677	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	2x35	-	River
4	48+934	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	2X38.5	-	Tangi Bridge
5	62+638	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	4 x 35.0	-	River
6	83+377	Existing MJB Retained+ 1x9.5 (Service Road)	1X20	5x40	-	River
7	84+755	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	2x30.0	-	River
8	102+723	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	2x40.0	-	River
9	122+033	1X20	Existing MJB Retained+ 1x9.5 (Service Road)	4 x 47	-	River

Note:

1. The bridge lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the

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Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

2. Methods/arrangement for replacement of Railings for existing bridges with crash barrier will be governed by MoRTH Circular RW/NH-36098/17/2022-S&R (B) dated 02.01.2023. No additional cost/Change of Scope would be admissible on account of such activity/arrangement.

3. Retained/Reconstruction Existing Structures: The Concessionaire shall, at its own cost and risk, undertake a detailed assessment of all existing structures proposed to be retained/reconstructed to establish their structural adequacy, stability, functionality, durability and serviceability in accordance with the Applicable Technical Standards and Specifications. Based on such assessment, the Concessionaire shall carry out all repairs, rehabilitation, strengthening, replacement or renewal works, including replacement of expansion joints, bearings and any other structural or non-structural components, as may be necessary to ensure that the retained structures are capable of safely performing their intended function throughout their Design Service Life and/or the Concession Period, as applicable. In the event that any retained structure is found to be unsuitable for rehabilitation and requires partial or complete reconstruction, the Concessionaire shall undertake such reconstruction at its own cost after preparing the necessary designs and drawings and obtaining the approval of the Independent Engineer in accordance with the provisions of this Agreement. The Concessionaire shall be deemed to have fully satisfied itself regarding the condition of such existing structures before submitting its Bid, and no Change of Scope, Variation, extension of time, additional payment, compensation or claim of any nature whatsoever shall be admissible or entertained by the Authority on account of any rehabilitation, strengthening, repair, replacement or reconstruction of such retained structures, irrespective of the extent of work ultimately found necessary.

7.3.2 Additional New Bridges:

New bridges at the following locations on the Project Highway shall be constructed. GADs for the new bridges are attached in the drawings folder.

(a) Major Bridge:

Sr. No.	Design Chainage (Km)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew Angle°	Remarks
1	24+342	1X17.6	1X17.6	3 x 28	-	Nala
2	91+352	1X17.6	1X17.6	2x35	-	River
3	106+136	1X17.6	1X17.6	2x35	-	Nala
4	113+132	1X17.6	1X17.6	2X38.5	-	River
5	131+940	1X17.6	1X17.6	4 x 35.0	-	River
6	145+852	1X17.6	1X17.6	5x40	-	River

Note: The bridge lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

(b) Minor Bridge:

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Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew° Angle	Remarks
1	0+650	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 35	-	
2	2+885	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x20	-	
3	3+694	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x20	-	
4	4+305	1 x 11.600 (MCW) + 1 x 11.00(Service Road/Ramp)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x10	-	
5	RAMP-2 (Ch 0+157)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x20	-	
6	RAMP-2 (Ch 0+539)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1X20	-	
7	RAMP-3 (Ch 0+100)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1X20	-	
8	6+815	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	2x10	-	
9	53+490	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	4 x 7.5	-	
10	87+620	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1X20	-	
11	104+788	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x30	-	
12	124+178	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1X26.3	-	
13	128+494	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	4 x 7.5	-	
14	136+504	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x20	-	
15	141+408	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1 x 11.600 (MCW) + 1 x 11.00(Service Road)	1x25	-	
16	143+578	1 x 11.600 (MCW)	1 x 11.600 (MCW)	1x35	-	

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Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Overall Span arrangement (m)	Skew° Angle	Remarks
		+ 1 x 11.00(Service Road)	+ 1 x 11.00(Service Road)			

Note: The bridge lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

(c) Minor Bridge Cum VUP:

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width (m)	Super structure provision in median	Overall Span arrangement (m)	Skew° Angle	Remarks
1	64+080	1X11 (MCW) + 1x 8(Service Road)	1X11 (MCW) + 1x 8(Service Road)	-	1x20	-	
2	67+860	1X11 (MCW) + 1x 8(Service Road)	1X11 (MCW) + 1x 8(Service Road)	-	1x20	-	
3	74+350	1X11 (MCW) + 1x 8(Service Road)	1X11 (MCW) + 1x 8(Service Road)	-	1x20	-	
4	78+720	1X11 (MCW) + 1x 10 (Service Road)	1X11 (MCW) + 1x 10 (Service Road)	-	1x30	-	
5	79-019	1X11 (MCW) + 1x 10 (Service Road)	1X11 (MCW) + 1x 10 (Service Road)	-	1x20	-	
6	94+145	1X11 (MCW) + 1x 10 (Service Road)	1X11 (MCW) + 1x 10 (Service Road)	-	2x20	-	
7	131+312	1X11 (MCW) + 1x 10 (Service Road)	1X11 (MCW) + 1x 10 (Service Road)	-	1X30(VUP) +1X30(MNB)	-	

Note: The structure lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

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(d) Minor Bridge Cum Flyover:

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Roadway width(m)	Super structure provision in median	Overall Span arrangement (m)	Skew Angle	Remarks
1	71+320	1x11.5 (MCW) +1x 11 (Service Road)	1x11.5 (MCW) +1x 11 (Service Road)	No	1x20+ 1x40+ 1x20	-	MNB cum Flyover (New Construction.)

Note: The structure lengths and widths indicated are minimum requirements and are indicative only. The Concessionaire shall be solely responsible for carrying out detailed topographical, hydraulic, hydrological, and structural investigations and shall design all bridges considering the actual site conditions, High Flood Level (HFL), skew angle, waterway requirements, scour, afflux, IRC Codes, MoRTH Specifications, and all other applicable design parameters. Any increase in the length, width, span arrangement, foundation, or any other component of the bridge arising from the detailed design, skew angle, HFL, hydraulic calculations, site conditions, or statutory/technical requirements shall be deemed to be included in the Contract Price and shall not constitute a Change of Scope or entitle the Concessionaire to any additional payment, extension of time, or other compensation.

7.3.3 The railings of existing bridges shall be replaced by crash barriers at the following locations:

Sr. No.	Design Chainage		Length (km)	Remarks
	From	To		
Nil				

7.3.4 The existing bridges/ RoB/ Grade Separators/ RUB retained on the project highway shall be upgraded and rehabilitation measures/proposals shall be as follows:

Sr. No.	Design Chainage (Km)	Proposed Span Arrangement (m)	Type of super-structure (i.e. Bow string, simply supported composite structure etc.	Name of crossing	Total Width m)	Skew Angle	Remarks
Nil							

7.3.5 Structures in marine environment:

Sr. No.	Design Chainage		Length (km)	Remarks
	From	To		
Nil				

7.4 Railroad Bridges (ROB/RUB)

7.4.1 Design, construction and detailing of ROB/RUB shall be as specified in Section 7 of the manual.

7.4.2 Road over bridges (road over rail) shall be provided at the following locations, as per GAD drawings attached:

Sr. No.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Roadway width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance	Skew Angle	Remarks
1	133+743	1X11	1X11	No	1X20+1X37.28+1X20	7.5	11	ROB

Note:

- (i) If the length/width of the span/ type of super-structure is changed due to any reason the COS shall be considered.

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- (ii) ROB shall be designed, constructed and maintained as per the requirements of Railway authorities. The construction plan shall be prepared in consultation with the concerned railway authority.
- (iii) The ROB shall be constructed and maintained by the concessionaire /Contractor under supervision of the Railway Authorities.
- (iv) All charges payable to the Railways like D&G, Capitalized maintenance, signaling, cabling, OHE modification, earthing etc. except P&E charges shall be borne by the Concessionaire / Contractor.
- (v) Reference NHAI GM (ROB/RUB) Letter No. 139024, dated 06.08.2019, the instrumentation for measurement of vibration shall be installed.
- (vi) All structures to designed for Special Vehicle (SV) loading, Class 70R, Class A and congestion factor, whichever is critical, as per latest IRC provisions.

7.4.3 Viaduct + Elephant underpass shall be provided at the following level crossings, as per GAD drawings attached:

Sr.no.	Design Chainage (Km.)	LHS Roadway width (m)	RHS Road way width(m)	Super structure provision in median	Overall Span arrangement (m)	Minimum vertical clearance	Skew Angle
1	134+309	1X11	1X11		1x 37.35 + 29*35	7	0

7.5 Grade Separated Structures

The grade separated structures shall be provided at the locations and of the type and length specified in paragraphs 2.9 ,2.10 and 3 of Annexure-I of Schedule-B.

7.6 FoB/Skywalks

FoB/Skywalks shall be provided in built-up areas/ near schools. DPR consultant to provide detailed drawings of FOB in schedule B.

Sr. No.	Location at km	FoB Type	Remarks
1.	50+000	Steel Truss Foot Over Bridge	Steel Truss Foot Over Bridge with dedicated Pedestrian Staircases and Dedicated Two-Wheeler Ramps
2.	61+600	Steel Truss Foot Over Bridge	Steel Truss Foot Over Bridge with dedicated Pedestrian Staircases and Dedicated Two-Wheeler Ramps
3.	90+500	Steel Truss Foot Over Bridge	Steel Truss Foot Over Bridge with dedicated Pedestrian Staircases and Dedicated Two-Wheeler Ramps
4.	119+600	Steel Truss Foot Over Bridge	Steel Truss Foot Over Bridge with dedicated Pedestrian Staircases and Dedicated Two-Wheeler Ramps

7.7 RE Wall/RS Wall:

Sr No.	Chainage		Length (Km)	Side	Remarks
	From	To			
1	0+896	1+105	0.209	BHS	
2	1+117	1+510	0.393	BHS	
3	1+860	2+279	0.419	BHS	
4	2+291	2+650	0.359	BHS	
5	5+160	5+336	0.176	BHS	
6	5+348	5+445	0.097	BHS	
7	5+445	5+710	0.265	BHS	
8	5+960	6+332	0.372	BHS	
9	6+352	6+730	0.378	BHS	
10	7+505	7+905	0.400	BHS	

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Sr No.	Chainage		Length (Km)	Side	Remarks
	From	To			
11	7+965	8+578	0.613	BHS	
12	8+598	8+960	0.362	BHS	
13	10+640	10+994	0.354	BHS	
14	11+034	11+480	0.446	BHS	
15	14+770	15+056	0.286	BHS	
16	15+068	15+300	0.232	BHS	
17	16+030	16+355	0.325	BHS	
18	16+415	16+870	0.455	BHS	
19	17+390	17+651	0.261	BHS	
20	17+658	17+940	0.282	BHS	
21	20+330	20+799	0.469	BHS	
22	20+811	21+381	0.570	BHS	
23	21+388	22+659	1.271	BHS	
24	21+926	22+659	0.733	BHS	
25	22+671	23+419	0.748	BHS	
26	23+431	23+760	0.329	BHS	
27	25+450	26+045	0.595	BHS	
28	26+105	26+650	0.545	BHS	
29	26+650	26+837	0.187	BHS	
30	26+877	27+230	0.353	BHS	
31	43+350	43+880	0.530	BHS	
32	43+940	44+450	0.510	BHS	
33	46+280	46+720	0.440	BHS	
34	46+740	47+200	0.460	BHS	
35	49+700	50+265	0.565	BHS	
36	50+355	51+210	0.855	BHS	
37	51+270	52+202	0.932	BHS	
38	52+214	53+057	0.843	BHS	
39	53+069	53+475	0.406	BHS	
40	53+536	54+430	0.894	BHS	
41	54+442	55+466	1.024	BHS	
42	55+478	56+036	0.558	BHS	
43	56+048	56+360	0.312	BHS	
44	57+160	57+670	0.510	BHS	
45	57+730	58+250	0.520	BHS	
46	59+560	60+155	0.595	BHS	
47	60+215	60+610	0.395	BHS	
48	63+610	64+070	0.460	BHS	
49	64+090	64+885	0.795	BHS	
50	64+905	65+570	0.665	BHS	
51	67+460	67+850	0.390	BHS	
52	67+870	68+222	0.352	BHS	

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Sr No.	Chainage		Length (Km)	Side	Remarks
	From	To			
53	68+372	69+214	0.842	BHS	
54	69+244	69+580	0.336	BHS	
55	70+865	71+280	0.415	BHS	
56	71+360	71+900	0.540	BHS	
57	73+850	74+340	0.490	BHS	
58	74+360	74+800	0.440	BHS	
59	76+530	77+080	0.550	BHS	
60	77+140	77+510	0.370	BHS	
61	78+340	78+705	0.365	BHS	
62	78+745	79+008	0.263	BHS	
63	79+030	79+615	0.585	BHS	
64	79+675	80+500	0.825	BHS	
65	83+810	84+175	0.365	BHS	
66	84+235	84+600	0.365	BHS	
67	90+430	90+838	0.408	BHS	
68	90+862	91+282	0.420	BHS	
69	93+630	94+115	0.485	BHS	
70	94+155	94+466	0.311	BHS	
71	94+473	94+700	0.227	BHS	
72	96+140	96+770	0.630	BHS	
73	96+830	97+538	0.708	BHS	
74	97+578	98+314	0.736	BHS	
75	98+326	98+860	0.534	BHS	
76	103+810	104+290	0.480	BHS	
77	104+350	104+773	0.423	BHS	
78	105+700	105+942	0.242	BHS	
79	105+954	106+046	0.092	BHS	
80	106+559	106+794	0.235	BHS	
81	107+090	107+206	0.116	BHS	
82	107+218	107+689	0.471	BHS	
83	107+701	108+110	0.409	BHS	
84	108+930	109+345	0.415	BHS	
85	109+405	109+900	0.495	BHS	
86	112+490	112+894	0.404	BHS	
87	112+906	112+992	0.086	BHS	
88	115+200	115+885	0.685	BHS	
89	115+925	116+004	0.079	BHS	
90	116+044	116+344	0.300	BHS	
91	116+364	116+760	0.396	BHS	
92	122+820	123+497	0.677	BHS	
93	123+587	123+740	0.153	BHS	
94	124+650	124+955	0.305	BHS	

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Sr No.	Chainage		Length (Km)	Side	Remarks
	From	To			
95	124+985	125+340	0.355	BHS	
96	130+980	131+282	0.302	BHS	
97	132+300	132+654	0.354	BHS	
98	132+666	133+044	0.378	BHS	
99	133+056	133+704	0.648	BHS	
100	134+840	135+115	0.275	BHS	
101	135+145	135+400	0.255	BHS	
102	136+514	136+898	0.384	BHS	
103	136+514	136+898	0.384	BHS	
104	136+928	137+300	0.372	BHS	
105	137+930	138+366	0.436	BHS	
106	138+386	138+800	0.414	BHS	
107	140+250	140+555	0.305	BHS	
108	140+585	141+030	0.445	BHS	
109	142+300	142+731	0.431	BHS	
110	142+743	143+100	0.357	BHS	
111	143+750	144+150	0.400	BHS	
112	146+740	146+998	0.258	BHS	
113	147+028	147+115	0.087	BHS	
114	147+145	147+620	0.475	BHS	
115	148+970	149+388	0.418	BHS	
116	149+400	149+770	0.370	BHS	
117	150+480	150+942	0.462	BHS	

Note:

- Guidelines to discontinue construction practices for gap slabs between abutments and RS walls; closing/back RS walls behind abutments; RS walls exceeding 10 m in height; RS wall panels in wing walls; and use of geo-composites behind RS walls, relating to construction of RS walls for flyovers/underpasses/ROBs/structures/viaducts.” Should be adopted as per NHAI Policy Circular No. 18.111./2025 dated 21st October, 2025 and MoRTH Circular issued vide efile no. RW/NH-35083/05/2021-S&R (P&B) (Computer no. 192770) dated 16th March 2026.
- Construction practices for gap slabs, closing / back RS walls with column type abutments shall be avoided. Only earth retaining abutment with dirt wall i/c bracket to support the approach slab shall be provided.
- Construction of RS walls with partial height / surcharge shall be avoided. If required due to site constraints, only RCC retaining walls of either full height or partial height with surcharge shall be provided.
- Provision of RS walls as wing walls of grade separated structures or any other structures shall be avoided. Only RCC wing walls shall be provided.
- Placement of Geo-composite membrane (as a drainage layer) at the back of the facing RS walls shall be avoided. A drainage bay of minimum 600mm width at the back of the facing RS walls shall be provided as per gradation mentioned in Table:2 of IRC:SP:102.
- Construction of RS walls over 10m height (w.r.t. NGL) shall be avoided. Wherever, height of approaches in grade separated structures / ROB etc. is over 10m height, the length of viaduct portion shall be increased to achieve the maximum height limit of RS wall approaches i.e. 10m.
- To avoid transfer of vertical load of approach slab on RCC return wall, the approach slab shall not be provided on RCC return wall. The same shall be placed on abutment's dirt wall bracket and approach fill. The crash barrier to be cast along with RCC return wall independently without any overlapping support on/with approach slab.

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8. In case of RS walls approaches, the crash barrier with friction slab shall be provided as an independent unit without any monolithic/integral connection with RCC approach slab/PQC pavement. The friction slab of crash barrier shall invariably be provided below the approach slab, PQC pavement/road crust of flexible pavement.
9. The application of above remedial measures shall be decided by Independent Engineer.
10. Any increase in the location and lengths upto 10% specified in this Schedule-B shall not constitute a Change of Scope, save and except any variations arising out of a Change of Scope beyond 10% variation in length/location shall be expressly undertaken in accordance with the provisions of Article 16

7.8 A summary of Culverts, Bridges and Structures shall be as follows:

Sl. no.	Name of Structures	Total numbers	Remarks
1	Major Bridge	15	
2	Minor Bridge	30	
3	VUP	13	
4	LVUP	26	
5	SVUP	7	
6	Flyover	20	
8	Interchange	3	
9	Viaduct + Elephant Underpass	1	
10	ROB	1	
11	Minor Bridge Cum VUP	7	
12	Minor Bridge Cum Flyover	1	
13	Gas pipe line Structure	8	
14	Box Culverts Reconstruction	65	
15	Box Culverts New Construction	196	

Note:

- a. Foundation levels shall be decided after detailed Geo-Technical investigation & will be finalized after consultation with Independent Engineer for approval of work in field. If the founding level of foundation required is deeper than the founding level shown in GAD due to site & design requirement, the extra depth of foundation shall not be treated under the clause of Change of Scope.
- b. Span arrangement should be adopted as per requirement and decision by IWAI/Irrigation Authority/Other concerned Authority guidelines wherever required considering navigational requirement. Any change in span arrangement due to this with not constitute change of scope.

8. Traffic Control Devices and Road Safety Works

8.1 Traffic control devices and road safety works shall provide in accordance with Section 9 of the IRC: SP: 84.

8.2 Traffic Signs: Traffic signs shall be provided as per IRC 67 as mentioned in Schedule-C.

8.3 Pavement Marking: Pavement markings shall be completed as per IRC 35 as mentioned in Schedule-C.

8.4 Safety Barrier: The safety barriers shall be provided in accordance with Section-9 of the Clause 9.7 of the manual and MoRTH Circular no. RW/NH-2923/02/2019-S&R (P&B) dated 01.01.2020. Spacing between post to post shall not be in any case more than 2m.

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The Safety Barrier length proposed are excluding the safety barrier already proposed on Culverts, Grade Separated Structures, Interchange, Flyovers, Bridges, RE Wall/RS Wall, RoB and RUB as applicable cross sections respectively.

End Treatment of Steel barriers shall be specified i.e. MELT or P-4 confirming to EN 1317-4, TT, MBCB barrier to Concrete Barrier, etc (Clause No. 9.7.2 (b) IRC: SP: 84-2019). End Treatment to Concrete barrier shall be done as specified in Clause No. 9.7.3 (b) IRC: SP: 84-2019.

The details of the location are as below:.

Sr No.	Item	Length (in km)	Remarks
1	W-Beam Single faced metal crash barrier	118.500	As per applicable TCS
2	Thrie-Beam Single faced metal Crash Barrier	261.000	Entire length of the project towards Median (BHS) except structure portion.
3	Removable Crash Barrier	5500 m	Removable Crash Barrier shall be provided at the Emergency Landing Facility (ELF) which shall be undertaken after obtaining approval Indian Air Force (IAF) in consultation with Independent Engineer.

Note:

- Any increase in length and location up to 10% of the scope defined above shall not be treated as a change in scope of work.
- Bamboo Crash Barrier in place of w-beam Metal Beam Crash Barrier in a length of 10 km out of 118.500 Km has to be installed at appropriate places in service road in consultation and approval of Independent Engineer.
- Specification of bamboo beam crash barrier comprises bamboo poles having wall thickness of 10 mm, 0.85 m above road/ground level, clubbing of three bamboo vertical posts, spaced at 1.6 m c/c, each post being 1.8 m high with 0.95 m embedded below ground/road level. All steel parts and fittings shall be galvanized by hot-dip process. All fittings shall conform to Grade 4.8 steel. Bamboo poles shall be treated with VPI and HDPE coating of 1 mm thickness, including transportation of materials, manpower, and all consumables required for installation of the Bamboo Beam at site, as per the directions of the Independent Engineer. Drawing given in Annexure-III of Schedule-B.

9. Roadside Furniture

It shall be provided as per the details mentioned in Schedule-C.

10. Hazardous Locations

The Mitigation measures as per Good Engineering practice including installation of safety barriers shall be provided at the hazardous location such as ponds, well, electric sub-station, Electric tower, spilt carriageway, etc. Such measures will be approved by the Independent Engineer.

11. Special Requirements

Ground Improvement in Pond and Tea Estate Areas: As the Project alignment traverses ponds, waterlogged areas, and tea estate stretches at various locations, the Concessionaire shall carry out ground improvement works for a minimum cumulative length of 35 km within such sections of the Project Corridor. The ground improvement measures shall be designed based on detailed geotechnical investigations and executed in accordance with Good Engineering Practice, relevant IRC Codes, MoRTH Specifications, and other applicable standards to ensure the required bearing capacity, embankment stability, and long-term performance.

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Preferable minimum requirement in such area are:

(i) **Recommended Treatment for Pond Areas:** At locations passing through ponds, marshy land, or waterlogged areas, the Concessionaire shall undertake detailed geotechnical investigations to assess the thickness and engineering properties of the soft strata. Unsuitable material, organic deposits, and sludge shall be removed wherever feasible and replaced with approved granular material. Depending on the site-specific ground conditions, suitable ground improvement measures such as geotextile/geogrid basal reinforcement, granular blanket, stone columns, prefabricated vertical drains (PVD) with surcharge preloading, staged embankment construction, or other proven techniques shall be adopted to ensure the required bearing capacity, embankment stability, and control of long-term settlement.

(ii) **Recommended Treatment for Tea Estate Areas (Black Cotton/Expansive Soil):** At locations passing through tea estates or stretches underlain by expansive (black cotton) soil or other weak subgrade, the Concessionaire shall carry out detailed geotechnical investigations and adopt appropriate ground improvement measures based on the engineering properties of the soil. The treatment may include excavation and replacement of unsuitable soil, lime/cement stabilization, provision of granular capping layers, geotextile/geogrid reinforcement, and moisture control measures to minimize shrink-swell behavior and differential settlement. Proper surface and subsurface drainage shall be ensured to prevent water ingress into the subgrade, and the embankment and pavement shall be designed and constructed to achieve the required long-term stability, strength, and serviceability in accordance with applicable IRC Codes and MoRTH Specifications.

(iii) The type and extent of ground improvement measures shall be selected in accordance with the prevailing site conditions and shall conform to the applicable provisions of the latest IRC Codes, MoRTH Specifications for Road and Bridge Works, and the project-specific technical specifications.

(iv) In all above mentioned cases/situations, the final treatment methodology shall be approved by the Independent Engineer.

The tentative location of 21.733 km for ground improvement work is given below:

Ground improvement					
S. N	Chainage		Length (m)	Side	Remarks
	From	To			
1	15+420	15+563	143	LHS	
2	45+361	45+535	174	LHS	
3	51+100	52+020	920	BHS	
4	66+100	67+200	1100	BHS	
4	72+556	72+735	179	LHS	
5	73+780	74+580	800	LHS	
6	79+900	80+100	200	LHS	
7	80+737	80+940	203	LHS	
8	82+450	82+800	350	LHS	
9	91+915	92+147	232	LHS	
10	93+460	93+640	180	LHS	
11	96+028	96+400	372	LHS	
12	104+000	105+000	1000	BHS	
13	133+440	136+840	3400	BHS	

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Ground improvement					
S. N	Chainage		Length (m)	Side	Remarks
	From	To			
14	136+600	136+700	100	LHS	
15	137+460	137+920	460	LHS	
16	138+000	140+750	2750	BHS	
Total			21.773*		

*Location for additional 13.267 km (35 km -21.733 km) will be finalized in consultation with Independent Engineer. No change of scope (positive or negative) will be admissible upto 10% (addition or reduction) of such identified length (35 km).

11.1 Disposal of excavated materials and debris shall be carried out strictly in accordance with IRC: SP: 84-2019 and applicable environmental regulations.

11.2 Retaining structures and protection works shall be provided at locations specified in Schedule-B and in the Typical Cross Sections (TCS) and at any additional locations identified during detailed design or execution as necessary for stability, serviceability and safety without constituting a Change of Scope.

11.2.1 The Concessionaire shall design and construct retaining walls for a cumulative length of 25 km, of which 23.104 km at the tentative locations indicated in the table below has been considered in the Project, while the balance 1.896 km shall be provided at locations to be identified based on actual site conditions during execution. The exact locations, extents, heights, and types of retaining walls in pond areas, tea garden stretches, and other vulnerable sections shall be determined by the Concessionaire on the basis of detailed geotechnical investigations, hydraulic requirements (where applicable), approved designs, and the relevant IRC Codes, MoRTH Specifications, and Good Engineering Practices, and shall be subject to the approval of the Independent Engineer. The cumulative length of 25.000 km is deemed to have been included in the Contract Price including its merging lengths. Any increase in the lengths upto 10% specified in this Schedule-B shall not constitute a Change of Scope, save and except any variations arising out of a Change of Scope beyond 10% variation in length/location shall be expressly undertaken in accordance with the provisions of Article 16.

Retaining walls					
S.N.	Chainage		Length (m)	Side	Remarks
	From	To			
1	15+300	15+700	400	LHS	
2	45+200	45+650	450	LHS	
3	51+100	52+020	920	BHS	
4	72+400	72+900	500	LHS	
5	73+780	74+580	800	LHS	
6	79+800	80+200	400	LHS	
7	80+600	81+100	500	LHS	
8	82+450	82+800	350	LHS	
9	91+915	92+147	232	LHS	
10	93+300	93+700	400	LHS	
11	96+028	96+400	372	LHS	
12	104+000	106+000	2000	BHS	
13	133+440	136+840	3400	BHS	
14	136+600	136+700	100	LHS	
15	137+460	137+920	460	LHS	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Retaining walls					
S.N.	Chainage		Length (m)	Side	Remarks
	From	To			
16	138+000	140+750	2750	BHS	
Total			23104		

11.2.2 Toe walls shall be provided at the tentative locations specified in Schedule-B below in accordance with the Typical Cross Sections (TCS). The locations and lengths indicated therein are minimum and tentative only. During detailed design and execution, the Concessionaire shall identify, design, and construct toe walls at all additional locations, or modify the indicated locations and lengths, wherever required based on site conditions, geotechnical investigations, hydraulic considerations (where applicable), slope stability analysis, and Good Engineering Practice, with the approval of the Independent Engineer. The cumulative quantity of toe walls required for the Project shall be deemed to have been included in the Contract Price, and any addition, deletion, relocation, or redistribution of toe walls within the Project Corridor shall not constitute a Change of Scope.

