

**National Highways & Infrastructure Development Corporation Limited**



Ministry of Road Transport & Highways,  
(Govt. of India)

## **SCHEDULES**

**For**

“Four laning of Silchar (near Nutan Dayapur village) to Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode.”]

**November 2023** |

**National Highways & Infrastructure Development Corporation Ltd**  
3rd floor, PTI Building, 4-Parliament Street,  
New Delhi – 110001

## *Schedule-A*



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**.



#### Technical Schedule

### Schedule - A

*(See Clauses 2.1 and 8.1)*

#### Site of the Project

#### 1. The Site

- (i) Site of the Two-Lane (proposed 4-lane divided carriageway) 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 8.2.1 of this Agreement.
- (iv) The alignment plans of the Project Highway are specified in Annex-III.
- (v) The status of the environmental clearances obtained or awaited is given in Annex IV.

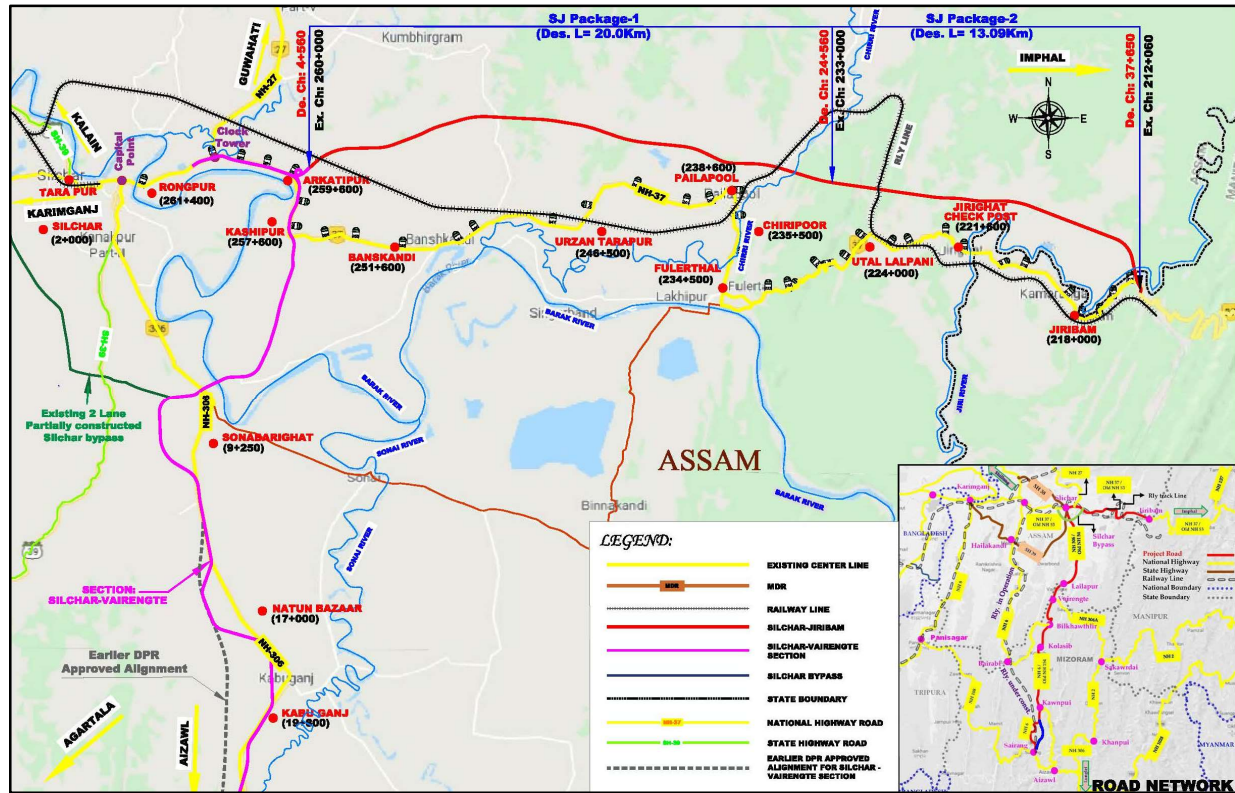


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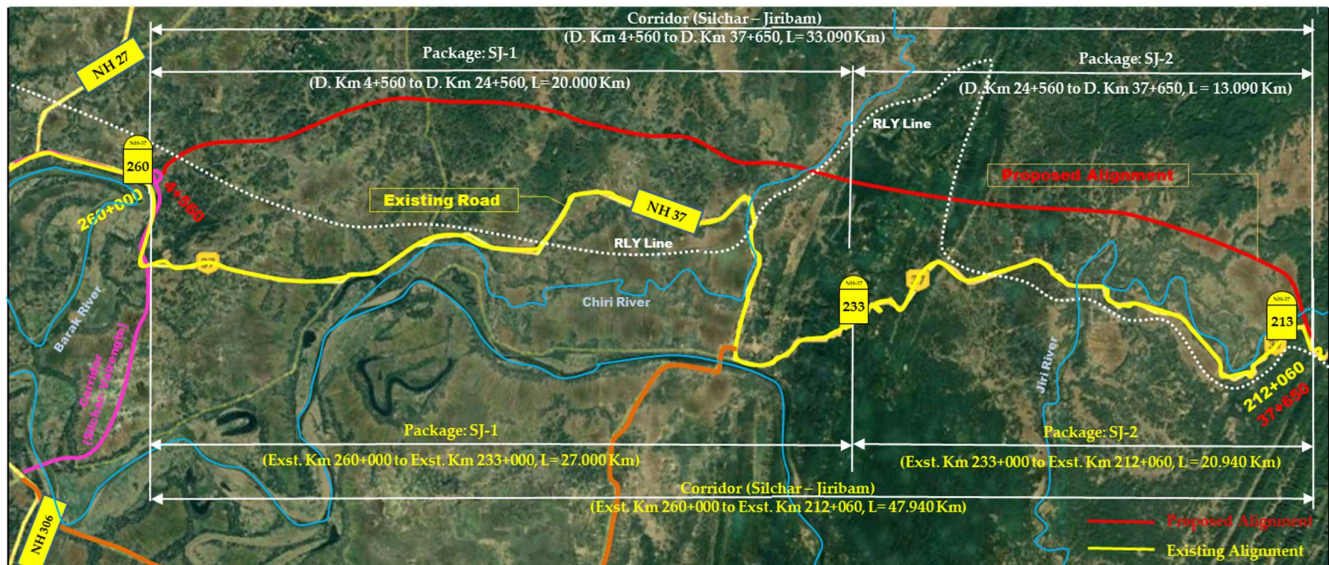


## Technical Schedule

### KEY PLAN



### PROPOSED ALIGNMENT





Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



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### Annex - I (Schedule-A) Site

#### 1. Site

The Site of the two-lane (proposed 4-lane divided carriageway) Project Highway starts from Silchar (Nutan Dayapur) and ends at Budha Nagar in Assam state of NH-37 from Existing km 260+000 (Design Chainage km 4+560) to Existing km 233+000 (Design Ch. 24+560) (Package: SJ-1). The land, carriageway and structures comprising the Site are described below.

#### 2. Land

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

SL No.	Existing Chainage (km)		Length (m)	Right of Way (m)	Remarks
	From	To			
1	260+000	233+000	27000	NA	Project road follows Green Field Alignment

#### 3. Carriageway

The present carriageway of the Project Highway is 7.0 m wide. The type of existing pavement is flexible. The details are given below.

SL No.	Existing Chainage (km)		Length (m)	Carriageway Width (m)	Remarks
	From	To			
1	260+000	233+000	27000	NA	Project road follows Green Field Alignment

#### 4. Major Bridges

The Site includes the following Major Bridges:

S. No.	Chainage (km)	Type of super structures			No. of Spans with span length (m)	Width (m)
		Foundation	Sub- structure	Superstructure		
Project road follows Green Field Alignment						

#### 5. Road over-bridges (ROB)/ Road under-bridges (RUB)

The Site includes the following ROB (road over railway line)/RUB (road under railway line):

S. No.	Chainage (km)	Type of Structure		No. of Spans with span length (m)	Width (m)	ROB/RUB
		Foundation	Superstructure			
Project road follows Green Field Alignment						





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### 6. Grade separators

The Site includes the following grade separators:

S. No.	Chainage (km)	Type of Structure		No. of Spans with span length (m)	Width (m)
		Foundation	Superstructure		
Project road follows Green Field Alignment					

### 7. Minor bridges

The Site includes the following minor bridges:

S. No.	Chainage (km)	Type of super structures			No. of Spans with span length (m)	Width (m)
		Foundation	Sub- structure	Superstructure		
Project road follows Green Field Alignment						

### 8. Railway level crossings

The Site includes the following railway level crossings:

Sl. No.	Chainage (km)	Name of the crossing	Leads to		Remarks
			On LHS	On RHS	
Project road follows Green Field Alignment					

### 9. Underpasses (vehicular, non-vehicular)

The Site includes the following underpasses:

S. No.	Chainage (km)	Type of Structure	No. of Spans with span length (m)	Width (m)
Project road follows Green Field Alignment				

### 10. Culverts

The Site has the following culverts:

S. No.	Chainage (km)	Type of Culvert	Span /Opening with span length (m)	Width (m)
Project road follows Green Field Alignment				

### 11. 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
NIL (Project road follows Green Field Alignment)				

### 12. Truck Lay byes

The details of truck lay byes are as follows:

Sl. No.	Chainage (km)	Length (m)	Left Hand Side	Right Hand side
NIL (Project road follows Green Field Alignment)				



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### 13. Roadside drains

The details of the roadside drains are as follows:

S. No.	Location		Type	
	From km	to km	Masonry/cc (Pucca)	Earthen (Kutchra)
Project road follows Green Field Alignment				

### 14. Major Junctions

The details of major junctions are as follows.

Sl. No.	Chainage (km)	To-wards	At Grade	Side	Category of crossroad
Project road follows Green Field Alignment					

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

### 15. Minor Junctions

The details of the minor junctions are as follows:

Sl. No.	Existing Chainage	Design Chainage	Type of Road (BT, CC, Gr.)	Type of Junctions (T,Y,+)	Side	Type of Road (SH/ MDR/ PMGSY/ VR)
(Project road follows Green Field Alignment)						

### 16. Roads Crossing the Greenfield Alignment:

S. No.	Existing Chainage (Km)	Design Chainage (Km)	Carriageway	
			Type	Cross road
1	(Project road follows Green Field Alignment)	4+780	1- Lane BT	Village Road
2		5+860	1- Lane ER	Village Road
3		6+820	1-Lane BT	Village Road
4		8+110	1- Lane ER	Village Road
5		9+597	1- Lane ER	Village Road
6		11+913	1-Lane BT	Udharband Road
7		13+777	1- Lane ER	Village Road
8		14+235	1- Lane ER	Village Road
9		15+075	1-Lane BT	Village Road
10		16+796	1-Lane BT	Village Road
11		17+813	1- Lane ER	Village Road
12		19+612	1-Lane BT	Village Road
13		20+803	1-Lane BT	Dewan Road
14		21+718	1-Lane BT	Village Road
15		22+648	1-Lane BT	Joypur Road



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### 17. Bypasses

The details of the bypasses are as follows:

S. No.	Name of bypass (town)	Chainage (km) From km to km	Length
NIL			

### 18. Details of Existing Utilities Schedule

The existing utilities schedules as below,

#### 18.1 Electrical Utilities

The Site includes the following Electrical Utilities: -

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

Extra High-Tension Lines (EHT LINES)							Remarks
S.No	Chainage		Length of line(km)		Nos. of Crossings		
	From	To	400 KV	132 KV	400 KV	132 KV	
1	6400	6600		.250	1		Maintained by PGCIL
2	11000	11400		.400	1		Maintained by PGCIL
3	8700	9300		.600	1		Maintained by AEGCL
4	16600	17600		.600			Maintained by AEGCL

##### (b) High Tension/Low Tension Lines (HT/LT Lines)

High Tension/ Low Tension Lines (HT/LT LINES)												
Sl. No	Chainage		Length of line(km)				Nos. of Crossings				Transformer	
	From	To	HT 44K V	LT 33K V	LT 11K V	LT 440V	HT 44 KV	LT 33K V	LT 11KV	LT 440V	No	Capacity
1	9+000	10+000			0.500	1			2		1	100KVA
2	10+000	11+000				1				1		
3	11+000	12+000			0.300	1			2			
4	14+000	16+000	0.100		0.500		1					
5	17+000	18+000				0.300			1			
6	20+000	21+000			0.600				2			
7	21+000	22+000	0.100		1		1		1			





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8	22+000	23+000			0.500	0.300			1	1		
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### 18.2 Public Health Utilities (Water/Sewage Pipelines)

(a) The Site includes the following Public Health Utilities: -

Sl. No	Chainage		Length (in km)				Crossings				Remarks
	From	To	Water Supply Line		Sewage Line		Water Supply Line		Sewage Line		
			With Pumping	With Gravity Flow	With Pumping	With Gravity Flow	With Pumping	With Gravity Flow	With Pumping	With Gravity Flow	
1	4+560	5+500		0.250				2			
2	5+500	6+500		0.200				2			
3	6+500	8+500		0.380				2			
4	8+500	10+000		0.170				1			
5	11+500	12+500		0.120				1			
6	14+000	15+000		0.100				1			
7	15+000	17+000		0.200				2			
8	20+500	22+000		0.250				1			
9	22+000	24+560		0.090				1			

(b) Bore well/Hand Pump within RoW

Sl. No.	Bore Well**		Hand Pump	
	Chainage	Nos	Chainage	Nos
NIL				

(c) Water Tank within RoW

Sl. No.	Water Tank		
	Chainage	Nos	Capacity
NIL			

### 18.3 Any Other Lines

In Progress, will be updated next stage of submission.

### 19. Other Structures: NIL



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#### Technical Schedule

### Annex – II (As per Clause 8.3 (i))

#### (Schedule-A)

#### Dates for providing Right of Way of Construction Zone

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

#### (i) Full Right of Way (full width).

Description	Design Chainage (km)		Length (m)	Width (m)	Date of Providing ROW
	From	To			
(i) Full Right of Way (full width)	4+560	4+620	60	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	4+620	4+740	120	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	4+740	4+820	80	95.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	4+820	4+840	20	90.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	4+840	5+410	570	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	5+410	5+600	190	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	5+600	5+610	10	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	5+610	5+890	280	75.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	5+890	6+130	240	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	6+130	6+520	390	62.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	6+520	6+550	30	52.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	6+550	6+790	240	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	6+790	6+850	60	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	6+850	7+030	180	67.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+030	7+140	110	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+140	7+175	35	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+175	7+240	65	67.50	Within 30 Days of Appointed Date



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Description	Design Chainage (km)		Length (m)	Width (m)	Date of Providing ROW
	From	To			
(i) Full Right of Way (full width)	7+240	7+385	145	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+385	7+395	10	77.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+395	7+480	85	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+480	7+500	20	45.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+500	7+570	70	40.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+570	7+650	80	45.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+650	7+850	200	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	7+850	8+120	270	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+120	8+230	110	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+230	8+310	80	52.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+310	8+370	60	57.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+370	8+470	100	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+470	8+560	90	57.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+560	8+630	70	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+630	8+780	150	45.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+780	8+920	140	47.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	8+920	10+170	1250	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	10+170	10+190	20	62.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	10+190	10+290	100	75.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	10+290	10+830	540	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	10+830	11+050	220	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+050	11+140	90	52.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+140	11+240	100	55.00	Within 30 Days of Appointed Date



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#### Technical Schedule

Description	Design Chainage (km)		Length (m)	Width (m)	Date of Providing ROW
	From	To			
(i) Full Right of Way (full width)	11+240	11+410	170	62.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+410	11+500	90	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+500	11+520	20	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+520	11+710	190	90.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+710	11+820	110	100.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+820	11+880	60	110.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	11+880	12+130	250	100.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+130	12+240	110	90.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+240	12+380	140	75.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+380	12+450	70	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+450	12+480	30	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+480	12+540	60	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+540	12+790	250	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+790	12+870	80	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+870	12+920	50	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	12+920	13+010	90	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+010	13+030	20	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+030	13+090	60	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+090	13+170	80	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+170	13+240	70	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+240	13+450	210	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+450	13+750	300	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+750	13+890	140	55.00	Within 30 Days of Appointed Date



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Description	Design Chainage (km)		Length (m)	Width (m)	Date of Providing ROW
	From	To			
(i) Full Right of Way (full width)	13+890	13+940	50	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	13+940	14+050	110	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	14+050	14+140	90	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	14+140	14+170	30	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	14+170	14+230	60	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	14+230	16+150	1920	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+150	16+260	110	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+260	16+410	150	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+410	16+460	50	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+460	16+510	50	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+510	16+580	70	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+580	16+660	80	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+660	16+770	110	62.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+770	16+960	190	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	16+960	17+200	240	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	17+200	17+360	160	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	17+360	18+890	1530	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	18+890	18+900	10	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	18+900	19+040	140	70.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	19+040	19+050	10	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	19+050	20+050	1000	50.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	20+050	20+380	330	67.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	20+380	20+590	210	80.00	Within 30 Days of Appointed Date



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Description	Design Chainage (km)		Length (m)	Width (m)	Date of Providing ROW
	From	To			
(i) Full Right of Way (full width)	20+590	20+600	10	85.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	20+600	20+670	70	90.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	20+670	21+370	700	100.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	21+370	21+480	110	65.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	21+480	21+540	60	57.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	21+540	21+610	70	35.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	21+610	21+820	210	57.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	21+820	22+130	310	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	22+130	22+640	510	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	22+640	22+670	30	57.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	22+670	22+800	130	60.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	22+800	23+070	270	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	23+070	23+210	140	35.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	23+210	23+450	240	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	23+450	23+610	160	47.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	23+610	23+800	190	40.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	23+800	23+950	150	47.50	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	23+950	24+290	340	80.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	24+290	24+500	210	55.00	Within 30 Days of Appointed Date
(i) Full Right of Way (full width)	24+500	24+560	60	55.00	Within 30 Days of Appointed Date





Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

#### (ii) Part Right of Way (part width)

Description	Design Chainage (km)	Types	Area (sqm)	Date of Providing ROW
Part Right of Way (part width)	4+780	MNJ	457.807	Within 30 Days of Appointed Date
Part Right of Way (part width)	5+860	MNJ	472.962	Within 30 Days of Appointed Date
Part Right of Way (part width)	6+820	MNJ	458.762	Within 30 Days of Appointed Date
Part Right of Way (part width)	8+110	MNJ	481.293	Within 30 Days of Appointed Date
Part Right of Way (part width)	9+597	MNJ	277.111	Within 30 Days of Appointed Date
Part Right of Way (part width)	11+913	MJJ	7395.430	Within 30 Days of Appointed Date
Part Right of Way (part width)	13+777	MNJ	569.415	Within 30 Days of Appointed Date
Part Right of Way (part width)	14+235	MNJ	340.127	Within 30 Days of Appointed Date
Part Right of Way (part width)	15+075	MNJ	280.674	Within 30 Days of Appointed Date
Part Right of Way (part width)	16+796	MNJ	16144.377	Within 30 Days of Appointed Date
Part Right of Way (part width)	19+612	MNJ	225.115	Within 30 Days of Appointed Date
Part Right of Way (part width)	20+803	MJJ	9325.012	Within 30 Days of Appointed Date
Part Right of Way (part width)	21+225	MNJ	669.885	Within 30 Days of Appointed Date
Part Right of Way (part width)	21+718	MNJ	119.829	Within 30 Days of Appointed Date
Part Right of Way (part width)	22+648	MNJ	353.053	Within 30 Days of Appointed Date



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

#### (iii) Balance Right of Way (available width)

Description	Design Chainage (km)	Types	Area (sqm)	Date of Providing ROW
Balance Right of Way (available width)	4+780	MNJ	127.346	On appointed date
Balance Right of Way (available width)	5+860	MNJ	75.415	On appointed date
Balance Right of Way (available width)	6+820	MNJ	113.146	On appointed date
Balance Right of Way (available width)	8+110	MNJ	59.896	On appointed date
Balance Right of Way (available width)	9+597	MNJ	48.240	On appointed date
Balance Right of Way (available width)	11+913	MJJ	918.707	On appointed date
Balance Right of Way (available width)	13+777	MNJ	98.323	On appointed date
Balance Right of Way (available width)	14+235	MNJ	102.584	On appointed date
Balance Right of Way (available width)	15+075	MNJ	65.826	On appointed date
Balance Right of Way (available width)	16+796	MNJ	645.623	On appointed date
Balance Right of Way (available width)	19+612	MNJ	67.629	On appointed date
Balance Right of Way (available width)	20+803	MJJ	770.986	On appointed date
Balance Right of Way (available width)	21+225	MNJ	42.918	On appointed date
Balance Right of Way (available width)	21+718	MNJ	37.406	On appointed date
Balance Right of Way (available width)	22+648	MNJ	82.261	On appointed date



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**.



#### Technical Schedule

### Annex - III

*(Schedule-A)*

### Alignment Plans

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 the alignment plan. The finished road level indicated in the alignment plan shall be treated as an approximate assessment. The contractor shall design the road profile of the project highway in accordance with Schedule-D.
- (ii) Traffic Signages of the Project Highway showing numbers & location of traffic signs are enclosed. 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.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**.



**Technical Schedule**



**Annex - IV**

*(Schedule-A)*

**Environment Clearances**

As per MOEF notification F. No. 21-270/2008-1A.III (dated 22 August 2013), Environmental Clearance is not required for Assam state. Forest Clearance is also not required.

## *Schedule-B*

 <p>म. र. त. ह. M.O.R.T.H. Ministry of Road Transport and Highways</p>	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p> <p><b>Technical Schedule</b></p>	 <p>NHAI BUILDING INFRASTRUCTURE - BUILDING THE NATION</p>
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## Schedule - B

(See Clause 2.1)

### Development of the Project Highway

#### 1 Development of the Project Highway

Development of the Project Highway shall include design and construction of the Project Highway as described in this Schedule-B and in Schedule-C.



#### 2 4-Laning with Paved Shoulder

Four Laning shall include construction of the Four Lane Project highway as described in Annex-I of this Schedule-B and in Schedule C.

#### 3 Specifications and Standards

The Project Highway shall be designed and constructed in conformity with the Specifications and Standards specified in Annex-I of Schedule-D.



	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b>.</p>	
	<p><b>Technical Schedule</b></p>	

## Annex - I

### (Schedule-B)

#### Description of (4-Laning)

Site of the Four-lane divided Project Highway comprises the section of National Highway No. 37 from Silchar (Nutan Dayapur) to Budha Nagar (Package: SJ-1) from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam and Manipur under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**.

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)
Start of Project Road	4+560	486727.991	2746779.624
End of Project Road	24+560	506002.215	2746242.018

#### 1. Widening of the Existing Highway

- (i) The Project Highway shall follow the existing alignment unless otherwise specified by the Authority and shown in the alignment plans specified in Annex III of Schedule-A. Geometric deficiencies, if any, in the existing horizontal and vertical profiles shall be corrected as per the prescribed standards for Plain / Rolling/mountainous/ hilly terrain to the extent land is available.

#### (ii) Width of carriageway

- (a) Four-Laning with paved shoulders shall be undertaken. The paved carriageway shall be in accordance with the typical cross-sections' drawings given in 'APPENDIX B-I' of Sch. B.

Provided that in the built-up areas [refer to paragraphs 2.1 (ii) (a) of the Manual and provide necessary details]: the width of the carriageway shall be as specified in the following table:

Sl. No.	Built-up stretch (Township)	Location (km to km)	Width (m)	Typical cross section (Ref. to Manual)
NIL				

- (b) Except as otherwise provided in this Agreement, the width of the paved carriageway and cross-sectional features shall conform to paragraph ii (a) above.
- (c) The entire cross-sectional elements shall be accommodated in the proposed ROW. If required, suitable retaining structures shall be provided to accommodate the highway cross section within the proposed ROW and the same shall not constitute a Change of Scope, save and except any variations in the length arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 13 of the EPC



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

Contract Agreement.

## 2. Geometric Design and General Features

### (i) General

Geometric design and general features of the Project Highway shall be in accordance with Section 2 of the Manual (IRC: SP: 84-2019) for plain/rolling terrain and as specified in Annex-I of Schedule D.

### (ii) Design Speed

The contractor shall adopt minimum design speed for designing the project highway as specified in Plan and Profile drawings of Annexure-III of Schedule-A and in Annex-I of Schedule D.

### (iii) Improvements of the existing road geometrics

Improvement of the existing road geometrics shall be carryout to the extent possible within the given right of way and proper road signs and safety measures shall be provided. It shall follow the alignment plans shown in the Annex-III of Schedule-A, unless otherwise specified by the Authority.

#### a) The bypass /Greenfield has been provided in the following location.

Sl. No	Location	Existing Chainage (Km)		Existing Length (m)	Design Chainage (Km)		Design Length (m)
		Start	End		Start	End	
1	Green Field Alignment	260+000	233+000	27000	4+560	24+560	20000
	<b>Total</b>			<b>27000</b>	<b>Greenfield Alignment</b>		<b>20000</b>

#### b) Realignments and Geometric Improvement locations

Sl. No	Exist. Chainage		Exist. Length (m)	Design Chainage		Type of Deficiency	Design Length (m)
	Start	End		Start	End		
As per Annex-III of Schedule A (Plan & Profile Drawings)							

Apart from the above bypass, geometric deficiencies, if any, in the existing horizontal and vertical profiles shall be corrected as per the prescribed standards for Plain / Rolling/ Mountainous / Hill terrain to the extent land is available.



### (iv) Right of Way

Details of the Right of Way are given in Annex II of Schedule A.

### (v) Type of shoulders

- (a) In the built-up section, footpaths are to be provided in the following stretches and as specified in Schedule-D.

-NIL-

	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p>	
	<p><b>Technical Schedule</b></p>	

- (b) In open country, the shoulders on valley side shall be 1.5m wide paved + 2.0m earthen shoulders. The shoulders shall be in accordance with the Typical cross sections given in Appendix B-I.
- (c) The design and specifications of shoulders shall conform to the requirements of Section 5 as specified in paragraphs 5.10 and 5.11 of the Manual. The Earthen Shoulder shall be compacted with 150mm thick granular sub-base quality material at the top duly stabilized with cement/suitable admixtures to prevent erosion.

**(vi) Lateral and Vertical Clearances at Underpasses**

- a) Lateral and vertical clearances at Underpasses and provision of guardrails/crash barriers shall be as per the paragraph 2.10 of IRC SP 84-2019.

- b) **Lateral clearance:** The size of the opening at the Underpasses shall be as follows.

S. No.	Chainage	Span /opening (m)	Vertical Clearance	Remarks
1	4+780	1 x 12m	4	LVUP
2	5+860	1 x 7m	4	SVUP
3	6+820	1 x 7m	4	SVUP
4	8+110	1 x 7m	4	SVUP
5	9+597	1 x 7m	4	SVUP
6	11+913	1 x 24m	5.5	VUP
7	13+777	1 x 7m	4	SVUP
8	14+235	1 x 7m	4	SVUP
9	15+075	1 x 12m	4	LVUP
10	17+813	1 x 7m	4	SVUP
11	19+612	1 x 7m	4	SVUP
12	20+803	1 x 24m	5.5	VUP
13	21+718	1 x 7m	4	SVUP
14	22+648	1 x 24m	5.5	VUP

*\*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.*

**(vii) Lateral and Vertical Clearances at overpasses**

- (a) Lateral and Vertical clearances at over passes shall be as per paragraph 2.11 of the manual and as specified at Schedule-D.
- (b) **Lateral clearance:** The width of the opening at the overpasses shall be as follows:



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



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Sl. No.	Chainage (km)	Span / opening (m)	Vertical Clearance	Remarks
1	16+796	2 x 36m	Minimum 5.5	Overpass

*\*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.*

#### (viii) Service roads /Slip Road /Connecting Roads

- a) Service roads / Slip Roads shall be constructed at the locations and for the lengths indicated below:

Sl. No.	Chainage (km)		Right Hand side (RHS)/Left Hand side (LHS)/Both side	Length (km)	C/Way Width (m)
	From km	To km			
1	5+620	5+880	LHS	260	3.75
2	7+860	8+110	RHS	250	3.75
3	11+500	12+350	LHS	850	7.5
4	11+500	12+350	RHS	850	7.5
5	20+380	21+300	LHS	920	7.5
6	20+380	21+300	RHS	920	7.5
Total Length =				4050	

- b) Connecting Roads shall be constructed at the locations and for the lengths indicated below:

Sl. No.	Chainage (km)		Right Hand side (RHS)/Left Hand side (LHS)/Both side	Length (km)	C/Way Width (m)
	From km	To km			
Nil					

*\*Length shown is for Service Road/ connecting road with reference to D. Ch of Main carriageway.*

#### Note:

- The above length excludes the tapering length/merging length of acceleration/deceleration lane. The entry and exit shall be constructed as per IRC: SP: 84: 2019.
- Length of service road and connecting road given in above table excludes length across the Project Highway for proper connectivity of crossroad on either side of Project Highway as given in the alignment plan enclosed at **Annex-III, Schedule-A** which shall be deemed to be included in the scope of work.
- The length of service road / connecting road shown in above table is minimum and may increase as per actual site conditions and No Change of



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

Scope shall be admissible on this account.

- (iv) In addition to the above, construction of temporary roads of required length and width for the maintenance of traffic during execution shall be deemed to be part the project and will not attract any change of scope.



#### (ix) Grade Separated Structures

- (a) Grade separated structures shall be provided as per paragraph 2.13 of the IRC SP 84-2019. The requisite particulars are given below:

Sl. No	Chainage (km)	Width (m)	Number and length of clear Spans (m)	Remarks if Any
1	4+780	2x22	1 x 12m	LVUP
2	5+860	2x11.5	1 x 7m	SVUP
3	6+820	2x11.5	1 x 7m	SVUP
4	8+110	2x11.5	1 x 7m	SVUP
5	9+597	2x11.5	1 x 7m	SVUP
6	11+913	2x11.5	1 x 24m	VUP
7	13+777	2x11.5	1 x 7m	SVUP
8	14+235	2x11.5	1 x 7m	SVUP
9	15+075	2x11.5	1 x 12m	LVUP
10	16+796	1x12.0	2 x 36m	Overpass
11	17+813	2x11.5	1 x 7m	SVUP
12	19+612	2x11.5	1 x 7m	SVUP
13	20+803	2x11.5	1 x 24m	VUP
14	21+718	2x11.5	1 x 7m	SVUP
15	22+648	2x11.5	1 x 24m	VUP

*\*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.*

- (b) In the case of grade separated structures, the type of structure and the level of the Project Highway and the crossroads shall be as follows:

	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p>	
	<p><b>Technical Schedule</b></p>	

Sl. No.	Location (Design Chainage)	Type of Structure Length (m)	Cross road at			Remarks, if any
			Existing level	Raised Level	Lowered Level	
1	4+780	LVUP	*	*	*	
2	5+860	SVUP	*	*	*	
3	6+820	SVUP	*	*	*	
4	8+110	SVUP	*	*	*	
5	9+597	SVUP	*	*	*	
6	11+913	VUP	*	*	*	
7	13+777	SVUP	*	*	*	
8	14+235	SVUP	*	*	*	
9	15+075	LVUP	*	*	*	
10	16+796	Overpass	*	*	*	
11	17+813	SVUP	*	*	*	
12	19+612	SVUP	*	*	*	
13	20+803	VUP	*	*	*	
14	21+718	SVUP	*	*	*	
15	22+648	VUP	*	*	*	

\*Cross road levels shall be decided in accordance with the manual as per the requirement of main carriageway geometrics and the same shall be finalized in consultation with Authority’s Engineer. It is clarified that, any raising or lowering of crossroad levels and development of approaches along crossroad is also covered under scope of this work and same will not attract change of scope.

**(x) Cattle and pedestrian underpass / overpass**



Cattle and pedestrian underpass/ overpass shall be constructed as follows:

S. No.	Location (Design Chainage)	Type of Crossing
NIL		

**(xi) Typical cross-sections of the Project Highway**

- Types of cross-sections required to be developed in different segments of the project road are indicated in Appendix B-I.
- TCS schedule as given in Appendix B-I shall be treated as an approximate assessment. Actual length of the TCS schedule shall be prepared by the contractor based on detailed investigations and site requirements. Any variation in length of respective TCS specified in Schedule B shall not constitute a change of scope, save and except any variations in the length arising out of a change of scope expressly undertaken in accordance with the provisions of Article13 of EPC Contract agreement.



 म. र. त. ह. भारत सरकार भारत, ७१	Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b> <b>Technical Schedule</b>	 BUILDING INFRASTRUCTURE - BUILDING THE NATION
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### 3. Intersections and Grade Separators

All intersections and grade separators shall be as per Section 3 of the Manual. Existing intersections which are deficient shall be improved to the prescribed standards.

Draft layout of major junctions is shown in Plan & Profile drawings for reference. Properly designed intersections shall be developed at the location given below:

#### (i) At-grade intersections

Sl. No.	Existing Chainage	Design Chainage	Type of Junctions (T, Y, +)	Side	Type of Road (SH/ MDR/ ODR/ VR)	Remarks
1	-	4+780 (Under LVUP)	+	LHS - Nutan Dayapur RHS - Kasipur Grant	Village Road	Minor Junction
2	-	5+860 (Under SVUP)	+	LHS - Arkatipur Tea Estate RHS - Nutan Doyapore	Village Road	Minor Junction
3	-	6+820 (Under SVUP)	+	LHS - Chappannahal Grant RHS - Banskhandi Pt IV	Village Road	Minor Junction
4	-	8+110 (Under SVUP)	+	LHS - Badripar RHS - Banskhandi	Village Road	Minor Junction
5	-	9+597 (Under SVUP)	+	LHS - Badripar RHS - Chandrapur	Village Road	Minor Junction
6	-	11+913 (Under VUP)	+	LHS - Udharband RHS - Alipur	Udharband Road	Major Junction
7	-	13+777 (Under SVUP)	+	LHS - Monipur Kitta RHS - Alipur Cha Bagicha	Village Road	Minor Junction
8	-	14+235 (Under SVUP)	+	LHS - Monipur Kitta RHS - Alipur Cha Bagicha	Village Road	Minor Junction
9	-	15+075 (Under LVUP)	+	LHS - Monipur Kitta RHS - Tarapur Grant	Village Road	Minor Junction

 म. र. त. ह. भारत, ओ. ए. ए. भारत, ओ. ए. ए.	Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b>	 BUILDING INFRASTRUCTURE - BUILDING THE NATION
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Sl. No.	Existing Chainage	Design Chainage	Type of Junctions (T, Y, +)	Side	Type of Road (SH/ MDR/ ODR/ VR)	Remarks
10	-	16+796 (Over VOP)	+	LHS - Sibpur Pt II RHS - Sibpur Pt III	Village Road	Minor Junction
11	-	19+612 (Under SVUP)	+	LHS - Mahalthal RHS - Sibpur Pt I	Village Road	Minor Junction
12	-	20+803 (Under VUP)	+	LHS - Mahalthal RHS - Pailapool	Dewan Road	Major Junction
13	-	21+225 With Service Road BHS	T	LHS - Digliriang Punji RHS - JNV Road	Village Road	Minor Junction
14	-	21+718 (Under SVUP)	+	LHS - Lalangkitta Labocpar Pt III RHS - Lalangkitta Labocpar Pt II	Village Road	Minor Junction
15	-	22+648 (Under VUP)	+	LHS - JoypurRHS - Pailapool (NH-37)	Joypur Road	Minor Junction

**Note:** It is clarified that if any other junction is identified during development of the project highway in addition to those mentioned above shall also be improved with proper drainage facilities as per standards. The length of development along the crossroads shall be decided as per site condition in accordance with manual. It shall be covered within the scope of work. The Number, location & type of junction shown in above table are minimum and it may increase as per actual site condition and increase in number will not attract change of Scope on this account.

Junctions shall be improved as per IRC: SP: 84-2019 and MOST type design for intersection on National Highways, 1992.

(ii) **Grade separated intersection with/without ramps.**

Sl. No	Chainage (km)	Type of Structure	Width (m)	Number and length of clear Spans (m)	Type of Grade Separator
1	4+780	Box	2x22	1 x 12m	LVUP
2	5+860	Box	2x11.5	1 x 7m	SVUP
3	6+820	Box	2x11.5	1 x 7m	SVUP
4	8+110	Box	2x11.5	1 x 7m	SVUP
5	9+597	Box	2x11.5	1 x 7m	SVUP
6	11+913	Girder	2x11.5	1 x 24m	VUP
7	13+777	Box	2x11.5	1 x 7m	SVUP



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



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Sl. No	Chainage (km)	Type of Structure	Width (m)	Number and length of clear Spans (m)	Type of Grade Separator
8	14+235	Box	2x11.5	1 x 7m	SVUP
9	15+075	Box	2x11.5	1 x 12m	LVUP
10	16+796	Girder	1x12.0	2 x 36m	Overpass
11	17+813	Box	2x11.5	1 x 7m	SVUP
12	19+612	Box	2x11.5	1 x 7m	SVUP
13	20+803	Girder	2x11.5	1 x 24m	VUP
14	21+718	Box	2x11.5	1 x 7m	SVUP
15	22+648	Girder	2x11.5	1 x 24m	VUP

*Note: The layout of these intersections are shown in alignment plans specified in Annex III of Schedule-A. Development of all ramps/slip roads as shown in alignment plans is included in the scope of work and any modification of layout or increase in length of ramps/slip roads will not attract change of Scope.*

*The location of the above structures (Flyover/Grade Separator, VUP, LVUP, and SVUP) are indicative and span arrangement is minimum specified. The exact location of these structures shall be decided as per detailed design, in consultation with Authority Engineer and as per site requirement. The actual span arrangements of the structures shall be determined based on detailed investigations by the Contractor in accordance with the Specifications and Standards. Any variations in span arrangements specified in this Schedule-B shall not constitute a Change of Scope.*

#### 4. Road Embankment and Cut Section

- (i) Widening and improvement of the existing road embankment/cuttings and construction of new road embankment/ cuttings shall conform to the Specifications and Standards given in section 4 of the manual and the specified cross-sectional details. Deficiencies in the plan and profile of the existing road shall be corrected.

(ii) **Raising of the existing road**

The existing road shall be raised at the required locations as per proposed plan and profile or further raised to meet requisite specifications.

(iii) **Surplus cut earth.**



All of surplus cutting soil shall be transported and be disposed to the Spoil Banks in accordance with Schedule D.

#### 5. Pavement Design

- (i) Pavement design shall be carried out in accordance with Section 5 of the manual, IRC SP 37-2018 and IRC SP: 59-2019.

(ii) **Type of pavement**

Flexible pavement shall be provided including Bus Bay, Rest Area, Truck Lay Bye and Intersections.

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**(iii) Design requirements**

Notwithstanding anything to the contrary contained in this agreement or the manual, the contractor shall design the pavement of the main carriageway for design traffic of 40 MSA with a minimum design period of 20 years for flexible. CBR value as obtained at site shall be taken for design if less than 6%. The maximum value of CBR to be taken for design shall not exceed 6%.

**PMB / CRMB shall be used for BC.**

**a) Design Period and strategy**

**A) Main carriageway:**

Flexible pavement shall be designed for a minimum design period of 20 years. Stage construction shall not be permitted.

**B) Service road/Slip Road:**

Flexible pavement shall be designed for a minimum design period of 20 years. The maximum value of CBR to be taken for design shall not exceed 6%.

Stage construction shall not be permitted.

**C) Strengthening of Existing pavement:**

Nil

**b) Design Traffic**

**A) Main carriageway:**

Notwithstanding anything to the contrary contained in this Agreement or the IRC manual, the contractor shall design the pavement for design traffic of not less than 40 million standard axles (MSA) for Main carriageway.

**B) Service Road**

As per clause 5.5.4 of IRC SP 84-2019 service road shall be designed for minimum 10 MSA.

**C) Strengthening of Existing pavement**



Nil

**(iv) Reconstruction of stretches**

The Existing flexible pavement shall be dismantled and reconstructed as flexible pavement.

**6. Roadside Drainage**

Drainage system including surface and subsurface drains for the Project Highway shall be constructed in entire length including drains and culverts required along the crossroads at junctions/ interchanges/other locations as per Section 6 of manual and as per TCS schedule provided as Appendix B-I to this schedule.

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In the cutting sections, lined drain shall be provided at the top of cut slope and at every bench provided for drainage system adequacy and effectiveness. All measures shall be taken to prevent ingress of countryside runoff entering into road formation width.

Any repair/ reconstruction required for the existing culverts along project highway/along crossroads at junctions shall be carried out. This will not attract any change of scope.

**i) PCC Open Drain at Grade Separator:**

PCC Open Drain shall be provided on Grade Separator at following locations.

Sl No	LHS			RHS		
	Chainage (m)		Length (m)	Chainage (m)		Length (m)
	From	To		From	To	
1	5+620	5+850	230	7+860	8+150	290
2	11+540	12+300	760	11+540	12+300	760
3	20+420	21+220	800	20+420	21+220	800
	<b>Total Length (m)</b>		<b>1790</b>			<b>1850</b>

**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.

**ii) PCC Open Drain at Other Locations on filling side:**

PCC Open drain shall be provided at the following locations.

Sl. No	LHS			RHS		
	Chainage (m)		Length (m)	Chainage (m)		Length (m)
	From	To		From	To	
1	8+500	8+750	250	8+210	8+220	10
2	16+525	16+565	40	8+460	8+510	50
3				10+480	10+520	40
4				12+370	12+430	60
5				12+695	12+800	105
6				12+885	12+910	25
7				13+555	13+620	65
8				14+470	14+510	40
9				14+560	14+620	60
10				19+055	19+100	45
11				19+385	19+455	70
	<b>Total Length (m)</b>		<b>290</b>			<b>570</b>



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**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.



#### iii) PCC Open Drain at Hill Side

PCC Open drain at Hill side section shall be provided at following locations.

Sl No	LHS			RHS		
	Chainage (m)		Length (m)	Chainage (m)		Length (m)
	From	To		From	To	
1	5+620	5+870	250	7+860	8+210	350
2	8+240	8+500	260	8+220	8+460	240
3	10+120	10+305	185	10+120	10+300	180
4	10+780	11+110	330	10+440	10+480	40
5	12+140	12+620	480	10+520	10+600	80
6	12+760	13+530	770	10+780	11+140	360
7	13+700	14+220	520	12+430	12+620	190
8	14+780	14+910	130	12+800	12+885	85
9	15+430	15+560	130	12+910	13+220	310
10	16+050	16+250	200	13+430	13+555	125
11	16+370	16+525	155	13+690	14+220	530
12	16+565	16+690	125	14+420	14+470	50
13	16+770	16+910	140	14+510	14+560	50
14	18+890	19+060	170	14+620	14+700	80
15	19+200	19+270	70	14+775	14+880	105
16	19+760	19+950	190	15+440	15+555	115
17	20+045	20+470	425	16+120	16+280	160
18	23+210	23+470	260	16+420	16+685	265
19	23+620	23+770	150	16+670	16+980	310
20	23+915	24+290	375	18+880	19+055	175
21				19+100	19+385	285
22				19+730	19+860	130
23				20+040	20+570	530
24				23+210	23+450	240
25				23+630	23+770	140
26				23+900	24+290	390
Total Length=			5315			5515

**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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## 7. Design of Structures

### (i) General

- (a) All bridges, culverts and structures shall be designed and constructed in accordance with section 7 of the IRC SP 84-2019 and shall conform to the cross- sectional features and other details specified in this schedule. Floor protection works shall be as specified in the relevant IRC Codes and Specifications.

- (b) Width of the carriageway of new bridges shall be as follows:

Refer to paragraph 7.3 (ii) of the IRC SP 84-2019 and specified width of carriageway of all new four lane bridges shall have footpaths on either side. The cross-sectional features shall be as per Fig.7.6 of the IRC SP 84-2019.

- (c) All bridges shall be high-level bridges.
- (d) The structures shall be designed to carry utility services like electric cable, water pipeline, OFC etc. as per the requirement of site.
- (e) Cross-section of the new culverts and bridges at deck level shall conform to the typical cross-sections given in section 7 of the Manual. Extra widening shall be provided for all Culverts/Bridges/Other structures in curved sections as per manual.
- (f) IRC Class Special Vehicle loading shall be taken into account in the design of all structures.

### (ii) Culverts

- (a) Overall width of all culverts shall be equal to the roadway width of the approaches. All culverts shall be constructed as per Schedule-D.

### (b) Reconstruction of existing culverts:

The existing culverts at the following locations shall be re-constructed as new culverts:

Sl. No.	Existing Chainage (km)	Design Chainage (Km)	Existing Type	Existing Span	Proposed Type	Proposed Span	Remarks
NIL							

### (c) Widening of existing culverts

All existing culverts which are not to be reconstructed shall be widened to the roadway width of the Project Highway as per the typical cross section given in section 7.3 (i), (iii) and Fig. 7.1 to Fig. 7.5 of the IRC SP 84-2019. Repairs and strengthening of existing structures where required shall be carried out.

Sl. No	Chainage (km)	Span / Opening	Remarks, if any
Nil			



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#### (d) Additional new culverts

New culverts shall be constructed for a width equal to the roadway width of the Project Highway & as per typical cross-section given in this Schedule-B and alignment plan. The particulars are given in the table below:

S. No.	Existing Chainage (Km)	Design Chainage (Km)	Proposed Type	Proposed Span	Remarks
1	-	4+590	Box	1 x 3 x 3	
2	-	5+420	Box	1 x 3 x 3	
3	-	5+605	Box	1 x 3 x 3	
4	-	5+815	Box	1 x 3 x 3	
5	-	6+120	Box	1 x 3 x 3	
6	-	6+560	Box	1 x 3 x 3	
7	-	7+670	Box	1 x 3 x 3	
8	-	8+535	Box	1 x 3 x 3	
9	-	8+770	Box	1 x 3 x 3	
10	-	9+510	Box	1 x 3 x 3	
11	-	9+960	Box	1 x 3 x 3	
12	-	10+360	Box	1 x 3 x 3	
13	-	10+670	Box	1 x 3 x 3	
14	-	11+210	Box	1 x 5 x 4	
15	-	11+940	Box	1 x 2 x 2	
16	-	12+110	Box	1 x 3 x 3	
17	-	12+650	Box	1 x 5 x 5	
18	-	12+921	Box	1 x 2 x 2	
19	-	13+440	Box	1 x 3 x 3	
20	-	13+630	Box	1 x 3 x 4	
21	-	14+590	Box	1 x 3 x 3	
22	-	14+740	Box	1 x 2 x 2	
23	-	15+060	Box	1 x 2 x 2	
24	-	15+088	Box	1 x 2 x 2	



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S. No.	Existing Chainage (Km)	Design Chainage (Km)	Proposed Type	Proposed Span	Remarks
25	-	15+380	Box	1 x 3 x 3	
26	-	15+590	Box	1 x 5 x 5	
27	-	15+870	Box	1 x 5 x 5	
28	-	16+310	Box	1 x 2 x 2	
29	-	16+720	Box	1 x 2 x 2	
30	-	17+160	Box	1 x 3 x 3	
31	-	17+450	Box	1 x 3 x 5	
32	-	17+650	Box	1 x 3 x 5	
33	-	17+835	Box	1 x 5 x 5	
34	-	18+300	Box	1 x 5 x 5	
35	-	18+590	Box	1 x 3 x 3	
36	-	18+790	Box	1 x 3 x 3	
37	-	19+080	Box	1 x 3 x 3	
38	-	19+520	Box	1 x 3 x 3	
39	-	19+680	Box	1 x 3 x 4	
40	-	20+000	Box	1 x 3 x 3	
41	-	20+650	Box	1 x 3 x 3	
42	-	21+080	Box	1 x 5 x 4	
43	-	21+225	Box	1 x 5 x 4	
44	-	21+375	Box	1 x 3 x 3	
45	-	22+060	Box	1 x 5 x 4	
46	-	22+890	Box	1 x 5 x 5	
47	-	23+515	Box	1 x 3 x 3	
48	-	23+810	Box	1 x 3 x 3	
49	-	24+380	Box	1 x 3 x 3	

**Note: Minimum 50% of pre-cast Box culverts shall be used for 4-lane development.**



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### At Junction and Crossroads

Additional new culverts shall be constructed at junction and Crossroads are given in the table below:

Sl. No.	Design Chainage	Type	Span (m)	Minimum Vent Height (m)
1	7+770 (at Cross Road)	Box Culvert	1x2	2.0
2	8+100 (at Cross Road)	Box Culvert	1x2	2.0
3	9+600 (at Cross Road)	Box Culvert	1x2	2.0
4	11+920 (at Cross Road)	Box Culvert	1x2	2.0
5	13+770 (at Cross Road)	Box Culvert	1x2	2.0
6	14+235 (at Cross Road)	Box Culvert	1x2	2.0
7	15+080 (at Cross Road)	Box Culvert	1x2	2.0
8	16+790 (at Cross Road)	Box Culvert	1x2	2.0
9	19+615 (at Cross Road)	Box Culvert	1x2	2.0
10	20+760 (at Cross Road)	Box Culvert	1x2	2.0
11	21+720 (at Cross Road)	Box Culvert	1x2	2.0
12	22+650 (at Cross Road)	Box Culvert	1x2	2.0

#### Note:

- The overall width of culverts shall be equal to Roadway width including the gap between main carriageway & service road/slip/connecting road in case there is any service road/slip/connecting road. Any additional Barrel length required as per site conditions 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 13 of EPC Contract Agreement.
- Location of culverts are indicative and span arrangement is minimum specified. Exact location of these culverts may be decided in consultation with Authority Engineer. The actual location/vent way/span arrangements of culverts shall be determined on the basis of detailed investigations by the Contractor in accordance with the Specifications and Standards. Any variations in number of culverts/vent way/span arrangements specified in this Schedule-B shall not constitute a Change of Scope, save and except any variations in the length arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 13 of EPC Contract Agreement.