Sl. No.	Design Chainage (km.)		Length (m)	Side	Height (m)	Retaining structure/ toe wall	Remarks
	From	To					
1	-0+430	-0+270	0+320	BHS	As per profile	Toe wall	
2	-0+820	-0+363	0+914	BHS	As per profile	Toe wall	
3	0+618	0+653	0+070	BHS	As per profile	Toe wall	
4	0+653	0+866	0+427	BHS	As per profile	Toe wall	
5	0+866	0+896	0+060	BHS	As per profile	Toe wall	
6	1+510	1+860	700	LHS	As per profile	Toe wall	
7	6+730	6+805	150	BHS	As per profile	Toe wall	
8	6+825	7+465	1280	BHS	As per profile	Toe wall	
9	10+000	10+278	556	BHS	As per profile	Toe wall	
10	10+362	10+640	556	BHS	As per profile	Toe wall	
11	14+035	14+310	550	BHS	As per profile	Toe wall	
12	14+380	14+660	560	BHS	As per profile	Toe wall	
13	15+300	15+641	682	BHS	As per profile	Toe wall	
14	15+711	16+030	638	BHS	As per profile	Toe wall	
15	16+870	17+360	980	BHS	As per profile	Toe wall	
16	17+940	20+330	4780	LHS	As per profile	Toe wall	
17	23+760	24+040	560	BHS	As per profile	Toe wall	
18	48+620	48+895	550	BHS	As per profile	Toe wall	
19	48+972	49+200	456	BHS	As per profile	Toe wall	
20	62+300	62+568	536	BHS	As per profile	Toe wall	
21	62+708	62+980	544	BHS	As per profile	Toe wall	
22	77+510	78+310	1600	BHS	As per profile	Toe wall	
23	83+000	83+277	554	BHS	As per profile	Toe wall	
24	83+477	83+810	666	BHS	As per profile	Toe wall	
25	84+600	84+725	250	BHS	As per profile	Toe wall	
26	102+412	102+683	542	BHS	As per profile	Toe wall	
27	102+763	103+035	544	BHS	As per profile	Toe wall	
28	104+803	105+220	834	BHS	As per profile	Toe wall	
29	105+250	105+700	900	BHS	As per profile	Toe wall	
30	105+956	106+046	180	BHS	As per profile	Toe wall	

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Sl. No.	Design Chainage (km.)		Length (m)	Side	Height (m)	Retaining structure/ toe wall	Remarks
	From	To					
31	106+226	106+547	642	BHS	As per profile	Toe wall	
32	106+794	107+005	422	BHS	As per profile	Toe wall	
33	108+110	108+900	1580	BHS	As per profile	Toe wall	
34	121+685	121+933	496	BHS	As per profile	Toe wall	
35	122+121	122+400	558	BHS	As per profile	Toe wall	
36	123+740	124+165	850	BHS	As per profile	Toe wall	
37	124+191	124+650	918	BHS	As per profile	Toe wall	
38	125+340	125+900	1120	BHS	As per profile	Toe wall	
39	130+800	130+980	360	BHS	As per profile	Toe wall	
40	135+400	135+545	290	BHS	As per profile	Toe wall	
41	135+575	136+494	1838	BHS	As per profile	Toe wall	
42	137+300	137+900	1200	BHS	As per profile	Toe wall	
43	138+800	140+250	2900	BHS	As per profile	Toe wall	
44	141+060	141+395	670	BHS	As per profile	Toe wall	
45	141+420	142+300	1760	BHS	As per profile	Toe wall	
46	143+100	143+560	920	BHS	As per profile	Toe wall	
47	143+595	143+750	310	BHS	As per profile	Toe wall	
48	144+162	145+550	2776	BHS	As per profile	Toe wall	
49	145+550	145+807	514	BHS	As per profile	Toe wall	
50	145+897	146+200	606	BHS	As per profile	Toe wall	
51	146+200	146+740	1080	BHS	As per profile	Toe wall	
52	147+650	148+970	2640	BHS	As per profile	Toe wall	
53	149+800	150+450	1300	BHS	As per profile	Toe wall	

Note:

RCC Toe wall of suitable height (as per site requirement) shall be provided to accommodate the highway cross section within the available/proposed ROW and the same shall not constitute a Change of Scope.

- The location of RCC Toe wall along main carriageway shall be placed in such a way that lane addition could be done without recasting/reconstruction.
- In addition to above, RCC Toe wall shall be provided at toll plaza and other locations to restrict the embankment slope within the available right of way.
- The length of Toe Wall specified hereinabove shall be treated as an approximate assessment and minimum. The actual lengths as required on the basis of detailed investigations shall be determined by the Concessionaire in accordance with the Specifications and Standards. Any increase in the lengths upto 10% specified in this Schedule-B shall not constitute a Change of Scope, save and except any variations arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 16.

General Note for Section 11- Special Requirements

- Guidelines to discontinue construction practices for gap slabs between abutments and RS walls; closing/back RS walls behind abutments; RS walls exceeding 10 m in height; RS wall panels in wing walls; and use of geo-composites behind RS walls, relating to construction of RS walls for flyovers/underpasses/ROBs/structures/viaducts." Should be adopted as per NHAI Policy Circular No. 18.111./2025 dated 21st October, 2025 and MoRTH Circular issued vide efile no. RW/NH-35083/05/2021-S&R (P&B) (Computer no. 192770) dated 16th March 2026.

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

b. The length specified hereinabove shall be treated as an approximate assessment and minimum. The actual lengths as required on the basis of detailed investigations shall be determined by the Concessionaire in accordance with the Specifications and Standards. Any increase in the lengths specified in this Schedule-B up to 10% of shall not constitute a Change of Scope, save and except any variations arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 16. It is to clarify that for increase in length beyond 10%, the Change of scope shall be applicable only for quantity beyond additional 10%.

11.3 Embankment and Cut Slope Protection works

Embankment and cut slope protection measures shall be designed and provided in accordance with IRC:SP:84-2019, IRC 34, IRC:56, other related Codal provisions, MoRTH Specifications for Road and Bridge Works, and other applicable IRC guidelines, including all amendments. The type and extent of slope protection shall be based on site conditions, geotechnical characteristics, hydraulic considerations, and stability analysis.

11.4 Minimum Protection Measures

11.4.1 The following slope protection and erosion control measures shall be deemed to be the minimum mandatory requirements to be provided under the Project. The Concessionaire shall design and execute the works in accordance with the relevant IRC Codes, MoRTH Specifications, Schedule-D, Good Engineering Practice, and the approval of the Independent Engineer:

- a. Turfing on Embankment Slopes: A minimum area of 30,666 sqm shall be provided on embankment filling side slopes.
- b. Erosion Control Treatment: A minimum area of 64,232 sqm shall be provided using biodegradable erosion control blankets (Geo-Green or an equivalent approved system) with vegetation. The erosion control blanket shall have a minimum tensile strength of 7.5 kN/m in the Machine Direction (MD) and shall be certified by a Central Government-recognized testing organization. The product shall possess documented field performance certification of not less than five (5) years, issued or accepted by MoRTH, NHAI, NHIDCL, Indian Railways, or any other Government Authority acceptable to the Independent Engineer.
- c. Stone Pitching: A minimum area of 17,674 sqm shall be provided on embankment slopes exceeding 6.0 m in height and/or at locations susceptible to erosion, scour, slope instability, or other adverse site conditions.
- d. Cut Slope Treatment: A minimum area of 116,466 sqm shall be provided using non-woven coir erosion control blankets, double-twisted wire mesh (DT Mesh) with vegetation, or an equivalent approved slope stabilization system. The wire mesh shall be Zn-coated or Zn+PVC coated, having a minimum wire diameter of 2.7 mm (core) and 3.7 mm (overall coated), or as otherwise specified in the applicable IRC Codes and MoRTH Specifications.

Note:

a. Prior to installation of any slope stabilization or protection system, the slope faces shall be properly dressed and prepared by removing loose debris, hanging boulders, unstable stones, muck, vegetation, and other deleterious materials. The finished surface shall be trimmed and graded to achieve the best practicable smooth and stable profile suitable for installation of the proposed support system. All stabilization or protection systems shall be securely fixed or anchored to the prepared surface in accordance with the approved design and relevant specifications.

b. The locations, types, and quantities of slope protection works specified herein are indicative and represent minimum requirements only. The Contractor/Concessionaire shall be responsible for carrying out detailed site assessment and design of slope stabilization and protection measures in accordance with Schedule-D and applicable standards. Any variation in location, quantity, specifications, or type of

protection works required based on actual site conditions or detailed design shall not constitute a Change of Scope and shall be deemed to be included in the Contract Price.

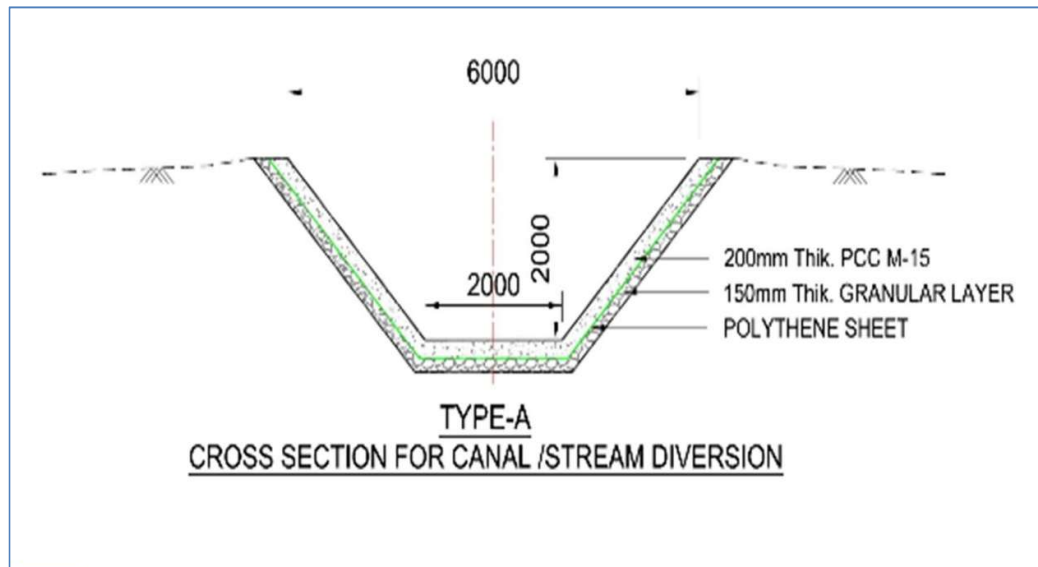
c. Any increase in the lengths specified in this Schedule-B up to 10% of shall not constitute a Change of Scope, save and except any variations arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 16. It is to clarify that for increase in length beyond 10%, the Change of scope shall be applicable only for quantity beyond additional 10%.

11.5 Diversion of Nallah

Diversion of Nallah as a temporary arrangement during construction period shall be constructed at the following locations during construction period in order to avoid any site-specific issues and blockage of natural water as per site requirement.

Sl. No.	Chainage		Stream	Length (m)	Side	Remarks
	From	To				
1	15+420	15+563	NALA	143	LHS	
2	45+361	45+535	NALA	174	LHS	
3	82+450	82+800	NALA	350	LHS	
4	91+915	92+147	NALA	232	LHS	
5	136+600	136+700	NALA	100	LHS	
6	137+460	137+830	NALA	460	LHS	

Typical Cross-Section for Temporary Nallah Diversion is given below:



Note:

- The final cross-section and extent (length) of any canal, drain, or stream required to be shifted, realigned, or modified shall be determined by the Contractor/Concessionaire based on detailed site investigations, hydraulic design requirements, and construction methodology, and shall be subject to approval of the concerned Irrigation Department and in consultation with Independent Engineer.
- The dimensions, profiles, and lengths indicated in this Schedule-B are indicative and represent minimum requirements only. Any variation in cross-section, alignment, profile, *Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode*

or length arising from detailed design, site conditions, statutory requirements, or directions of the concerned authorities shall not constitute a Change of Scope. Any increase in the lengths specified in this Schedule-B up to 10% of shall not constitute a Change of Scope, save and except any variations arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 16. It is to clarify that for increase in length beyond 10%, the Change of scope shall be applicable only for quantity beyond additional 10%.

8 Open Well within RoW

The Open well shall be identified, and appropriate treatment shall be provided.

Sr. No.	Design Chainage	Well Dimension	Well Depth	Filling Material for Well	Slab on Top of Well Yes/No	Remarks
				Nil		

9 Emergency Crossover

No median cut is permitted in the entire project highway. Emergency crossovers shall be from the nearest underpass and designated merging/demerging locations/ u turn facility envisaged in the project.

10 Shifting of Utilities

- 14.1 The Concessionaire/Contractor shall be responsible for identification, coordination, protection, relocation, diversion, shifting, and restoration of all existing utilities, including but not limited to electrical lines, transmission towers, water supply pipelines, sewer lines, gas pipelines, OFC/telecommunication cables, Telecom Mobile Towers and any other public or private utility installations interfering with the Project Highway, in accordance with the provisions of the Concession Agreement and requirements of the concerned Utility Owning Authorities. All utility shifting works, whether indicated in Schedule-A or encountered during execution, shall form part of the scope of work of the Concessionaire/Contractor and shall be carried out in conformity with the standards, specifications, safety requirements, and procedures prescribed by the respective Utility Owning Authorities.

Perspective bidder may visit the site and assess the quantum of shifting of utilities for the project before submission of their bid. The specifications of concerned utility owning department shall be applicable and followed.

- 14.2 Any variation in number, type, spacing/size/specification, location, alignment, level, quantity, or extent of utility shifting works arising from actual site conditions, detailed design, statutory requirements, or directions of concerned authorities shall **not constitute a Change of Scope** and shall be deemed to be included in the Contract Price.

Note:

- The type/ spacing/ size/ configuration/ specifications, and installation requirements of poles/ towers/ conductors/ cables/ ducts/ and associated utility infrastructure to be used for shifting, relocation, or protection of utilities shall be strictly in accordance with the standards, specifications, and directions of the concerned Utility Owning Department and shall be finalized directly between the Contractor/Concessionaire and such

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authority. No Change of Scope shall be admissible, and no additional payment shall be made on account of any variation in type, spacing, size, specifications, alignment, level, configuration, or methodology required by the Utility Owning Department, including conversion of overhead utilities to underground systems or vice versa, whether arising from site conditions, statutory requirements, safety considerations, or construction requirements of the Project Highway. The Contractor/Concessionaire shall undertake joint inspections with the concerned Utility Owning Department, prepare proposals, obtain estimates, and secure all necessary technical approvals. The role of the Authority shall be limited to issuance of forwarding letters, if requested by the Contractor/Concessionaire, and shall not extend to technical, commercial, or procedural intervention. The decisions, requirements, and approvals of the Utility Owning Department shall be final and binding on the Contractor/Concessionaire.

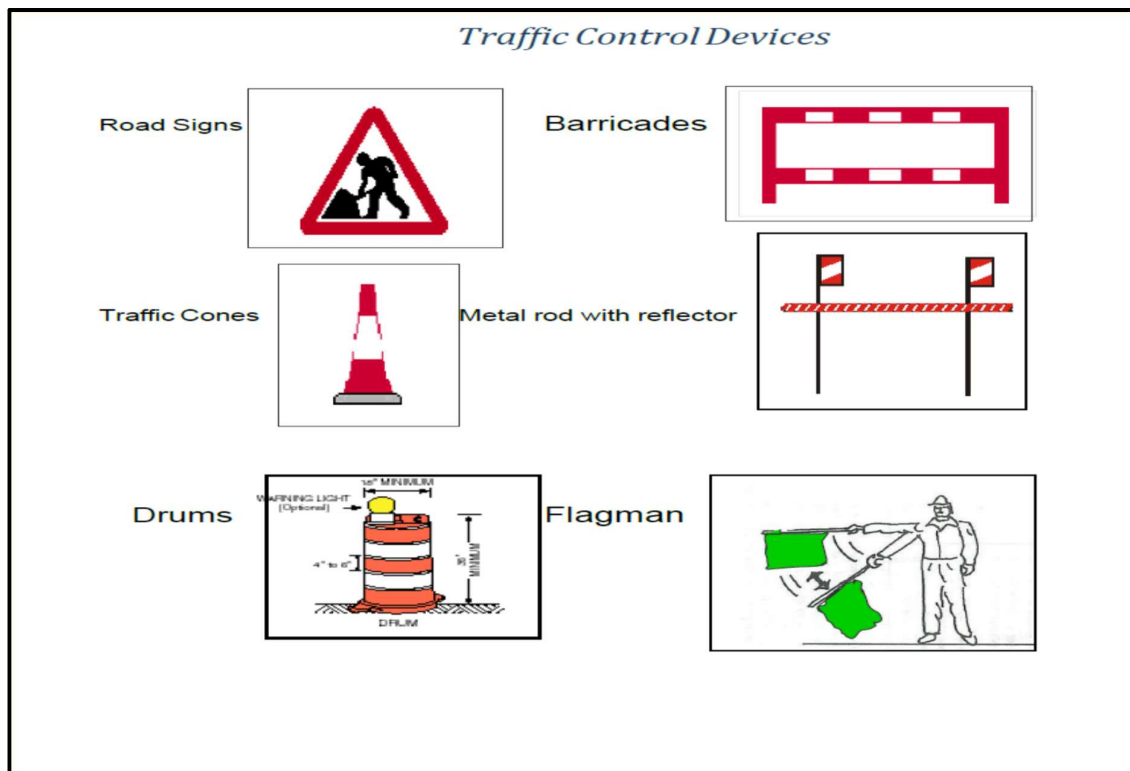
2. The Supervision charges payable to the Utility Owning Department shall be paid directly by the Authority to such department at applicable rates, subject to submission by the Contractor/Concessionaire of a formal demand note issued by the Utility Owning Department together with the corresponding cost estimate duly verified.
3. Unless otherwise required by the concerned Utility Owning Department in accordance with its prevailing rules or practices, dismantled materials, scrap, or salvage arising from utility shifting or dismantling works shall become the property of the Contractor/Concessionaire, who may dispose of the same at its discretion. Where such materials are required to be handed over to the Utility Owning Department, the Contractor/Concessionaire shall be entitled to receive the credit value of such materials as provided in the estimate approved by the Utility Owning Department.
4. Upon completion of the utility shifting works, the utilities shall be tested, commissioned, and formally handed over to the concerned Utility Owning Department to its satisfaction. Thereafter, operation and maintenance responsibility for such utilities shall rest solely with the Utility Owning Department, and the Contractor/Concessionaire shall have no further liability in respect thereof, except for defects attributable to construction deficiencies observed within the Defects Liability Period.

11 Work Zone Traffic Management Plans:

- 15.1** Traffic diversion arrangements and traffic management plans during construction shall be designed, implemented, and maintained in accordance with the provisions of IRC:SP:55, IRC:SP:84, MoRTH Specifications, and other applicable IRC guidelines, including all amendments and revisions up to the Bid Date, so as to ensure safety of road users, workers, and adjoining properties, and to maintain smooth and uninterrupted traffic flow.
- 15.2** The Contractor/Concessionaire shall prepare detailed traffic diversion and traffic management plans for all construction activities affecting traffic movement, including but not limited to construction of culverts, bridges, grade-separated structures, ROB/RUB, widening works, reconstruction works, and pavement strengthening. Such plans shall include staging sequences, temporary road geometry, signage, road markings, channelizing devices, barricading, lighting arrangements, flagmen deployment, speed control measures, and emergency access provisions.

- 15.3** All traffic management and diversion plans shall be submitted to the Authority Engineer for review and approval prior to implementation and shall be revised as required during construction to suit site conditions and construction staging
- 15.4** Provision, operation, maintenance, modification, and removal of all temporary diversions, traffic control devices, and safety arrangements shall form part of the scope of work of the Contractor/Concessionaire, and no additional payment shall be admissible on this account. Any modification required due to construction methodology, site conditions, or directions of the Authority Engineer shall not constitute a Change of Scope and shall be deemed to be included in the Contract Price.
- 15.5** Contractor/Concessionaire shall have to prepare an Emergency Response Plan (ERP) for accidents occurring within the work zone and accordingly, the Contractor/Concessionaire shall deploy and maintain adequate fully equipped ambulance complying with applicable AIS/BIS standards, along with a trained driver and emergency medical attendant, available on a 24×7 basis throughout the Construction Period. The ambulance shall be capable of reaching any location within the Project Highway Construction zone within the shortest practicable time and shall be used for emergency evacuation of injured workers and road users. The cost of providing, operating and maintaining the ambulance shall be deemed included in the Contract Price and shall not constitute a Change of Scope.

Tentative Figures to be installed for diversion are as follows:



Main Signs Used for Work Zones (Regulatory)

vehicles Prohibited Both Directions

Left Turn Prohibited

Right Turn Prohibited

'U' Turn Prohibited

Overtaking Prohibited

No Parking

No Stopping or No Standing

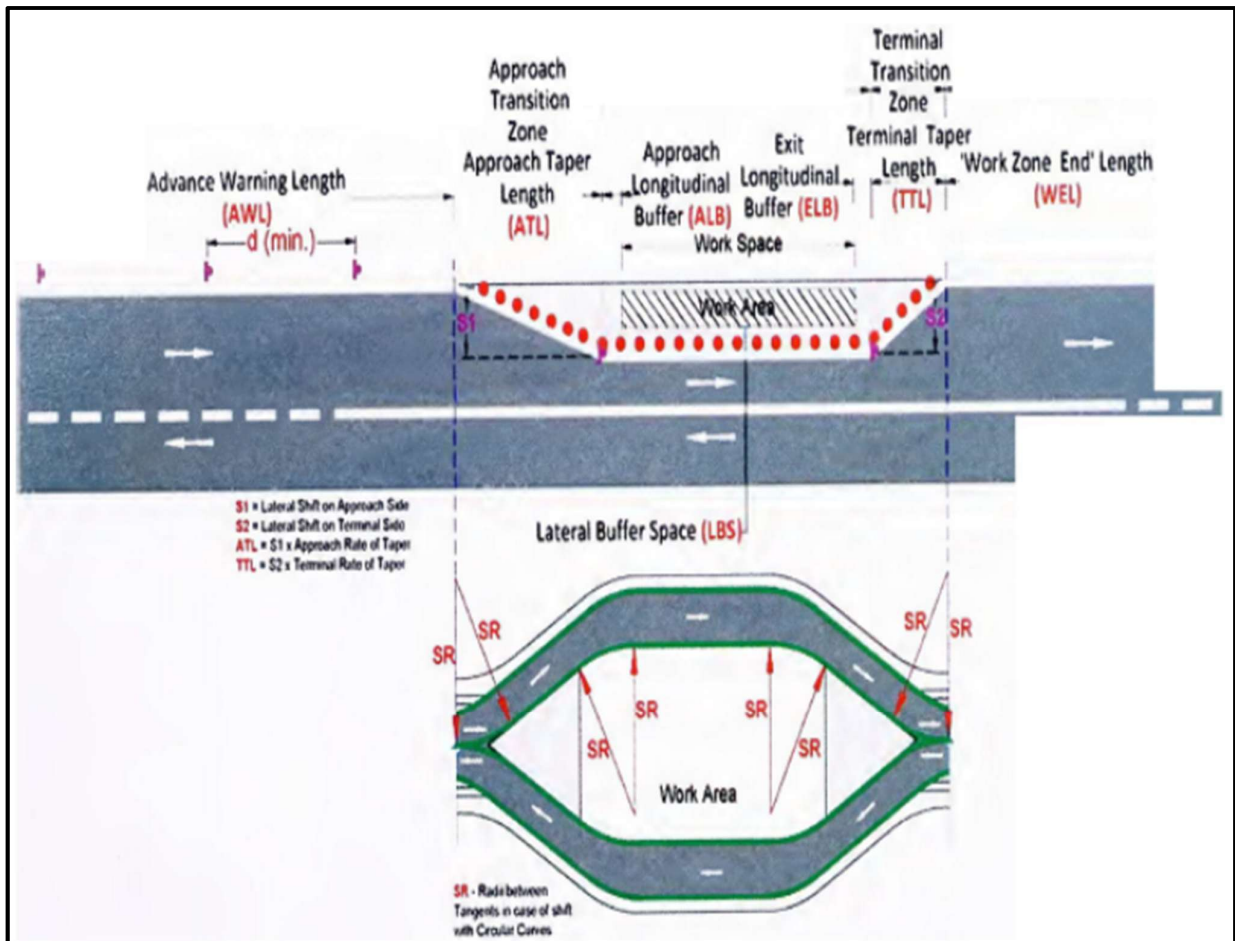
Stop Sign

Give Way Sign

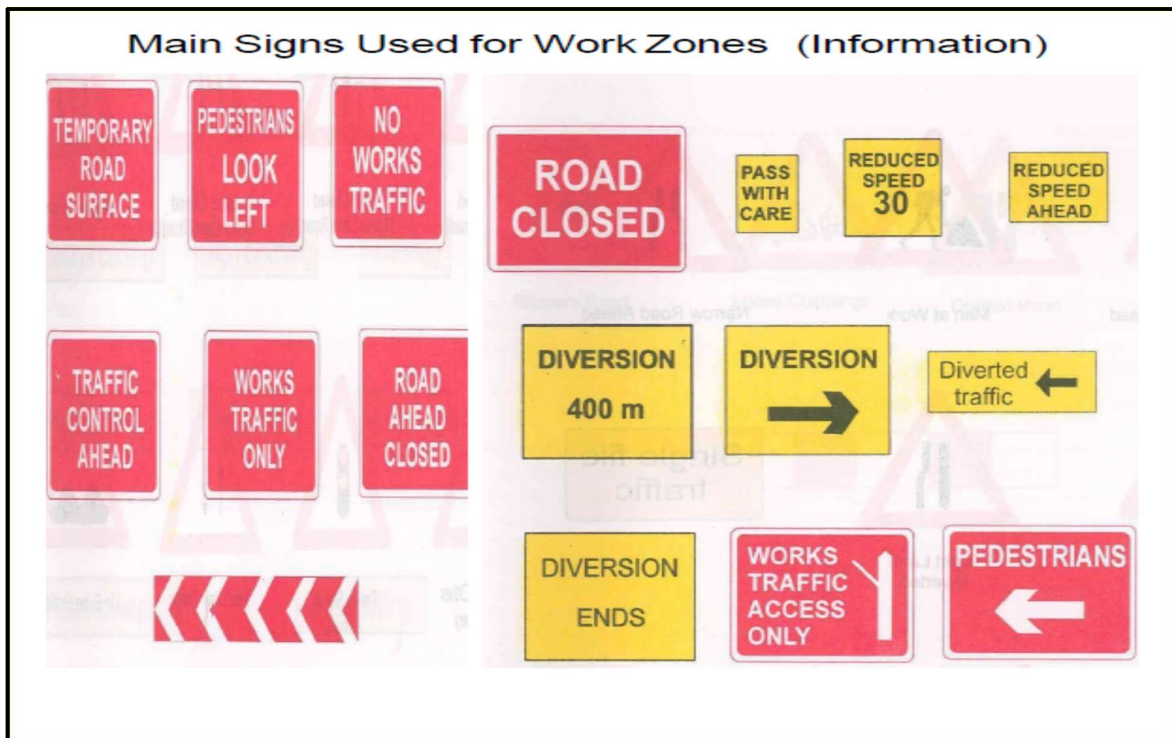
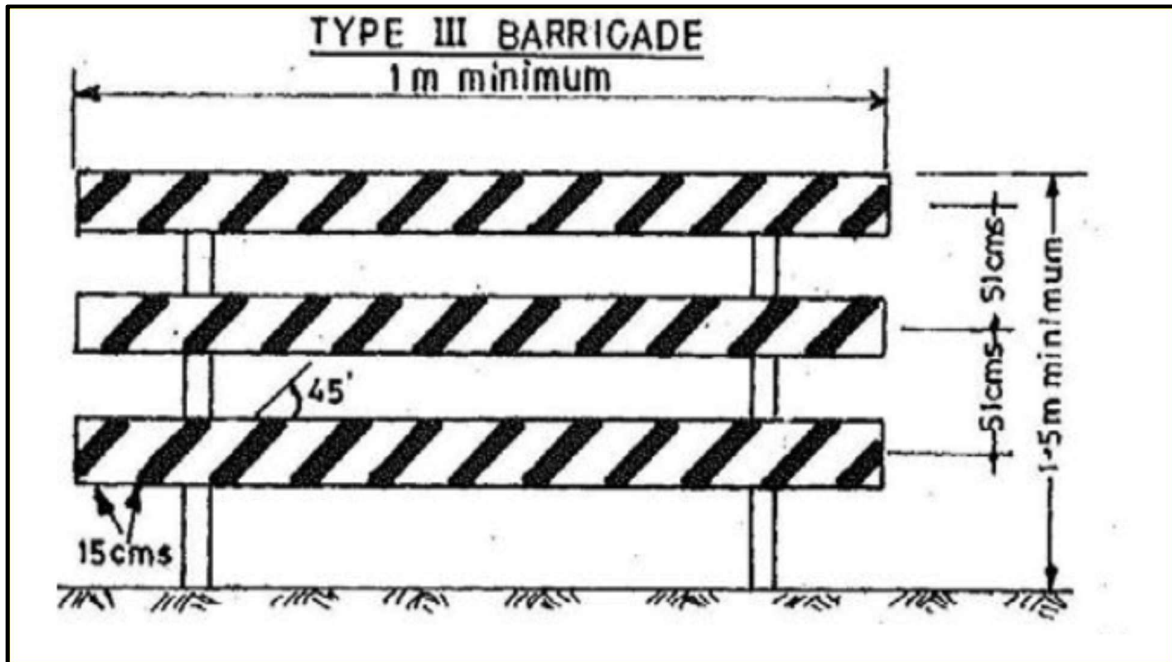
No Entry

One Way Sign

Straight Prohibited or No Entry



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16. Compulsory Afforestation:

16.1 Avenue Planation: Compulsory afforestation has to be done by the Concessionaire/Contractor in the available ROW in the entire length of the project in accordance with IRC SP 84 2019 and IRC SP 73-2018, keeping in view IRC SP 21-2009.