- a) **Repairs/replacements of railing/parapets, flooring and protection works of the existing culverts shall be undertaken as follows:**

Sl. No.	Chainage (km)	Type of repair required
NIL		



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- b) Floor protection works shall be as specified in the relevant IRC Codes and Specifications.

## II. Bridges

- a) Existing bridges to be re-constructed/widened/retain.

- (i) The existing bridges at the following locations shall be re-constructed as new Structures:

Sl. No.	Chainage (km)	Salient details of existing bridge	Adequacy or otherwise of the existing waterway, vertical clearance, etc*	Remarks
NIL				



- (ii) The following narrow bridges shall be widened:

Sl. No.	Chainage (km)	Existing width (m)	Extent of widening (m)	Cross-section at deck level for widening@
NIL				

- b) **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.

Sl. No	Chainage (km)	Name of Nala	Square Span (m)	Skew (deg.)	Width of Structure (m)
Major Bridge					
1	21+575		2 x 36 (Girder)		2 x 12.5
2	23+138		3 x 36 (Girder)		2 x 12.5
Minor Bridge					
5	4+730		3x4 (Box)		2x30
6	4+780		3x4 (Box)		1x12
7	6+010		1x12 (Box)		2x12.5
8	7+239		3x10 (Box)		2x12.5
9	7+390		1x12 (Box)		2x12.5
10	7+771		2x25 PSC "I" Girder		2x12.5
11	8+980		5x10 (Box)		2x12.5
12	9+255		1x12 (Box)		2x12.5
13	9+780		5x10 (Box)		2x12.5

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Sl. No	Chainage (km)	Name of Nala	Square Span (m)	Skew (deg.)	Width of Structure (m)
14	11+795		1x8 (Box)		2x11.5 + 1x11 + 1x14
15	11+913		1x8 (Box)		2x14
16	14+355		2x12 (Box)		2x12.5
17	15+250		4x10 (Box)		2x12.5
18	21+830		1x30 PSC "I" Girder		2x12.5

*Note: Proposed length of structures is minimum and the same shall be finalized as per site condition in accordance with the Manual in consent with the concerned authority. Any increase in length/span/height shall not be treated as change in scope of work.*

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

Sl. No.	Chainage (km)	Remarks
NIL		

- d) Repairs/replacements of railing/parapets of the existing bridges shall be undertaken as follows:

Sl. No.	Chainage (km)	Remarks
NIL		

- e) Drainage system for bridge decks

An effective drainage system for bridge decks shall be provided as specified in paragraph 7.21 of the manual.

Structures in marine environment

Sl. No.	Chainage (km)	Remarks
NIL		

(iii) **Rail-road bridges**

- (a) Design, construction and detailing of ROB/RUB shall be as specified in section 7 of the manual.

(b) **Road over-bridges**

Road over-bridges (road over rail) shall be provided at the following level crossings, as per GAD drawings attached.



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S. No.	Location of Level crossing (Chainage km)	Length of bridge (m)
1	5+083	3 x 36
2	22+452	3 x 36

Note:

- The proposed span arrangement of ROB's are minimum. It may be subject to change as per availability of railway boundaries/ requirement of the railways. Any increase in the cost due to a change in the span arrangement and total length shall not be treated as a change of scope of work.
- ROB's shall be designed, constructed, and maintained as per the requirements of Railway authorities. The construction plans shall be prepared in consultation with the concerned railway authority.
- The ROB's shall be constructed and maintained by the Contractor/ Contractor under supervision of the Railways.
- All expenditure related to construction, maintenance, and supervision of ROB's (except plan and estimate (P&E) charges) shall be borne by the Contractor/ Contractor.
- During construction, at the location of the existing level crossing, diversion road with level crossing if any shall be suitably provided by the Contractor/ Contractor.

#### (c) Road under-bridges

Road under-bridges (road under railway line) shall be provided at the following level crossings, as per GAD drawings attached:

S. No.	Location of Level Crossing (chainage km)	Number and length of span (m)
NIL		

#### (iv) Grade separated structures.

The grade separated structures shall be provided at the locations and of the type and length specified in paragraphs 2.9 and 3 of this Annex-I.



#### (v) Repairs and strengthening of bridges and structures.

The existing bridges and structures to be repaired/strengthened, and the nature and extent of repairs /strengthening required are given below:

##### (a) Bridges

Sl. No.	Chainage (km)	Nature and extent of repairs /strengthening to be carried out
NIL		



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(b) ROB/ RUB

Sl. No.	Chainage (km)	Nature and extent of repairs /strengthening to be carried out
NIL		

(c) Overpasses/Underpasses and other structures

Sl. No.	Chainage (km)	Nature and extent of repairs /strengthening to be carried out
NIL		

(vi) List of Major Bridges and structures

The following is the list of the major Bridges and structures:

Sl. No.	Chainage (km)
1	Design Ch. 21+575
2	Design Ch. 23+138

8. **Traffic Control Devices and Road Safety Works**

Traffic control devices and road safety works shall be provided in accordance with Section 9 of the Manual. Any requirements in the traffic control devices; road safety works shall not constitute a Change of Scope, save and except any variations in the length arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 13 of EPC Contract agreement.

(a) **Traffic Signs:**

Traffic signs include roadside signs, overhead signs and curb mounted, shall be provided all along the entire Project Highway as per schedule D. All advance direction/destination, reassurance, place identification signs along main road shall be overhead mounted on gantry. Exact location and number of overhead gantry signs to be decided by Contractor in accordance with manual with prior approval from AE and authority. Any increase shall not be constituted as change of Scope. The letter size and siting of all signs along the main road shall be designed for the minimum design speed. A minimum number of full overhead gantry sign and cantilever overhead gantry sign shall be provided in accordance with manual.

(b) **Pavement Marking:**

Pavement markings shall cover road marking for the entire Project Highway as per manual.



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#### (c) Safety Barrier:

Thrie - beam crash barriers shall be provided all along the project highway on either side of main carriageway as per provision in the manual and TCS given in Appendix B-I. Minimum length of Thrie-beam crash barrier and RCC crash barrier shall be provided as per schedule.

#### (ii) Reflective Pavement Markers (Road Studs)

Reflective Pavement markers (RRPM) i.e., road studs shall be provided in of entire project highway at the locations as per provision of clause 9.5 of Section 9 in the manual (IRC: SP-84-2019).

#### (iii) Specifications of the reflective sheeting

Retro reflective sheeting shall be of high intensity grade with encapsulated lens or with micro prismatic retro reflective element in accordance with ASTM Standard D 4956-09 and as per provision of 9.2 of section 9 in the manual (IRC: SP-84-2019).

### 9. ROADSIDE FURNITURE

i) Roadside furniture including boundary pillar, pedestrian guard rail, pedestrian crossing, delineators, MS Railing etc. shall be provided in accordance with the provisions of Section 9 and 12 of manual and Schedule D.

- a) LED traffic blinkers: To be provided at all junctions, pedestrian crossings, exits and at other locations as per manual.
- b) Noise barriers: shall be provided in accordance with manual; Locations shall be decided as per site condition in consent with Authority.

ii) Overhead traffic signs: Minimum 01 number each in Full width overhear signs and Cantilever signs shall be provided as per manual (IRC SP: 84-2019).

### 10. COMPULSORY AFFORESTATION

Compensatory afforestation should be as per the Forest Conservation Act.

### 11. HAZARDOUS LOCATIONS

Roadside safety barriers shall be provided at all locations of hazards such as high embankment, roadside obstacles, sharp curves, Flyover and bridge approaches, overpasses, ROB and any other locations identified in consultation with Authority Engineer during the execution of the project highway.

### 12. Special Requirement for Hill Roads

As the project involves cutting existing hill slopes, it is imperative that slopes are to be stabilized for insuring longevity of the slopes and the roads. Slope stability, erosion control and landslide correction shall be accomplished in accordance with IRC: SP 48:1998, IRC: 56-2011 and manual. The contractor shall be responsible for accurate assessment of the actual requirement & prepare design for slope protection &



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stabilization as per manual.

Any increase in length over the above will not be considered as a change of scope. Therefore, the contractor should carry out thorough investigation at site and assess the requirement of slope protection and slide prone zone and other safety features at his own before submission of bid.

**Disposal of Debris:** - As per Manual under clause “13.13” of section 13 (Special Requirement for Hill Road)

#### A. RETAINING WALL/REINFORCES SOIL WALL (RS WALL) /BREAST WALL

Protection wall in the form of Breast/Retaining wall/Reinforced soil wall shall be constructed at following locations.

##### A-1 BREAST WALL

Sl No	LHS					RHS				
	Design Chainage (km)		Length (m)	Height (m) from FRL	Type	Design Chainage (km)		Length (m)	Height (m) from FRL	Type
	From	To				From	To			
1	10+190	10+300	110	4	PCC	10+170	10+290	120	4	PCC
2	10+830	11+050	220	4	PCC	10+830	11+050	220	4	PCC
3	16+780	16+910	130	3	PCC	16+760	16+960	200	3	PCC
4	20+060	20+310	250	5	PCC	20+060	20+310	250	5	PCC
5	23+980	24+270	290	4	PCC	23+980	24+270	290	4	PCC
<b>Total Length=</b>			<b>1000</b>					<b>1080</b>		

*Note: The proposed locations are minimum and any change in location, length/ height shall not be treated as a change in scope of work.*

##### A-2 Retaining wall.

Retaining walls shall be constructed at the following locations.

Sl No	LHS					RHS				
	Design Chainage (km)		Length (m)	Height (m) from GL	Type	Design Chainage (km)		Length (m)	Height (m) from GL	Type
	From	To				From	To			
1	4+780	5+400	620	3	PCC	4+780	5+400	620	3	PCC
2	22+200	22+600	400	4	PCC	22+200	22+600	400	4	PCC
3	24+280	24+500	220	4	PCC	24+280	24+500	220	4	PCC
<b>Total Length=</b>			<b>1240</b>			<b>Total Length=</b>		<b>1240</b>		

*Note: The proposed locations are minimum and any change in location, length/ height shall not be treated as a change in scope of work.*



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

#### Embankment Protection works

Embankment slope protection shall be provided as per requirement of the site as per Manual, however,

- minimum 58253 sqm turfing on filling side,
- 76542 sqm erosion control on filling side (using geo-green) however, keeping in view sustainability, the geogreen blanket with vegetation should have minimum 7.5 kn/m MD and should be certified by at least Central Government Organization and product has minimum 5-7 years product performance certificate by MORT&H and its agencies.
- Cut Slope treatment of 24096 sqm by non-woven coir erosion control blanket/DT Mesh for Face 2.7/3.7mm dia. wire, ZN+PVC with vegetation.

#### Note:

- The locations and quantity of various protection works specified in this above clause (e) of schedule B is tentative and minimum specified. The contractor shall be responsible for accurate assessment of slope protection & stabilization measures as per schedule D. Any change in location, increase in quantity, change in specifications or change in type of protection work shall not constitute a Change of Scope. Therefore, contractor should carry out thorough investigation at site and assess the requirement of slope protection and slide prone zone and other safety features on his own before submission of bid.
- Before placement of support system at site, the slopes shall be stripped to remove the excess debris / hanging boulders, stones, muck, shrubs etc. and site specific best possible smooth surface shall be prepared. The support system shall be laced on this smooth surface.



#### Diversion of nallah

Diversion of Nallah shall be constructed at the following locations.

Sl. No.	Chainage		Stream	Length (m)	Remarks	Side
	From	To				
1	4+750	4+840	NALA	90	A	LHS
2	5+600	5+800	NALA	200	A	RHS
3	7+170	7+240	NALA	70	A	LHS
4	11+750	11+900	NALA	150	B	Across
5	11+940	12+110	NALA	170	A	LHS
6	21+140	21+270	NALA	130	A	RHS
		<b>Subtotal</b>		<b>810</b>		

### 13. RAINWATER HARVESTING

- As per Ministry of Environment and Forests Notification, New Delhi dated 14.01.1997 (as amended on 13.01.1998, 05.01.1999 & 6.11.2000), the construction of Rainwater, harvesting structure is mandatory in and around Water Crisis area, notified by the Central Ground Water Board.

	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p>	
	<p><b>Technical Schedule</b></p>	

- (ii) Rainwater harvesting structures shall be provided at every 1000m on either side.
- (iii) Rainwater harvesting structure shall be provided as per IRC: SP:42-2014 (Guideline for road drainage) and IRC: SP:50-2013 (Guidelines on Urban Drainage)

#### 14. Utility Shifting

Shifting of obstructing existing utilities indicated in Schedule A to an appropriate location in accordance with the standards and specifications of concerned Utility Owning Department is part of the scope of work of the Contractor. The bidders may visit the site and assess the quantum of shifting of utilities for the projects before submission of their bid. The specifications of concerned Utility Owning Department shall be applicable and followed.



##### Note-I:

(a) The type/ spacing/ size/ specifications of poles/ towers/ lines/ cables to be used in shifting work shall be as per the guidelines of utility owning department and it is to be agreed solely between the Contractor and the utility owning department. No change of scope shall be admissible, and no cost shall be paid for using different type/ spacing/ size/ specifications in shifted work in comparison to those in the existing work or for making any overhead crossings to underground as per requirement of utility owning department and/or construction of project highway. The Contractor shall carry out joint inspection with utility owning department and get the estimates from the utility owning department. The assistance of the Authority is limited to forwarding letter on the proposal of Contractor to utility owning department whenever asked by the Contractor. The decision/ approval of the utility owning department shall be binding on the Contractor.

(b) The supervision charges at the rates/ charges applicable of the utility owning department shall be paid directly by the Authority to the Utility Owning department as and when Contractor furnishes demand of Utility Owning Department along with a copy of estimated cost given by the later.

(c) The dismantled material/scrap of existing Utility to be shifted/ dismantled shall belong to the Contractor who would be free to dispose-off the dismantled material as deemed fit by them unless the Contractor is required to deposit the dismantled material to utility owning department as per the norm and practice and in that case the amount of credit for dismantled material may be availed by the Contractor as per estimate agreed between them.

(d) The utilities shall be handed over after shifting work is completed to the Utility Owning Department to their entire satisfaction. The maintenance liability shall rest with the Utility Owning Department after the handing over process is complete as far as utility shifting works are concerned.

 <p>म.उ.र.त.ह. M.O.R.T.H. Govt. of India</p>	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p> <p><b>Technical Schedule</b></p>	 <p>NHAI BUILDING INFRASTRUCTURE - BUILDING THE NATION</p>
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**Note II:** - Copy of Utility shifting plan enclosed.

### 13.1 Details of proposed Utilities Schedules

Utilities details are given below under specific items.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

### (SCHEDULE B-1)

#### Details of proposed Utilities Schedules

The shifting of utilities and felling of trees shall be carried out by the contractor. The cost of the same shall be borne by the Authority. The details of utilities are as follows:

Sr. No	Type of Utility	Unit	Quantity	Location/stretch (LHS/RHS)
A	Electrical Utilities			
A1	Electrical Poles	Nos.	200	BHS
A2	LT/11Kv / 33Kv Length	Circuit Km	27	BHS
A3	Transformer 25 kVA/63 Kva/100 Kva	Nos.	05	BHS
A4	HT location	Nos.	40 nos.	BHS
A4	HT lines crossing location	Nos.	07	BHS
B	Water/Sewage pipeline	Km	12.050	BHS
B1	Hand pumps	Nos.	0	00/00
B2	Water supply (Diff Dia. and Specification)	meters	.150	
C	Telephones & OFC			
C1	Telephones	Nos.	0	
C2	OFC	Nos	10	
D	Felling of Tress	Nos.	124330	BHS



The details of items/quantities/works to be executed for shifting of utilities is tentative. All works/quantities/ miscellaneous items to be executed at site as per detailed estimate of utility owning department, without any additional claim/Change of Scope.

#### 15. Other Protection Works

Nil

#### 16. Utility Duct: 20nos. (NP-4 class) of 1x1.0m dia. to be provided across the project



 <p>म.उ.र.त.ह. M.O.R.T.H. Min. of India</p>	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p> <p><b>Technical Schedule</b></p>	 <p>NHAI BUILDING INFRASTRUCTURE - BUILDING THE NATION</p>
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highway. 300 dia utility pipe shall be provided on valley side along with inspection chamber at an interval of 500 m

#### 17. Change of Scope

The number, length and height/width of Structures and bridges specified hereinabove shall be treated as an approximate assessment. The actual numbers, lengths and sizes as required on the basis of detailed investigations shall be determined by the Contractor in accordance with the Specifications and Standards. Any variations in the lengths specified in this Schedule- B shall not constitute a Change of Scope, save and except any variations in the length arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 13.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

### APPENDIX B-I

#### Typical Cross Section Schedule

SL No.	Chainage (m)		Distance (m)	TCS Type
	From	To		
1	4+560	4+790	230	TCS 3
2	4+790	5+420	630	TCS 4
3	5+420	5+620	200	TCS 2
4	5+620	5+880	260	TCS 11
5	5+880	7+860	1980	TCS 1
6	7+860	8+110	250	TCS 11
7	8+110	8+240	130	TCS 8
8	8+240	8+460	220	TCS 5
9	8+460	8+500	40	TCS 8
10	8+500	9+000	500	TCS 1
11	9+000	10+120	1120	TCS 3
12	10+120	10+170	50	TCS 5
13	10+170	10+190	20	TCS 6
14	10+190	10+290	100	TCS 7
15	10+290	10+300	10	TCS 6
16	10+300	10+440	140	TCS 2
17	10+440	10+520	80	TCS 8
18	10+520	10+570	50	TCS 5
19	10+570	10+620	50	TCS 8
20	10+620	10+780	160	TCS 1
21	10+780	10+830	50	TCS 5
22	10+830	11+050	220	TCS 7
23	11+050	11+110	60	TCS 5
24	11+110	11+140	30	TCS 8
25	11+140	11+500	360	TCS 2



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

SL No.	Chainage (m)		Distance (m)	TCS Type
	From	To		
26	11+500	12+350	850	TCS 10
27	12+350	12+460	110	TCS 8
28	12+460	12+620	160	TCS 5
29	12+620	12+760	140	TCS 1
30	12+760	12+800	40	TCS 8
31	12+800	13+220	420	TCS 5
32	13+220	13+440	220	TCS 8
33	13+440	13+530	90	TCS 5
34	13+530	13+620	90	TCS 8
35	13+620	13+690	70	TCS 2
36	13+690	13+760	70	TCS 5
37	13+760	13+790	30	TCS 1
38	13+790	14+220	430	TCS 5
39	14+220	14+430	210	TCS 2
40	14+430	14+470	40	TCS 8
41	14+470	14+510	40	TCS 2
42	14+510	14+560	50	TCS 8
43	14+560	14+620	60	TCS 2
44	14+620	14+700	80	TCS 8
45	14+700	14+780	80	TCS 2
46	14+780	14+880	100	TCS 5
47	14+880	14+910	30	TCS 8
48	14+910	15+430	520	TCS 2
49	15+430	15+560	130	TCS 5
50	15+560	16+050	490	TCS 2
51	16+050	16+120	70	TCS 8
52	16+120	16+250	130	TCS 5



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

SL No.	Chainage (m)		Distance (m)	TCS Type
	From	To		
53	16+250	16+280	30	TCS 8
54	16+280	16+370	90	TCS 2
55	16+370	16+420	50	TCS 8
56	16+420	16+690	270	TCS 5
57	16+690	16+760	70	TCS 3
58	16+760	16+780	20	TCS 6
59	16+780	16+910	130	TCS 7
60	16+910	16+960	50	TCS 9
61	16+960	17+300	340	TCS 3
62	17+300	17+700	400	TCS 2
63	17+700	17+800	100	TCS 1
64	17+800	18+630	830	TCS 2
65	18+630	18+760	130	TCS 8
66	18+760	18+880	120	TCS 2
67	18+880	19+060	180	TCS 5
68	19+060	19+110	50	TCS 1
69	19+110	19+200	90	TCS 8
70	19+200	19+270	70	TCS 5
71	19+270	19+380	110	TCS 8
72	19+380	19+730	350	TCS 2
73	19+730	19+770	40	TCS 8
74	19+770	19+850	80	TCS 5
75	19+850	19+950	100	TCS 8
76	19+950	20+060	110	TCS 2
77	20+060	20+310	250	TCS 7
78	20+310	20+380	70	TCS 5
79	20+380	21+300	920	TCS 10



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

SL No.	Chainage (m)		Distance (m)	TCS Type
	From	To		
80	21+300	21+370	70	TCS 1
81	21+370	21+860	490	TCS 2
82	21+860	22+200	340	TCS 3
83	22+200	22+600	400	TCS 4
84	22+600	22+800	200	TCS 3
85	22+800	23+210	410	TCS 2
86	23+210	23+460	250	TCS 5
87	23+460	23+630	170	TCS 1
88	23+630	23+770	140	TCS 5
89	23+770	23+910	140	TCS 1
90	23+910	23+980	70	TCS 5
91	23+980	24+270	290	TCS 7
92	24+270	24+500	230	TCS 4
93	24+500	24+560	60	TCS 1

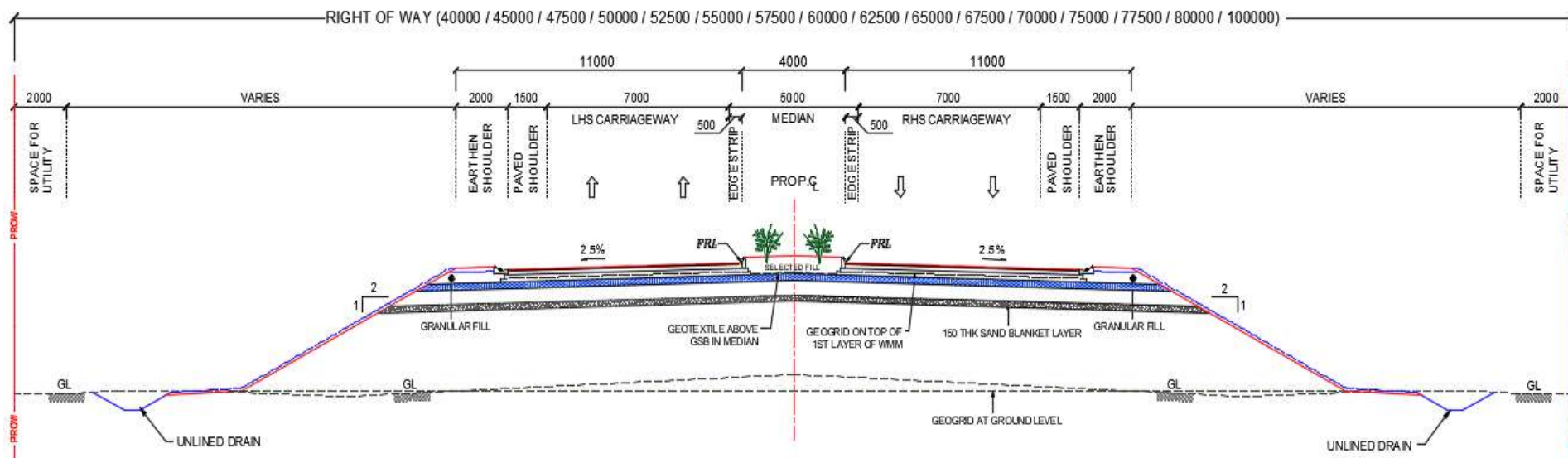


Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule

#### Typical Cross-section along the Project Highway



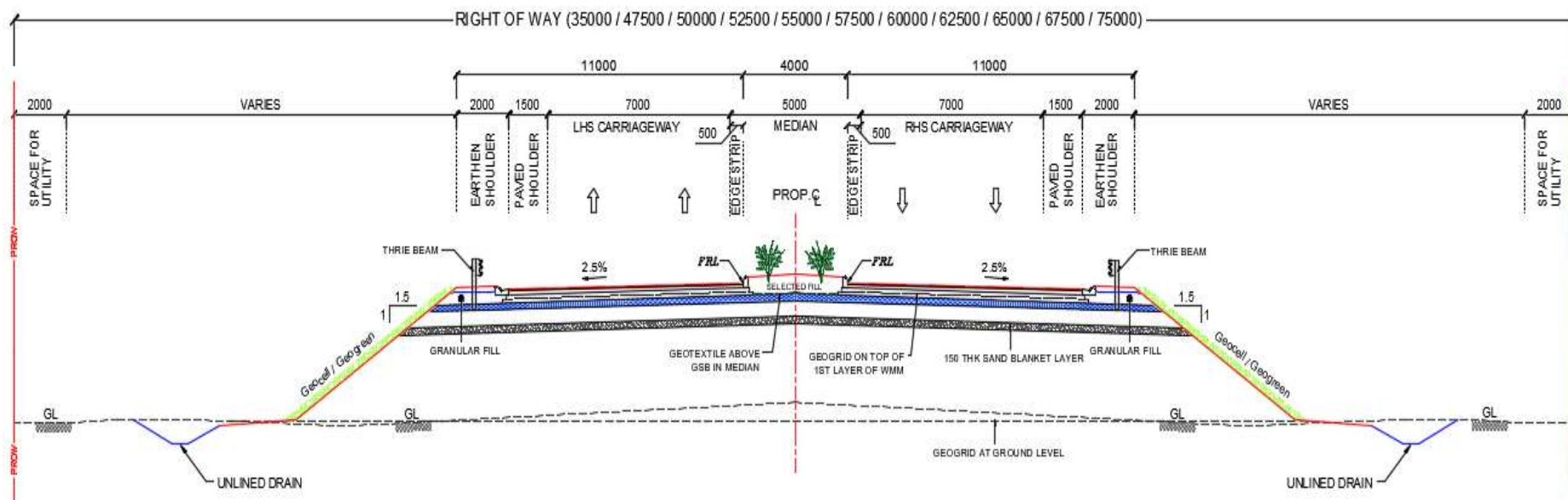
4-Lane Divided Highway without Service Road (Embankment Height  $\leq 3\text{m}$  with Turfing treatment) (TCS-1)



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



4 Lane Divided Highway without Service Road (Embankment Height > 3m and ≤ 6m with Geocell/ Geo-green on Embankment slope) (TCS-2)

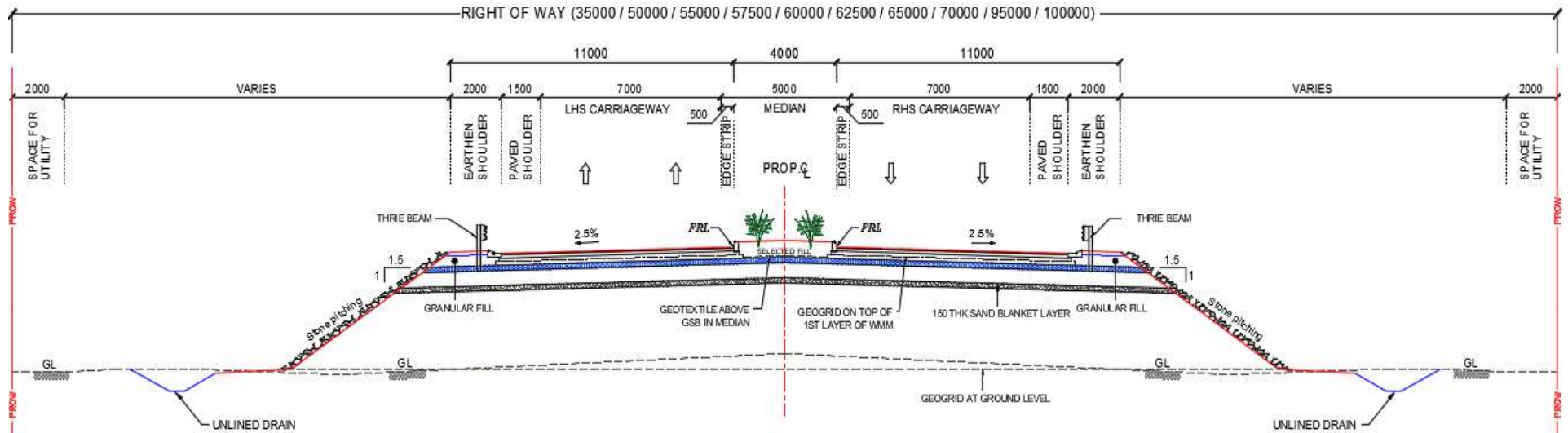




Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



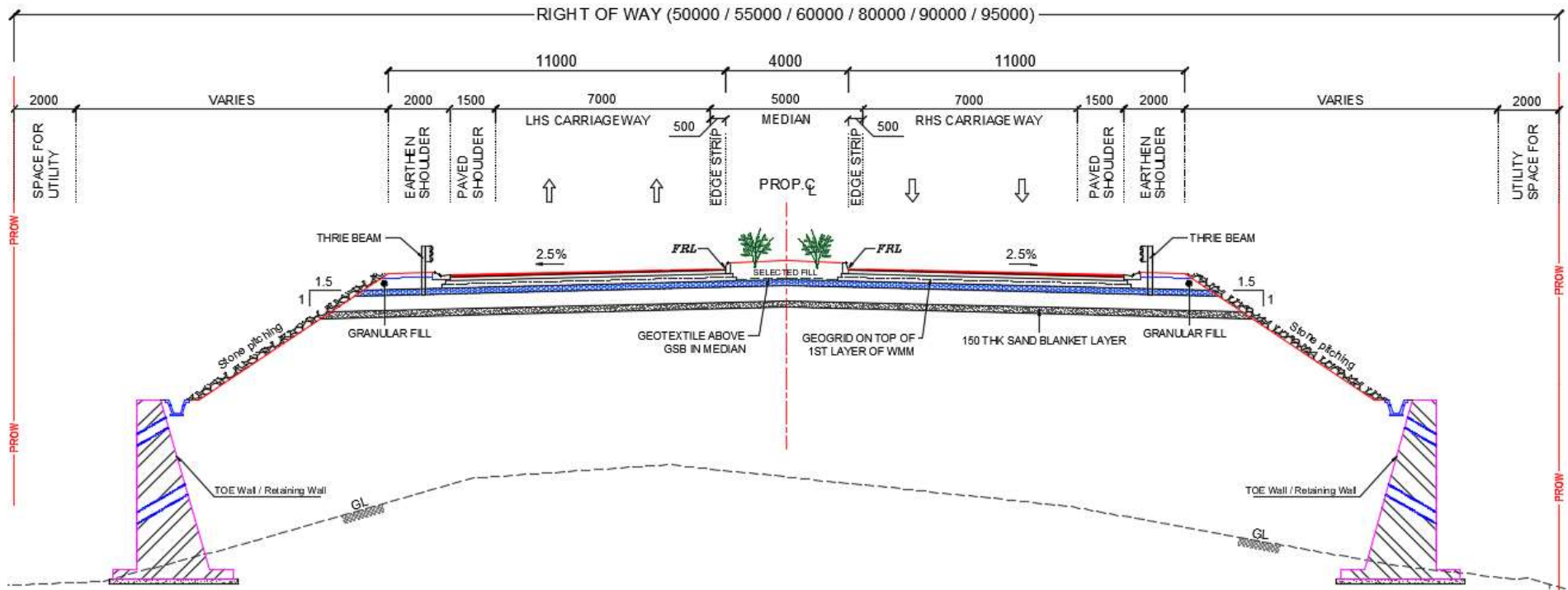
4 Lane Divided Highway without Service Road (Embankment Height > 6m with Stone pitching on Embankment slope) (TCS-3)



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



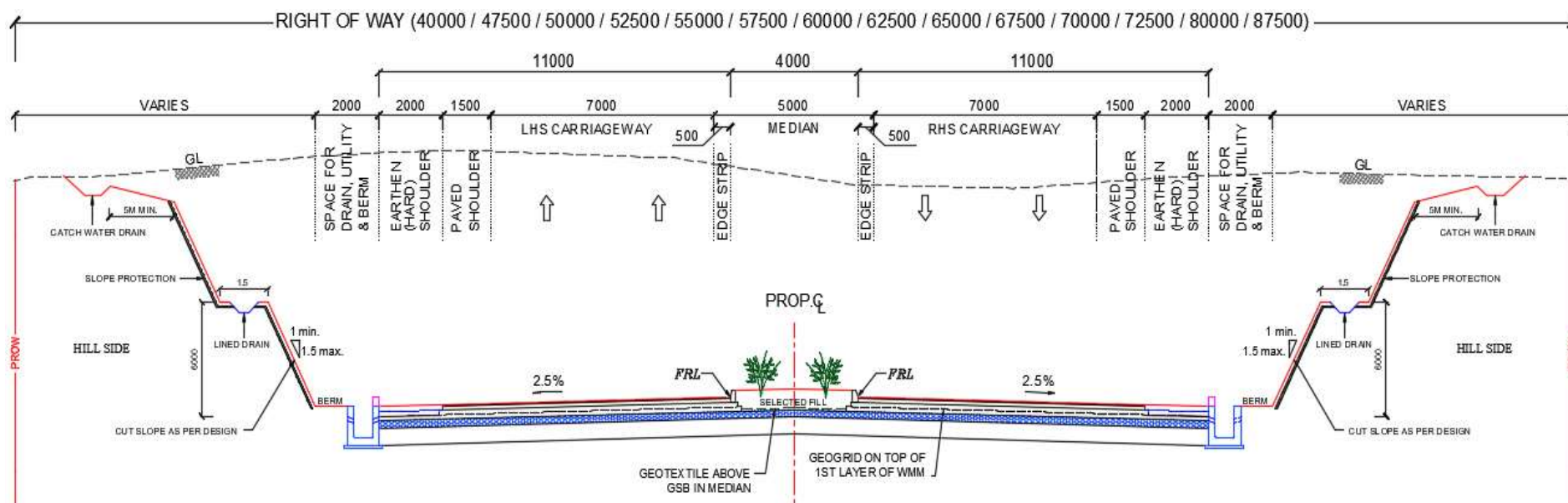
4 Lane Divided Highway without service road (Embankment Height > 6m height with Stone pitch and R/Wall or T/Wall) (TCS-4)



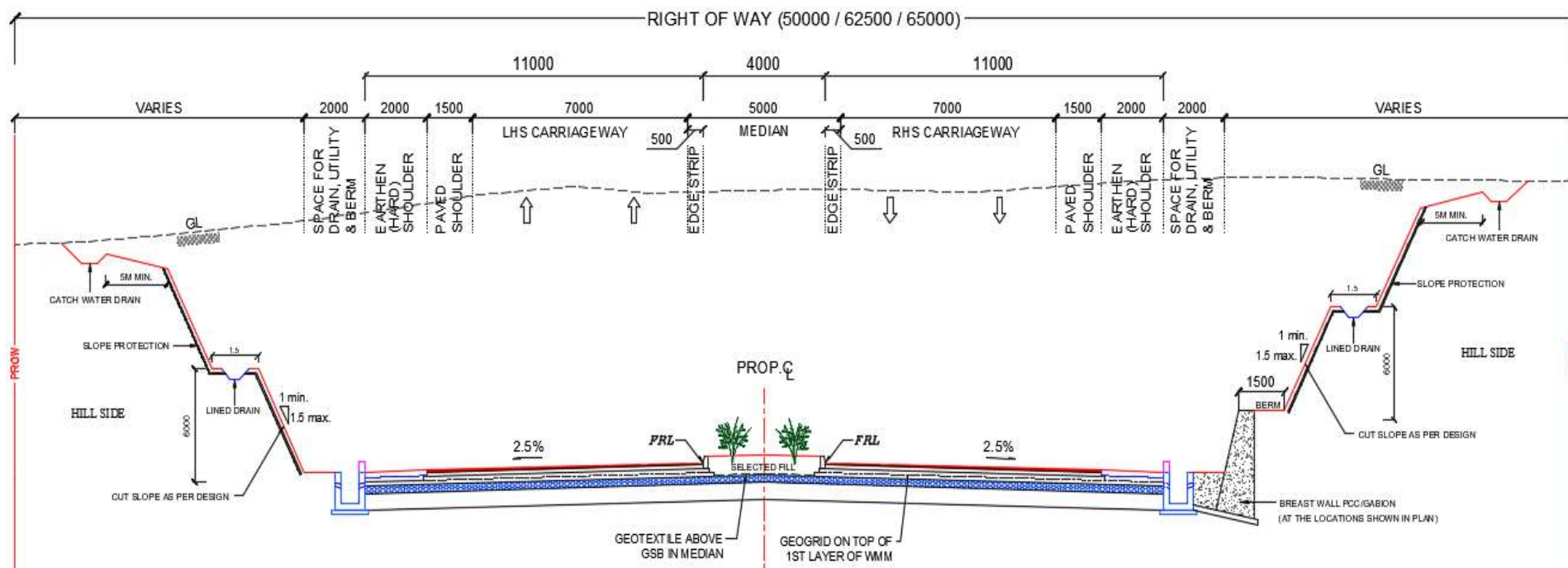
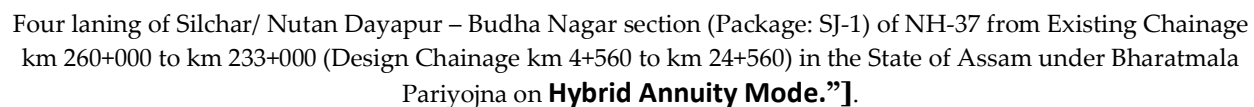
Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



4 Lane Divided Highway without Service Road in Cutting on both sides (TCS-5)



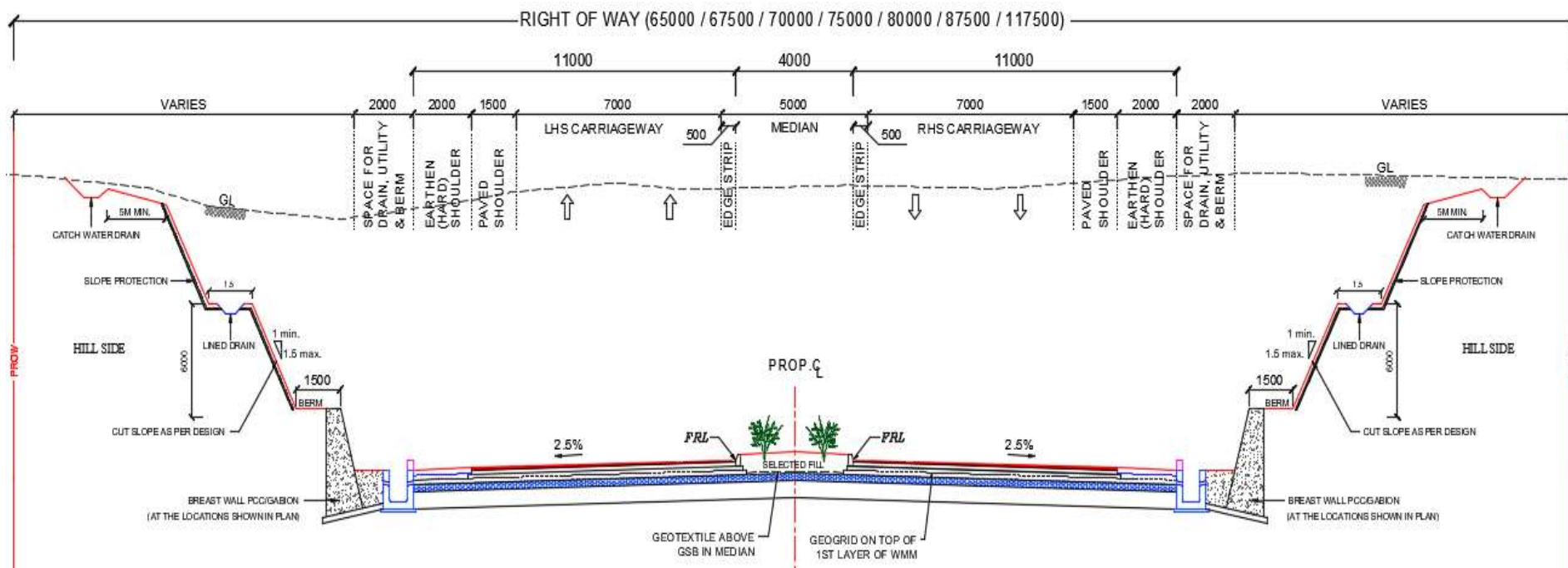
#### 4 Lane Divided Highway without Service Road in Cutting with one side Breast Wall (TCS-6)



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



4 Lane Divided Highway without Service Road in Cutting with both side Breast Wall (TCS-7)

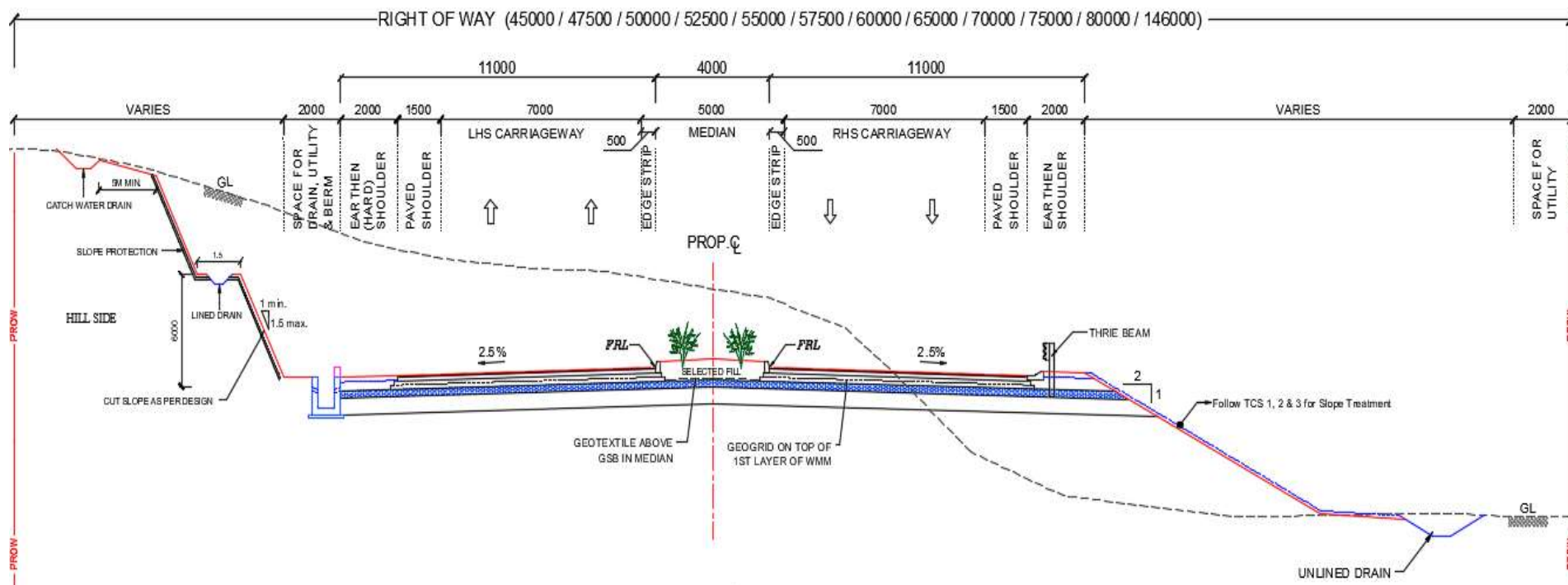




Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



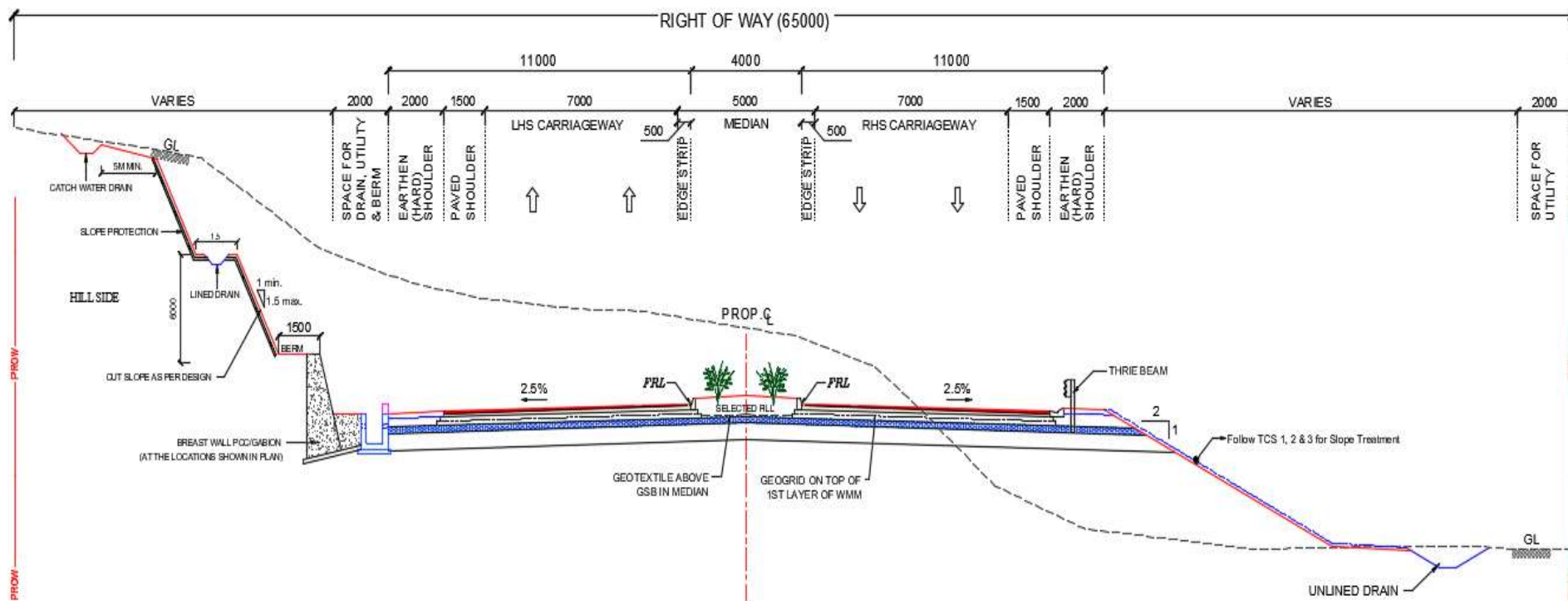
4 Lane Divided Highway without Service Road with normal Cut and Fill (TCS-8)