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Preference shall be given to dense plantation using the Miyawaki method/pattern in all suitable and available ROW locations to maximize green cover, improve environmental sustainability and prevent encroachment within the ROW.

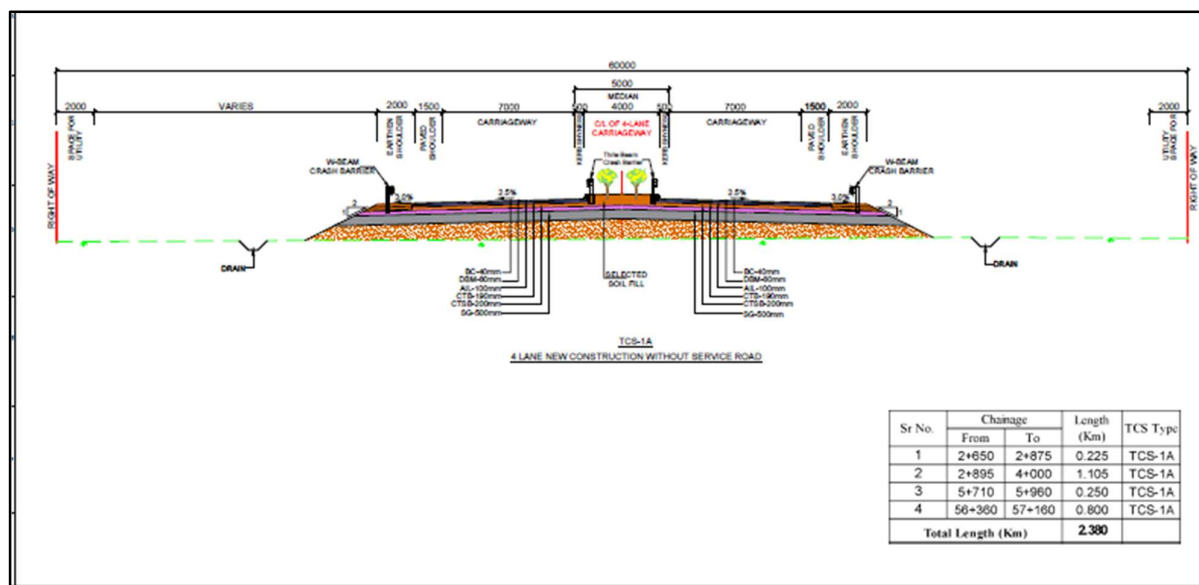
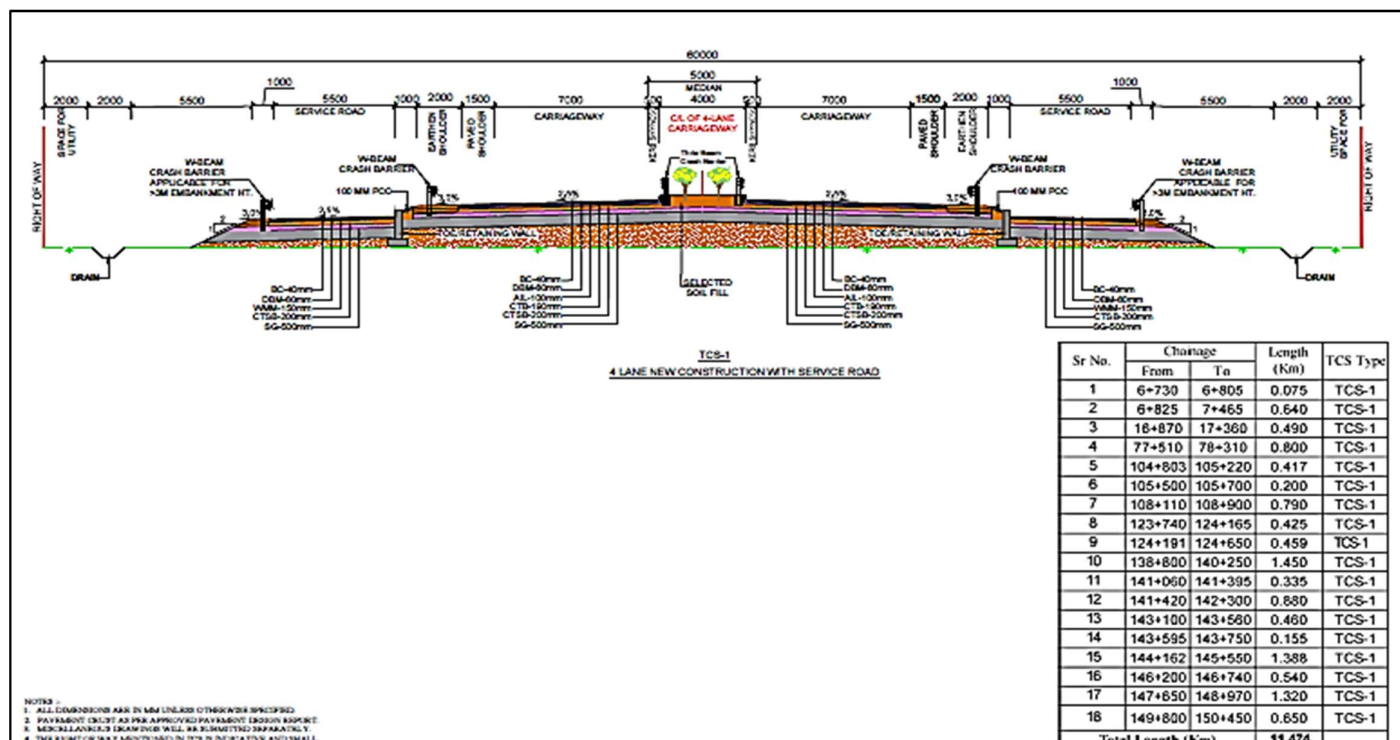
16.2 Median Planation: Median Planation has to be executed by the Concessionaire/Contractor in the Median of the project highway in the entire length except structure portion and its approaches in accordance with IRC SP 84 2019 and IRC SP 73-2018, keeping in view IRC SP 21-2009.

16.3 Special Landscaping and Planation: The Concessionaire shall design, execute and maintain comprehensive landscaping and plantation works at all Trumpet Interchanges, Cloverleaf Interchanges, Loop Areas, Directional Ramps, Entry/Exit Ramps, At-grade Islands, Toll Plaza Areas and all other landscape zones with flowery plant within the Right of Way in accordance with IRC:SP:21, applicable MoRTH Specifications, NHAI Manuals and Good Engineering Practice to increase the overall aesthetic of the Highway.

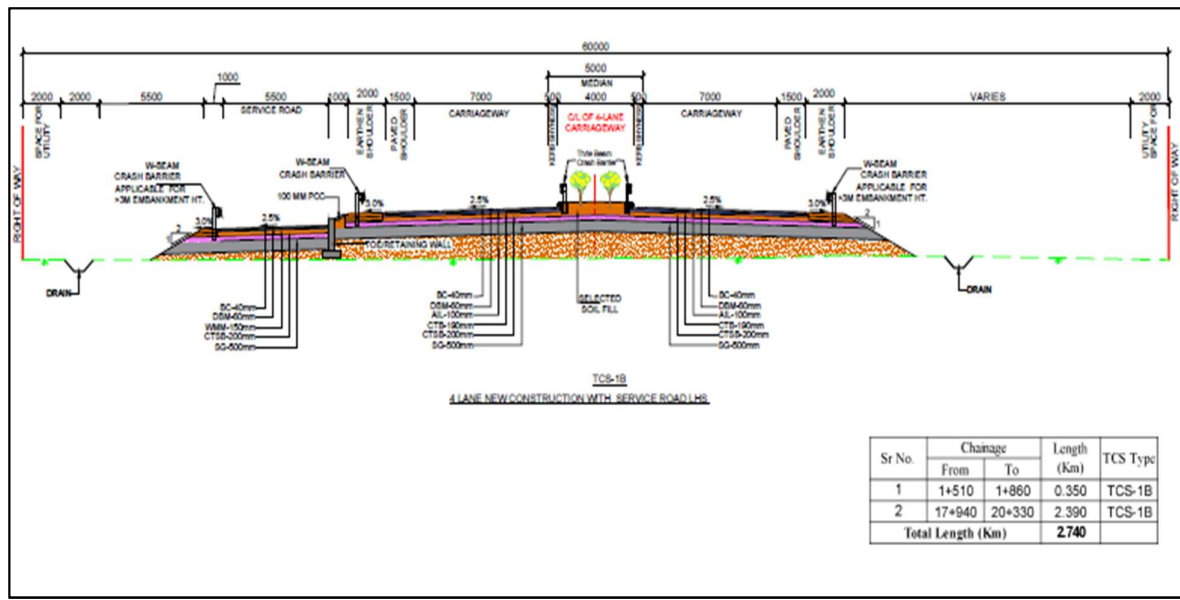
Note: The Concessionaire shall ensure that all landscaping and plantation works are executed without compromising highway safety, sight distance, drainage, structural stability. No plantation shall obstruct traffic signs, road lighting, CCTV systems, tolling infrastructure, utilities or maintenance access. Appropriate tree guards, edging, mulch, irrigation facilities and erosion protection measures shall be provided wherever required, and all landscaped areas shall be maintained in a healthy and aesthetically acceptable condition throughout the Concession Period. The Concessionaire shall be solely responsible for plantation, watering, protection, replacement of dead saplings, and maintenance of the afforested areas throughout the Concession Period at its own cost, ensuring the prescribed survival rate in accordance with the Contract and applicable standards.

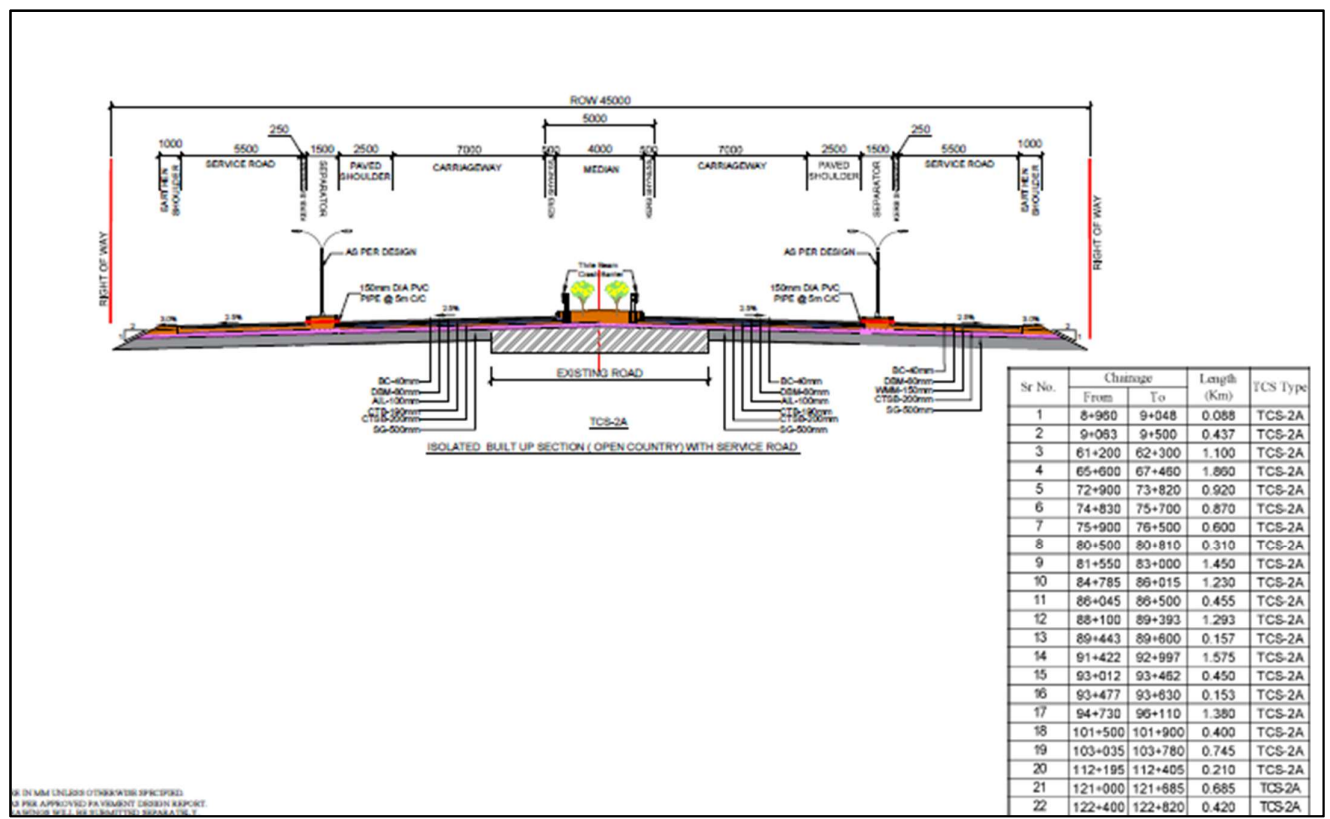
ANNEXURE – II

(SCHEDULE – B) - TYPICAL CROSS SECTION

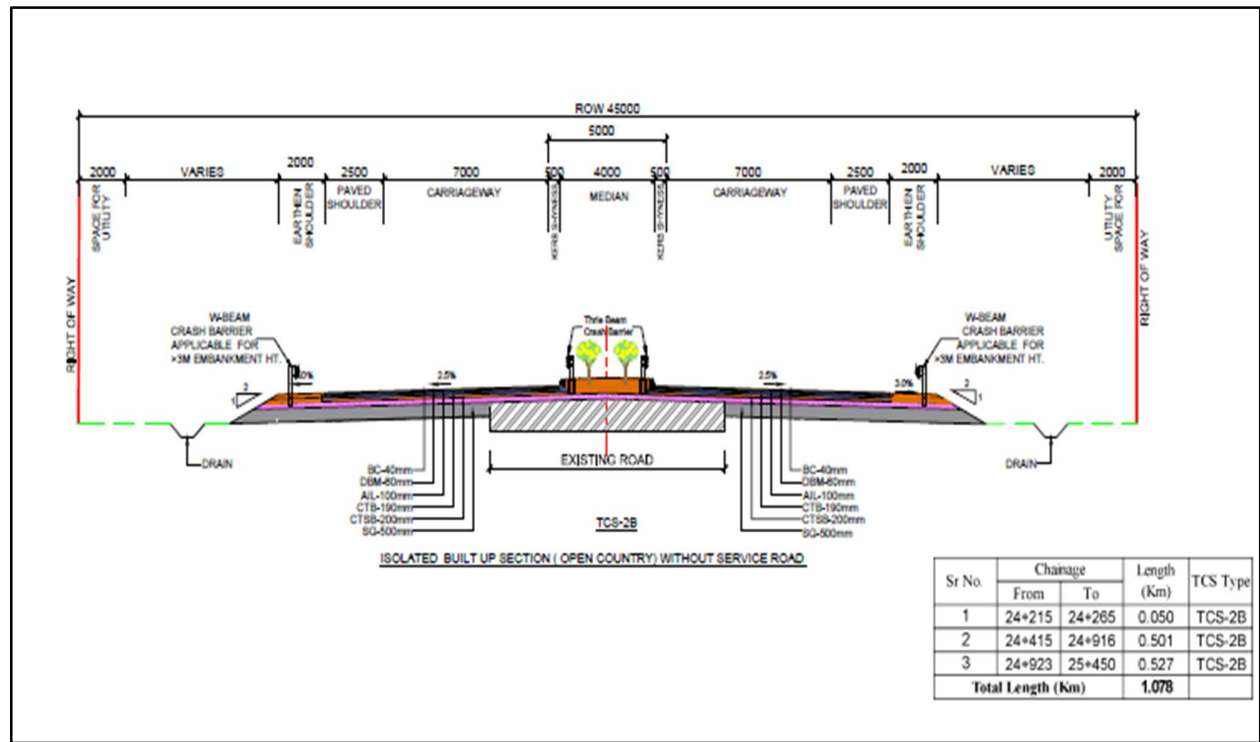


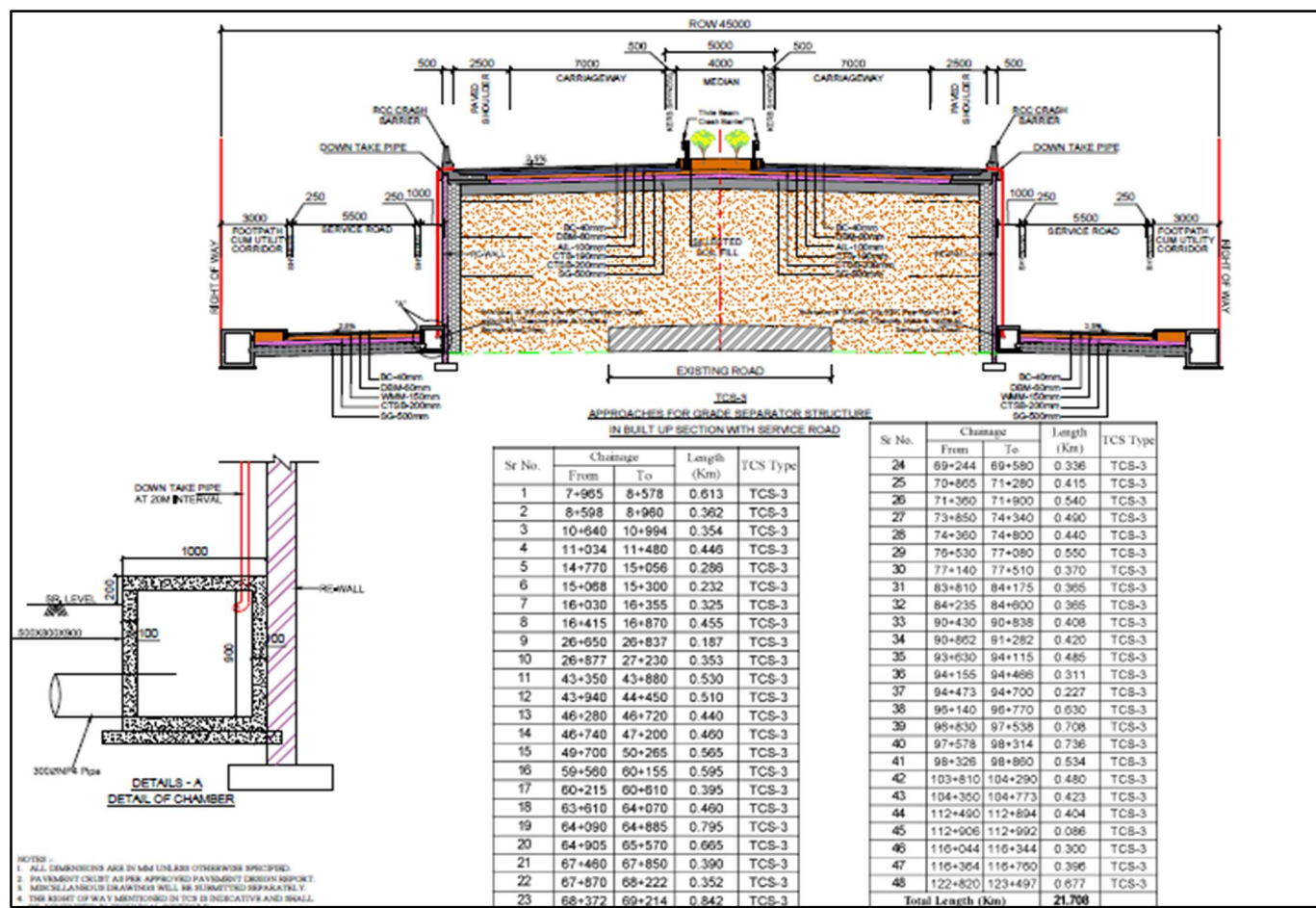
Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

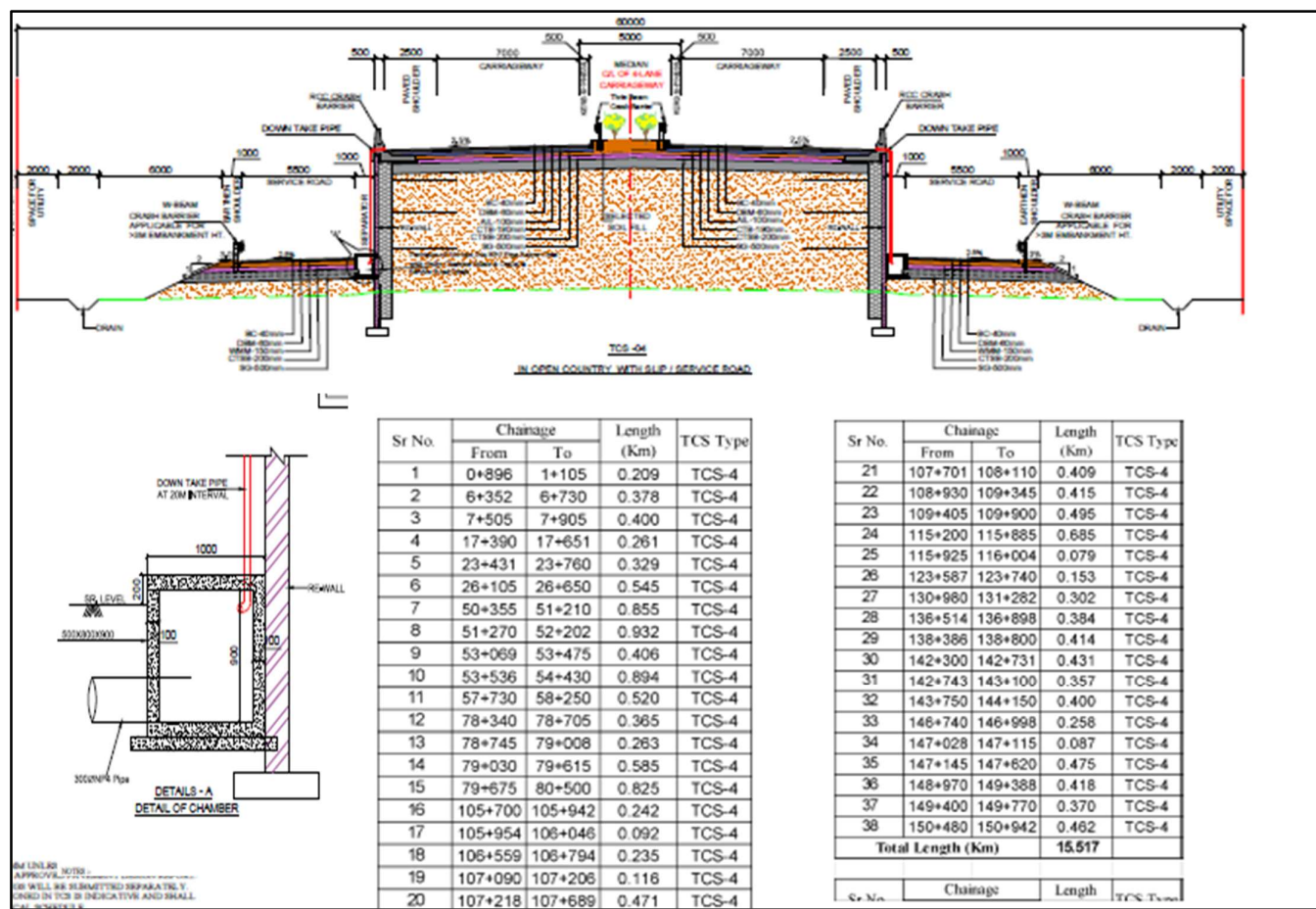


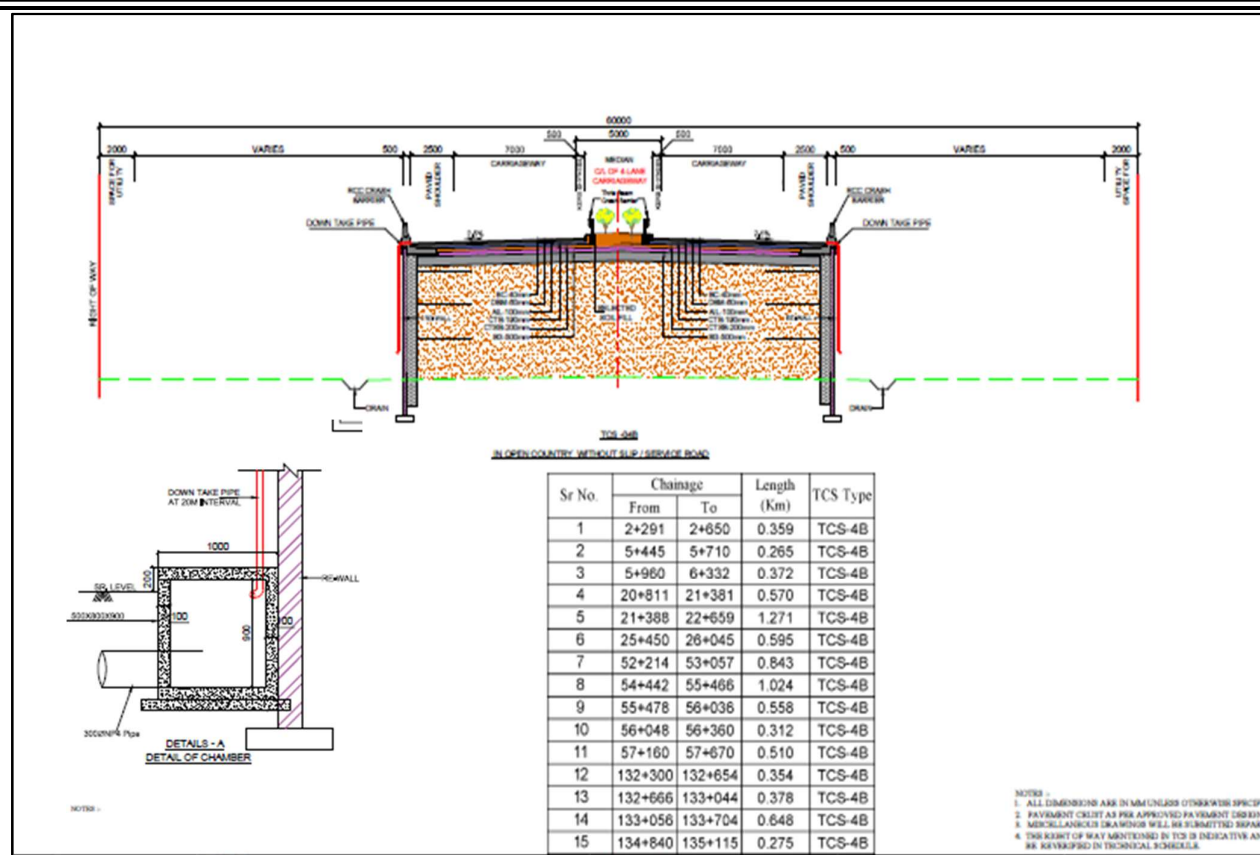
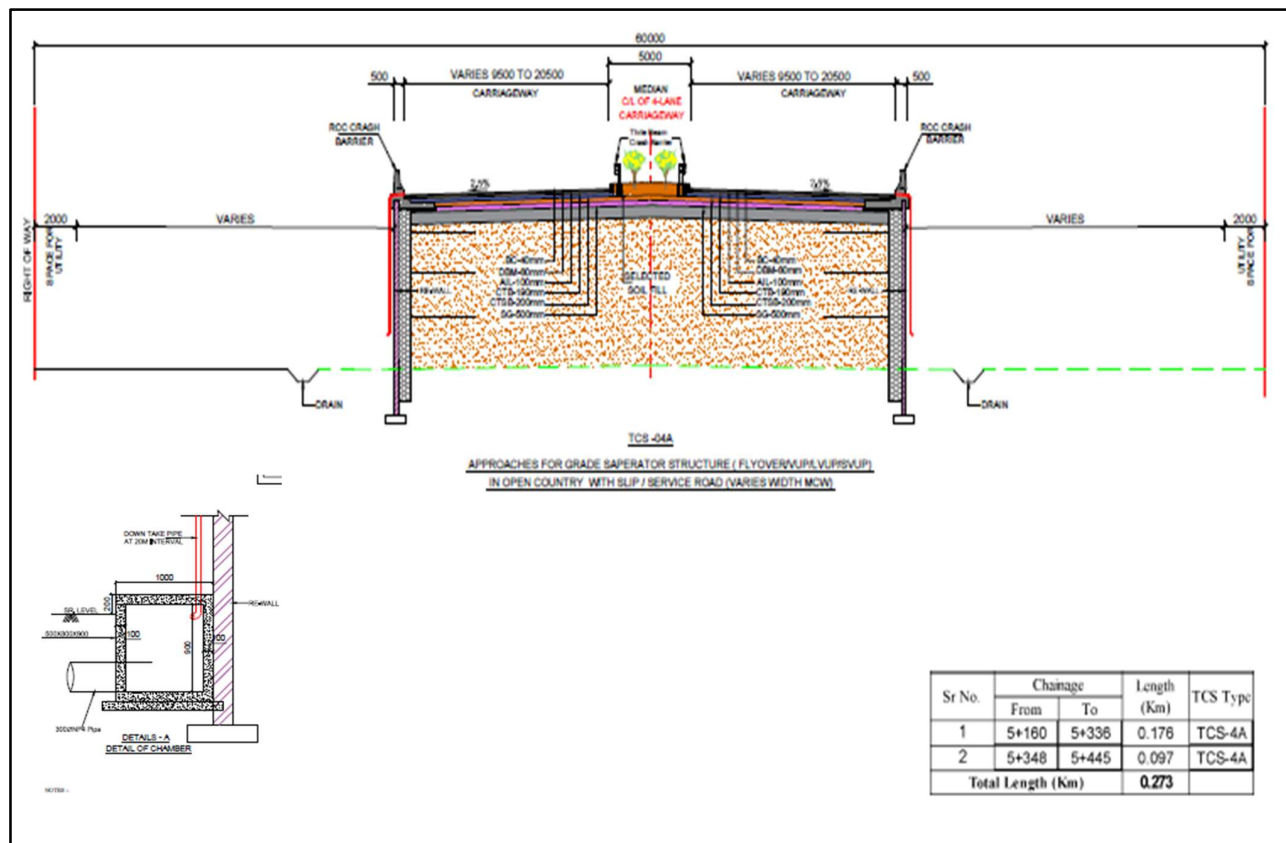