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



4 Lane Divided Highway without Service Road with Breast wall in High Cut and Normal Fill (TCS-9)

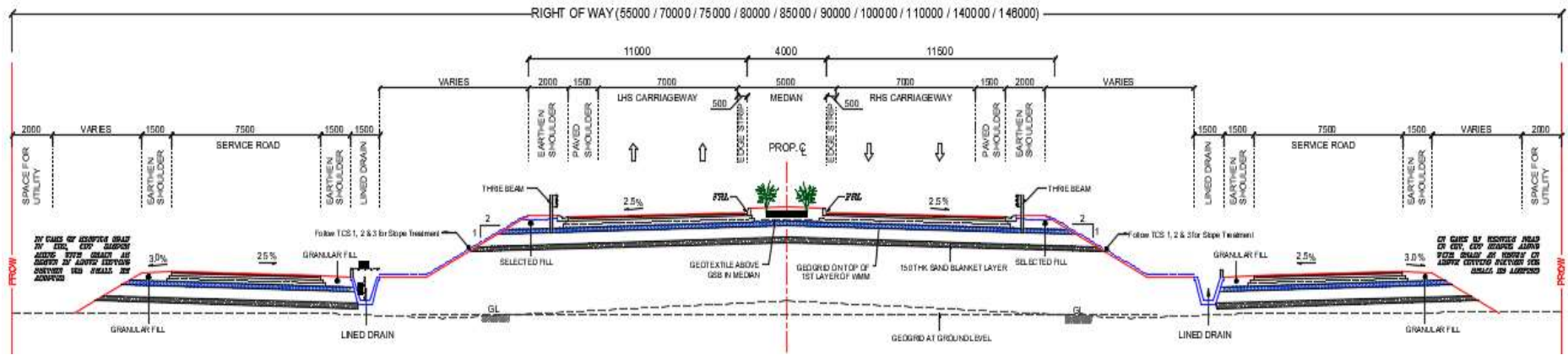




Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



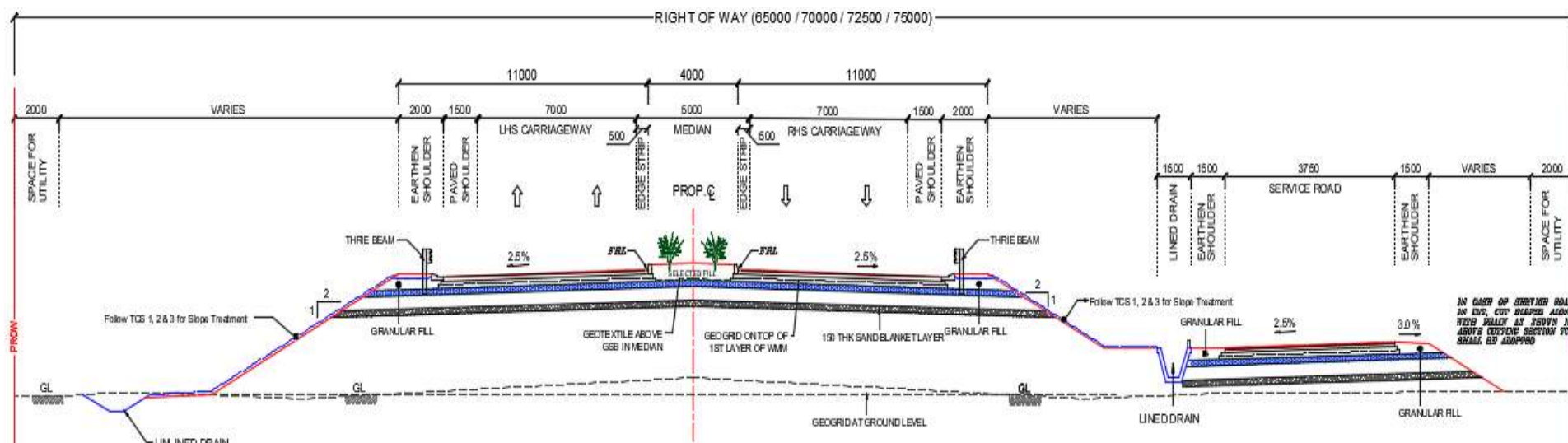
4 Lane Divided Highway with Service Road on both sides (TCS-10)



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



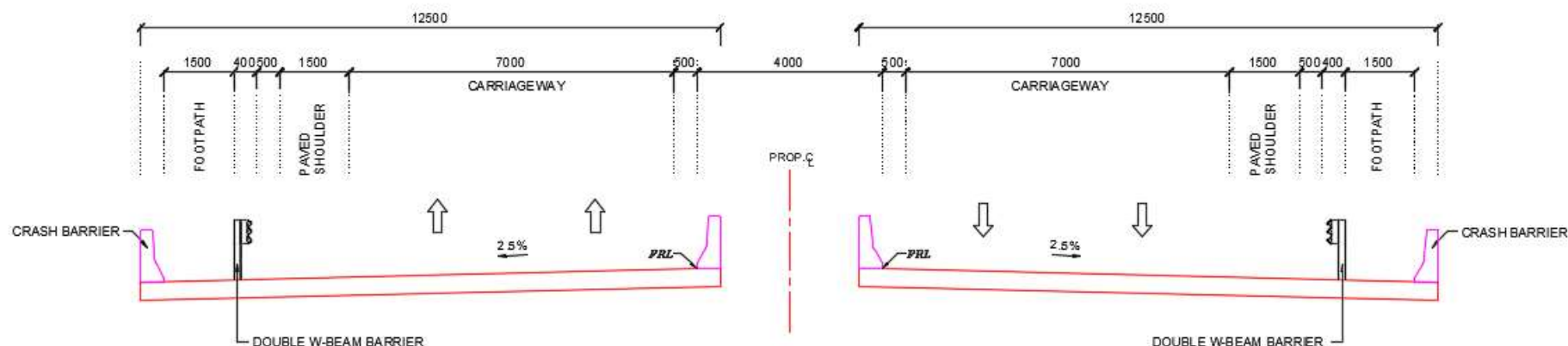
4 Lane Divided Highway with Service Road on one side (TCS-11)



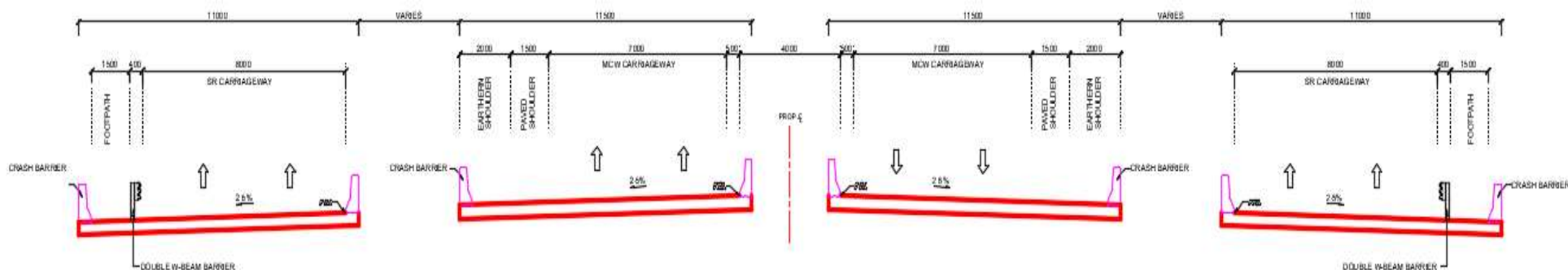
Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



4-Lane- Bridge at Deck Level with Footpath Bridges without Service Road (TCS-8)



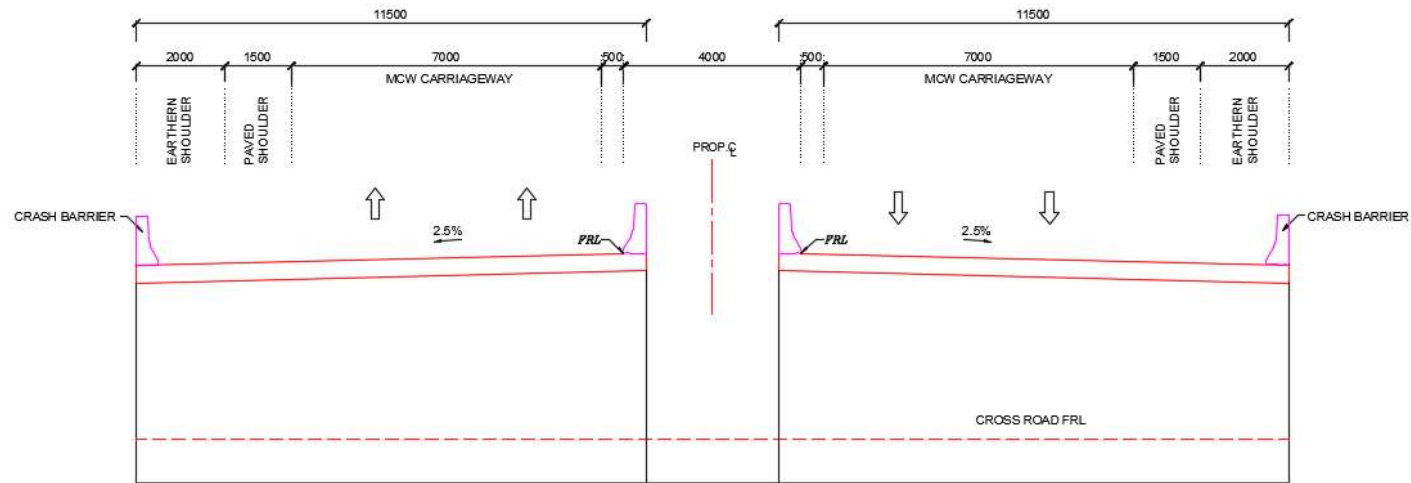
4-Lane- Bridge at Deck Level with Footpath Bridges with Service Road (TCS-9)



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



### Technical Schedule



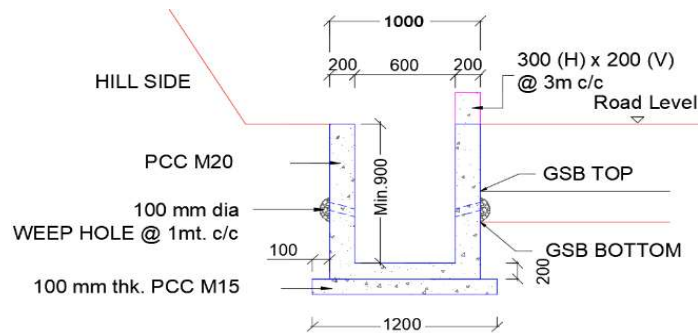
Approach of 4-Lane Grade Separated Approach (TCS-10)



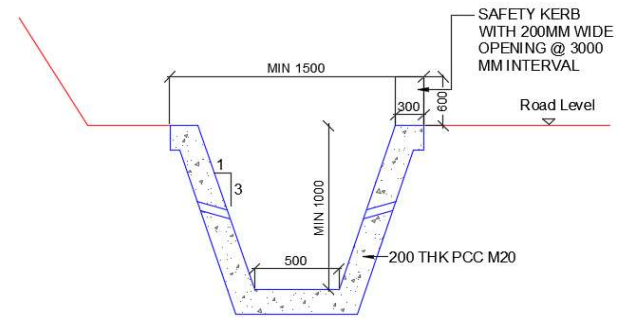
Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”].



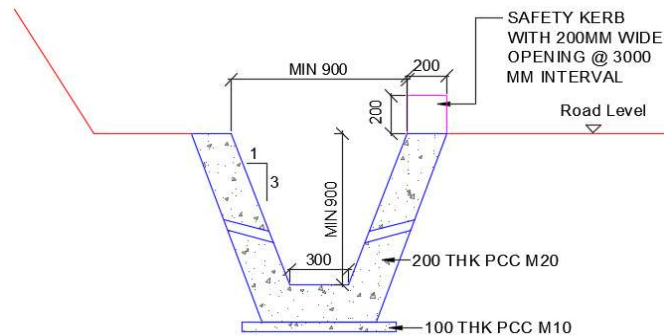
### Technical Schedule



a. PCC Open Drain Hill Side



b. PCC Open Drain at Grade separator Side



c. PCC Open Drain at Other Location

### Types of Drain

## *Schedule-C*



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”]



#### Technical Schedule

### Schedule - C

(See Clause 2.1)

### Project Facilities

#### 1 Project Facilities

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

- (a) Toll plazas.
- (b) Traffic Control Device/Road Safety Device/Roadside furniture.
- (c) Pedestrian facilities.
- (d) Land Scaping and Tree Plantation.
- (e) Truck lay-byes.
- (f) Bus-bays and Passenger shelters.
- (g) Wayside amenities.
- (h) Rest areas
- (i) Foot over Bridges
- (j) Building for traffic aid post
- (k) Building for medical aid post and emergency medical services
- (l) Highway Lighting
- (m) High Patrolling
- (n) Environmental monitoring services

#### 2 Description of Project Facilities

Each of the Project Facilities is described below:

##### (a) Toll Plaza location

Toll Plaza location is mentioned below – Toll Plaza shall be provided as per as stipulated in section 10 of IRC Manual viz IRC-SP-84, 2019. The minimum lane requirements in the opening year are as follows.

Sl. No.	Design Chainage			Lanes	Name of Village
	From	To	Length (m)		
NIL					

#### Note:

- All toll plaza premises shall be fenced with boundary wall with minimum 6ft height from OGL.
- Entry approach to each toll plaza shall be having Weigh in Motion equipment for connecting toll booths and toll office for collection of toll fees as per as per Schedule D.





Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

- Based on the minimum toll lane requirement as given above, toll booths, toll plaza complex, weigh bridges, electrical systems, toll plaza and all other facilities required/mentioned in manual shall be provided as per Schedule D. All the structures shall be RCC framed structures as per Schedule D.
- No. of toll lanes specified above are minimum indicative. The Concessionaire shall design and provide toll lane as per IRC: SP: 87-2019 subject to minimum specified above. Any increase in no. of toll lane shall not be treated as change of scope, save and except any variations in the length arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 16.
- Solar panels shall be erected over the Toll Plaza Canopy to generate green energy. Same shall be utilized for toll plaza lighting and other energy requirement within toll plaza area along with conventional lighting.

#### (b) Roadside furniture

Traffic Control Device/Road Safety Device/Roadside furniture as per provisions of manual shall be provided. Yellow flashing lights using solar power with full alternative power back-up shall be provided at all junctions/pedestrian crossings/hazardous locations etc

- Traffic Signs** - Road Signs include roadside signs; chevron signs; overhead signs and kerb mounted signs along the entire Project Highway and Slip/Connecting Road. All road signs shall be of Prismatic Grade Sheeting corresponding to Class „C“ Sheeting described in IRC: 67 and any of the types VIII; IX or XI as per ASTM D-4956-09. The road signs and overhead signs erected on the Project highway and Slip/Connecting Road with regard to requirement of number of signs, type and size of sign, size of letter, color of sign, layout of sign; etc. including signs installations shall conform to Section-9 of “Manual” and IRC: 67, Code of Practice for Road Signs. Chevron signs shall be installed on curves and intersection. In addition to signs prescribed in “Manual” other signs such as signs showing safety slogans, toll free numbers, nearby hospital and police station facilities, lane discipline signs on gantry, headway etc. will also be provided as directed by Authority/Independent Engineer. The overhead signs shall be placed on a structurally sound gantry or cantilever structure made of tubular structure or steel structure. The final locations shall be finalized in consultation with the Authority Engineer. The height, lateral clearance and installation of the sign structures shall be as per the MoRT&H/IRC guidelines. Design and location of overhead gantry sign, route marker signs for Project Highway shall be as per the IRC: 67.
- Pavement Marking** - Pavement markings shall cover the entire Project Highway and shall be as per section- 9 of the “Manual” and IRC: 35. These markings shall be applied to road center lines; edge lines; continuity line; stop lines; give-way lines; diagonal/chevron markings; zebra crossing and at parking areas etc. by means of an approved self-propelled machine which has a satisfactory cut-off valve capable of applying broken lines automatically.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

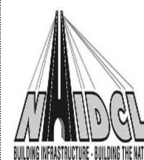
Road markings other than on main carriageway edges (both shoulder and median side) shall be of hot applied thermoplastic materials with glass reflectorizing beads as per relevant sub clauses of MoRT&H specifications; Raised profile edge lines as per Clause 7.7 of IRC 35 shall be provided on main carriageway (both sides i.e. shoulder and median side/right lane).

- iii. **Raised Pavement Markers, Reflection pavement markers and Solar Studs** - Shall be provided along entire Project Highway as per requirements of Section - 9 of the IRC:SP:84-2019 & Section 8 of IRC:SP:84-2019 and relevant IRC Manual specified in Schedule D.
- iv. **Hectometer & Kilometer Distance marker** - Shall be provided along entire Project Highway as per requirements of Section -12 of IRC: SP:84-2019 and relevant IRC Manual specified in Schedule D
- v. **LED Traffic Blinkers:** LED Traffic Blinkers shall be provided at all major & minor junctions, Pedestrian Crossings, Built-up areas and any other locations as specified in Schedule D.
- vi. **Crash barrier** - Thrie metal crash barrier shall be provided along the project highway as indicated in TCS given in Schedule B and IRC: SP-91-2019. The minimum length of crash barrier is 27870m.

Sl No	LHS			RHS		
	Chainage (m)		Length (m)	Chainage (m)		Length (m)
	From	To		From	To	
1	4+560	5+430	870	4+560	6+060	1500
2	5+480	5+680	200	6+110	7+960	1850
3	5+760	6+060	300	8+450	8+700	250
4	6+130	7+460	1330	8+910	10+130	1220
5	7+660	8+230	570	10+300	10+390	90
6	8+550	8+570	20	10+600	10+730	130
7	8+730	9+650	920	11+140	12+380	1240
8	9+710	10+090	380	12+620	12+700	80
9	10+300	10+520	220	13+220	13+450	230
10	10+580	10+750	170	13+560	13+680	120
11	11+110	12+350	1240	14+220	14+430	210
12	12+620	12+760	140	14+470	14+520	50
13	13+530	13+700	170	14+560	14+620	60
14	14+250	14+680	430	14+880	15+440	560



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”]



#### Technical Schedule

LHS				RHS		
Sl No	Chainage (m)		Length (m)	Chainage (m)		Length (m)
	From	To		From	To	
15	14+910	15+430	520	15+550	16+070	520
16	15+560	16+050	490	16+280	16+420	140
17	16+250	16+370	120	16+680	16+760	80
18	16+670	16+770	100	16+990	18+870	1880
19	16+920	18+620	1700	19+380	19+730	350
20	18+750	18+890	140	19+850	20+050	200
21	19+060	19+200	140	20+430	23+210	2780
22	19+270	19+760	490	23+490	23+620	130
23	19+950	20+040	90	24+290	24+490	200
24	20+460	23+220	2760			
25	23+510	23+610	100			
26	23+800	23+920	120			
27	24+290	24+560	270			
28	24+600	24+860	260			
<b>Total Length=</b>			<b>14000</b>			<b>13870</b>

*Note: The above proposed locations are minimum. Any change in length shall not be treated as change in scope of work.*

- vii. **Bamboo Crash barrier-** Bamboo crash barrier shall be provided along the project highway at below locations;

Sl.no.	Design Chainage (Km)		Length (m)	Remarks
	From	To		
1	4+560	24+560	2000	LHS and RHS except bridges location

*Note: The above proposed locations are minimum. Any change in length shall not be treated as change in scope of work.*

- viii. **MS Railing** - MS Railing along the Project highway shall be provided as per Schedule D.
- ix. **Delineators** - Shall be provided as per requirements & specifications as per Schedule D.
- x. **Boundary Stones** - For Entire Project highway at 200m interval.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

**xi. KM Stones and Hectometer Stone - For Entire Project highway.**

**(c) Location of Pedestrian facilities:**

- i. Pedestrian Guard rails shall be provided at junctions, Truck lay byes, bus bays and near schools and hospitals as per provisions in section 12.2 of the Manual.
- ii. Pedestrian guardrail: Provide pedestrian guardrails at each bus stop location and at other locations as per manual.
- iii. Pedestrian Crossings: Provide pedestrian crossing facilities on locations as recommended in Schedule D.

**(d) Landscaping & Tree Plantation**

Landscaping and Tree plantation shall be done at Toll Plaza, Major Intersection etc.

**(e) Location of Truck lay-bye:**

Truck Lay bye shall be provided at the following locations in accordance with section 12.4 of the manual. Truck Lay bye shall be provided at below mentioned locations.

Sl. No	Existing Chainage (Km)	Design Chainage (Km)	Side (Left/Right)
1	-	6+330	RHS

**(f) Bus-bays and Bus shelters table is given below:**

As stipulated in section 12.5 of the Manual, Bus-bays and shelters shall be provided at below indicative locations.

Sl. No.	Design Chainage	Side	Name Of Village
1	6+690	LHS	Nutan Doyapore
2	6+950	RHS	Nutan Doyapore
3	11+790	LHS	Palerbond Grant
4	12+020	RHS	Palerbond Grant
5	20+720	LHS	Labocpar B
6	20+910	RHS	Labocpar B

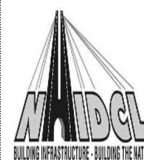
**Note:** Above shown number of locations are minimum, however, the location of bus bays and passenger shelters shall be finalized as per location and site requirement in consultation with Authority. Any change in location shall not be treated as a change of scope.

**(g) Way-Side Amenities**

Wayside amenities shall be a part of the Highway and shall be constructed with the minimum facilities such as Parking areas (Truck, Buses, Cars, Minibuses), and garage for minor repair, Hotel/ Motel, Trauma Center, Rest Areas, Fast Food Centre, Travel Information Facilities, Toilets and Bath Facilities, space for Maintenance staff & Vehicle Service Station, Dormitory etc.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.**”]



#### Technical Schedule

Wayside amenities shall be developed in accordance with Schedule -D & MoRT&H circular No. RW/NH-33044/14/2003-S& R(R)-Pt. dated 11th Feb. 2021.

#### (h) Rest areas

The rest area is 300 x 75 m (2.25 hectare) in size and is proposed at the following location.

Chainage (km)	Side (Left/Right)
NIL	

#### (i) Water Collection Pit (2x2x2)

Water collection Pit shall be provided at every kilometer on hill side along main the carriageway suitable places.

- NIL

#### (j) Foot Over Bridges:

Foot Over Bridges shall be provided at the following locations:

Sl. No.	Existing Chainage	Design Chainage (Tentative)	Remarks
1	-	10+830	Palerbond Grant
2	-	19+120	Digrliriang Punji
3	-	21+000	Dhanehari
4	-	23+300	Cherenga Punji

#### (k) Buildings for Traffic Aid Posts

The Contractor shall, in accordance with the type designs prescribed for such police outpost buildings by the State Government or a substitute thereof, construct buildings not exceeding 25 (twenty-five) square meters of plinth area, for each of the Traffic Aid Posts, and hand them over to the Authority no later than 30 (thirty) days prior to the Scheduled Completion Date. The Traffic Aid Post(s) shall be deemed to be part of the Site and shall vest in the Client.