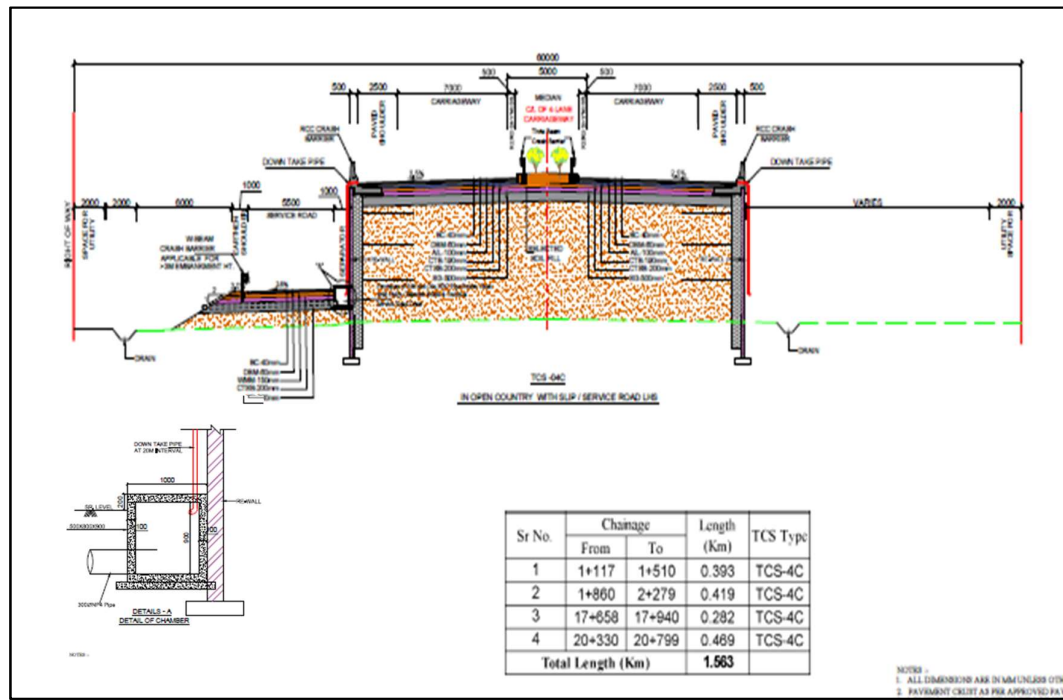
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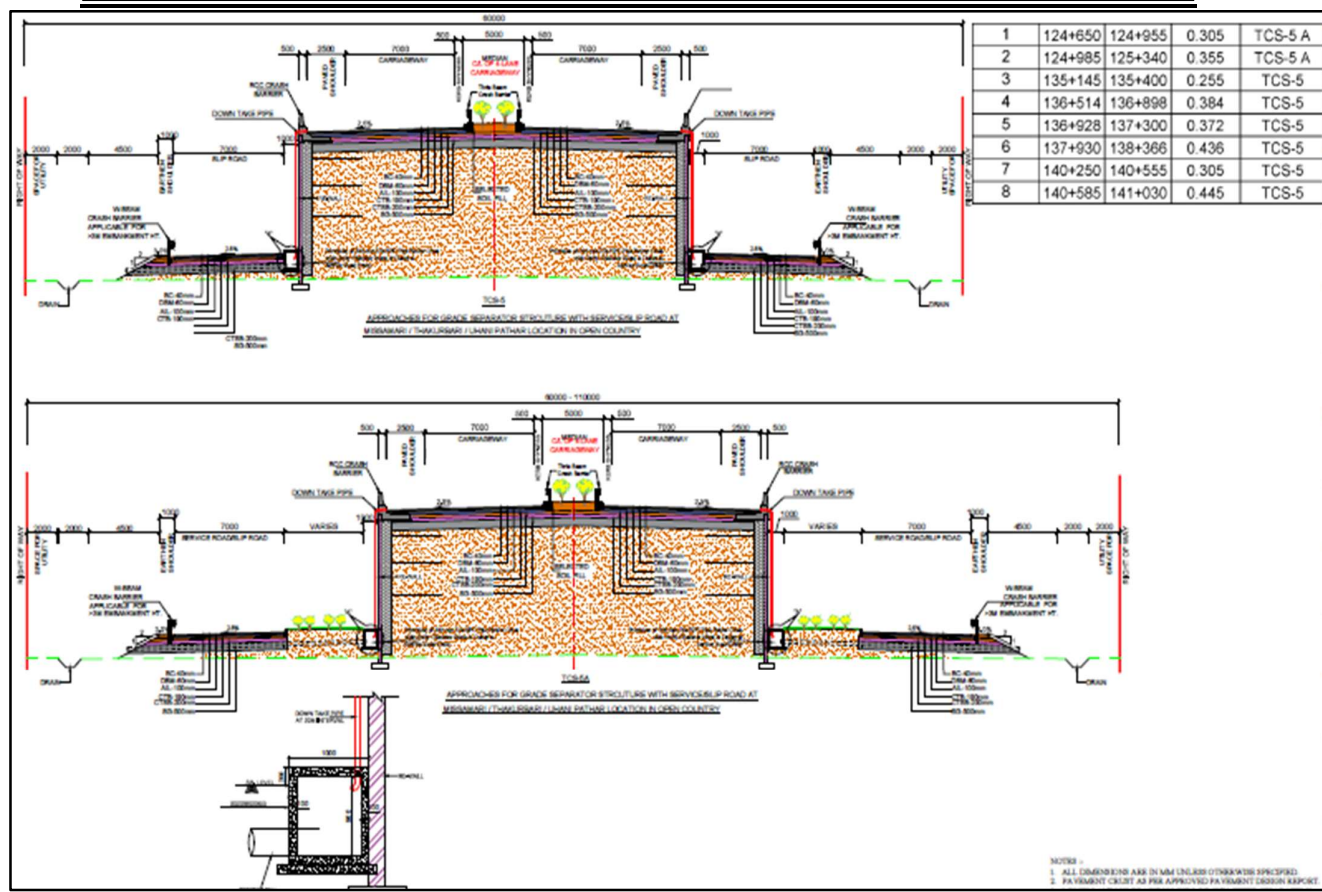
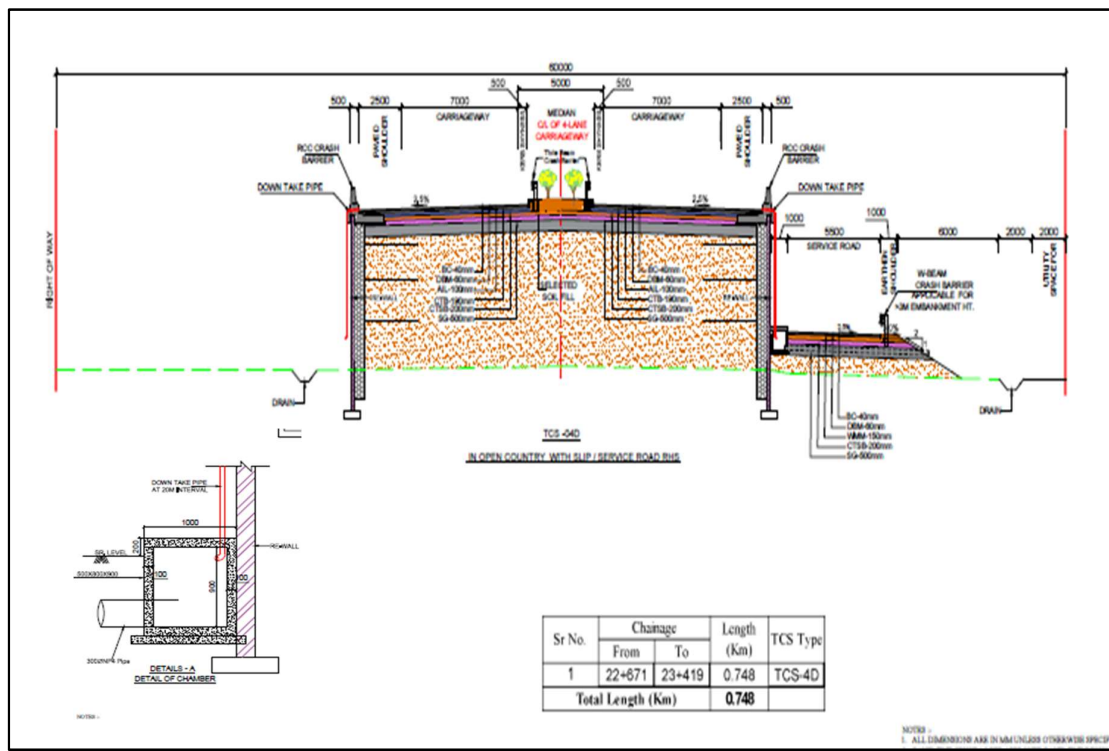


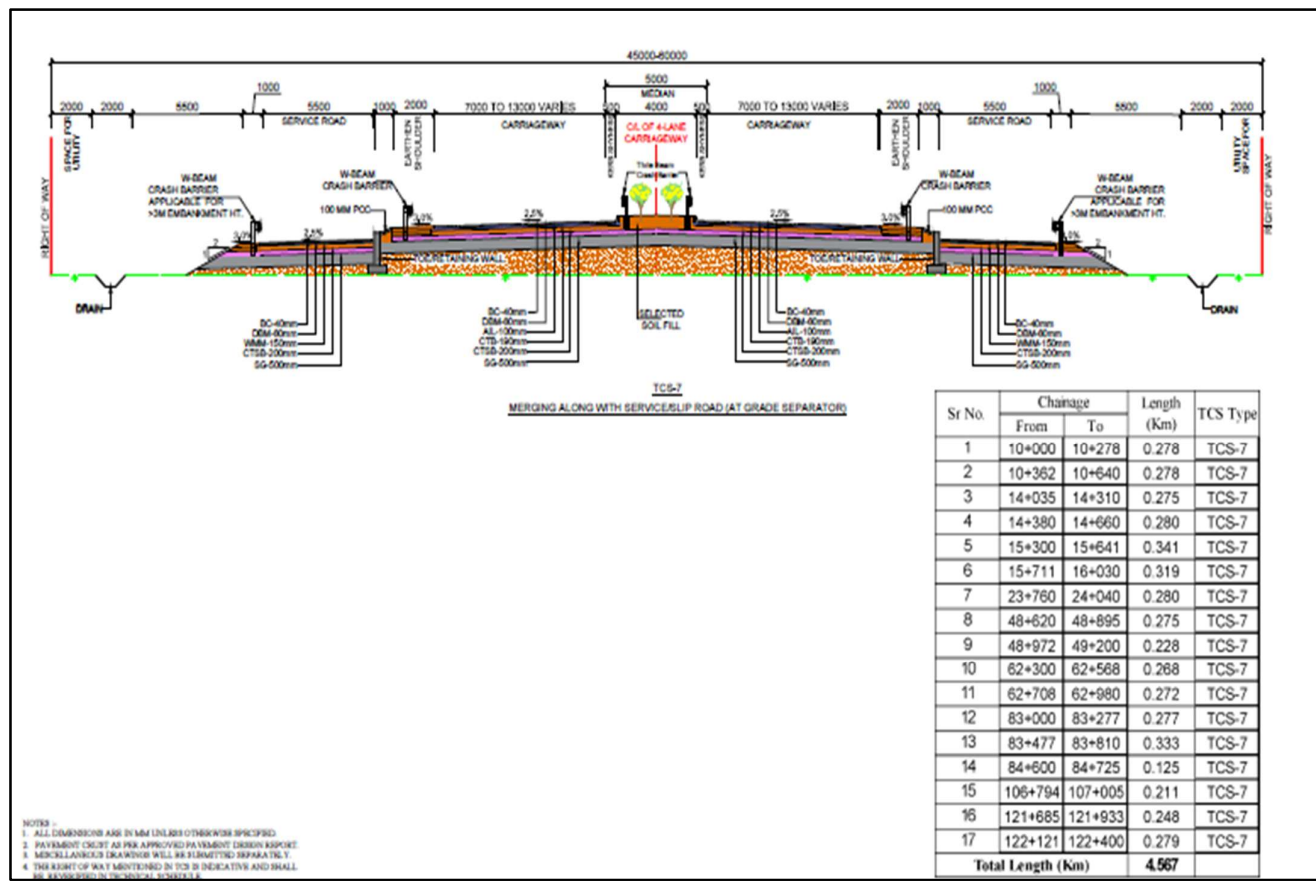


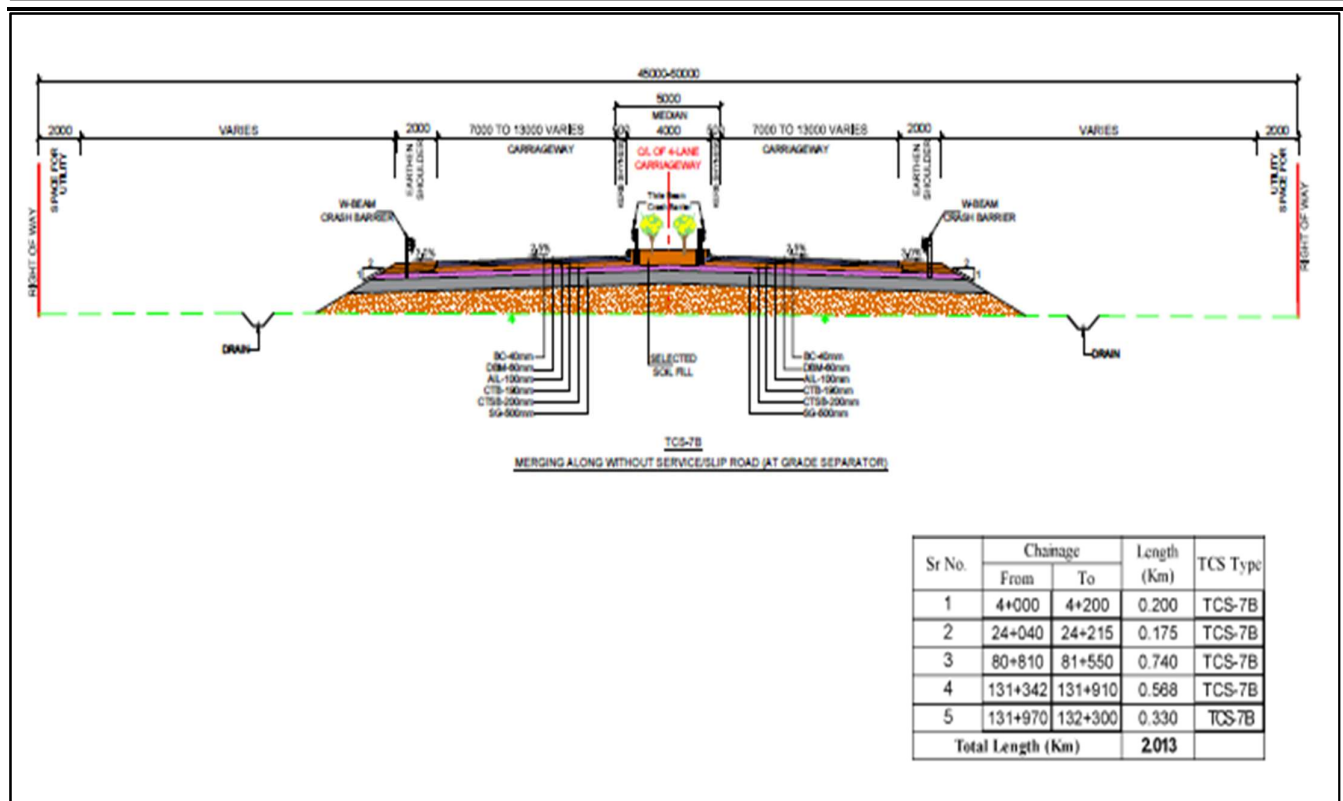
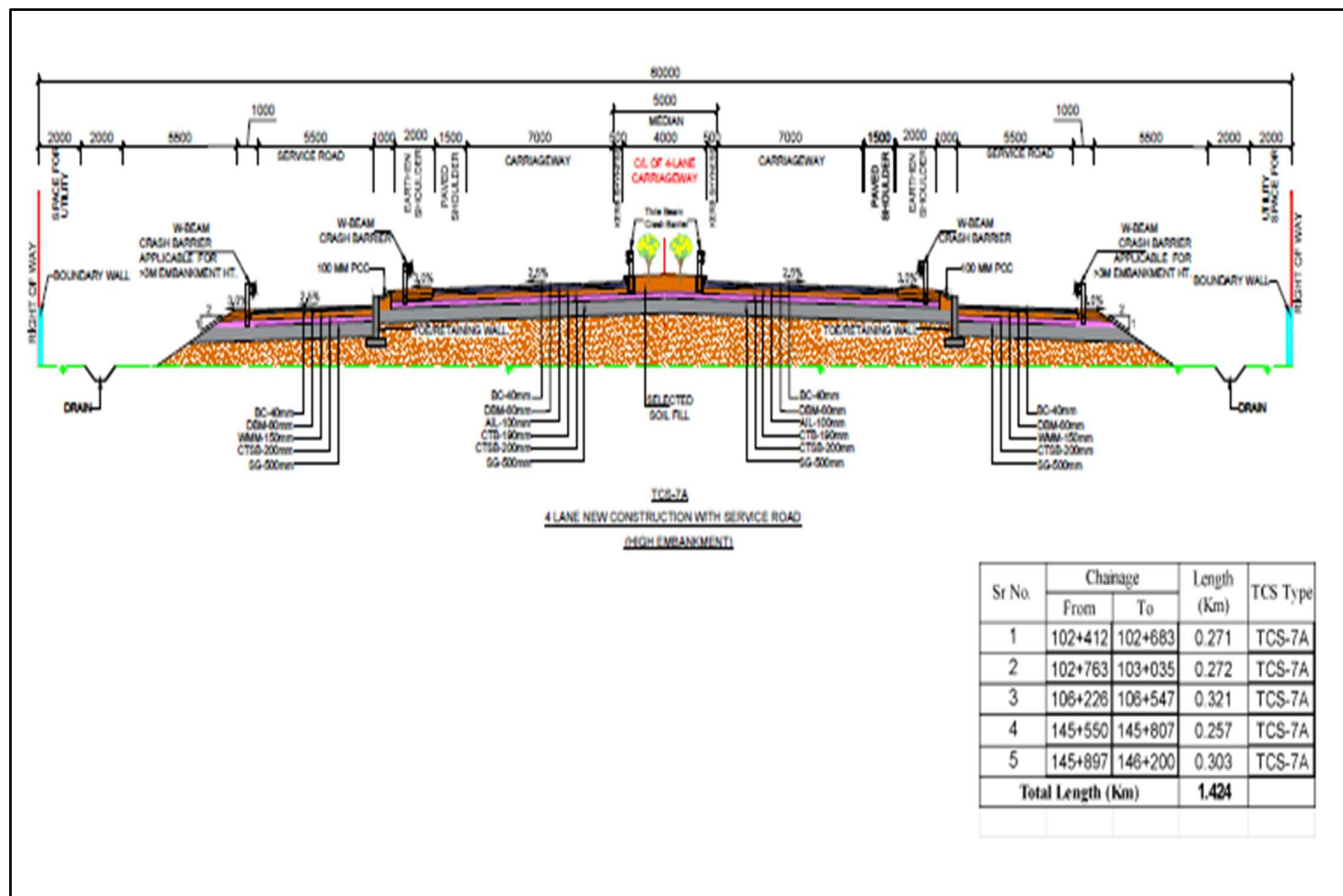




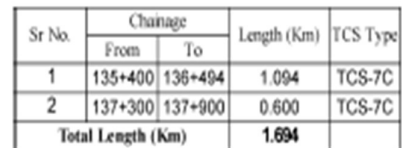




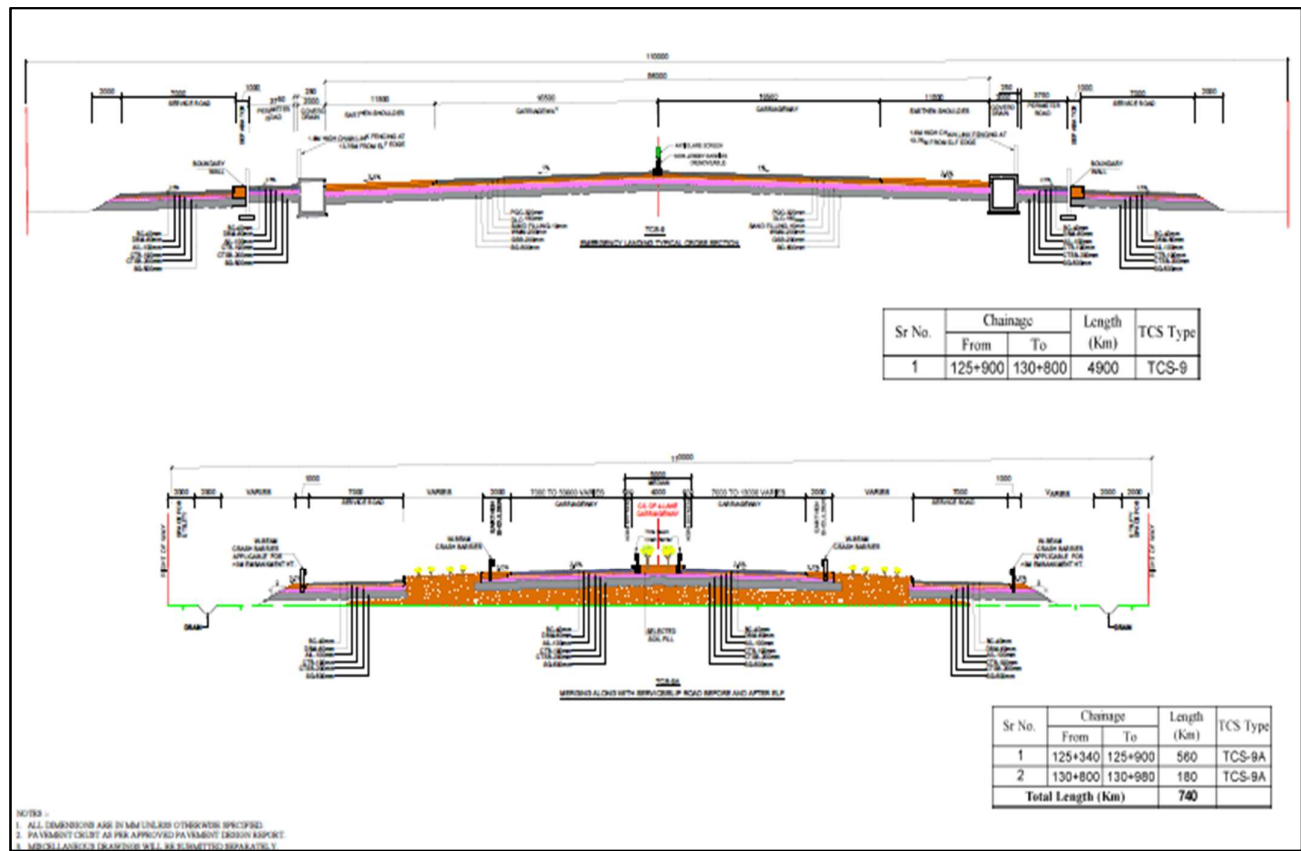
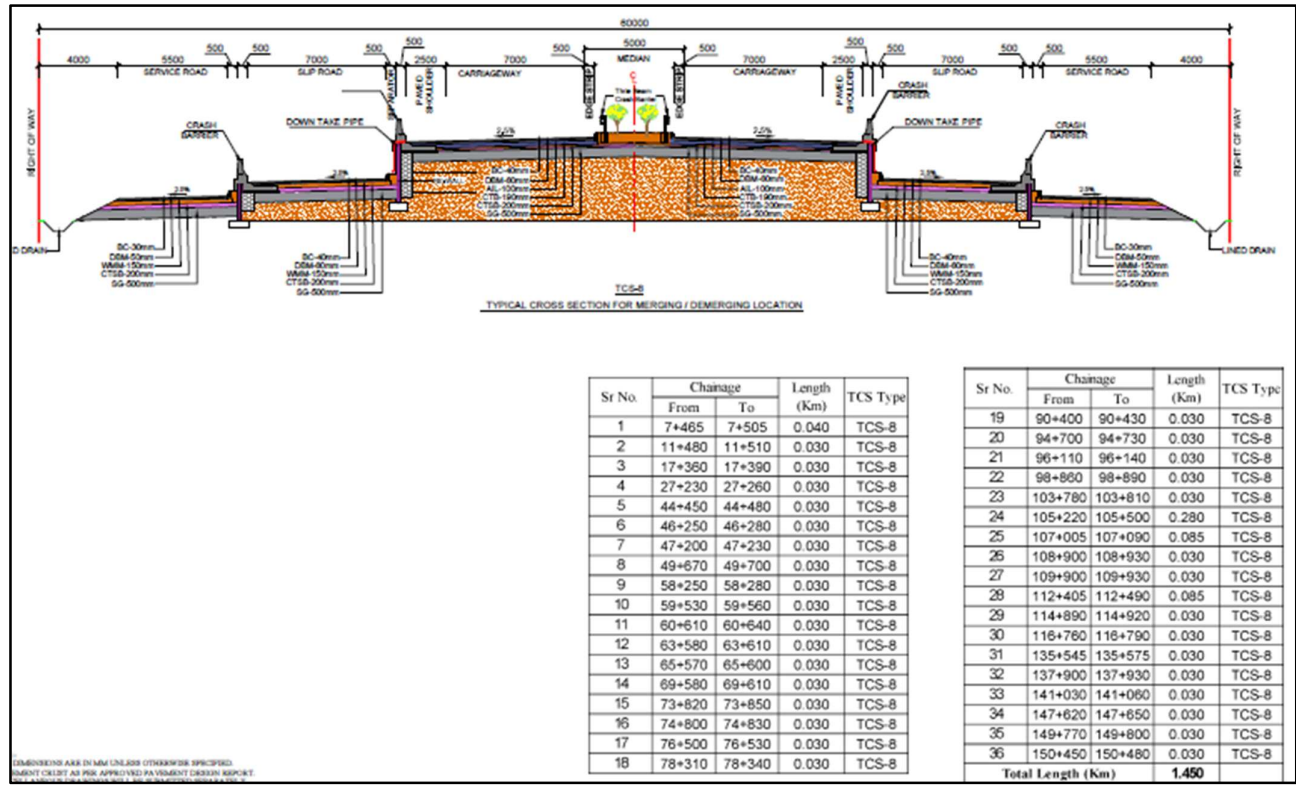


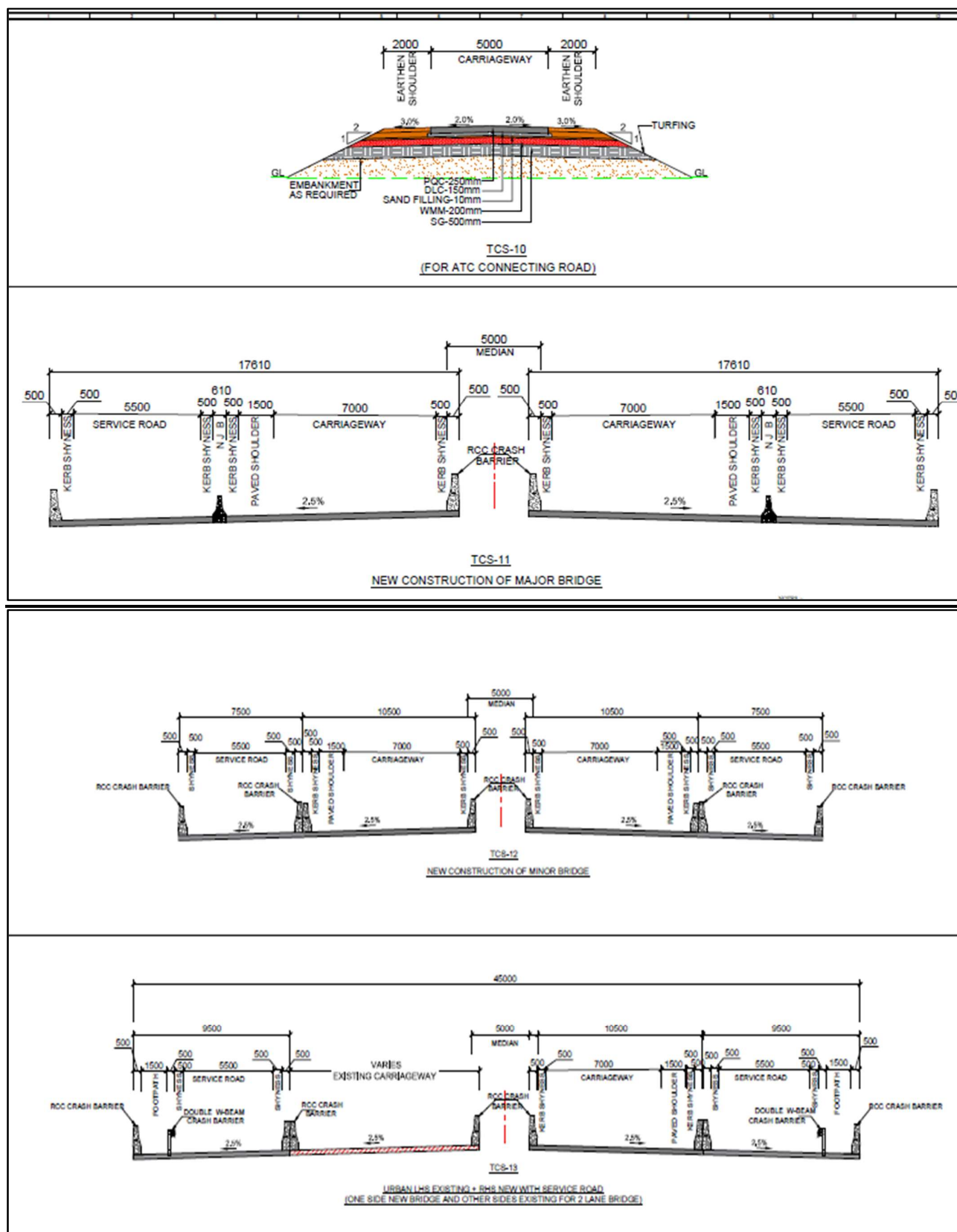


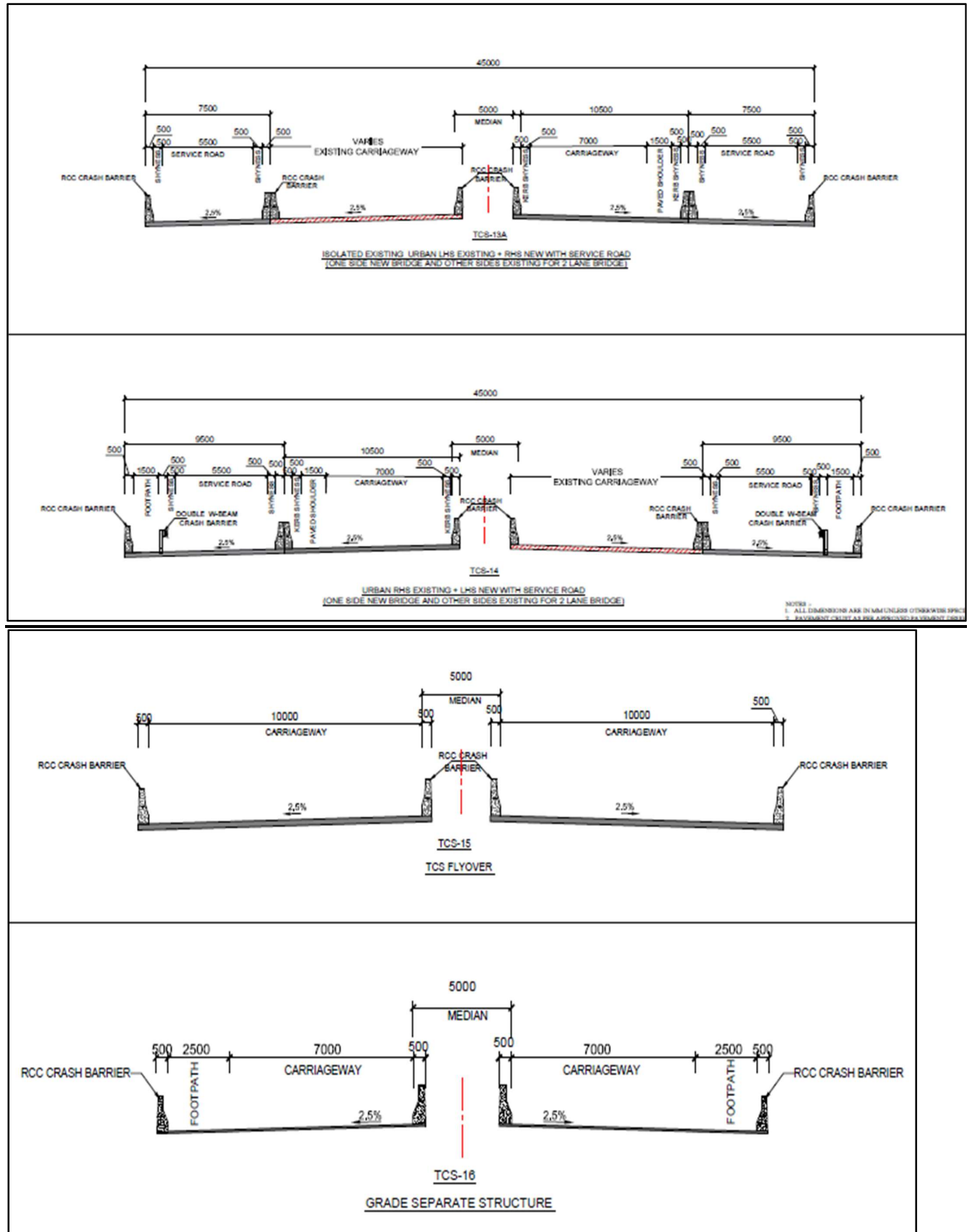
Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

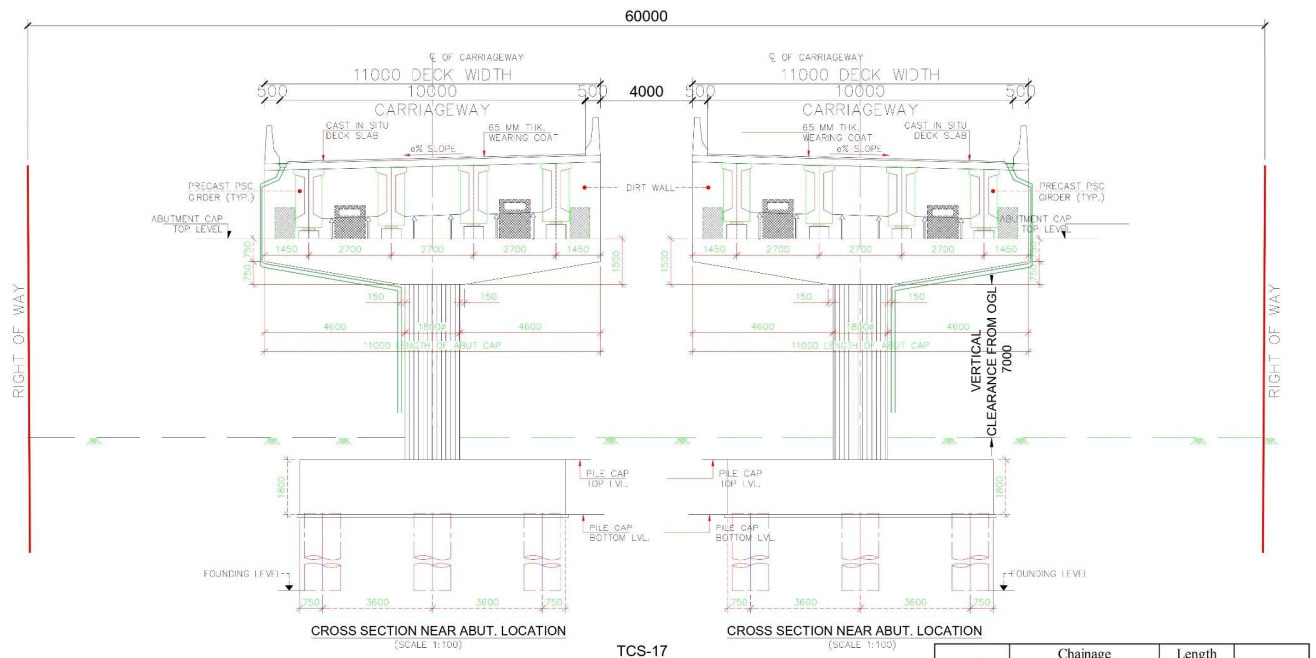


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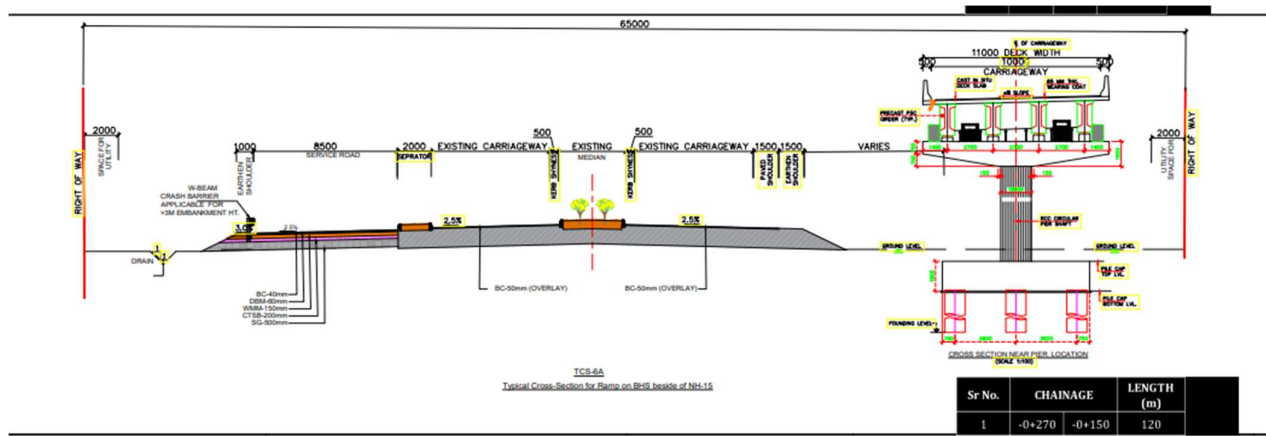
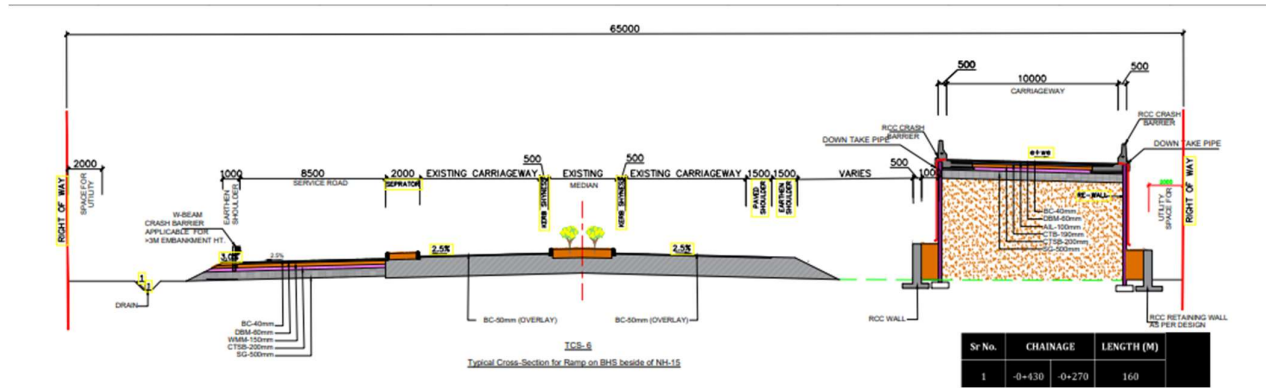


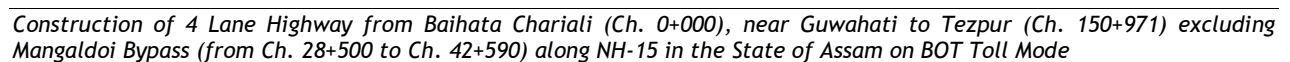
TCS-17
TYPICAL CROSS-SECTION FOR ELEPHANT UNDERPASS (INCLUDING VIADUCT)

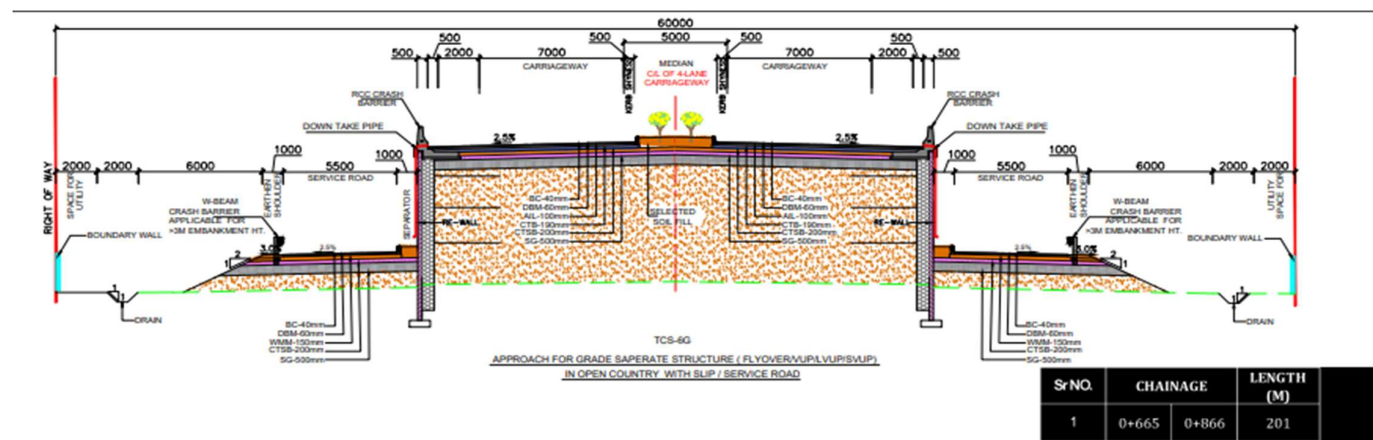
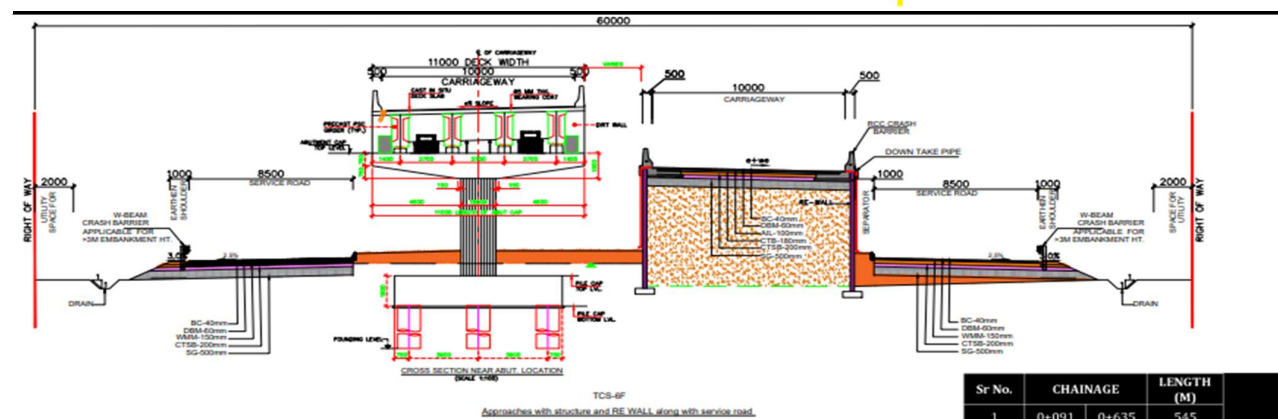
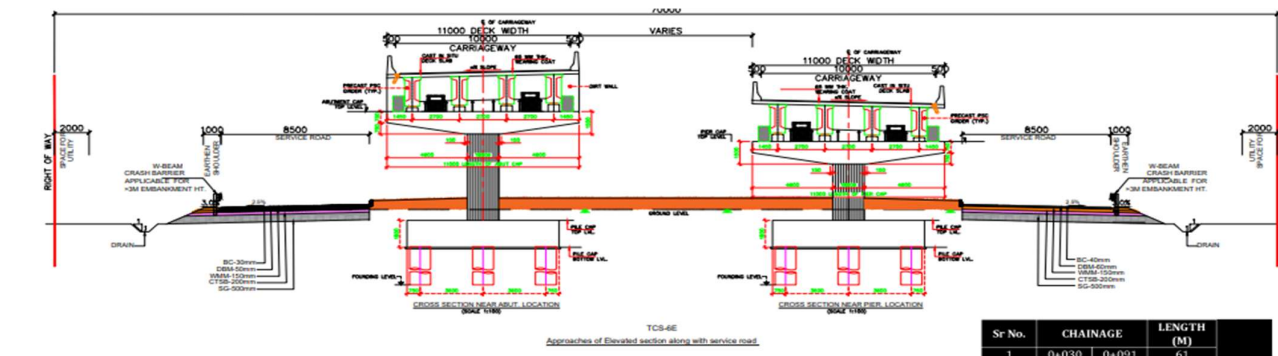
Sr No.	Chainage		Length (Km)	TCS Type
	From	To		
1	133+704	133+781	0.077	TCS-17
2	133+781	134+835	1.054	TCS-17
Total Length (Km)			1.131	

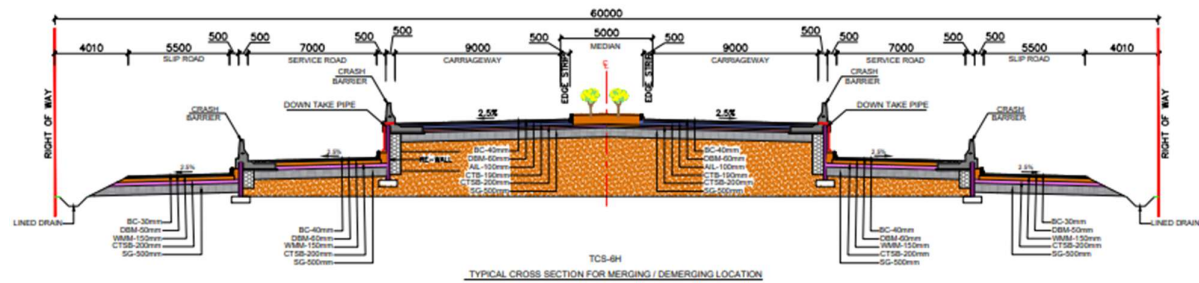
NOTES :-
 1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
 2. PAYMENT CRUST AS PER APPROVED PAYMENT DESIGN REPORT.
 3. MISCELLANEOUS DRAWINGS WILL BE SUBMITTED SEPARATELY.
 4. THE RIGHT OF WAY MENTIONED IN TCS IS INDICATIVE AND SHALL BE REVERIFIED IN TECHNICAL SCHEDULE.

0+000 Interchange

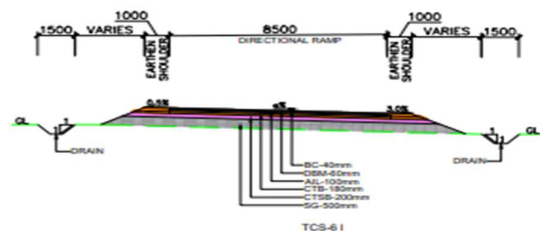




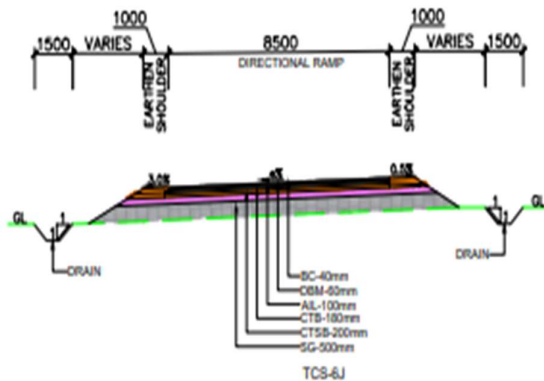




Sr No.	CHAINAGE	LENGTH (M)
1	0+866 0+896	30

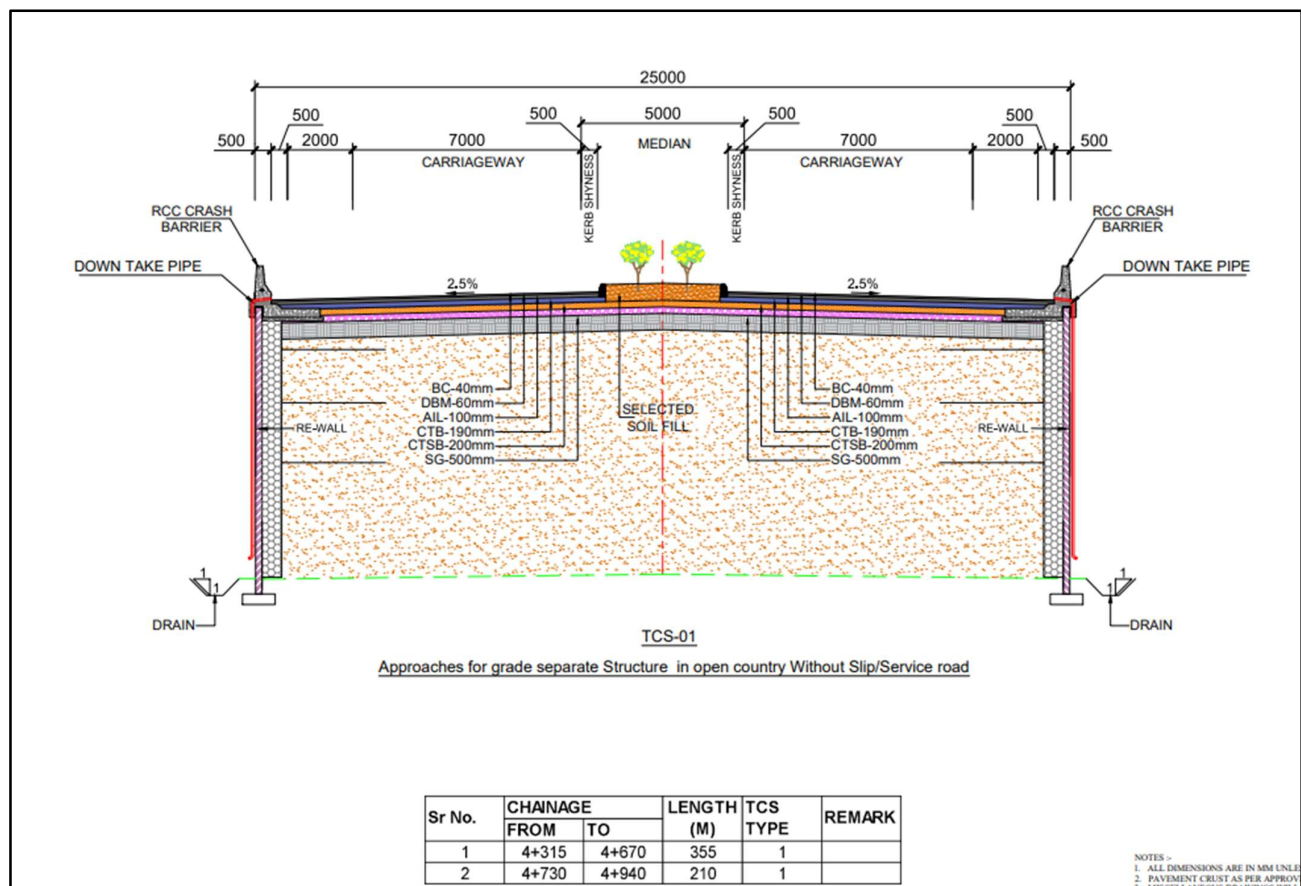


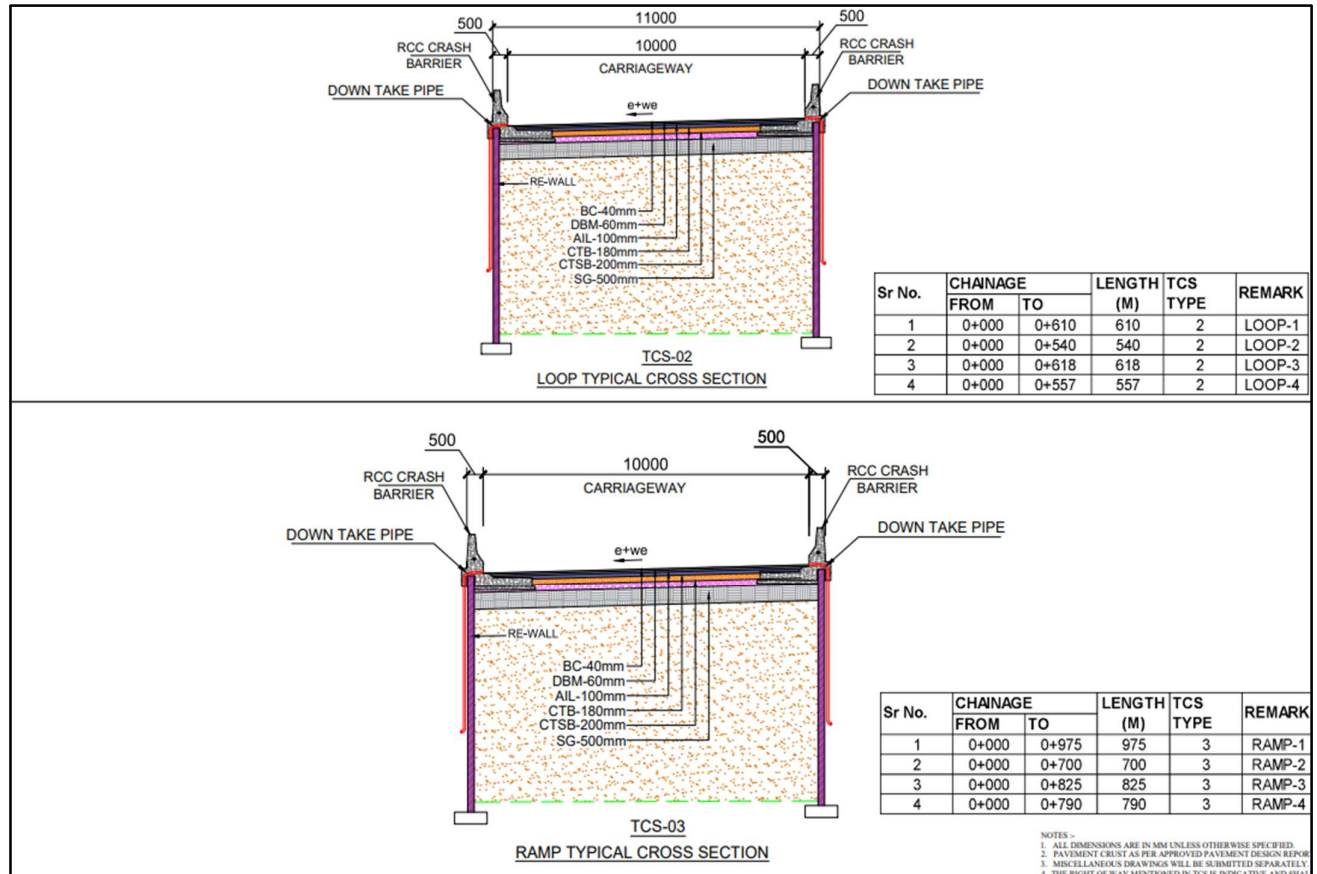
Sr No.	CHAINAGE	LENGTH (M)
1	-0+070 0+030	100