#### (l) Building for Medical Aid Post

The Contractor shall, at its cost and in accordance with the type designs prescribed for such buildings by the State Medical Department (or a substitute thereof to be designated by the Authority), construct an aid post building and hand it over to the Authority, no later than 30 (thirty) days prior to Scheduled Completion Date. The Medical Aid Post(s) shall be deemed to be part of the Site and shall vest in the Client.

#### (m) Highway Lighting.

##### i) Highway Lighting:

Lighting shall be provided at Junctions, median openings, built up areas, toll plaza, Bus stops, truck Lay-byes, service road/connecting roads and rest areas.



Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on **Hybrid Annuity Mode.”]**



#### Technical Schedule

On all grade separated structures Lightings will be provided on Top & Underside as per clause 3.3.4 & 12.3 of IRC SP 84.



High Mast Lighting shall be provided at all Major Junctions, Toll Plaza / rest area locations or any other location as per clause 12.3.3 of IRC SP 84.

- ii) **Rainwater Harvesting** – As per Ministry of Environment and Forests Notification, New Delhi dated 14.01.1997 (as amended on 13.01.1998, 05.01.1999 & 6.11.2000), the construction of Rainwater, harvesting structure is mandatory in and around Water Crisis area, notified by the Central Ground Water Board. A minimum of 1 number per 5 km has to be provided throughout the project length.

- **Not required in this package.**

## *Schedule-D*



 <p>म.उ.र.त.ह. M.O.R.T.H. Ministry of Road Transport &amp; Highways</p>	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”]</b></p> <p><b>Technical Schedule</b></p>	 <p>NHAI BUILDING INFRASTRUCTURE - BUILDING THE NATION</p>
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## Schedule - D

(See Clause 2.1)

### Specifications and standards

#### 1 Construction

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



#### 2 Design Standards

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

Manual of Standards and Specifications for Four Laning of Highways published by the Indian Roads Congress IRC: SP: 84-2019- second revision; referred to herein as the Manual and all the other latest IRC Codes, Specifications and Circulars issued by Ministry of Road Transport & Highways (MoRT&H).

The provision of manual shall be considered as modified/ deviated to the extents of changes/ modification as mentioned / incorporated under schedule B & C with respect to manual.

All Utilities shifting works for development of National Highways shall be carried out as per the Standard Operating Procedure (SOP) dated 11 February 2021 issued by Ministry of Road Transport & Highways.

 <p>M.O.R.T.H. Min. of India</p>	<p>Four laning of Silchar/ Nutan Dayapur – Budha Nagar section (Package: SJ-1) of NH-37 from Existing Chainage km 260+000 to km 233+000 (Design Chainage km 4+560 to km 24+560) in the State of Assam under Bharatmala Pariyojna on <b>Hybrid Annuity Mode.”].</b></p> <p><b>Technical Schedule</b></p>	 <p>NHAI BUILDING INFRASTRUCTURE - BUILDING THE NATION</p>
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## Annex - I

(Schedule-D)

### Specifications and Standards for Construction

#### 1 Specifications and Standards

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

#### 3 Deviations from the Specifications and Standards

- (i) 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.
- (ii) Notwithstanding anything to the contrary contained in Paragraph 1 above, the following Specifications and Standards shall apply to the Project Highway, and for purposes of this Agreement, the aforesaid Specifications and Standards shall be deemed to be amended to the extent set forth below:

## **Schedules**

**SCHEDULE - E**

**(See Clause 4.1.3)**

**APPLICABLE PERMITS**

**1 Applicable Permits**

- 1.1 The Concessionaire shall obtain, as required under Applicable Laws, the following Applicable Permits on or before the Appointed Date.

**Part-I**

- (a) Permission of the State Government for extraction of boulders from quarries for and in respect of at least 20% (twenty per cent) of the total length of the Project; and

**Part-II**

- (a) Permission of Village Panchayat and the Pollution Control Board for installation of crushers;
- (b) License for use of explosives;
- (c) Permission of the State Government for drawing water from river/reservoir; and
- (d) Any other permits or clearances required under Applicable Laws.
- 1.2 Unless otherwise specified in this Agreement, Applicable Permits, as required, relating to environmental protection and conservation shall have been procured by the Authority as a Condition Precedent.

**SCHEDULE - F**  
**(See Clause 9.1)**

**PERFORMANCE SECURITY**

The Managing Director,

National Highways & Infrastructure Development Corporation Limited, New Delhi

**WHEREAS:**

- (A) ..... (the “**Concessionaire**”) and the Managing Director, National Highways & Infrastructure Development Corporation Limited (the “**Authority**”) have entered into a Concession Agreement dated ..... (the “**Agreement**”) whereby the Authority has agreed to the Concessionaire undertaking development and operation of Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on design, build, operate and transfer (“**DBOT Annuity or Hybrid Annuity**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) The Agreement requires the Concessionaire to furnish a Performance Security to the Authority in a sum of Rs. \*\*\*\*\* cr. (Rupees \*\*\*\*\* crore) (the “**Guarantee Amount**”) as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period (as defined in the Agreement).
- (C) We, ..... through our Branch at ..... (the “**Bank**”) have agreed to furnish this Bank Guarantee by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Concessionaire’s obligations during the Construction Period, under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Concessionaire, such sum or sums upto an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an Officer not below the rank of Executive Director, in the National Highways & Infrastructure Development Corporation Limited, that the Concessionaire has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Concessionaire is in default in due and faithful performance of its obligations during the Construction Period under the Agreement and its decision that the Concessionaire is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Concessionaire, or any dispute between them pending before any court, tribunal, arbitrators or any other

authority or body, or by the discharge of the Concessionaire for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Concessionaire and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Concessionaire before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Concessionaire contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Concessionaire, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Concessionaire or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Concessionaire under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force until the earlier of the 1<sup>st</sup> (first) anniversary of the Appointed Date or compliance of the conditions specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee, no later than 6 (six) months from the date of expiry of this Guarantee, all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Performance Security shall cease to be in force and effect when the Concessionaire shall have expended on Project construction an aggregate sum not less than 30% (thirty per cent) of the Bid Project cost which is deemed to be Rs.\*\*\* cr. (Rupees \*\*\*\*\* crore) for the purposes of this Guarantee, and provided the Concessionaire is not in breach of this Agreement. Upon request made by the Concessionaire for release of the Performance Security alongwith the particulars required hereunder, duly certified by a statutory auditor of the Concessionaire, the Authority shall release the Performance Security forthwith.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it

## PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS

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has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for a period of one year and six months or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
12. This guarantee shall also be operatable at our \_\_\_\_\_ branch at New Delhi, from whom, confirmation regarding the issue of this guarantee or extension/ renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
13. The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of NHIDCL which are as follows:

S. No.	Particulars	Details
1.	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited
2.	Name of Bank	Canara Bank
3.	Name of Branch	Transport Bhawan, 1st Parliament Street, New Delhi 110001
4.	Account No.	90621010002610
5.	IFSC Code	CNRB0019062

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of



## **PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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the BANK by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

### **NOTES:**

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

**Annexure 1 of Schedule F**  
**(See Clause 23.8)**  
**Format for Guarantee for Mobilization Advance**

The Managing Director,  
National Highways & Infrastructure Development Corporation Limited  
New Delhi

WHEREAS:

- (A) ..... (the “**Concessionaire**”) and the Managing Director, National Highways & Infrastructure Development Corporation Limited (the “**Authority**”) have entered into a Concession Agreement dated ..... (the “**Agreement**”) whereby the Authority has agreed to the Concessionaire undertaking development and operation of Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on design, build, operate and transfer (“**DBOT Annuity or Hybrid Annuity**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) In accordance with Clause 23.8 of the Agreement, the Authority shall make to the Concessionaire an interest bearing (@average of one year MCLR of top 5 Scheduled Commercial Banks<sup>11</sup> plus 1.25%, compounded annually) advance payment (herein after called “Mobilization Advance”) not exceeding 10% (ten per cent) of the Bid Project Cost; and that the Mobilization Advance shall be made in [one/two]<sup>12</sup> installment(s) subject to the concessionaire furnishing an irrevocable and unconditional guarantee by a scheduled bank for an amount equivalent to 110% (one hundred and ten percent) of such installment to remain effective till the complete and full payment of the installment of the Mobilization Advance as security for compliance with its obligations in accordance with the Agreement. The amount of {first/second}<sup>13</sup> installment of the Mobilization Advance is Rs.----- Cr. (Rupees----- Crore) and the amount of this Guarantee is Rs. ---- Cr. (Rupees---- crore) (the “Guarantee Amount”)<sup>14</sup>.
- (C) We, .....through our branch at ..... (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “Guarantee”) for the Guarantee Amount.

**NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:**

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful repayment on time of the aforesaid installment of Mobilization Advance under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Concessionaire, such sum or sums upto an aggregate sum of the Guarantee Amount as the Authority shall claim, without the

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<sup>11</sup> The Authority shall declare the list of top 5 Scheduled Commercial Banks on 1<sup>st</sup> September every calendar year based on the balance sheet size as declared in their annual reports. The 1 year MCLR of top 5 Scheduled Commercial Banks shall be taken at the start of every quarter.

<sup>12</sup> Please strike out whichever is not applicable as per Clause 23.8 of the Agreement.

<sup>13</sup> Please delete in case of mobilization advance is to be made in one/single installment.

<sup>14</sup> The Guarantee amount should be equivalent to 110% of the value of the applicable installment.

Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an Officer not below the rank of Executive Director in the National Highways & Infrastructure Development Corporation Limited, that the Concessionaire has committed default in the due and faithful performance of all or any of its obligations for the repayment of the installment of the Mobilization Advance under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Concessionaire is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Concessionaire is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Concessionaire, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Concessionaire for any reason whatsoever.
3. The Bank further also agrees that the Authority at its option shall be entitled to in enforce this Guarantee against the Bank as principal debtor, in the first instance without proceeding against the Concessionaire and notwithstanding any security or other guarantee that the Authority may have in relation to the Concessionaire's liability.
4. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Concessionaire and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
5. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Concessionaire before presenting to the Bank its demand under this Guarantee.
6. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Mobilization Advance or to extend the time or period of its repayment or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Concessionaire, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Concessionaire or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
7. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Mobilization Advance.
8. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 9 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under

## PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS

this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

9. The Guarantee shall cease to be in force and effect on \_\_\_\_\_<sup>15</sup> unless a demand or claim under this Guarantee is made in writing on or before the aforesaid date, the Bank shall be discharged from its liabilities hereunder.
10. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
11. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
12. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 9 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
13. This guarantee shall be operatable at our .....Branch at New Delhi, from whom, confirmation regarding the issue of this guarantee or extension/renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
14. The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of NHIDCL, the details of which are as follows:.

S. No.	Particulars	Details
1.	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited
2.	Name of Bank	Canara Bank
3.	Address of Bank Branch	Transport Bhawan, 1st Parliament Street, New Delhi 110001
4.	Account No.	90621010002610
5.	IFSC Code	CNRB0019062

Signed and sealed this ..... day of ....., 20..... at .....

<sup>15</sup> Initially the validity shall be 60 days after the expected date for **tenth** payment milestone mentioned in clause 23.4 of the Agreement. If the Concessionaire submits the Guarantee which has validity period which is less than that specified herein, then the Concessionaire shall also provide an undertaking to the Authority which states that the Concessionaire shall get the validity of the Guarantee extended so that the Guarantee is valid in accordance with the footnote.

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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SIGNED, SEALED AND DELIVERED

For and on behalf of

the BANK by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (iii) The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

**Annexure-II of Schedule F**

**(See Clauses 9.1)**

**FORM OF SURETY BOND**

**[Performance Security/Additional Performance Security]**

To,

National Highways & Infrastructure Development Corporation Limited,  
3rd Floor, PTI Building, 4 Parliament Street, Sansad Marg Area,  
New Delhi-110001

WHEREAS:

- (A) \_\_\_\_\_ (the "Concessionaire") and the Managing Director, National Highways & Infrastructure Development Corporation Limited (the "Authority") have entered into a concession agreement dated (the "Agreement") whereby the Authority has agreed to the Concessionaire undertaking development and operation of **Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna** on Hybrid Annuity Mode, subject to and in accordance with the provision of the agreement.
- (B) The agreement requires the Concessionaire to furnish a performance security to the Authority in a sum of Rs \*\*\*\*\* Crore (Rupees \*\*\*\*\* Crore) (the "Surety Bond Amount") as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period (as defined in the Agreement).
- (C) We, through our branch at ..... (the "Surety Insurer") have agreed to furnish this Surety Bond by way of Performance security.

NOW, THEREFORE, the Surety Insurer hereby, unconditionally and irrevocably guarantees and affirms as follows:

1. The Surety Insurer hereby unconditionally and irrevocably guarantees the due and faithful performance of the Concessionaire's obligations during the Construction Period under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Concessionaire, such sum or sums up to an aggregate sum of the Surety Bond Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of Executive Director in the National Highways & Infrastructure Development Corporation Limited, that the Concessionaire has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Surety Insurer. The Surety Insurer further agrees that the Authority shall be the sole judge as to whether the Concessionaire is in default in due and faithful performance of its obligations during the Construction Period under the Agreement and its decision that the Concessionaire is in default shall be final, and binding on the Surety Insurer, notwithstanding any differences between the Authority and the Concessionaire, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Concessionaire for any reason whatsoever.
3. In order to give effect to this Surety Bond, the Authority shall be entitled to act as if the Surety Insurer were the principal debtor and any change in the constitution of the Concessionaire and/or the Surety Insurer, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Surety Insurer under this Surety Bond.
4. It shall not be necessary, and the Surety Insurer hereby waives any necessity, for the Authority to proceed against the Concessionaire before presenting to the Surety Insurer its demand under this Surety Bond.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Surety Insurer under this Surety Bond, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/ or performance of all or any of the obligations of the Concessionaire contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Concessionaire, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Surety Insurer shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Concessionaire or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Surety Insurer from its liability and obligation under this Surety Bond and the Surety Insurer hereby waives all of its rights under any such law.
6. This Surety Bond is in addition to and not in substitution of any other Surety Bond or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Concessionaire under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Surety Insurer under this Surety Bond is restricted to the Surety Bond Amount and this Surety Bond will remain in force until the earlier of the 1st (first) anniversary of the Appointed Date or compliance of the conditions specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Surety Insurer under this Surety Bond, no later than 6 (six) months from the date of expiry of this Surety Bond, all rights of the Authority under this Surety Bond shall be forfeited and the Surety Insurer shall be relieved from its liabilities hereunder.



## **PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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8. The Performance Security shall cease to be in force and effect when the Concessionaire shall have expended on Project construction an aggregate sum not less than 30% (thirty per cent) of the Bid Project cost which is deemed to be Rs. \*\*\*\* cr. (Rupees \*\*\*\*\* crore) for the purposes of this Surety Bond, and provided the Concessionaire is not in breach of this Agreement. Upon request made by the Concessionaire for release of the Performance Security alongwith the particulars required hereunder, duly certified by a statutory auditor of the Concessionaire, the Authority shall release the Performance Security forthwith.
9. The Surety Insurer undertakes not to revoke this Surety Bond during its currency, except with the previous express consent of the Authority in writing and declares and warrants that it has the power to issue this Surety Bond and the undersigned has full powers to do so on behalf of the Surety Insurer.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Surety Insurer at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Surety Bond shall come into force with immediate effect and shall remain in force and effect for a period of one year and six months or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
12. This Surety Bond shall also be operatable at our ..... Branch at New Delhi, from whom, confirmation regarding the issue of this bond or extension/renewal thereof shall be made available on demand. In the contingency of this bond being invoked and payment thereunder claimed, the said branch shall accept such invocation on letter and make payment of amounts so demanded under the said invocation.
13. This Surety Bond is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

Signed and Sealed this ..... Day of ....., .....at.....

SIGNED, SEALED AND DELIVERD

For and on behalf of the Surety insurer by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

## **SCHEDULE - G**

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*Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode*

**(See Clause 12.1)**

**PROJECT COMPLETION SCHEDULE**

**1 Project Completion Schedule**

During Construction Period, the Concessionaire shall comply with the requirements set forth in this Schedule-G for each of the Project Milestones and the Scheduled Completion Date (the “Project Completion Schedule”). Within 15 (fifteen) days of the date of each Project Milestone, the Concessionaire shall notify the Authority of such compliance along with necessary particulars thereof.

**2 Project Milestone-I**

- 2.1 Project Milestone-I shall occur on the date falling on the 383<sup>rd</sup> (three hundred and eighty third) day from the Appointed Date (the “Project Milestone-I”).
- 2.2 Prior to the occurrence of Project Milestone-I, the Concessionaire shall have expended not less than 20% (twenty per cent) of the total capital cost set forth in the Financial Package.
- 2.3 Prior to the occurrence of Project Milestone –I, the Concessionaire shall have commenced construction of the Project and achieved 20% Physical Progress.

**3 Project Milestone-II**

- 3.1 Project Milestone-II shall occur on the date falling on the 657<sup>th</sup> (six hundred and fifty seventh) day from the Appointed Date (the “Project Milestone-II”).
- 3.2 Prior to the occurrence of Project Milestone-II, the Concessionaire shall have expended not less than 35% (thirty five per cent) of the total capital cost set forth in the Financial Package. Provided, however, that at least 70% (seventy percent) of the expenditure referred to hereinabove shall have been incurred on physical works which shall not include advances of any kind to any person or expenditure of any kind on plant and machinery.
- 3.3 Prior to the occurrence of Project Milestone –II, the Concessionaire shall have commenced construction of the Project and achieved 35% Physical Progress

**4 Project Milestone-III**

- 4.1 Project Milestone-III shall occur on the date falling on the 931<sup>st</sup> (nine hundred and thirty first) day from the Appointed Date (the “Project Milestone-III”).
- 4.2 Prior to the occurrence of Project Milestone-III, the Concessionaire shall have commenced construction of all Project Facilities and expended not less than 75% (seventy five per cent) of the total capital cost set forth in the Financial Package.
- 4.3 Prior to the occurrence of Project Milestone –III, the Concessionaire shall have commenced construction of the Project and achieved 75% Physical Progress

**5 Scheduled Completion Date**

## **PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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- 5.1 The Scheduled Completion Date shall be the 1095<sup>th</sup> (one thousand and ninety fifth) day from the Appointed Date.
- 5.2 On or before the Scheduled Completion Date, the Concessionaire shall have completed the Project in accordance with this Agreement.

### **6 Extension of period**

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

## Annexure-I of Schedule G

Format for Contract Price Weightages for Highway Projects with Flexible Pavements

## Contract Price Weightages

1.1 The Contract Price for this Agreement is Rs.

.....

1.2 Proportions of the Contract Price for different stages of Construction of the Project Highway shall be as specified below:

Item	Stage for measurement of Physical Progress	Unit	Qty.	Weightage in percentage to the Contract Price
1	2	3	4	5
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	<b>A- Widening and strengthening of existing road</b>			
	(1) Earthwork up to top of the sub-grade	Km	***	***
	(2) Granular work (sub- base, base, shoulders)			
	(a) GSB	Km	***	***
	(b) WMM	Km	***	***
	(3) Shoulders	Km	***	***
	(4) Bituminous work			
	(a) DBM	Km	***	***
	(b) BC	Km	***	***
	(5) Rigid Pavement			
	Concrete work	Km	***	***
	(6) Widening and repair of culverts	No.	***	***
	(7) Widening and repair of minor bridges	No.	***	***
	<b>B- New realignment/bypass</b>			
	(1) Earthwork up to top of the sub-grade	Km	***	***
	(2) Granular work (sub- base, base, shoulders)			
	(a) GSB	Km	***	***
	(b) WMM	Km	***	***
	(3) Shoulders	Km	***	***
	(4) Bituminous work			
	(a) DBM	Km	***	***
	(b) BC	Km	***	***

Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

(5) Rigid Pavement			
Concrete work	Km	***	***
<b>C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:</b>			
(1) Culverts	No.	***	***
(2) Minor bridges			
(a) Foundation	No.	***	***
(b) Sub-structure	No.	***	***
(c) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(3) Cattle/Pedestrian underpasses			
(a) Foundation	No.	***	***
(b) Sub-structure	No.	***	***
(c) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(4) Pedestrian overpasses			
(a) Foundation	No.	***	***
(b) Sub-structure	No.	***	***
(c) Super-structure (including crash barriers etc. complete) <b>If pre- cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(5) Grade separated structures			
(a) Underpasses			
(i) Foundation	No.	***	***
(ii) Sub-structure	No.	***	***
(iii) Super-structure (including crash barriers etc. complete) <b>If pre- cast girders/ segments are used, 40% of the</b>	No.	***	***

Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

	weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.			
	(b) Overpass			
	(i) Foundation	No.	***	***
	(ii) Sub-structure	No.	***	***
	(iii) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.	No.	***	***
	(c) Flyover			
	(i) Foundation	No.	***	***
	(ii) Sub-structure	No.	***	***
	(iii) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.	No.	***	***
	(d) Foot over Bridge	No.	***	***
<b>Major Bridge works and ROB/RUB</b>	<b>A- Widening and repairs of Major Bridges</b>			
	(1) Foundation			
	(a) Open Foundation	No.	***	***
	(b) Pile Foundation/Well Foundation	No.	***	***
	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.	No.	***	***
	<b>B- Widening and repair of</b>			
	(a) ROB			
	(1) Foundation	No.	***	***

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

(2) Sub-structure	No.	***	***
(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(b) RUB			
(1) Foundation	No.	***	***
(2) Sub-structure	No.	***	***
(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
<b>C- New Major Bridges</b>			
(1) Foundation	No.	***	***
(a) Open Foundation	No.	***	***
(b) Pile Foundation/Well Foundation	No.	***	***
(2) Sub-structure	No.	***	***
(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
<b>D- New rail-road bridges</b>			
(a) ROB			
(1) Foundation	No.	***	***
(2) Sub-structure	No.	***	***
(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(b) RUB			
(1) Foundation	No.	***	***

Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode



**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
<b>Structures (elevated sections, reinforced earth)</b>	(1) Foundation	No.	***	***
	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
	(4) Reinforced Earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc. <b>If RE-wall is used with facia panels/blocks, 5% of weightage of the stage in percentage to bid project cost is assigned to the casting of such facia panels/blocks for one complete approach.</b>	Sqm	***	***
<b>Electrical and Public Health Utilities</b>	EHT line	Km	***	***
	EHT crossing	No.	***	***
	HT/LT lines (including Transformers if any)	Km	***	***
	HT/LT crossings	No.	***	***
	Water pipeline	Km	***	***
	Water pipeline crossings	No.	***	***
	Sewage line	Km	***	***
	Sewage line crossings	No.	***	***
<b>Other Works</b>	<b>(i) Service roads/ Slip Roads</b>	Km	***	***
	<b>(ii) Toll Plaza</b>	No.	***	***
	<b>(iii) Road side drains</b>	Km	***	***
	<b>(iv) Road signs, markings, km stones, safety devices, ....</b>			
	<b>(a) Road signs, markings, km stones, ....</b>	Km	***	***
	<b>(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work</b>	Km	***	***

## PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS

	<b>(v) Project facilities</b>			
	(a) Bus bays	No.	***	***
	(b) Truck lay-byes	No.	***	***
	(c) Rest areas	No.	***	***
	<b>(vi) Repairs to bridges/structures</b>	No.	***	***
	<b>(vii) Road side plantation</b>	Km	***	***
	<b>(viii) Protection works</b>			
	(a) Boulder Pitching on slopes	Km	***	***
	(b) Toe/Retaining wall	Km	***	***
	<b>(ix) Tunnel</b>			
	(a) Excavation	Metre	***	***
	(b) Construction of support system including rock bolting, lining etc.	Metre	***	***
	(c) On complete completion of tunnel	Metre	***	***
	<b>(x) Miscellaneous</b>	Lump sum	***	***
<b>Total</b>				<b>100.00%</b>

\* The above list is illustrative and may require modification as per the scope of the work.