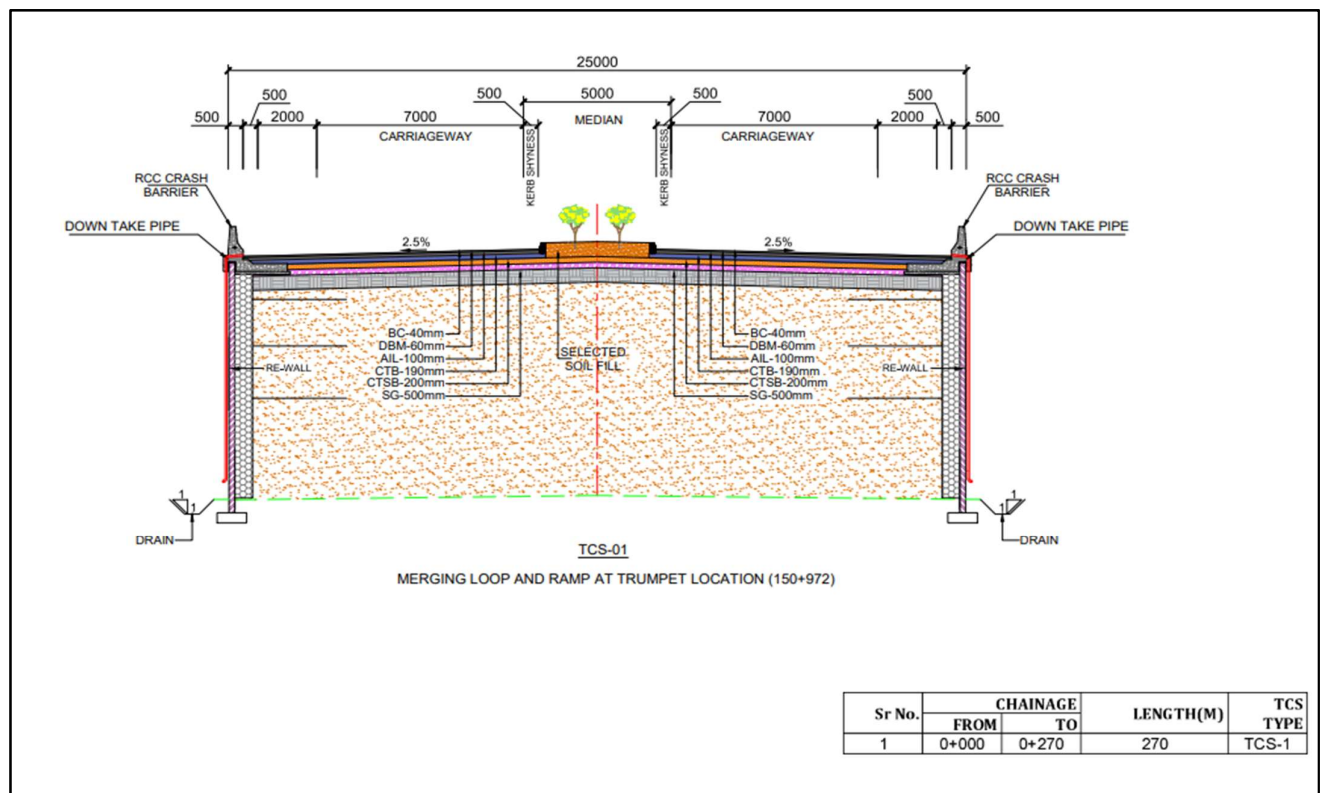
Sr No.	CHAINAGE	LENGTH (M)
1	-0+110 0+030	140

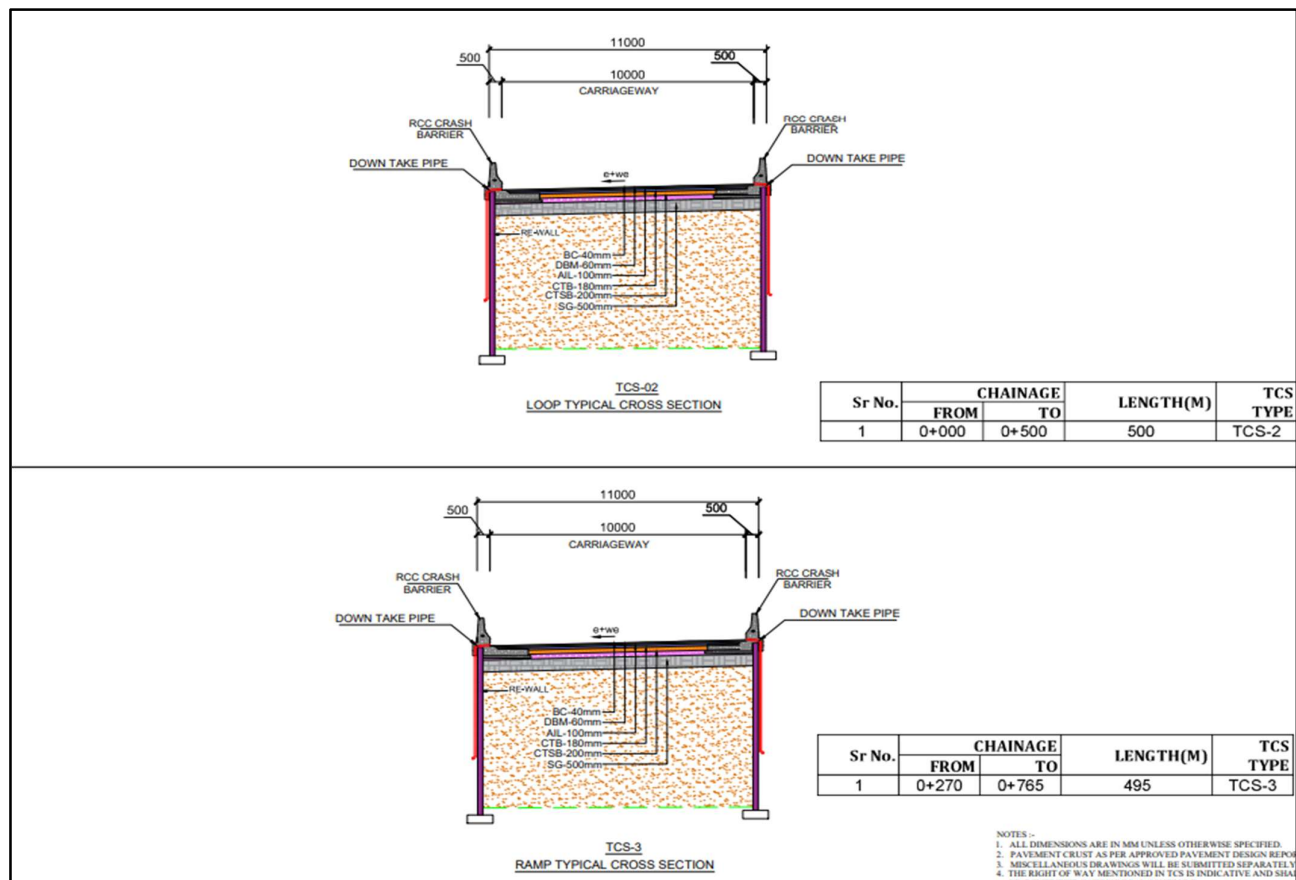
4+700 Cloverleaf Interchange

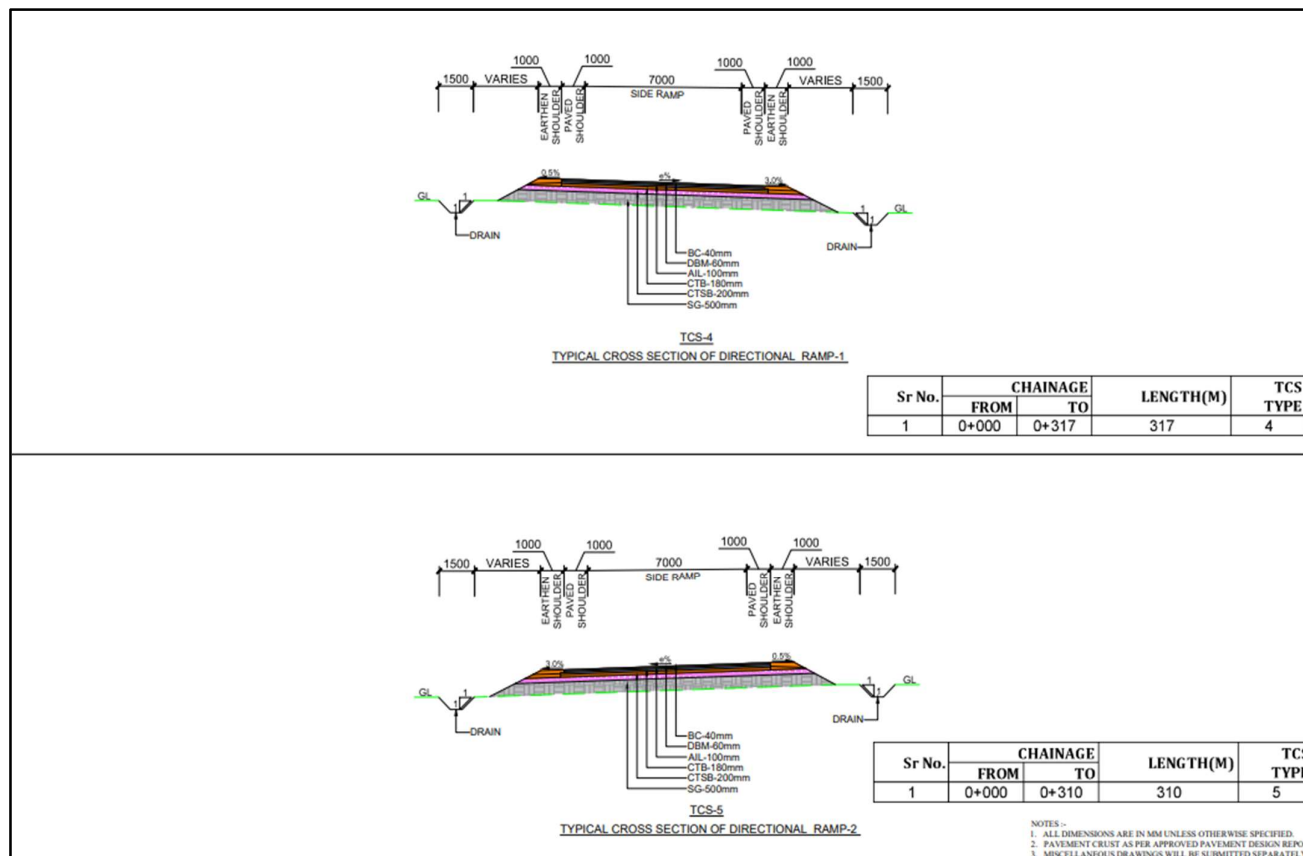




150+972 Trumpet interchange

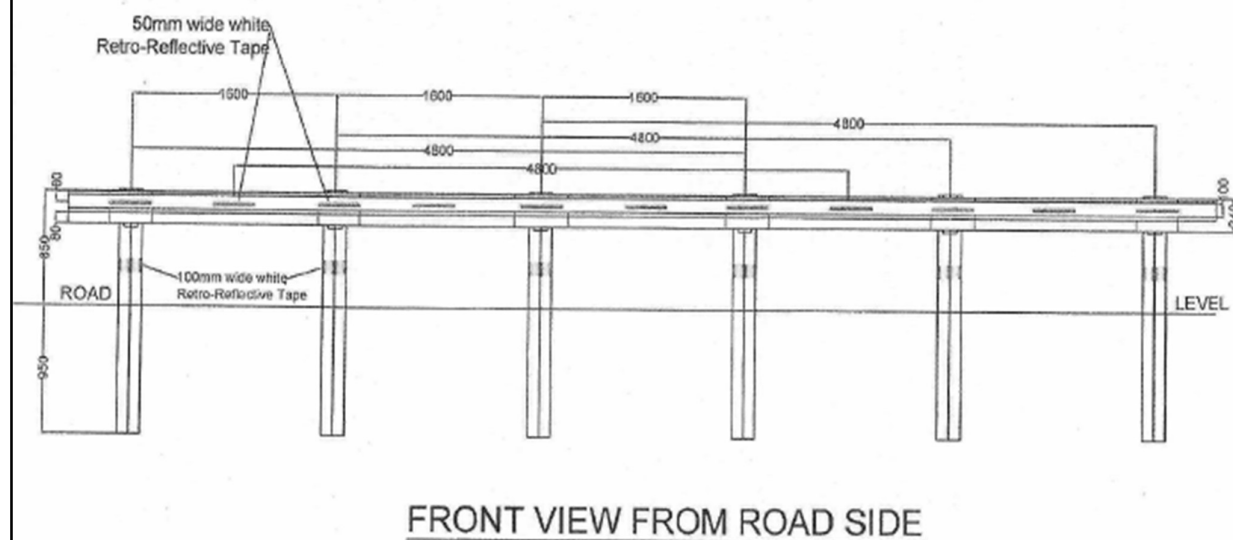




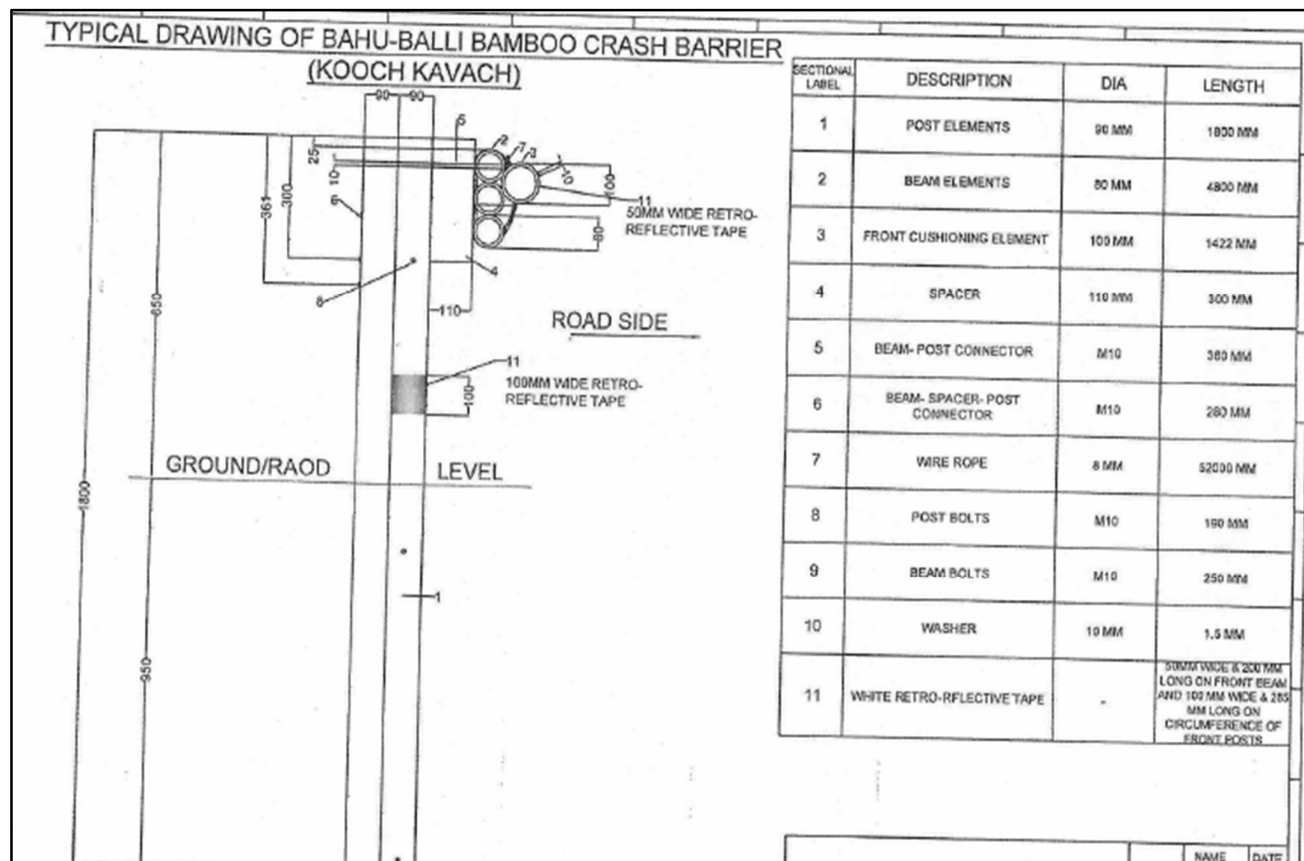


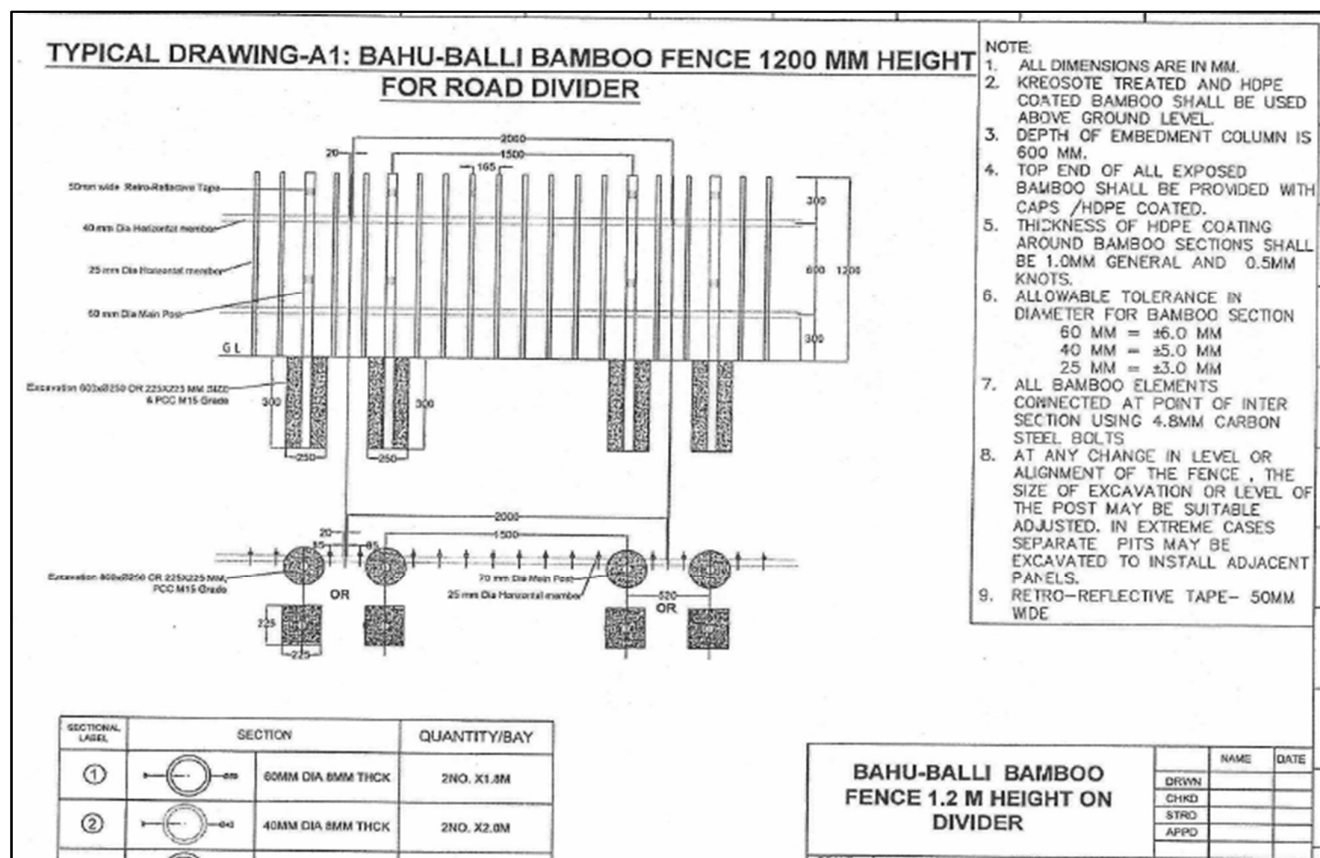
ANNEXURE – III Bamboo Crash Barrier (Schedule B)

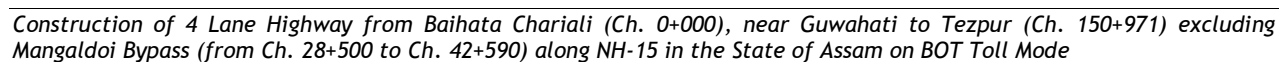
TYPICAL DRAWING OF BAHU-BALLI BAMBOO CRASH BARRIER (KOOCH KAVACH)

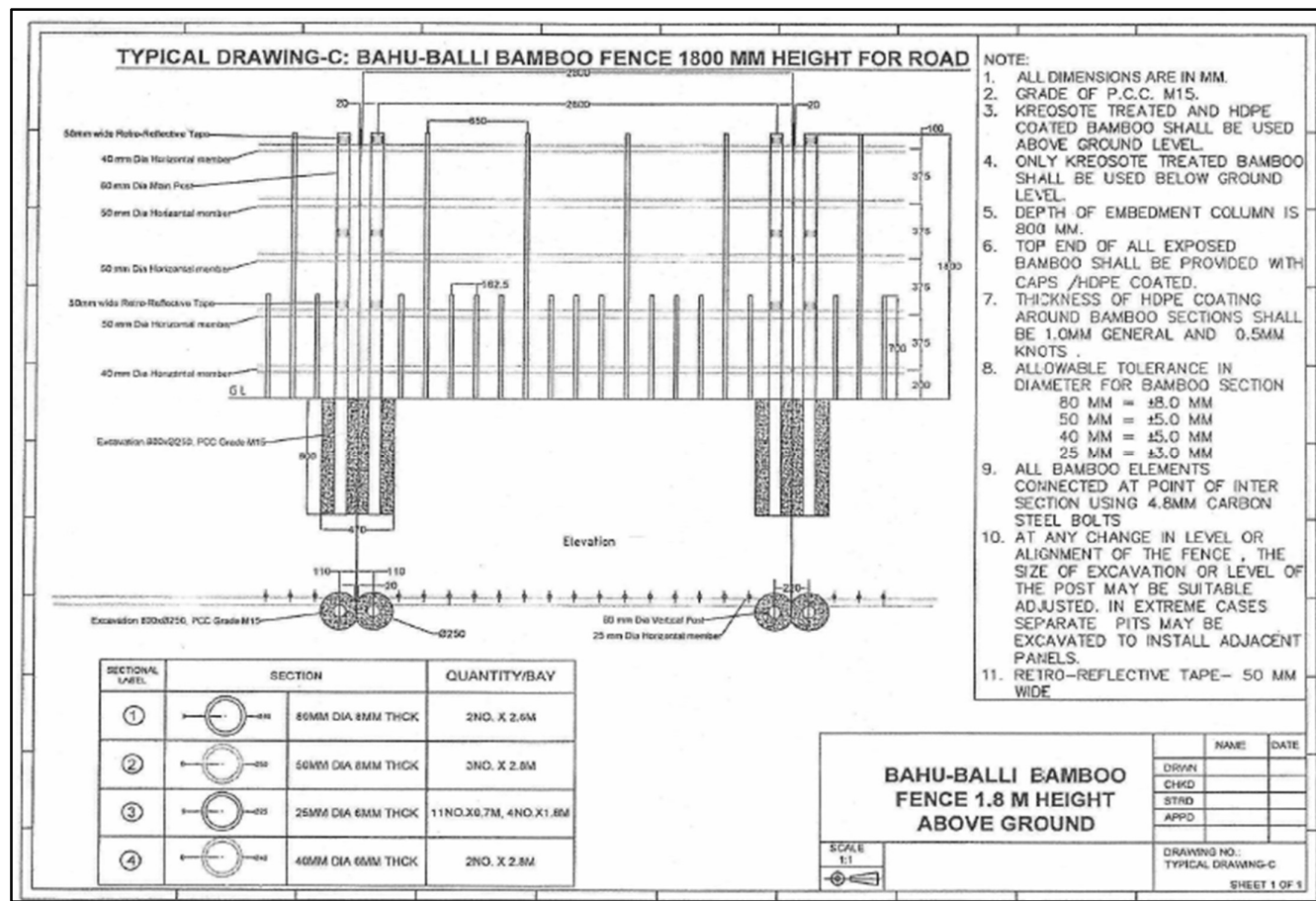


TYPICAL DRAWING OF BAHU-BALLI BAMBOO CRASH BARRIER (KOOCH KAVACH)

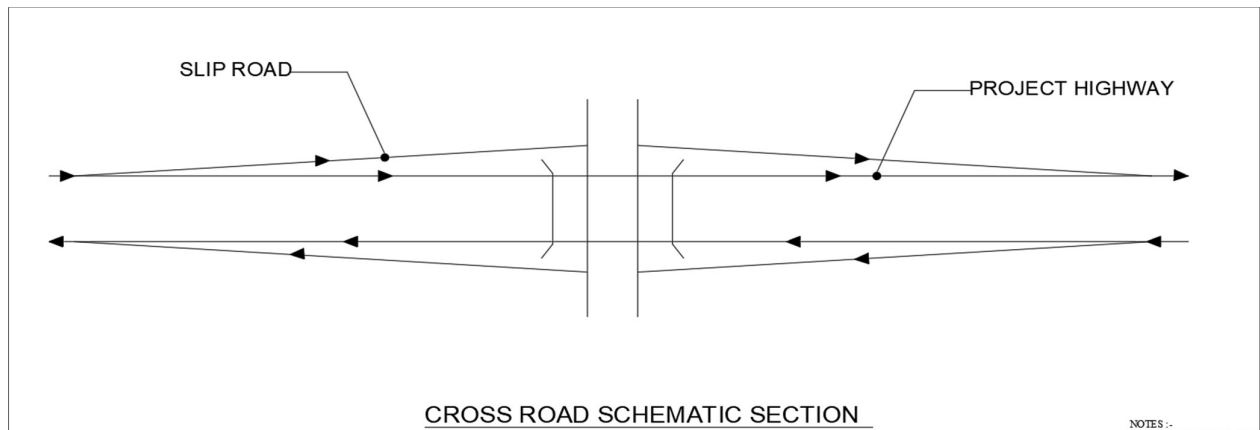




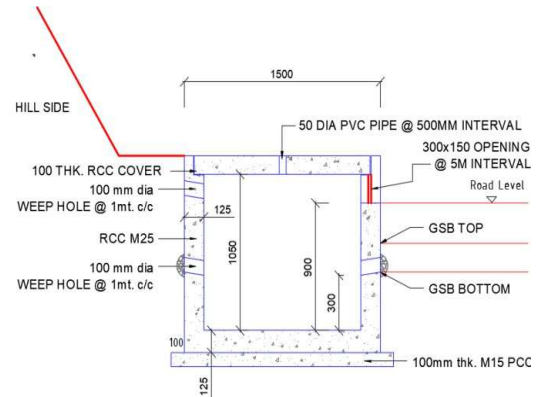
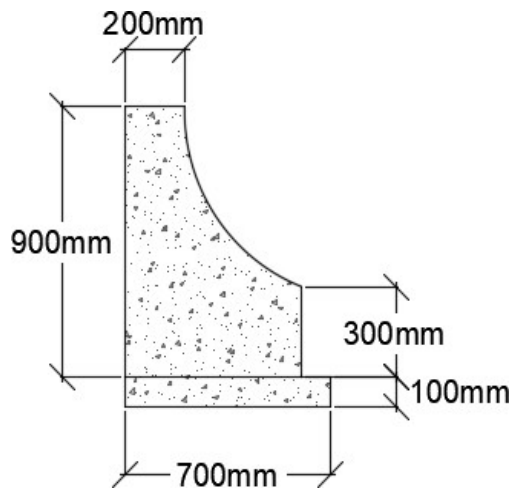




ANNEXURE – IV (Schedule B)



Typical Section of Boundary Wall and RCC Cover Drain



Cover Drain

Road Boundary Wall

RCC

ANNEXURE – IV (Schedule B)

SCHEDULE – C
(See Clause 2.1)
PROJECT FACILITIES

1 Project Facilities

The Concessionaire shall construct the Project Facilities in accordance with the provisions of this Agreement. Such Project Facilities shall include:

- a) Toll Plaza**
- b) Roadside furniture**
 - i. Kilometer and Hectometer Stones
 - ii. Traffic Signs
 - iii. Overhead Signs
 - iv. Road Marking
 - v. Road Delineators
 - vi. Reflective Pavement Markers & Solar Studs
 - vii. Traffic Impact Attenuators
 - viii. Boundary pillars
- c) Operation and Maintenance centers**
- d) Way side Amenities / Service Areas**
- e) Truck lay-byes**
- f) Bus Bay and Bus shelter**
- g) Pedestrian Facilities**
- h) Highway Lighting**
- i) Rainwater Harvesting**
- j) Environmental Management Plan**
- k) Landscaping and Tree Plantation**
- l) Advanced Traffic Management System (ATMS)**
- m) Highway Patrol Units**
- n) Emergency medical services**
- o) Crane Service**

1.1 Project Facilities for Project Highway

Project Facilities to be completed on or before project completion date have been described in Annex-I of this Schedule-C.

Annexure – I

(Schedule-C)
PROJECT FACILITIES

1. Project Facilities

The Concessionaire shall construct the Project Facilities described in this Annexure-I to form part of the Project Highway. The Project Facilities shall include:

- a) Toll Plaza
- b) Roadside furniture
 - i. Kilometer and Hectometer Stones
 - ii. Traffic Signs
 - iii. Overhead Signs
 - iv. Road Marking
 - v. Road Delineators
 - vi. Reflective Pavement Markers & Solar Studs
 - vii. Traffic Impact Attenuators
 - viii. Boundary pillars
- c) Operation and Maintenance centers
- d) Wayside Amenities / Service Areas
- e) Truck lay-byes
- f) Bus Bay and Bus shelter
- g) Pedestrian Facilities
- h) Highway Lighting
- i) Rainwater Harvesting
- j) Environmental Management Plan
- k) Landscaping and Tree Plantation
- l) Advanced Traffic Management System (ATMS)
- m) Highway Patrol Units
- n) Emergency medical services
- o) Crane Service

2. Description of Project Facilities

Each of the Project Facilities is briefly described below:

2.1 Toll Plaza

Tolling system shall be provided in entire length of the project and the same is integrated with the adjoining packages. The toll plazas shall be provided as per NHA circular No.17.5.82 dated 24/5/2021 and Schedule D. Minimum Lane requirement in the opening year are as follows.

Toll Plaza shall be provided confirming to (Clause No. 10.2 IRC: SP:84-2019 at the following locations:

Sl. no.	Location of toll plaza (km.)		Direction (Entry: to Highway, Exit: from Highway)	Minimum number of toll lanes	
	Existing chainage	Design chainage		Entry	Exit
1	41+490	42+980	ENTRY	6	6
2	119+000	120+500	EXIT	6	6

The sub-Items of toll plaza are as follows:

Sl. No.	Item	Number	Remarks
1	No of toll lanes	2*6	
2	Toll booth complex	2	1 each on either side
3	Weigh bridges	2	1 each on either side of toll plaza
4	Electrical system		Sufficient for all equipment placed on Toll Plaza and for future expansion
5	Highway nest with toilet facility	2	1 in each direction after crossing the toll booth
6	Internet facility	2	Internet facility with 2 different telecoms operators

Note: 1. The Toll Plaza shall be constructed as per Manual (Schedule D) considering the modification as per NHA Circular NHA/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No. 17.5.82 dated 24th May, 2021.

2. Based on the toll lanes as given above, toll Booth complex, weigh bridges, electrical systems, and all other facilities required/ mentioned in manual shall be provided as per specification mentioned in Schedule D.

3. No. of toll lane specified above are to be provided. The Concessionaire shall design and provide toll lane as per Manual (Schedule D) & NHA Circular NHA/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No.17.5.82 dated 24th May, 2021 subject to as specified above.

4. All Toll Lanes to be equipped with Hybrid ETC equipment's as per NHA/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No. 17.5.82 dated 24th May, 2021.

5. A separate Highway Nest with toilet facility for road users shall be provided near toll plaza location along with parking facility. One toilet block on each direction shall be provided. These toilet facilities shall follow CPWD specifications for sanitary ware items and fittings such as WC, wash basin, Wash basin-Under counter, Urinal flat back, PVC Cistern, IWC Orissa Pan, Flush Valve -CP, Wash Basin pillar cock-CP, Bib Cock-CP, Health Faucet, W/c Bib cock, Wash Basin angle cock. One WC shall be provided for specially challenged persons.

6. Point of Sale (POS) with card swapping machines shall be provided.

7. Provide Lane markings and Traffic Signs as per IRC: SP: 84, IRC 35 and IRC 67 (Clause No. 10.8 & 10.9 of IRC: SP:84)

8. Solar panels shall be erected over the either on FOB or over Toll plaza / Admin building to generate the green energy. Same shall be utilized for toll plaza lighting and other energy requirement within toll plaza area along with conventional lighting.

9. Medium speed Weigh in Motion (MSWIM) devices shall be provided in all toll lanes at Toll plaza Location. In addition to MSWIM, Static weigh Bridge (SWBs) shall be provided on each direction as per manual. (Clause No. 10.6, IRC: SP:84)

10. Provide Impact Attenuators on Toll Plaza islands in the direction of traffic. Impact attenuators shall be self-restoring confirm to section 10.6 of IRC SP 99 i.e. Manual of Specifications and Standards for Expressways. (Clause No9.6, IRC: SP:84)

11. Provide Staircase on either side of the FOB at Median Island location by widening the island appropriately

2.2 Roadside furniture

2.2.1 Kilometre and Hectometre Stones

Sl. No.	Item	Number	Remarks
1	5 th Kilometer stone	43	The KM/ Hectometer stones/ marker can be concrete/ stones and shall be placed on both outer side of the earthen shoulder.
2	Kilometer stone	218	
3	Hectometer marker/ stone	1177	
4	Boundary stone	1177	In case KM/ Hectometer marker are to be fixed on separator between Main Carriageway & Service Road then these should be fixed as reflective signs.

2.3 Traffic Signs

Traffic Signs include roadside signs, overhead signs and kerb mounted signs etc. shall be provided along the entire Project Highway and on all Side, Roads joining the main carriageway/service road in line with IRC 67 and MoRTH guidelines RT-25035/07/2023 dated 24.12.2024. A QR code shall be marked on back of each sign as per IRC 67.

All signs shall be of Micro Prismatic Grade Sheeting Corresponding to Class C sheeting as per ASTM D 4956 Type VIII, IX and XI.

All shoulder mounted signs shall be supported on GI Pipes. Overhead Signs shall be placed on a structurally sound gantry or cantilever structure made of GI pipes.

On multi-lane roads (6 lanes or above), signs shall be mounted overhead.

The siting of signs shall confirm to Table 4.1 and Fig 4.1 of IRC 67. The two successive signs shall

be placed at a minimum distance of $0.6 \times V$ metre (V is design speed in Kmph).

The overhead gantry/Cantilever signs shall be placed as given below: (Clause No. 16.3.2 of IRC 67)

Sl. No.	Item	Carriageway (Left, Right, Both)
1	Overhead Gantry signs	
a	Start of Project	Both
b	End of project	Both
c	Toll plaza location	Both
d	For ATMS@10Km C/C	
e	Advance Direction Signs on main carriageway ahead of Grade separated Junction	Either left or right
f	Reassurance Signs on main carriageway	-
2	Overhead Cantilever Gantry signs	-
a	Direction Signs on main carriageway and crossroad ahead of Grade separated Junction	Either left or right
b	At all major locations of crossroads i.e. NH, SH, MDR (start of grade Separated structure/at grade interchange)	Either left or right
c	At major trauma center, roads leading to religious places or any other important location	Both sides
3.	Double/Butterfly Cantilever	On Gore Area of Exit Locations of Access Controlled Highway/ Expressway.

The detailed minimum number of signage indicating places, direction, distances, and other features shall be marked on the alignment plan and submitted, which are as mentioned below:

Sl. No.	Road Signs	Number	Remarks
I	Mandatory/Regulatory	-	
1	Stop signs	168	
2	Give Way Signs	168	
3	Prohibitory signs	4	
4	No Parking signs	14	
5	No Stopping signs	-	
6	Speed Limit signs (Circular)	14	
7	Speed Limit signs (Vehicle Type)	27	
8	Vehicle Control signs	-	
9	Restriction Ends sign	-	
10	Compulsory Direction Control and other signs	-	
II	Cautionary/Warning	-	
1	Left/Right Curve	64	
2	Left/ Right Curve with side road	6	
3	Right/Left Hairpin Bend	-	
4	Right/Left Reverse Bend	-	
5	Series of Bends	-	
6	270 Degree Loop	3	
7	Side Road	-	
8	Y-intersection	79	
9	Cross Road	65	

Sl. No.	Road Signs	Number	Remarks
10	Roundabout	-	
11	Traffic Signals	-	
12	T- Intersection	33	
13	Major Road Ahead	38	
14	Staggered Inter-section	-	
15	Merging Traffic Ahead	10	
16	Narrow Road Ahead	-	
17	Road Widens	-	
18	Narrow Bridge Ahead	-	
20	Steep Ascent/Descent	-	
21	Reduced Carriageway	-	
23	Start /End of Dual Carriageway	-	
24	Gap in Median	-	
25	Pedestrian Crossing	456	
26	Pedestrian crossing with backing board	-	
27	School Ahead	-	
28	Built Up Area	20	
29	Two Way Operation (on main carriage way /service road)	-	
30	Two Way Traffic on Cross Road Ahead	-	
31	Danger Warning Sign	-	
32	Deaf or Blind Persons Likely on Road Ahead	-	
33	Cycle Crossing	-	
34	Cycle Route Ahead (Warning for Cycles on road ahead)	-	
35	Dangerous Dip	-	
36	Speed Breaker	-	
37	Rumble Strip	20	
38	Rough Road	-	
39	Dangerous Ditch	-	
40	Slippery Road	-	
41	Slippery Road because of Ice	-	
42	Opening or Swing Bridge	-	
43	Overhead Cable	36	
44	Playground Ahead	-	
45	Quay Side or Riverbank	-	
46	Sudden Side Winds	-	
47	Tunnel Ahead Warning	-	
48	Falling Rocks	-	
49	Cattle Crossing	-	
50	Wild Animals likely to be on Road Ahead	-	
51	Queues Likely Ahead	-	
52	Low flying Aircraft	-	
53	Unguarded Railway Crossing	-	
54	Guarded Railway Crossing	-	
55	Crash prone area ahead	-	
56	U- Turn	5	
III	Chevron Signs	-	
1	Single Chevron	830	
2	Double Chevron	-	
3	Triple Chevron	-	

Sl. No.	Road Signs	Number	Remarks
IV	Object Hazard Marker Sign	-	
1	Left /Right side Object Hazard Marker	862	

Note: The locations of the placement of signages shall be finalized in consultation with Authority Engineer / Independent Engineer/ NHIDCL, as per requirement. Above details of sign boards are indicative and minimum specified. The exact type and number of sign boards shall be decided as per manual in consultation with Authority / Independent Engineer. Any variation in type/number/location specified above shall not constitute Change of Scope.

2.4 Road Marking

Road Markings shall be Hot applied thermoplastic materials with reflectorized beads to achieve visibility confirming to clause 2.7.2 of IRC 35.

The cold applied plastics pavement markings shall be used for School Zone Markings, Audible Raised Profile Edge Lines and Block Markings (BM 01/02/03).

Sl. No.	Item	Number & Length (m)
1	Longitudinal Marking	135.880Km
2	Transverse Marking	0.250Km
3	Hazard Marking	1.070Km
4	Block Marking	70 nos
5	Arrow Marking	178 nos
6	Directional Marking	9
7	Facility Marking	Nil
8	Center Line	20.63Km
9	Traffic Lane Lines	As per Manual
10	No Overtaking Lines	Nil
11	Warning Lines	Nil
12	Border or Edge Lines	51.300Km
13	Longitudinal Markings for Undivided Roads	2.450Km
14	Longitudinal Markings for divided Roads	13.440Km
15	Longitudinal Markings for Ramps/Slip Roads/One Way Streets	3.600Km
16	Stop Line	0.150Km
17	Give Way Lines	Nil
18	Diagonal Markings	0.670Km
19	Chevron Markings	0.610Km
20	Continuity Line	0.770Km
21	Word Messages	Nil
22	Lane Change	0.750Km
23	Merging/Diverging Marking	0.560Km
24	Hatch Markings	Nil
25	Raised Profile Lines	Nil
26	Lane Reduction / Narrowing Situations and Transitions (lane Balancing)	Nil
27	Directional Arrows	As per Manual
28	Mandatory Turn Arrows	43 nos
29	Guidance Arrows	Nil
30	Deflection Arrows	Nil
31	Bifurcation Arrows	04 nos
32	Arrows on Side Road Approaches	24 nos

Sl. No.	Item	Number & Length (m)
33	Arrows on Main Road Approaches	50 nos
33a	Word Messages	Nil
34	Yellow Box Markings	Nil
35	Ghost Island	Nil
36	Marking for Speed Breakers	Nil
37	Pedestrian Crossing	Nil
38	Markings when highway passes through settlement fig 9.4 of IRC SP 84/87	Nil
39	Transverse Bar Markings	As per Manual
40	Bus bay Marking	02 nos
41	Truck Lay-by Markings	01 nos
42	Toll Plaza Marking	03 nos
43	School Zone Markings	Nil
44	Object Markings within Carriageway	Nil
45	Objects Markings Adjacent to Carriageway	Nil
46	i. Subway Piers, Abutments, Culverts Head Walls, Concrete Barrier	Nil
47	ii Electrical poles	Nil
48	iii Guard rails	Nil
49	iv Kerb	Nil
50	Directional Markings as per Annexure: A 6	Nil
51	Facility Markings as per Annexure A.7 of IRC 35	Nil

Note: The locations of the marking shall be finalized in consultation with Authority Engineer / Independent Engineer / NHIDCL as per site requirement. Raised profile edge lines as per Clause 7.7 of IRC 35 shall be provided on both sides i.e., shoulder and median side.

2.5 Road Delineators: The road delineators shall be provided in accordance with Schedule-D.

Sl. No.	Item	Number/Length (m)
1	Roadway indicator	29 Nos.
2	Median Marker on Median/RCC Barrier (Clause 4 of IRC 79 2019)	5500 Nos.
3	Object marker	
4	Flexible Object Markers (Clause 6 of IRC 79 2019)	
i	On Metal Beam Barrier	121510m.
ii	On Toll Booth/Toll Island	06 Nos.
iii	On Entry/Exit of Tunnel	04 Nos.
iv	On Exit from Main carriageway	12 Nos.
5	Solar Blinkers on Median Opening, on exit from main carriageway and on approach ramp/crossroad at junctions below grade separated intersections.	08 nos.

Note: The number & locations of the Road Delineators/flexible object markers are minimum and shall be finalized in consultation with Independent Engineer/NHIDCL, as per site requirement in accordance with manual.

2.6 Reflective Pavement Markers & Solar Studs

The Prismatic Retro-Reflective type conforming to ASTM D-4280 Pavement Markers & Solar Power Studs on Highway shall be provided in accordance with Schedule –D.

Sl. No	Item	Number	Location	Remarks
1	White Colour one coloured face Road Studs	1762	Traffic lane line & centre of carriageway	Uni-directional carriageway
	Red Colour one coloured face	5316	Left hand edge of the carriageway,	

2	Road Studs		entry to truck lay bye / bus bay, start of service road, chevron/diagonal markings on gorge
3	Yellow / Amber Colour one coloured face Road Studs	4408	Median side edge line, zebra crossing
4	Green Colour one coloured face Road Studs	1604	Lay byes, left hand side of the carriageway in case of multi-lane divided carriageways, crossable continuous line like in acceleration/ deceleration lanes involving lane changing

Note: The number & locations of Studs are minimum and shall be finalized in consultation with Independent Engineer/NHIDCL, as per site requirement.

2.7 Traffic Impact Attenuators: The Traffic Impact Attenuators shall be provided as per Schedule D.

2.7.1 Provide Impact Attenuators in Gore Areas

It shall be self-restoring confirming to section 9.6 of IRC SP 84 & section 10.6 of IRC SP 99 at the following locations:

Sl. No.	Item	Chainage / Number	Remarks
1	On flyover/grade separated structure at exit from main carriageway	00	
2	On Island of Toll Plaza	02	
3	Any other location which Safety Hazard	-	

2.7.2 Providing End Terminals

Provide End Terminals P-4 type confirming to EN 1317-4 to Parapet Walls of Culverts, Structures ends for the safety of approaching traffic etc.

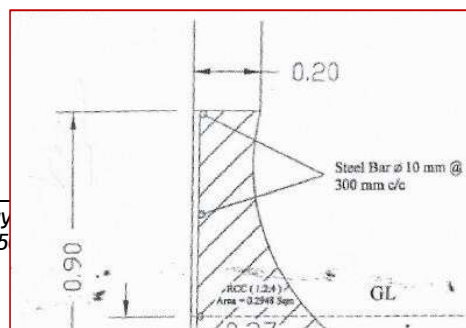
Sl. No.	Item	Number	Remarks
1	Culvert Ends	-	
2	Structures Ends	76	At bridge / viaduct RCC crash barrier end on approaching side
3	Any other location which Safety Hazard	-	

2.8 Boundary Wall and Fencing (Clause No. 12.2 IRC-SP-84-2019):

Boundary wall shall be provided along the entire length on either side (including transverse requirements at structure locations) as per the detail given below in accordance with IRC:

SP:84. Road boundary walls shall be provided at the boundary on both sides of the right of way available under the control of the Authority, except at ingress and egress points. The boundary walls shall be of reinforced cement concrete as per figure enclosed.

At all CD structure locations, the boundary wall shall be discontinued by turning and joining it with the wing/return wall to allow crossing through these structures during dry seasons.



Construction of 4 Lane Highway
Mangaldoi Bypass (from Ch. 28+5

Jawahati to Tezpur (Ch. 150+971) excluding
Assam on BOT Toll Mode

3. Operation and Maintenance centers:-

There shall be operation and maintenance center(s) as per Clause 12.15 of Schedule-D, either near the toll plaza location or at any other location along the Project Highway, as identified by the Concessionaire. The minimum land for O & M center shall be 2000 sqm and shall be acquired by the Concessionaire at his own cost and risk. Dedicated operation and maintenance center shall be provided in accordance to Schedule D.

4. Wayside Amenities / Service Areas / Rest Area

Sl. No	Item	Design Chainage (Km)	Side	Remarks
NIL				

The Site needs to levelled/ graded for the whole of Way Side Amenities area and boundary wall of the height of 1.5m shall be constructed along the periphery of the area.

5. Truck lay-byes:

5.1 The truck lay-bye shall be provided at below given location and as per the design mentioned in Schedule-D.

Sl. No	Design Chainage	Side	Remarks
1	75+800	BOTH SIDE	
2	119+400	BOTH SIDE	

5.2 Toilet block along with Janitor room on each Truck Lay bye shall be provided. The toilet block shall consist of at least 1 block for bathing, at least 2 fixtures each for urinals, WC and wash basin. There shall be 24-hour lighting facility in toilet block. These toilets facilities must be functional round the clock including proper maintenance. For arrangement of water, 1 no. of boring along with water pump shall be provided to keep the toilet clean. For upkeep and maintenance of Toilet, 3 Safai wale (1 in each 8-hour shift) shall be engaged and is in the scope throughout contract period.

5.3 Truck Lay Bye Pavement Provide pavement composition (Flexible/Rigid/ Paver Blocks) as follows:

Pavement Composition is same as MCW (Flexible)
--

6. Bus Bay and Bus shelter:

Provision of bus shelter on highways as per IRC 80 including paving of laybye, signs, markings, speed calming measures, drainage, lighting etc., in built-up areas, intersections of NH/SH/MDR and roads leading to large settlements is as follows:

6.1 Bus Bays locations

Bus Bays shall be constructed at the following locations:

Sr. No.	Chainage (Km)	SIDE
1	NIL	

6.2 Kerb Side Bus Stop with Pedestrian shelter

Kerb Side Bus Stop with Pedestrian shelter shall be provided at the following locations:

S. No.	Chainage (km)	Design Chainage	Entry Taper Length (m)	Bus Shelter Length	Exit Taper Length	Side	Remarks
1		0+735		15		Right Hand Side	
2		7+710		15		Right Hand Side	
3		16+230		15		Right Hand Side	
4		25+970		15		Right Hand Side	
5		43+775		15		Right Hand Side	
6		50+120		15		Right Hand Side	
7		51+050		15		Right Hand Side	
8		57+500		15		Right Hand Side	
9		60+030		15		Right Hand Side	
10		68+105		15		Right Hand Side	
11		71+200		15		Right Hand Side	
12		74+200		15		Right Hand Side	
13		76+900		15		Right Hand Side	
14		79+450		15		Right Hand Side	
15		84+066		15		Right Hand Side	
16		90+717		15		Right Hand Side	
17		93+980		15		Right Hand Side	
18		96+600		15		Right Hand Side	
19		104+125		15		Right Hand Side	
20		109+188		15		Right Hand Side	
21		115+780		15		Right Hand Side	
22		123+300		15		Right Hand Side	
23		132+507		15		Right Hand Side	
24		138+200		15		Right Hand Side	
25		140+403		15		Right Hand Side	
26		146+930		15		Right Hand Side	
27		1+230		15		Left Hand Side	
28		8+135		15		Left Hand Side	
29		16+560		15		Left Hand Side	
30		26+200		15		Left Hand Side	
31		44+030		15		Left Hand Side	
32		50+470		15		Left Hand Side	

S. No.	Chainage (km)	Design Chainage	Entry Taper Length (m)	Bus Shelter Length	Exit Taper Length	Side	Remarks
33		51+400		15		Left Hand Side	
34		57+955		15		Left Hand Side	
35		60+300		15		Left Hand Side	
36		68+500		15		Left Hand Side	
37		71+495		15		Left Hand Side	
38		74+507		15		Left Hand Side	
39		77+425		15		Left Hand Side	
40		79+800		15		Left Hand Side	
41		84+360		15		Left Hand Side	
42		90+922		15		Left Hand Side	
43		94+370		15		Left Hand Side	
44		96+974		15		Left Hand Side	
45		104+487		15		Left Hand Side	
46		109+600		15		Left Hand Side	
47		115+975		15		Left Hand Side	
48		123+790		15		Left Hand Side	
49		132+800		15		Left Hand Side	
50		138+507		15		Left Hand Side	
51		140+700		15		Left Hand Side	
52		147+252		15		Left Hand Side	

6.3 Truck lay Bay shall be provided at the following locations:

S. No.	Chainage (km)	DESIGN	Entry Taper Length (m)	Bus Shelter Length	Exit Taper Length	Left Hand Side	Right Hand Side	Remark
1	12+400	12+400	70	100	70	LHS	RHS	
2	75+800	75+800	70	100	70	LHS	RHS	
3	119+400	119+400	70	100	70	LHS	RHS	

6.4 Bus Bay Pavement : Provide pavement composition (Flexible/Rigid/ Paver Blocks) as follows

Pavement Composition (Flexible/Rigid/ Paver Blocks)
Flexible same as MCW

7. Pedestrian Facilities

Pedestrian Facilities shall be provided in accordance with the Manual of Specifications and Standards as referred in Clause 9.8 of Schedule D and IRC 103. This shall consist of footpath (sidewalks), pedestrian guard rails and pedestrian crossing.

The details are as mentioned below:

Sl. No.	Pedestrian Facilities	Chainage		Side	Remarks
		From	To		
1	Pedestrian guardrails shall be 150 mm from Carriageway/Paved Shoulder i. Hazardous Locations on Straight Stretches ii. At Junctions/Intersections iii. Schools iv. Bus Stop/Railway Stations v. Overpass, Subway vi. Central Reserve	As per manual			
2	Footpath paving including fixing pavers	As per manual			
3	Pedestrian Crossing i. With Zebra Marking ii. With Tabletop Crossing iii. At Intersections iv. At Schools	As per manual			

8. Highway Lighting

The street light poles shall be 1 piece, continuous-tapered, octagonal poles and shall be manufactured from one length of steel sheet, formed in continuous tapered tube, with one continuous arc-welded vertical seam. The minimum wall thickness for lighting poles shall not be less than 4 mm. The Bottom Diameter shall be minimum 175 mm. The Top Diameter shall be minimum 75 mm. The door on window of pole shall be antitheft. All electrical cable should be concealed. All electrical lighting fixers shall be LED. The fixtures shall be concealed except on poles. Lighting poles shall be fixed on outer side of steel/concrete barrier.

Sl. No.	Lighting facilities	Chainage		Side	Lighting Source:
		From	To		
1	Toll Plaza area: The lighting in and around toll plaza, toll booths, office building, on the approach road, O&M center etc. shall be as per Section 12 of the Manual. In addition to at least two high mast light shall be provided on either side of toll plaza				
2	Rest Areas: The entire Rest areas shall be provided with lighting with average illumination to 40 Lux				
3	Truck lay-bye: The entire area of truck lay-byes and 50m length of the project highway on its either side shall be illuminated at night to provide an average illumination of 40Lux. Suitable designed electric poles having aesthetic appeal and energy saving bulbs (LED) may be used to provide required illumination. Alternatively, photo voltaic lamps may be used				
4	Bus Bay & bus shelter locations: The entire bus bay & bus shelter area shall be provided with				

	Lighting (Average illumination of 40Lux.).	
	Grade separated structures, interchanges, flyovers, underpasses (vehicular/ pedestrian) and Vehicle overpasses: Lighting requirement shall be as per section 12 of the manual. The top and underside of the grade separated structures including service road/ slip road, interchange area at the ground level up to 50m beyond the point from where flaring of the main carriageway takes place shall be provided with lighting. Also, on all legs of at grade interchange/ crossings the lighting shall be provided 50m beyond the point of Centre on all legs. The minimum illumination shall be 40 Lux., at the extreme edge of the Highway	Electricity Board / Solar
	Built-up sections on the project highway both in the median of main carriageway and on the service roads on both sides	
	On Median Openings provide 1 no. high mast lighting of 25m height	Not Applicable
	On Major Bridges and its approaches higher than 3m	Solar

9. Rainwater Harvesting

The provision of rainwater harvesting shall be provided at every 1000m staggered in the entire project length and shall be executed as per requirement of IRC SP: 42-2014 and IRC SP: 50-2013. Additionally, wherever urban drains are provided, which do not have a definite outfall for discharge of water, at such location one pit for rainwater harvesting shall be provided along the side drains at the lowest point/ where the water stagnates. The type and location of rainwater harvesting is as follows:

Sl. No.	Rainwater Harvesting Type
1	Type 1 confirming to clause 10.7.2 of IRC SP 42
2	Type 2 confirming to clause 10.7.3 of IRC SP 42
3	Type 3 confirming to clause 10.7.4 of IRC SP 42
4	Type 4 confirming to clause 10.7.5 of IRC SP 42

10. Environmental Management Plan

The Concessionaire / Contractor shall implement the Environmental Management plan & action Plan for undertaking possible mitigation measures in accordance with environmental clearance accorded by Ministry of Environment and Forests and climate change. The conditions & directions stipulated by the MOEF shall be complied by the contractor / concessionaire. The contractor shall ensure

1. Tree Plantation and Protection

The Contractor shall ensure the plantation of trees, at locations identified in coordination with the Authority or the Independent Engineer.

2. Sanitation and Environmental Management

The Concessionaire/Contractor shall:

- Provide adequate **sanitation arrangements** at the camp site;
- Implement effective **dust suppression measures** throughout the project area;
- Carry out **solid waste management** in accordance with relevant environmental guidelines and regulations.

3. Environmental Monitoring

The Concessionaire/Contractor shall:

- Monitor **Ambient Air Quality, Ambient Noise Levels, Surface Water Quality, and Soil Quality**;
- Engage a **NABL-accredited laboratory** for all environmental monitoring activities;
- Submit environmental monitoring reports to the Authority on a **quarterly basis**, during both the construction and maintenance periods.

11. Land Scaping and Tree Plantation

The Concessionaire shall plant trees and shrubs of required numbers and types at the appropriate locations within Right of Way and in the land earmarked by the Authority for afforestation as per Schedule D at the following areas:

Sl. No.	Types of Plantations	Location (Km)	Number of trees to be planted	Remarks
1	Shrubs	In median except Structures+ Frist row from side of drain	1 row of 333 plants for the median of 2-3 metre at every km. and 2 rows of 333 plants (staggered) for the median of 3 metre and more	Ornamental typeplantation shall be provided
2	Landscaping	O&M Centres, Vacant land parcels, Toll Plaza building and surroundings Vacant space below the flyovers	Landscaping plans shall be submitted by the Concessionaire/ Contractor which shall include ornamental trees, decorative statues and landscaping	The number of Ornamental type plantation and other things shall be decided on the basis availability of land.
3	Plantations	Available open land within ROW	Minimum 78000 nos. of trees of desired type in one row as per availability of RoW @ 10 m c/c near edge of ROW on both sides (As per Schedule D)	Preferably local varieties like mango, Neem, Sheesham, Babul, Peepal etc. shall be planted

Drip irrigation system for median plantation by gravity/pressure sources with all necessary components / systems and emitting devices at plants shall be provided.

The Concessionaire shall maintain the trees and shrubs in good condition during concession period as per the concession agreement.

12. Advanced Traffic Management System (ATMS)

The Concessionaire is required to design, install, operate and maintain Advanced Traffic Management System (ATMS) as part of the project facilities. Advanced Traffic Management System shall be provided as per standards and specifications specified in the manual and as per NHAI circular and shall be maintained throughout the contract period. (NHAI Policy circular

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

no.11.53/2023 dated 10.10.2023).

The ATMS components to be deployed shall inter alia include:

12.1 General

The ATMS Project shall broadly include the following sub-systems to be provided as per the standards & specifications mentioned in NHAI policy circular technical (NHA Policy circular no.11.53/2023 dated 10.10.2023):

- 12.1.1** Video Surveillance System / Traffic Monitoring Camera System (TMCS)
- 12.1.2** Video Incident Detection and Enforcement System (VIDES)
- 12.1.3** Vehicle Actuated Speed Display System (VASD)
- 12.1.4** Fixed and Portable Variable Message Sign (VMS) System
- 12.1.5** Communication Network with OFC Backbone
- 12.1.6** Emergency Roadside Telephone System (ECB)
- 12.1.7** ATMS Command & Control Center with ATMS Software.
- 12.1.8** Power Supply for Field Equipment as well as for ATMS Command & Control Center.