### \*\* Measurement of Progress

For example, if the total length of bituminous work to be done is 100 km, the physical progress of bituminous work shall be determined as follows:

Physical progress of bituminous work = Weightage  
for bituminous work  $\times (L'/L)$

L = Total length of bituminous work in km

L' = Executed length of bituminous work in km

Similarly, the physical progress for other stages shall be worked out and addition of all will give the total progress achieved.

## Annexure-I of Schedule G

Format for Contract Price Weightages for Highway Projects with Rigid Pavements

## Contract Price Weightages

1.1 The Contract Price for this Agreement is Rs.

.....

1.2 Proportions of the Contract Price for different stages of Construction of the Project Highway shall be as specified below:

Item	Stage for measurement of Physical Progress	Unit	Qty.	Weightage in percentage to the Contract Price
1	2	3	4	5
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	<b>A- Widening and strengthening of existing road</b>			
	(1) Earthwork up to top of the sub-grade	Km	[***]	[***]
	(2) Granular work (sub- base, shoulders)			
	GSB	Km	[***]	[***]
	(3) Shoulders	Km	[***]	[***]
	(4) Bituminous work	Km	[***]	[***]
	(5) Rigid Pavement			
	(a) DLC	Km	[***]	[***]
	(b) PQC	Km	[***]	[***]
	(6) Widening and repair of culverts	No.	[***]	[***]
	(7) Widening and repair of minor bridges	No.	[***]	[***]
	<b>B- New realignment/bypass</b>			
	(1) Earthwork up to top of the sub-grade	Km	[***]	[***]
	(2) Granular work (sub- base, shoulders)			
	GSB	Km	[***]	[***]
	(3) Shoulders	Km	[***]	[***]
	(4) Bituminous work	Km	[***]	[***]
	(5) Rigid Pavement			
	(a) DLC	Km	[***]	[***]
	(b) PQC	Km	[***]	[***]
	<b>C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:</b>			
	(1) Culverts	No.	[***]	[***]
	(2) Minor bridges			

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(a) Foundation	No.	***	***
(b) Sub-structure	No.	***	***
(c) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(3) Cattle/Pedestrian underpasses			
(a) Foundation	No.	***	***
(b) Sub-structure	No.	***	***
(c) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(4) Pedestrian overpasses			
(a) Foundation	No.	***	***
(b) Sub-structure	No.	***	***
(c) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***
(5) Grade separated structures			
(a) Underpasses			
(i) Foundation	No.	***	***
(ii) Sub-structure	No.	***	***
(iii) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	***	***

*Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode*

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

	(b) Overpass			
	(i) Foundation	No.	[***]	[***]
	(ii) Sub-structure	No.	[***]	[***]
	(iii) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used,40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	[***]	[***]
	(c) Flyover			
	(i) Foundation	No.	[***]	[***]
	(ii) Sub-structure	No.	[***]	[***]
	(iii) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used,40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	[***]	[***]
	(d) Foot over Bridge	No.	[***]	[***]
	<b>Major Bridge works and ROB/RUB</b>			
	<b>A- Widening and repairs of Major Bridges</b>			
	(1) Foundation			
	(a) Open Foundation	No.	[***]	[***]
	(b) Pile Foundation/Well Foundation	No.	[***]	[***]
	(2) Sub-structure	No.	[***]	[***]
	(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	[***]	[***]
	<b>B- Widening and repair of</b>			
	(a) ROB			
	(1) Foundation	No.	[***]	[***]
	(2) Sub-structure	No.	[***]	[***]
	(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are</b>	No.	[***]	[***]

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

	used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.			
	(b) RUB			
	(1) Foundation	No.	***	***
	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.	No.	***	***
	<b>C- New Major Bridges</b>			
	(1) Foundation	No.	***	***
	(a) Open Foundation	No.	***	***
	(b) Pile Foundation/Well Foundation	No.	***	***
	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.	No.	***	***
	<b>D- New rail-road bridges</b>			
	(a) ROB			
	(1) Foundation	No.	***	***
	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.	No.	***	***
	(b) RUB			
	(1) Foundation	No.	***	***
	(2) Sub-structure	No.	***	***
	(3) Super-structure (including crash barriers etc. complete) If pre-cast girders/ segments are	No.	***	***

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

	used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.			
<b>Structures (elevated sections, reinforced earth)</b>	(1) Foundation	No.	[***]	[***]
	(2) Sub-structure	No.	[***]	[***]
	(3) Super-structure (including crash barriers etc. complete) <b>If pre-cast girders/ segments are used, 40% of the weightage of the stage in percentage to the bid project cost is assigned to the casting of such precast girders/segments.</b>	No.	[***]	[***]
	(4) Reinforced Earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc. <b>If RE-wall is used with fascia panels/blocks, 10% of weightage of the stage in percentage to bid project cost is assigned to the casting of such fascia panels/blocks for one complete approach.</b>	Sqm	[***]	[***]
<b>Electrical and public health utilities</b>	EHT line	Km	[***]	[***]
	EHT crossing	No.	[***]	[***]
	HT/LT lines (including Transformers if any)	Km	[***]	[***]
	HT/LT crossings	No.	[***]	[***]
	Water pipeline	Km	[***]	[***]
	Water pipeline crossings	No.	[***]	[***]
	Sewage line	Km	[***]	[***]
	Sewage line crossings	No.	[***]	[***]
<b>Other Works</b>	<b>(i) Service roads/ Slip Roads</b>	Km	[***]	[***]
	<b>(ii) Toll Plaza</b>	No.	[***]	[***]
	<b>(iii) Road side drains</b>	Km	[***]	[***]
	<b>(iv) Road signs, markings, km stones, safety devices, ....</b>			
	<b>(a) Road signs, markings, km stones, ....</b>	Km	[***]	[***]
	<b>(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work</b>	Km	[***]	[***]
	<b>(v) Project facilities</b>			
	(a) Bus bays	No.	[***]	[***]
	(b) Truck lay-byes	No.	[***]	[***]
	(c) Rest areas	No.	[***]	[***]

*Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode*

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	<b>(vi) Repairs to bridges/structures</b>	No.	[***]	[***]
	<b>(vii) Road side plantation</b>	Km	[***]	[***]
	<b>(viii) Protection works</b>			
	(a) Boulder Pitching on slopes	Km	[***]	[***]
	(b) Toe/Retaining wall	Km	[***]	[***]
	<b>(ix) Tunnel</b>			
	(a) Excavation	Metre	[***]	[***]
	(b) Construction of support system including rock bolting, lining etc.	Metre	[***]	[***]
	(c) On complete completion of tunnel	Metre	[***]	[***]
	<b>(x) Miscellaneous</b>	Lump sum	[***]	[***]
<b>Total</b>				<b>100.00%</b>

\* The above list is illustrative and may require modification as per the scope of the work.

### \*\* Measurement of Progress

For example, if the total length of bituminous work to be done is 100 km, the physical progress of bituminous work shall be determined as follows:

Physical progress of bituminous work  
=Weightage for bituminous work x (L'/L)

L = Total length of bituminous work in km

L' = Executed length of bituminous work in km

Similarly, the physical progress for other stages shall be worked out and addition of all will give the total progress achieved.



**SCHEDULE - H**

**(See Clause 12.2)**

**DRAWINGS**

**1 Drawings**

In compliance of the obligations set forth in Clause 12.2 of this Agreement, the Concessionaire shall furnish to the Independent Engineer, free of cost, all Drawings listed in Annex-I of this Schedule-H.

**2 Additional drawings**

If the Independent Engineer determines that for discharging its duties and functions under this Agreement, it requires any drawings other than those listed in Annex-I, it may by notice require the Concessionaire to prepare and furnish such drawings forthwith. Upon receiving a requisition to this effect, the Concessionaire shall promptly prepare and furnish such drawings to the Independent Engineer, as if such drawings formed part of Annex-I of this Schedule-H.

## **Annex - I (Schedule-H)**

### **List of Drawings**

A broad list of the drawings of the various components/elements of the Project Highway and project facilities required to be submitted by the Concessionaire is given below:

- a) Drawings of horizontal alignment, vertical profile and cross section.
- b) Drawings of drainage plan, profile, RCC Box Drain c/s, RCC open drain c/s, PCC Earthen drain c/s, Surface Drain c/s, Catch Water Drain etc.
- c) Drawing of cross drainage works – Culverts, Major Bridge, Minor Bridges, Cross Road Culverts.
- d) Drawings of Aqueducts, VOP cum Aqueducts
- e) Drawings of VUP, VOP, LVUP, SVUP
- f) Drawings of ROB and RUB
- g) Drawings of major intersections and minor intersections
- h) Drawing of toll plaza layout, toll collection systems and roadway near toll plaza
- i) Drawings of bus-bay, bus shelters, Truck Laybye, Rest Areas with furniture and drainage system.
- j) Drawing of road furniture items including traffic signage, markings, safety barriers, etc.
- k) Drawings of traffic diversion plans and traffic control measures.
- l) RCC Retaining Wall, Breast Wall, Toe Wall, Median Kerb, W-Beam Crash Barrier, MS Railings, 5th KM Stone, Km Stone, HM Stone
- m) Drawing of typical details slope protection measures – Nailed RE Wall, RE Walls, Soil Nailing and Coir Geo Green Mat Laying with Hydroseeding
- n) Drawings of pedestrian crossings
- o) Drawings of street lighting and High Mast.
- p) General arrangement of Base camp, Administrative Block, QC Laboratory, Quarry and crushers, HMP, Batching Plant, Materials Stacking Yard
- q) Drawings of catch water drains, Berm Drain and surface water drains and drainage layout plan;
- r) Any other drawings which Independent Engineer may require

## **SCHEDULE - I**

(See Clause 14.1.2)

### **TESTS**

#### **1 Schedule for Tests**

- 1.1 The Concessionaire shall, no later than 30 (thirty) days prior to the likely completion of the Project, notify the Independent Engineer and the Authority of its intent to subject the Project to Tests, and no later than 7 (seven) days prior to the actual date of Tests, furnish to the Independent Engineer and the Authority detailed inventory and particulars of all works and equipment forming part of the Project.
- 1.2 The Concessionaire shall notify the Independent Engineer of its readiness to subject the Project to Tests at any time after 7 (seven) days from the date of such notice, and upon receipt of such notice, the Independent Engineer shall, in consultation with the Concessionaire, determine the date and time for each Test and notify the same to the Authority who may designate its representative to witness the Tests. The Independent Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 14 and this Schedule-I.

#### **2 Tests**

- 2.1 In pursuance of the provisions of Clause 14.1.2 of this Agreement, the Independent Engineer shall conduct, or cause to be conducted, the Tests specified in this Paragraph 2.
- 2.2 Visual and physical Test: The Independent Engineer shall conduct a visual and physical check of the Project to determine that all works and equipment forming part thereof conform to the provisions of this Agreement.
- 2.3 Test drive: The Independent Engineer shall undertake a test drive of the Project by a Car and by a fully loaded Truck to determine that the quality of service conforms to the provisions of the Agreement.
- 2.4 Riding quality Test: Riding quality of each lane of the carriageway shall be checked with the help of a calibrated bump integrator and the maximum permissible roughness for purposes of this Test shall be 1,800 (one thousand and eight hundred) mm for each kilometer.
- 2.5 Pavement Composition Test: The thickness and composition of the pavement structure shall be checked on a sample basis by digging pits to determine conformity of such pavement structure with Specifications and Standards. The sample shall consist of one pit in each direction of travel to be chosen at random in each stretch of 5 (five) kilometers of the Project. The first pit for the sample shall be selected by the Independent Engineer through an open draw of lots and every fifth kilometer from such first pit shall form part of the sample for this pavement quality Test.

- 2.6 Cross-section Test: The cross-sections of the Project shall be checked on a sample basis through physical measurement of their dimensions for determining the conformity thereof with Specifications and Standards. For the road portion, the sample shall consist of one spot to be selected at random in each stretch of 1(one) kilometer of the Project. The first spot for the sample shall be selected by the Independent Engineer through an open draw of lots and the spots located at every one kilometer from such first spot shall form part of the sample. For the bridge portion, one spot shall be selected at random by the Independent Engineer in each span of the bridge.
- 2.7 Structural Test for bridges: All major and minor bridges, including over bridges, underpasses and flyovers, constructed by the Concessionaire shall be subjected to the Rebound Hammer and Ultrasonic Pulse Velocity tests, to be conducted in accordance with the procedure described in Special Report No. 17: 1996 of the IRC Highway Research Board on Non-destructive Testing Techniques, at two spots in every span, to be chosen at random by the Independent Engineer. Bridges with a span of 15 (fifteen) meters or more shall also be subjected to load testing.
- 2.8 Other Tests: The Independent Engineer may require the Concessionaire to carry out or cause to be carried additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Project with Specifications and Standards.
- 2.9 Environmental audit: The Independent Engineer shall carry out a check to determine conformity of the Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 2.10 Safety review: Safety audit of the Project shall have been undertaken by the Safety Consultant as set forth in Schedule-L, and on the basis of such audit, the Independent Engineer shall determine conformity of the Project with the provisions of this Agreement.

**3 Agency for conducting Tests**

All Tests set forth in this Schedule-I shall be conducted by the Independent Engineer or such other agency or person as it may specify in consultation with the Authority.

**4 Completion/Provisional Certificate**

Upon successful completion of Tests, the Independent Engineer shall issue the Completion Certificate or the Provisional Certificate, as the case may be, in accordance with the provisions of Article 14.

**5 Tests during construction**

Without prejudice to the provisions of this Schedule-I, tests during construction shall be conducted in accordance with the provisions of Clause 13.3.1.

**SCHEDULE - J**

(See Clause 14.2 & 14.3)

**COMPLETION CERTIFICATE**

- 1 I/We,..... (Name of the Independent Engineer), acting as Independent Engineer, under and in accordance with the Concession Agreement dated .....(the “Agreement”), for development and operation of the Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna Project (the “Project”) on design, build, operate and transfer (the “DBOT Annuity or Hybrid Annuity”) basis, through.....(Name of Concessionaire), hereby certify that the Tests specified in Article 14 and Schedule-I of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I/We am/are satisfied that the Project can be safely and reliably placed in commercial service of the Users thereof.
- 2 It is certified that Rain Water Harvesting and Artificial Recharging arrangements have been provided by the Concessionaire as per Schedule C of the Concession Agreement, and are functional. Details (with location chainage) are as given in Annex- \_\_\_\_\_.
- 3 It is certified that, in terms of the aforesaid Agreement, all works forming part of the Project have been completed, and the Project is hereby declared fit for entry into commercial operation on this the day of 20

**SIGNED, SEALED AND DELIVERED**

For and on behalf of

**INDEPENDENT ENGINEER by:**

(Signature)

(Name)

(Designation)

(Address)

**PROVISIONAL CERTIFICATE**

- 1 I/We,..... (Name of the Independent Engineer), acting as Independent Engineer, under and in accordance with the Concession Agreement Dated..... (the “Agreement”), for development and operation of the Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam

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under Bharatmala Pariyojna Project (the “Project”) on design, build, operate and transfer (the “DBOT Annuity or Hybrid Annuity”) basis through.....(Name of Concessionaire), hereby certify that the Tests specified in Article 14 and Schedule-I of the Agreement have been undertaken for the Project/section..... of the Project to determine compliance thereof with the provisions of the Agreement.

- 2 Construction Works forming part of the Project/section of the Project that were found to be incomplete and/or deficient have been specified in the Punch List appended hereto, and the Concessionaire has agreed and accepted that it shall complete and/or rectify all such works in the time and manner set forth in the Agreement. Some of the incomplete works have been delayed as a result of reasons attributable to the Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account. Though the remaining incomplete works have been delayed as a result of reasons attributable to the Concessionaire,<sup>δ</sup> I/We am/are satisfied that having regard to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project/section..... of the Project, pending completion thereof.
- 3 In view of the foregoing, I/We am/are satisfied that the Project/section of the Project can be safely and reliably placed in commercial service of the Users thereof, and in terms of the Agreement, the Project/section of the Project is hereby provisionally declared fit for entry into commercial operation on this the ..... day of..... 20

**ACCEPTED, SIGNED, SEALED**

**AND DELIVERED**

FOR AND ON BEHALF OF

**CONCESSIONAIRE by:**

(Signature)  
(Name and Designation)  
(Address)

**SIGNED, SEALED AND**

**DELIVERED**

FOR AND ON BEHALF OF

**INDEPENDENT ENGINEER by:**

(Signature)  
(Name and Signature)  
(Address)

---

<sup>δ</sup>May be struck out if not applicable. Also strike out other parts which are not applicable.

## SCHEDULE - K

(See Clause 17.2)

### MAINTENANCE REQUIREMENTS

#### 1 Maintenance Requirements

- 1.1 The Concessionaire shall, at all times, operate and maintain the Project in accordance with the provisions of the Agreement, Applicable Laws and Applicable Permits. In particular, the Concessionaire shall, at all times during the Operation Period, conform to the maintenance requirements set forth in this Schedule-K (the "Maintenance Requirements").
- 1.2 The Concessionaire shall repair or rectify any defect or deficiency set forth in Paragraph 2 of this Schedule-K within the time limit specified therein and any failure in this behalf shall constitute a breach of the Agreement. Upon occurrence of any breach hereunder, the Authority shall be entitled to recover Damages as set forth in Clause 17.8 of the Agreement, without prejudice to the rights of the Authority under the Agreement, including Termination thereof.

#### 2. Repair/rectification of defects and deficiencies

- 2.1 The obligations of the Concessionaire in respect of Maintenance Requirements shall include repair and rectification of the defects and deficiencies specified in Annex - I of this Schedule - K within the time limit set forth therein.
- 2.2 The Concessionaire shall at all times maintain an adequate inventory of spares and consumables to meet the Maintenance Requirements.

#### 3 Other defects and deficiencies

- 3.1 In respect of any defect or deficiency not specified in Annex - I of this Schedule-K, the Concessionaire shall undertake repair or rectification in accordance with Good Industry Practice and within the time limit specified by the Independent Engineer.
- 3.2 In respect of any defect or deficiency not specified in Annex - I of this Schedule-K, the Independent Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Concessionaire in accordance with Good Industry Practice and within the time limit specified by the Independent Engineer.

#### 4 Extension of time limit

Notwithstanding anything to the contrary specified in this Schedule-K, if the nature and extent of any defect or deficiency justifies more time for its repair or rectification than the time specified herein, the Concessionaire shall be entitled to additional time in conformity the Good Industry Practice. Such additional time shall be determined by the Independent Engineer and conveyed to the Concessionaire and the Authority with reasons thereof.

**5 Emergency repairs/restoration**

Notwithstanding anything to the contrary contained in this Schedule-K, if any defect, deficiency or deterioration in the Project poses a hazard to safety or risk of damage to property, the Concessionaire shall promptly take all reasonable measures for eliminating or minimizing such danger.

**6 Daily Inspection by the Concessionaire**

The Concessionaire shall, through its engineer, undertake a daily visual inspection of the Project and maintain a record thereof in a register to be kept in such form and manner as the Independent Engineer may specify. Such record shall be kept in safe custody of the Concessionaire and shall be open to inspection by the Authority and the Independent Engineer at any time during office hours.

**7 Divestment Requirements**

All defects and deficiencies specified in this Schedule-K shall be repaired and rectified by the Concessionaire so that the Project conforms to the Maintenance Requirements on the Transfer Date.

**8 Display of Schedule - K**

The Concessionaire shall display copy of this Schedule –K at the site along with the complaint register stipulated in article 40.

**ANNEX – I**

**(Schedule-K)**



### Repair/Rectification of Defects and Deficiencies

The Concessionaire shall repair and rectify the defects and deficiencies specified in this Annex-I of Schedule-K within the time limit set forth herein.

#### ROADS

##### (a)

S. No.	Nature of defect or deficiency	Time limit for Repair/rectification
<b>Carriageway and paved shoulders</b>		
(i)	Breach or blockade	Temporary restoration of traffic within 24 hours; permanent restoration within 15 days
(ii)	Roughness value exceeding 2,750 mm in a stretch of 1 km (as measured by a standardized rough meter/bump integrator)	180 days
(iii)	Pot holes	48 hours
(iv)	Cracking in more than 5% of road surface in a stretch of 1 km	30 days
(v)	Rutting exceeding 10 mm in more than 2% of road surface in a stretch of 1 km (measured with 3 m straight edge)	30 days
(vi)	Bleeding/skidding	7 days
(vii)	Raveling/Stripping of bitumen surface exceeding 10 Sq m	15 days
(viii)	Damage to pavement edges exceeding 100 mm	15 days
(ix)	Removal of debris	6 hours
<b>Hard/earth shoulders, side slopes, drains and culverts</b>		
(i)	Variation by more than 2% in the prescribed slope of camber/cross fall	30 days
(ii)	Edge drop at shoulders exceeding 40 mm	7 days
(iii)	Variation by more than 15% in the prescribed side (embankment) slopes	30 days
(iv)	Rain cuts/gullies in slope	7 days
(v)	Damage to or silting of culverts and side drains during and immediately preceding the rainy season	7 days
(vi)	Desalting of drains in urban/semi-urban areas	48 hours
<b>Road side furniture including road signs and pavement marking</b>		
(i)	Damage to shape or position; Poor visibility or loss of retro-reflectivity	48 hours
<b>Street lighting and telecom (ATMS)</b>		
(i)	Any major failure of the system	24 hours
(ii)	Faults and minor failures	8 hours
<b>Trees and plantation</b>		
(i)	Obstruction in a minimum head-room of 5 m above carriageway or obstruction in visibility of road signs	24 hours
(ii)	Deterioration in health of trees and bushes	Timely watering and treatment
(iii)	Replacement of trees and bushes	90 days

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(iv)	Removal of vegetation affecting sight line and road structures	15 days
<b>Rest areas</b>		
(i)	Cleaning of toilets	Every 4 hours
(ii)	Defects in electrical, water and sanitary installations	24 hours
<b>Other Project Facilities and Approach roads</b>		
(i)	Damage or deterioration in Approach Roads, [pedestrian facilities, truck lay-bys, bus-bays, bus- shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts, Rain Water Harvesting/Artificial Recharge Unit and other works]	15 days

## BRIDGES

<b>Superstructure of bridges</b>		
(i)	Cracks Temporary measures Permanent measures	Within 48 hours Within 45 days
(ii)	Spalling/scaling	15 days
<b>Foundations of bridges</b>		
(i)	Scouring and/or cavitation	15 days
<b>Piers, abutments, return walls and wing walls</b>		
(i)	Cracks and damages including settlement and tilting	30 days
<b>Bearings (metallic) of bridges</b>		
(i)	Deformation	15 days
<b>Joints in bridges</b>		
(i)	Loosening and malfunctioning of joints	15 days
<b>Other items relating to bridges</b>		
(i)	Deforming of pads in elastomeric bearings	7 days
(ii)	Gathering of dirt in bearings and joints or clogging of spouts, weep holes and vent-holes	3 days
(iii)	Damage or deterioration in parapets and handrails	3 days
(iv)	Rain-cuts or erosion of banks of the side slopes of approaches	15 days
(v)	Damage to wearing coat	15days
(vi)	Damage or deterioration in approach slabs, pitching, apron, toes, floor or guide bunds	30 days
(vii)	Growth of vegetation affecting the structure or obstructing the waterway	15 days

## SCHEDULE - L

(See Clause 18.1.1)

### SAFETY REQUIREMENTS

#### Guiding principles

- 1.1 Safety Requirements aim at reduction in injuries, loss of life and damage to property resulting from accidents on or about the Project, irrespective of the person(s) at fault.
- 1.2 Users of the Project include motorised and non-motorized vehicles as well as pedestrians and animals involved in, or associated with accidents. Vulnerable Road Users (VRU) include pedestrians as well as riders of motorized two-wheelers, bicycles and other vehicles which do not provide adequate occupant protection.
- 1.3 Safety Requirements apply to all phases of construction, operation and maintenance with emphasis on identification of factors associated with accidents, consideration of the same, and implementation of appropriate remedial measures.
- 1.4 Safety Requirements include measures associated with traffic management and regulation such as road signs, pavement marking, traffic control devices, roadside furniture, highway design elements, enforcement and emergency response.