The requirements stated herein shall be construed as minimum requirement and meeting the respective requirements individually shall not relieve the Concessionaire from the responsibility. The entire system should function efficiently as an integrated solution during the entire O&M period.

12.1.1 Video Surveillance System / Traffic Monitoring Camera System (TMCS)

- (i) The system monitors vehicular and other road related activity along the highway stretch through PTZ Camera mounted on Poles. Generally, the camera should be placed at a distance not greater than 1km so as to effectively monitor all the lanes of the entire stretch of Highway. In case certain stretches include regular curves, ramps etc. not allowing central line of sight, then additional TMCS camera shall be put to ensure effective surveillance of the entire stretch.

12.1.2 Video Incident Detection and Enforcement System (VIDES)

The VIDES include Gantry Mounted ANPR Cameras, Overview Cameras and associated incident detection software system to effectively detect pre-defined actionable incidents which triggers enforcement and incident response system. The VIDES should also act as Automatic Traffic Counting and Classifying (ATCC) system.

12.1.3 Vehicle Actuated Speed Display (VASD) System

The VASD system shall include gantry mounted Radar and Speed Display system for each lane to warn the road users of their speed. The system shall act as a Speed Calming Measure.

12.1.4 Fixed and Portable Variable Message Sign (VMS) System

The VMS shall provide road users advance information of road conditions ahead and shall be controlled from the local ATMS Control center.

12.1.4.1 Portable VMS

The Concessionaire shall provide 02 (Nos) Trolley Mounted Portable VMS.

12.1.5 Communication Network with OFC Backbone

The entire stretch shall be provided with a minimum of 24 Core OFC Backbone as per the standards & specifications. The short haul connections, like between field equipment to access points, access points

to OFC backbone etc., shall be done with a minimum of 12 Core cable. The OFC shall be laid strictly as per the Standards and Specification.

12.1.6 Emergency Roadside Telephone System (ECB)

The existing emergency call box shall be provided as per NHA Policy circular no.11.53/2023 dated 10.10.2023.

12.1.7 ATMS Command and Control Center

The Concessionaire shall integrate ATMS with existing Control Centre and operate the ATMS Command and Control Center as per the Standards and Specification. The Concessionaire shall undertake any additional civil works, interior works, MEP works, for setting up the Command Center, including all additional related electrical, lighting, electrical connection, DG set, power backup, HVAC works, access control, building CCTV, PTZ cameras outside building, firefighting system, alarm, fire extinguishers, raised floor, housekeeping, building cleaning, maintenance, recurring charges including electricity bills, telephone bills, DG fuel, servicing, security.

12.1.8 Power Supply for ATMS Command & Control Center and Field Equipment

The Concessionaire shall ensure 24x7 supply for the ATMS Command and Control Centre and Field Equipment with supply power from Electricity Department as primary source supported by UPS renewable power (solar etc.) and DG Set of adequate capacity.

There shall be NO obligation of NHIDCL with regard to providing power/ electricity supply/connections for testing commission, operation & maintenance of any component of the ATMS. Further, the following points are also to be observed by the ATMS Concessionaire:

- a. The Concessionaire shall perform all the necessary application procedures to the Power Company required for the power to be supplied to the Traffic Management Centre, Sub-Centre and the field equipment in their own name. All the expenses charged by Power Companies regarding such applications and execution of work shall be borne by the Concessionaire as part of the scope of this contract. Any damage to the highway during such execution of work shall have to be repaired by the ATMS Concessionaire to the pre-existing condition without any cost implications to NHIDCL.
- b. The Concessionaire shall make all necessary arrangements for the electricity needed for the execution of the Works and O&M period for the entire period of the Contract. In case electricity is not made available through electricity companies, alternate electricity arrangement such as through renewable energy/DG Set should be made by the Concessionaire. Under no circumstances NHIDCL shall grant an extension of time for achieving the milestones if the Concessionaire is unable to make the electricity arrangement either for the execution of the work or for the O&M activities.
- c. The fixed charges, installation charges, recurring charges, electricity bill, DG set fuel, maintenance etc. for each field equipment, TMC, Control Centre, Sub-centre, Concessionaire's site office, or any other facility being used by the Concessionaire under the scope of this Contract shall be in the scope of the Concessionaire only for the entire Contract period i.e., Design phase, procurement, installation, testing, trial-run, commissioning, operations, and maintenance period. The Authority shall not be responsible for any provision for power supply during implementation as well as operations and maintenance period.

12.1.9 Operation & Maintenance (O&M) of the entire ATMS Facility.

- a. The O&M period after the successful completion of works shall include Operation &

Maintenance of the entire ATMS Facility as per the Service Level Agreement (SLA) with Qualified Manpower mentioned in Standards & Specifications including supply of adequate spares, parts, consumables and maintenance equipment required for the facility. The Concessionaire shall maintain required spare parts to maintain required service levels.

- b. The Concessionaire shall have sufficient infrastructure and capability to keep/store spares required for maintenances and will at all times during the contract period maintain sufficient inventory of spares and consumables for operating and maintaining the ATMS and to meet the Service Level requirements.
- c. Before the start of O&M Period, the Concessionaire shall deploy the O&M Personal mentioned at Appendix-C of Standards & Specification (NHA Policy circular no. 11.53/2023 dated 10.10.2023) with prior approval of the Authority.

12.1.10 Maintenance Vehicle-The Concessionaire shall keep adequate numbers of dedicated vehicles (minimum 1 vehicle per 50km) to attend the maintenance requirement during the Operation & Maintenance period.

13. Highway Patrol Units

Highway Patrol units shall be established and operate at toll plaza location as per Schedule-D Clause 12.10, which shall continuously patrol the highway in a stretch not exceeding 50 km (if the stretch is more than 50 km additional 1 number of patrol vehicle per 50 km or less shall be provided). The vehicle shall be brand new with fuel, driver, and insurance all inclusive for the entire contract period. Highway Patrol units shall be fitted with GPS and GSM based vehicle tracker system. Highway Patrol Vehicles shall be stationed on layby constructed on Project Highway @ every 20 km of each Toll Plaza.

14. Emergency medical services

The Contractor shall, at its own cost, construct a medical aid post at each toll plaza with a minimum size of 5 x 5 sq.m with a toilet (to be used for the patients of minimum size of 3 x3 sq.m) and hand it over to the Authority, no later than 30 (thirty) days prior to PCOD/COD. The Medical Aid Post(s) shall be deemed to be part of the project and shall vest in the Authority. Medical Aid Post shall be set up at Administrative Block with round-the-clock services for victims of accidents on the Project Highway.

One number Ambulance shall be provided in a stretch not exceeding 50 km (if the stretch is more than 50 km additional 1 number of ambulances per 50 km or less shall be provided). The Ambulance shall be brand new with fuel, driver, medical staff and insurance all-inclusive for the entire contract period. Ambulance fitted with GPS and GSM based vehicle tracker system shall be provided to be integrated with the Video Incident Detection System with ATMS, as per Schedule - D, Clause 12. 11 (strictly as per details mentioned in Annex-I of Schedule D), along with all necessary manpower (including paramedical staff), medicines, equipment's etc. and shall be maintained in an effective manner throughout the contract period starting from the appointed date. Ambulance shall be stationed on lay bye constructed on Project Highway@ every 20 km of each Toll Plaza.

15. Crane Service:

Crane Service shall be provided on project highway, as specified in the manual Clause 12. 1One number crane shall be provided in a stretch not exceeding 50 km (if the stretch is more than 50 km additional 1 number of cranes per 50 km or less shall be provided). Crane having capacity of minimum 20T shall be made available. The crane shall be brand new with fuel, driver, and

insurance all-inclusive for the entire contract period. Cranes shall be stationed on layby constructed on Project Highway@ every 20 km of each Toll Plaza.

16. Buildings for Traffic Aid Posts

Nil.

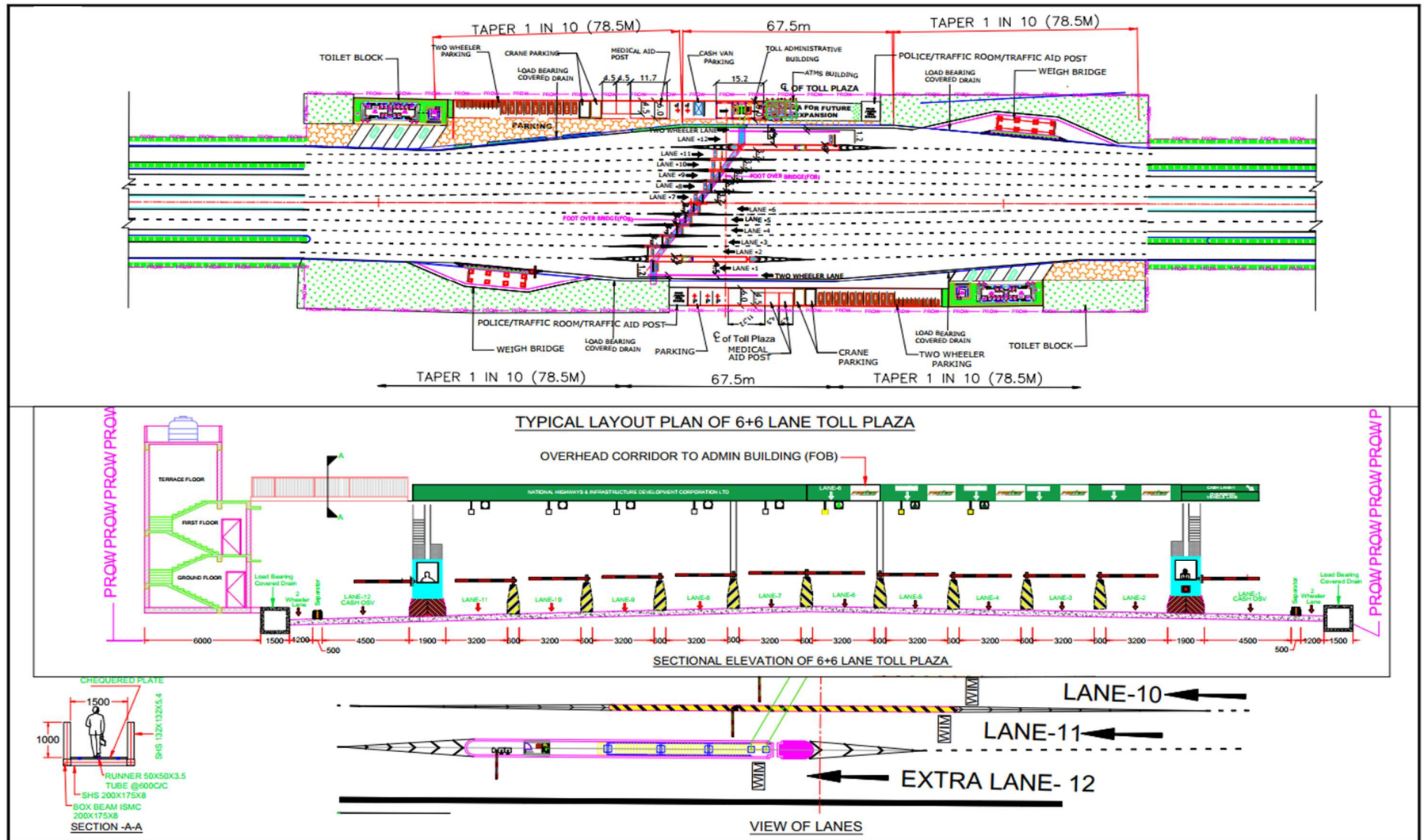
17. Building for Medical Aid Post

Nil

Annexure -II

Schedule(c)

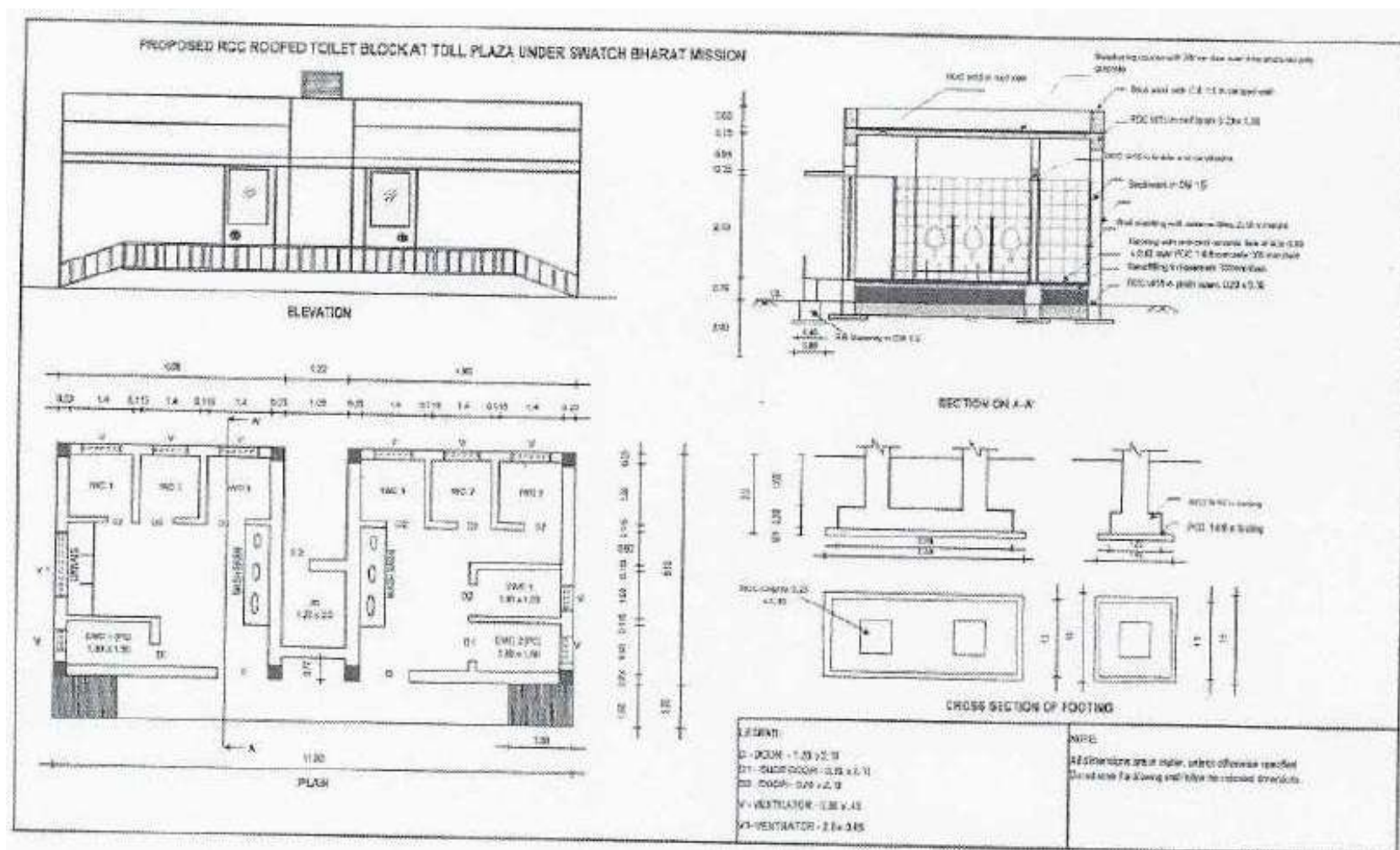
TYPICAL DRAWING FOR TOLL PLAZA



Note: Above mentioned typical drawing is for reference, Contractor shall finalize the detailed drawing as per manual in consultation with Authority Engineer/ NHIDCL.

Construction of 4 Lane Highway from Baihata Chariali (Ch. 0+000), near Guwahati to Tezpur (Ch. 150+971) excluding Mangaldoi Bypass (from Ch. 28+500 to Ch. 42+590) along NH-15 in the State of Assam on BOT Toll Mode

Annexure-II (Schedule C) – Standard Drawing for Toilet



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SCHEDULE – D
(See Clause 2.1)
SPECIFICATIONS AND STANDARDS

1. Specification and Standards for the Project

The Concessionaire shall comply with the Specifications and Standards set forth in Annex-I of this Schedule-D for construction of the Four Lane Project Highway.

2. Design Standards

The project Highway including Project Facilities shall conform to design requirements set out in the following documents.

Manual of Specifications and Standards for Four laning of Highways through IRC SP: 84, referred to herein as the manual.

As regards to work of utility shifting, the relevant specifications, relevant rules, regulations and acts of Utility owning Department/Agencies shall be applicable.

Annex - I

(Schedule-D)

SPECIFICATIONS AND STANDARDS**1 Manual of Specifications and Standards to apply**

All Materials, works and construction operations shall conform to the Manual of Specifications and Standards for Four-Laning of Highways (IRC: SP: 84-2019) with all amendments till date published by IRC (referred to as "Manual" in this Schedule) and MORT&H Specifications for Road and Bridge Works (5th revision). Where the specification for a work is not given, Good Industry Practice shall be adopted to the satisfaction of the Authority Engineer for construction of the project highway.

2 Deviations from the Specifications and Standards

- 2.1 The terms "Contractor", "Independent Engineer" and "Concession Agreement" used in the manual shall be deemed to be substituted by the terms "Contractor", "Authority's Engineer" and "Agreement" respectively.
- 2.2 Notwithstanding anything to the contrary contained in the aforesaid Manual, the following Specifications and Standards shall apply to the Four-Lane Project Highway, and for purposes of this Agreement, the aforesaid Manual shall deemed to be amended to the extent set forth below:

Sl. No.	Manual Clause No	Manual Provision	Description of Deviation
1	2.6.1	Width of paved and earthen Shoulder	In open country with isolated built-up area width of paved & earthen shoulder are 1.5 & 2.0m respectively, while approaches of underpasses width of paved shoulder shall be 2.0m as per Ministry's Circular No: RW/NH-33044/10/2021-S&R (P&B)(192344) dated 06.02.2023
2	2.5	Table 2.2 - Width of Median is 2.5m in Built Up section	As per Annex-III of schedule -B has been adopted with 0.61m median width as per MORTH circular No. RW/NH-29023/02/2019-S&R(P&B) dated 01 Jan 2020 in order to accommodate cross sectional elements within 45 m PROW.
3	Fig no. 2.1C	In open country with isolated built-up area, the service road shall have 7 m wide.	In open country with isolated built-up area, the service road shall have 5.5 m wide due to restricted ROW of 60m
4	2.17	4-lane Divided Highway Fig no.2.4	Refer to Annex-III of Schedule -B
5	2.17	4-Lane Divided Highway with Slip/Service Road Roads on Both Sides Approaches of underpass/interchange fig no. 2.5	Refer to Annex-III of Schedule -B

Sl. No.	Manual Clause No	Manual Provision	Description of Deviation
6	Fig no.7.12	Cross section of grade separate structure as per IRC: SP:73 2018	The Overall Deck Configuration of all structures shall be as given in Schedule B
7	7.18.1	Rail-Road Bridge	ROB as per RDSO/B-11775/R1 (4 lane) Standards Composite steel girder) with slip road along approaches are provisioned.
6	9	Traffic Management System	Advanced Traffic Management System shall be provided as per standards and specifications specified in the manual and as per NHA Policy Circular No. 11.53/2023 dated 10th October 2023 and shall be maintained throughout the contract period
8	9.7.1	Roadside safety barriers	W- beam metal crash barriers shall be provided in entire length on outer side earthen shoulder of each main carriageway where the height is more than 3 m and Approaches to bridges & underpasses but excluding
9	9.7.5	Median Barrier	New Jersey Crash Barrier as per MORTH Circular RW/NH-29023/02/2019-S&R (P&B) dated 01 Jan 2020 are provided in the Flush Median along existing section to accommodate cross sectional elements in built-up section within 45m PROW.
10	10	Toll Plaza	As per Annexure-I of Schedule-C and NHA Policy Circular No. NHA/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No. 17.5.82 dated 24 May 2021.
11	11	Landscaping & Tree Plantation	The aforesaid Manual shall be applicable except for the provision / scope of avenue plantations. However, specifications for plantations shall be followed as per IRC: SP-21, i.e., Guidelines on Landscaping and Tree Plantation.
12	Section 12	Project Facilities	The project facilities and building structures shall be constructed in accordance to Annex I of Schedule-C.
13	12.5	Street lighting	Swaged steel tubular pole with swan neck shall be used for roadside lighting conforming to IS 2713-1980 controlled by suitable digital time switch and other specifications shall be as per Clause no 12.5 of IRC: SP:84-2019. The minimum level of Illumination shall be 40Lux.

- 2.3 MoRT&H circular no. RW/NH-34066/09/2017 S&R dated 21.07.2020 (regarding use of manufactured aggregates) shall be applicable on the project.
- 2.4 The Concessionaire is permitted to use waste plastic as per IRC: 98 and Ministry's circulars dated 26.11.2019, 27.08.2019, 27.12.2016 & 09.11.2015 in consultation with IE.
- 2.5 As regards the work of Utility Shifting/relocation, the relevant specifications, rules, regulations and acts of Utility Owning Department/Agencies shall be applicable.
- 2.6 For specification for landscaping/tree plantation NHA policy circular no. 7.4.7/2022 dated 12.07.2022, 7.4.8/2022 dated 06.10.2022 & 7.4.16/2024 dated 19.12.2024 will be applicable.

- 2.7 Concessionaire is encouraged to do value engineering in line with MoRT&H circular dated 30.08.2022 & amendments thereof with prior approval from independent Engineer & Authority.

3 Adoption of Machine Guidance & Control System

The concessionaire/contractor shall, at its own cost and expense adopt Automated & Intelligent Machine aided Construction (AI-MC) for execution of the project in line with MoRTH circular No. RW/NH-33044/31/2024-S&R(P&B)(Computer No. 245397) dt. 23.06.2025.

SPECIFICATIONS AND STANDARDS FOR 3D DIGITAL MODELS AND 3D MACHINE GUIDANCE AND CONTROL SYSTEM

Machine Guidance & Control System (MGCS) is a technology that is applied to highway construction projects to provide construction efficiencies through enhanced location referencing. MGCS involves using construction equipment mounted with on-board computers. Using a combination of 3D modelling data along with global navigation satellite system (GNSS) technology. MGCS assists agencies and contractors in finishing project in less time and with lower overall cost while providing higher quality and safety. Using MGCS, equipment have the potential to achieve designed grades on the first pass, reducing cost and taken compared with traditional staking.

Contractor/concessionaire should use 3D digital models and 3D Machine guidance and control systems for Motors Graders, Compactors and Pavers for productivity improvement and ensuring quality standards as per IRC specification. Further, contractor should generate measurable digital records that can be shared on a digital drive or can viewed in real time. The hardware and software used by the contractor should have following features and specifications:

A. Office Software for Preparing design data for Field System and Processing

Results:

A contractor/concessionaire should use office software for preparing design data which will be able to generate 3D constructible models out of provided design that can be carried in construction grade survey instruments and 3D Machine control tools for construction purpose. The office software should be able to generate Triangulated Surface models, 3D linework and should have ability to overlay machine guidance as-built record and generate reports.

B. 3D Machine Control System for Motor Grader for Accurate grading to design.

A contractor/concessionaire should utilize motor grader controlled with GNSS Machine Control System in the construction of Subgrade & GSB Surface Grades. The requirement includes the finishing of final subgrade & GSB surface as per the IRC Specification Clause 902.

The contractor may use type of GNSS Machine Control system that result in achieving the finished grading requirements.

The 3D Machine guidance and control system should be able to control the depth of the motor grader blade in relation to the 3D model during the grading process. The 3D machine control systems should have dual mast GPS system for earthworks and GPS/Universal Robotic Total Station system for pavements/GSB. Sonic sensors and/or laser-based systems will not be acceptable. Swapping between GPS and Total Station should be

achieved by changing the target and loading a configuration file on the machine control system box.

C. 3D Machine Control System for Pavers

A contractor/concessionaire should utilize Paving equipment controlled with Universal Robotics Total Station and Machine control system in the construction of roadway pavement. The requirement includes the finishing of final pavement surface as per the IRC Specification Clause 902.

Every Paver should be equipped with 3D Machine guidance and system for automatic control of elevation and slope of the screed in relation to the 3D model for accurate paving.

The 3D machine guidance system should be guided by a Universal Robotics Total Station. A sonic sensor can be used for joint matching to existing paved areas. The Universal Robotics Total Station needs to be a 1" Angular accuracy instrument, incorporate send synchronized corrections at 20Hz for accurate blade positioning and support multitrack technology via active prisms to avoid the wrong target being tracked in the field. The solution needs to support the ability to hot swap, or instantly transition to the next universal Robotics Total Station without stopping the paver.

D. Compaction Control System for Pass Counts and Temperature

The compaction control system on Compactor should allow operator to monitor the number of passes completed in real time for every layer of soil, GSB or asphalt to achieve a target pass count. In addition to this, the operator needs to be able to monitor the temperature of the asphalt during the compaction process. Pass counts for all layers and temperature values in asphalt layer must be stored to prove that targets have been met.

E. File transfer between field and office

Productivity monitoring software should have the ability to send design updates to the field and ensure all crews are working from the same design. It is also important that all field data be sent back to the office for later use in the validation process.

It is essential that surface elevation information recorded on machines along with compaction information like pass counts or temperature maps can be seen in the office.

F. Monitoring of Construction

During the construction period, the concessionaire/consultant shall furnish all the physical Process Data (All type Surface Grading Data, Compaction Data) obtained through Machine Control and Guidance System to Authority for monitoring of construction on daily bases.

4 Mandatory use of Precast Concrete Components

The concessionaire/contractor shall, use Precast Concrete Components in line with MoRTH circular No. RW/NH-33049/01/2020-S&R(B) (Computer No. 182692) dt. 24.06.2025.

Annex - II
(Schedule-D)

SPECIFICATIONS AND STANDARDS FOR DEVELOPMENT OF BUILDINGS

1. General: National Building Code of India – 2005

2. Code for Structural design and details:

CODE OF PRACTICE FOR LOADS AND COMBINATIONS	
IS 875 Part I	Dead Loads - Unit weights of building Materials and stored materials.
IS 875 Part II	Imposed loads.
IS 875 Part III	Wind Loads.
IS 875 Part V	Special Loads and Combinations.
CODES OF DESIGN AND FABRICATION FOR PRE -ENGINEERED BUILDING	
IS 800 : 2007	General construction in steel
IS 808 : 1989	Dimensions for hot Rolled steel sections.
IS 801 : 1975	Code of Practice for use of Cold Formed light gauge steel structural members in general building
IS 811	Code of Practice for use of Cold Formed light gauge structural steel sections
AISC : 2000	Design Code
IBC : 2002	Building Code
AISI : 2001	Purlin Code
ANS : 2006	Welding Code
SP - 38 (S&T): 1987	Handbook of typified designs for structures with steel Roof trusses
IS 816 : 1969	Code of Practice for use of metal arc welding for general construction in mild steel
IS 456 : 2000	Plain and Reinforced Concrete Code of Practice.
IS 1893: 2002	Criteria for Earthquake resistant design of structures
IS 6403: 1981	Code of Practice for determination of bearing capacity of shallow foundations
IS 1786: 2008	Specification for high strength deformed steel bars and wires for concrete reinforcement
IS 13920: 1983	Code of practice for ductile detailing of reinforced concrete Structures subjected to seismic forces.
SP - 16 (Design Aids for Reinforced Concrete) :1978	Design aids for reinforced concrete to IS 456.
SP - 34:1987	Hand book on concrete reinforcement and detailing

3. All relevant BIS Code of India for Civil, Electrical, Water Supply, Sanitary, HVAC and Solar Panels.
4. Energy Conservation Code - 2007.
5. Roads / Driveway / Parking: IRC 37-1984 / MORTH specifications.
6. Indian Electricity Rules / State Electricity Rules.
7. ASHRAE Standards.
8. All local bylaws.
9. Hand Book of Water Supply and Drainage, BIS, SP-35.
10. CPWD - Specifications published by Director General (Works) CPWD, New Delhi including subsequent amendments, upto date correction slips, revisions.
 - a. CPWD Specifications 2009 (Volume I & II)
 - b. CPWD General Specifications for Electrical Works Part IV Sub Station - 2013
 - c. CPWD General Specifications for Electrical Works Part IV Sub Station - 2013.

- d. CPWD General Specifications for Electrical Works Part VII D.G. Sets - 2013.
 - e. General Specifications for Heating, Ventilation & Air-Conditioning(HVAC) - 2004
- 11. Specifications published by Director General (Works), MES, E-in-C branch, Kashmere House New Delhi, including subsequent amendments, upto date correction slips, revisions
 - a. MES SSR Part I 2009,
 - b. TI"s issued by E-in-C branch for specified purpose from time to time

Note: Any reference to codes and standards shall be deemed to include all subsequent revisions, up to date corrections slips, updates, amendments etc.