#### 2 Obligations of the Concessionaire

The Concessionaire shall abide by the following insofar as they relate to safety of the Users:

- (a) Applicable Laws and Applicable Permits;
- (b) Manual for Safety in Road Design, issued by MoRTH;
- (c) Relevant Standards/Guidelines of IRC relating to safety, road geometries, bridges, culverts, road signs, pavement marking and roadside furniture;
- (d) Provisions of this Agreement; and
- (e) Good Industry Practice.

#### 3 Appointment of Safety Consultant

For carrying out safety audit of the Project under and in accordance with this Schedule-L, the Authority shall appoint from time to time, one or more qualified firms or organisations as its consultants (the "Safety Consultant"). The Safety Consultant shall employ a team comprising, without limitation, one road safety expert and one traffic planner to undertake safety audit of the Project.

#### 4 Safety measures during Development Period

- 4.1 No later than 90 (ninety) days from the date of this Agreement, the Authority shall appoint a Safety Consultant for carrying out safety audit at the design stage of the Project. The Safety Consultant shall collect data on all fatal crashes and other road accidents which occurred on the Project in the preceding two years by obtaining copies

of the relevant First Information Reports (FIRs) from the police stations having jurisdiction. The information contained in such FIRs shall be summarised in the form prescribed by the Authority for this purpose and the data shall be analysed for the type of victims killed or injured, impacting vehicles, location of accidents and other relevant factors.

- 4.2 The Concessionaire shall provide to the Safety Consultant, in four copies, the relevant drawings containing the design details that have a bearing on safety of Users (the "Safety Drawings"). Such design details shall include horizontal and vertical alignments; sightlines; layouts of intersections; interchanges; road cross-section; bridges and culverts; side drains; provision for parked vehicles, slow moving vehicles (tractors, bullock carts, bicycles) and pedestrians; bus bays; truck lay-bys; and other incidental or consequential information. The Safety Consultant shall review the design details and forward 3 (three) copies of the Safety Drawings with its recommendations, if any, to the Independent Engineer who shall record its comments, if any, and forward one copy each to the Authority and the Concessionaire.
- 4.3 The accident data and the design details shall be compiled, analysed and used by the Safety Consultant for evolving a package of recommendations consisting of safety related measures for the Project. The safety audit shall be completed in a period of three months and a report thereof (the "Safety Report") shall be submitted to the Authority, in 5 (five) copies. One copy each of the Safety Report shall be forwarded by the Authority to the Concessionaire and the Independent Engineer forthwith.
- 4.4 The Concessionaire shall endeavor to incorporate the recommendations of the Safety Report in the design of the Project, as may reasonably be required in accordance with Applicable Laws, Applicable Permits, Manuals and Guidelines of the Authority, Specifications and Standards, and Good Industry Practice. If the Concessionaire does not agree with any or all of such recommendations, it shall state the reasons thereof and convey them to the Authority forthwith. In the event that any or all of the works and services recommended in the Safety Report fall beyond the scope of Schedule-B, Schedule-C or Schedule-D, the Concessionaire shall make a report thereon and seek the instructions of the Authority for funding such works in accordance with the provisions of Article 18.
- 4.5 Without prejudice to the provisions of Paragraph 4.4, the Concessionaire and the Independent Engineer shall, within 15 (fifteen) days of receiving the Safety Report, send their respective comments thereon to the Authority, and no later than 15 (fifteen) days of receiving such comments, the Authority shall review the same along with the Safety Report and by notice direct the Concessionaire to carry out any or all of the recommendations contained therein with such modifications as the Authority may specify; provided that any works or services required to be undertaken hereunder shall be governed by the provisions of Article 18.

## **5 Safety measures during Construction Period**

- 5.1 A Safety Consultant shall be appointed by the Authority, no later than 4 (four) months prior to the expected COD, for carrying out a safety audit of the completed Construction Works.

- 5.2 The Safety Consultant shall collect and analyses the accident data for the preceding two years in the manner specified in Paragraph 4.1 of this Schedule- L. It shall study the Safety Report for the Development Period and inspect the Project to assess the adequacy of safety measures. The Safety Consultant shall complete the safety audit within a period of 4 (four) months and submit a Safety Report recommending a package of additional road safety measures, if any, that are considered essential for reducing accident hazards on the Project. Such recommendations shall be processed, mutatis mutandis, and acted upon in the manner set forth in Paragraphs 4.3, 4.4 and 4.5 of this Schedule-L.
- 5.3 The Concessionaire shall make adequate arrangements during the Construction Period for the safety of workers and road Users in accordance with the guidelines of IRC for safety in construction zones, and notify the Authority and the Independent Engineer about such arrangements.

**6 Safety measures during Operation Period**

- 6.1 The Concessionaire shall develop, implement and administer a surveillance and safety program for Users, including correction of safety violations and deficiencies and all other actions necessary to provide a safe environment in accordance with this Agreement.
- 6.2 The Concessionaire shall establish a Highway Safety Management Unit (the “HSMU”) to be functional on and after COD, and designate one of its officers to be in-charge of the HSMU. Such officer shall have specialist knowledge and training in road safety and traffic engineering by having attended a course conducted by a reputed organization on the subject.
- 6.3 The Concessionaire shall keep a copy of every FIR recorded by the Police with respect to any accident occurring on the Project. In addition, the Concessionaire shall also collect data for all cases of accidents not recorded by the Police but where a vehicle rolled over or had to be towed away. The information so collected shall be summarized in the form prescribed by the Authority for this purpose. The Concessionaire shall also record the exact location of each accident on a road map. The aforesaid data shall be submitted to the Authority at the conclusion of every quarter and to the Safety Consultant as and when appointed.
- 6.4 The Concessionaire shall submit to the Authority before the 31<sup>st</sup> (thirty first) May of each year, an annual report (in ten copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Accounting Year and the measures taken by the Concessionaire pursuant to the provisions of Paragraph 6.1 of this Schedule-L for averting or minimizing such accidents in future.
- 6.5 Once in every Accounting Year, a safety audit shall be carried out by the Safety Consultant to be appointed by the Authority. It shall review and analyses the annual report and accident data of the preceding year, and undertake an inspection of the Project. The Safety Consultant shall complete the safety audit within a period of 1 (one) month and submit a Safety Report recommending specific improvements, if any, required to be made to the road, bridges, culverts, markings, signs, road furniture and Project Facilities, including cattle crossings and pedestrian crossings. Such

recommendations shall be processed, mutatis mutandis, and acted upon in the manner set forth in Paragraphs 4.3, 4.4 and 4.5 of this Schedule-L.

**7 Costs and expenses**

Costs and expenses incurred in connection with the Safety Requirements set forth herein, including the provisions of Paragraph 2 of this Schedule-L, shall be met in accordance with Article 18, and in particular, the remuneration of the Safety Consultant, safety audit, and costs incidental thereto, shall be met by the Concessionaire.

## **SCHEDULE - M**

(See Clause 21.1)

### **SELECTION OF INDEPENDENT ENGINEER**

#### **1 Selection of Independent Engineer**

- 1.1 The provisions of the Model Request for Proposals for Selection of Technical Consultants, issued by the Ministry of Finance, GOI vide OM 24(23)/PF-II/ 2008 dated 21 May 2009, or any substitute thereof shall apply for selection of an experienced firm to discharge the functions and duties of an Independent Engineer. Provided, however, that no entity which is owned or controlled by the Authority shall be eligible for appointment as the Independent Engineer hereunder.
- 1.2 In the event of termination of an Independent Engineer appointed in accordance with the provisions of Paragraph 1.1, the Authority shall appoint another firm of Technical Consultants forthwith or may engage a government-owned entity in accordance with the provisions of Paragraph 5 of this Schedule-M.
- 1.3 The Concessionaire may, in its discretion, nominate a representative to participate in the process of selection to be undertaken by the Authority under this Schedule-M.

#### **2 Terms of Reference**

The Terms of Reference for the Independent Engineer shall substantially conform to Schedule-N.

#### **3 Fee and expenses**

- 3.1 In determining the nature and quantum of duties and services to be performed by the Independent Engineer during the Development Period and Construction Period, the Authority shall endeavor that payments to the Independent Engineer on account of fee and expenses do not exceed 3% (three per cent) of the Bid Project Cost. Payments not exceeding such 3% (three per cent) shall be borne equally by the Authority and the Concessionaire in accordance with the provisions of this Agreement and any payments in excess thereof shall be borne entirely by the Authority.
- 3.2 The nature and quantum of duties and services to be performed by the Independent Engineer during the Operation Period shall be determined by the Authority in conformity with the provisions of this Agreement and with due regard for economy in expenditure. All payments made to the Independent Engineer on account of fee and expenses during the Operation Period shall be borne equally by the Authority and the Concessionaire.

#### **4 Selection every three years**

No later than 3 (three) years from the date of appointment of Independent Engineer pursuant to the provisions of Paragraph 1 of this Schedule-M, and every 3 (three) years thereafter, the Authority shall engage another firm in accordance with the criteria set forth in this Schedule-M.

#### **5 Appointment of government entity as Independent Engineer**

*Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode*

## **PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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Notwithstanding anything to the contrary contained in this Schedule, the Authority may in its discretion appoint a government-owned entity as the Independent Engineer; provided that such entity shall be a body corporate having as one of its primary function the provision of consulting, advisory and supervisory services for engineering projects; provided further that a government- owned entity which is owned or controlled by the Authority shall not be eligible for appointment as Independent Engineer.



**SCHEDULE - N**

**(See Clause 21.2.1)**

**TERMS OF REFERENCE FOR INDEPENDENT ENGINEER**

**1 Scope**

These Terms of Reference for the Independent Engineer (the “TOR”) are being specified pursuant to the Concession Agreement dated (the “Agreement”), which has been entered into between the Authority and the “Concessionaire”) for Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on design, build, operate and transfer (the “DBOT Annuity or Hybrid Annuity”) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.

**2 Definitions and interpretation**

- 2.1 The words and expressions beginning with or in capital letters used in this TOR and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- 2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
- 2.3 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, mutatis mutandis, to this TOR.
- 3.1 The role and functions of the Independent Engineer shall include the following:
  - (i) review of the Drawings and Documents as set forth in Paragraph 4;
  - (ii) Review, inspection and monitoring of Construction Works as set forth in Paragraph 5; conducting Tests on completion of construction and issuing Completion/ Provisional Certificate as set forth in Paragraph 5
  - (iv) Review, inspection and monitoring of O&M as set forth in Paragraph 6;
  - (v) review, inspection and monitoring of Divestment Requirements as set forth in Paragraph 7;
  - (vi) determining, as required under the Agreement, the costs of any works or services and/or their reasonableness;
  - (vii) determining, as required under the Agreement, the period or any extension thereof, for performing any duty or obligation;
  - (viii) Assisting the Parties in resolution of Disputes as set forth in Paragraph 9; and
  - (ix) Undertaking all other duties and functions in accordance with the Agreement.

- 3.2 The Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.

#### **4 Development Period**

- 4.1 During the Development Period, the Independent Engineer shall undertake a detailed review of the Drawings to be furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and traffic surveys. The Independent Engineer shall complete such review and send its comments/ observations to the Authority and the Concessionaire within 15 (fifteen) days of receipt of such Drawings. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
- 4.2 The Independent Engineer shall review any modified Drawings or supporting Documents sent to it by the Concessionaire and furnish its comments within 7 (seven) days of receiving such Drawings or Documents.
- 4.3 The Independent Engineer shall review the Drawings sent to it by the Safety Consultant in accordance with Schedule-L and furnish its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receiving such Drawings. The Independent Engineer shall also review the Safety Report and furnish its comments thereon to the Authority within 15 (fifteen) days of receiving such report.
- 4.4 The Independent Engineer shall review the detailed design, construction methodology, quality assurance procedures and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments within 15 (fifteen) days of receipt thereof.
- 4.5 Upon reference by the Authority, the Independent Engineer shall review and; comment on the EPC Contract or any other contract for construction, operation and maintenance of the Project, and furnish its comments within 7 (seven) days from receipt of such reference from the Authority.

#### **5 Construction Period**

- 5.1 In respect of the Drawings, Documents and Safety Report received by the Independent Engineer for its review and comments during the Construction Period, the provisions of Paragraph 4 shall apply, mutatis mutandis.
- 5.2 The Independent Engineer shall review the monthly progress report furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receipt of such report.
- 5.3 The Independent Engineer shall inspect the Construction Works and the Project once every month, preferably after receipt of the monthly progress report from the Concessionaire, but before the 20th (twentieth) day of each month in any case, and make out a report of such inspection (the "Inspection Report") setting forth an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the Specifications and Standards.

In a separate section of the Inspection Report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project. The Inspection Report shall also contain a review of the maintenance of the existing lanes in conformity with the provisions of the Agreement. The Independent Engineer shall send a copy of its Inspection Report to the Authority and the Concessionaire within 7 (seven) days of the inspection.

- 5.4 The Independent Engineer may inspect the Project more than once in a month if any lapses, defects or deficiencies require such inspections.
- 5.5 For determining that the Construction Works conform to Specifications and Standards, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests on a sample basis, to be specified by the Independent Engineer in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 5.5, the tests specified in the IRC Special Publication-11 (Handbook of Quality Control for Construction of Roads and Runways) and the Specifications for Road and Bridge Works issued by the Authority (the "Quality Control Manuals") or any modification/substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance. The Independent Engineer shall issue necessary directions to the Concessionaire for ensuring that the tests are conducted in a fair and efficient manner, and shall monitor and review the results thereof.
- 5.6 The sample size of the tests, to be specified by the Independent Engineer under Paragraph 5.5, shall comprise 10% (ten per cent) of the quantity or number of tests prescribed for each category or type of tests in the Quality Control Manuals; provided that the Independent Engineer may, for reasons to be recorded in writing, increase the aforesaid sample size by up to 10% (ten per cent) for certain categories or types of tests.
- 5.7 The timing of tests referred to in Paragraph 5.5, and the criteria for acceptance/rejection of their results shall be determined by the Independent Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice.
- 5.8 In the event that the Concessionaire carries out any remedial works for removal or rectification of any defects or deficiencies, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the Specifications and Standards, and the provisions of this Paragraph 5 shall apply to such tests.
- 5.9 In the event that the Concessionaire fails to achieve any of the Project Milestones, the Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which COD shall be achieved. Upon receipt of a report from the Concessionaire, the Independent Engineer shall

review the same and send its comments to the Authority and the Concessionaire forthwith.

- 5.10 If at any time during the Construction Period, the Independent Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and Users in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the Users, it shall make a recommendation to the Authority forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.
- 5.11 In the event that the Concessionaire carries out any remedial measures to secure the safety of suspended works and Users, it may, by notice in writing, require the Independent Engineer to inspect such works, and within 3 (three) days of receiving such notice, the Independent Engineer shall inspect the suspended works and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.
- 5.12 If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Independent Engineer shall determine the extension of dates set forth in the Project Completion Schedule, to which the Concessionaire is reasonably entitled, and shall notify the Authority and the Concessionaire of the same.
- 5.13 The Independent Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-I and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 5.13 and all matters incidental thereto, the Independent Engineer shall act under and in accordance with the provisions of Article 14 and Schedule-I.
- 5.14 Upon reference from the Authority, the Independent Engineer shall make a fair and reasonable assessment of the costs of providing information, works and services as set forth in Article 16 and certify the reasonableness of such costs for payment by the Authority to the Concessionaire.
- 5.15 The Independent Engineer shall aid and advise the Concessionaire in preparing the Maintenance Manual.
- 5.16 Upon reference from the Authority, the Independent Engineer shall undertake the assessment of cost of civil works, as per applicable schedule of rates, for the reduction of Scope of work as provided in Clause 16.6.1 of the Concession Agreement.

## **6 Operation Period**

- 6.1 In respect of the Drawings, Documents and Safety Report received by the Independent Engineer for its review and comments during the Operation Period, the provisions of Paragraph 4 shall apply, mutatis mutandis.
- 6.2 The Independent Engineer shall review the annual Maintenance Program furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 15 (fifteen) days of receipt of the Maintenance Program.

- 6.3 The Independent Engineer shall review the monthly status report furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receipt of such report.
- 6.4 The Independent Engineer shall inspect the Project once every month, preferably after receipt of the monthly status report from the Concessionaire, but before the 20th (twentieth) day of each month in any case, and make out an O&M Inspection Report setting forth an overview of the status, quality and safety of O&M including its conformity with the Maintenance Requirements and Safety Requirements. In a separate section of the O&M Inspection Report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in O&M of the Project. The Independent Engineer shall send a copy of its O&M Inspection Report to the Authority and the Concessionaire within 7 (seven) days of the inspection.
- 6.5 The Independent Engineer may inspect the Project more than once in a month, if any lapses, defects or deficiencies require such inspections.
- 6.6 The Independent Engineer shall in its O&M Inspection Report specify the tests, if any, that the Concessionaire shall carry out, or cause to be carried out, for the purpose of determining that the Project is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Concessionaire in this behalf.
- 6.7 In respect of any defect or deficiency referred to in Paragraph 3 of Schedule- K, the Independent Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.
- 6.8 The Independent Engineer shall determine if any delay has occurred in completion of repair or remedial works in accordance with the Agreement, and shall also determine the Damages, if any, payable by the Concessionaire to the Authority for such delay.
- 6.9 The Independent Engineer shall examine the request of the Concessionaire for closure of any lane(s) of the carriageway for undertaking maintenance/repair thereof, keeping in view the need to minimize disruption in traffic and the time required for completing such maintenance/repair in accordance with Good Industry Practice. It shall grant permission with such modifications, as it may deem necessary, within 3 (three) days of receiving a request from the Concessionaire. Upon expiry of the permitted period of closure, the Independent Engineer shall monitor the re-opening of such lane(s), and in case of delay, determine the Damages payable by the Concessionaire to the Authority under Clause 17.7.
- 6.10 The Independent Engineer shall monitor and review the curing of defects and deficiencies by the Concessionaire as set forth in Clause 19.4.
- 6.11 In the event that the Concessionaire notifies the Independent Engineer of any modifications that it proposes to make to the Project, the Independent Engineer shall review the same and send its comments to the Authority and the Concessionaire within 15 (fifteen) days of receiving the proposal.

- 6.12 The Independent Engineer shall undertake traffic sampling, as and when required by the Authority, under and in accordance with the provisions of this Agreement.

## **7 Termination**

- 7.1 At any time, not earlier than 90 (ninety) days prior to Termination but not later than 15 (fifteen) days prior to such Termination, the Independent Engineer shall, in the presence of a representative of the Concessionaire, inspect the Project for determining compliance by the Concessionaire with the Divestment Requirements set forth in Clause 32.1 and, if required, cause tests to be carried out at the Concessionaire's cost for determining such compliance. If the Independent Engineer determines that the status of the Project is such that its repair and rectification would require a larger amount than the sum set forth in Clause 33.2, it shall recommend retention of the required amount in the Escrow Account and the period of retention thereof.
- 7.2 The Independent Engineer shall inspect the Project once in every 15 (fifteen) days during a period of 90 (ninety) days after Termination for determining the liability of the Concessionaire under Article 33, in respect of the defects or deficiencies specified therein. If any such defect or deficiency is found by the Independent Engineer, it shall make a report in reasonable detail and send it forthwith to the Authority and the Concessionaire.

## **8 Determination of costs and time**

- 8.1 The Independent Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- 8.2 The Independent Engineer shall determine the period, or any extension thereof, that is required to be determined by it under the Agreement.

## **9 Assistance in Dispute resolution**

- 9.1 When called upon by either Party in the event of any Dispute, the Independent Engineer shall mediate and assist the Parties in arriving at an amicable settlement.
- 9.2 In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Independent Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

## **10 Other duties and functions**

The Independent Engineer shall perform all other duties and functions specified in the Agreement.

## **11 Miscellaneous**

- 11.1 The Independent Engineer shall notify its programmer of inspection to the Authority and to the Concessionaire, who may, in their discretion, depute their respective representatives to be present during the inspection.
- 11.2 A copy of all communications, comments, instructions, Drawings or Documents sent by the Independent Engineer to the Concessionaire pursuant to this TOR, and a copy of all

the test results with comments of the Independent Engineer thereon shall be furnished by the Independent Engineer to the Authority forthwith.

- 11.3 The Independent Engineer shall obtain, and the Concessionaire shall furnish in 2 (two) ..... Copies thereof, all communications and reports required to be submitted, under this Agreement, by the Concessionaire to the Independent Engineer, whereupon the Independent Engineer shall send 1 (one) of the copies to the Authority along with its comments thereon.
- 11.4 The Independent Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- 11.5 Upon completion of its assignment hereunder, the Independent Engineer shall duly classify and list all Drawings, Documents, results of tests and other relevant records, and hand them over to the Authority or such other person as the Authority may specify, and obtain written receipt thereof. Two copies of the said documents shall also be furnished in their editable digital format or in such other medium or manner as may be acceptable to the Authority.
- 11.6 Wherever no period has been specified for delivery of services by the Independent Engineer, the Independent Engineer shall act with the efficiency and urgency necessary for discharging its functions in accordance with Good Industry Practice.

## SCHEDULE -O

(See Clause 25.1.2)

### ESCROW AGREEMENT

**THIS ESCROW AGREEMENT** is entered into on this the day of 20\_\_ AMONGST

- 1 .....Limited, a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at..... (hereinafter referred to as the “Concessionaire” which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and substitutes);
- 2 .....(insert name and particulars of Lenders’ Representative) and having its registered office at..... acting for and on behalf of the Senior Lenders as their duly authorized agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the “Lenders’ Representative” which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes);
- 3 .....(insert name and particulars of the Escrow Bank) and having its registered office at..... (hereinafter referred to as the “Escrow Bank” which expression shall, unless repugnant to the context or meaning thereof, include its successors and substitutes); and
- 4 The NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED, established under the Companies Act, 2013, represented by its Managing Director and having its principal offices at 3rd Floor, PTI Building, 4 Parliament Street, Sansad Marg Area, New Delhi-110001 (hereinafter referred to as the “Authority” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns).

### WHEREAS:

- (A) The Authority has entered into a Concession Agreement dated with the Concessionaire (the “Concession Agreement”) for the Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna Project (the “Project”) on design, build, operate and transfer (the “DBOT Annuity or Hybrid Annuity”) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this Agreement.
- (B) Senior Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Agreements.
- (C) The Concession Agreement requires the Concessionaire to establish an Escrow Account, inter alia, on the terms and conditions stated therein.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:



## **1 DEFINITIONS AND INTERPRETATION**

### **1.1 Definitions**

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

**“Agreement”** means this Escrow Agreement and any amendment thereto made in accordance with the provisions contained herein;

**“Concession Agreement”** means the Concession Agreement referred to in Recital (A) above and annexed hereto as Annex-A, and shall include all of its Recitals and Schedules and any amendments made thereto in accordance with the provisions contained in this behalf therein;

**“Cure Period”** means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Concessionaire, and shall commence from the date on which a notice is delivered by the Authority or the Lenders’ Representative, as the case may be, to the Concessionaire asking the latter to cure the breach or default specified in such notice;

**“Escrow Account”** means an escrow account established in terms of and under this Agreement, and shall include the Sub-Accounts;

**“Escrow Default”** shall have the meaning ascribed thereto in Clause 6.1;

**“Lenders’ Representative”** means the person referred to as the Lenders’ Representative in the foregoing Recitals;

**“Parties”** means the parties to this Agreement collectively and “Party” shall mean any of the Parties to this Agreement individually;

**“Payment Date”** means, in relation to any payment specified in Clause 4.1, the date(s) specified for such payment; and

**“Sub-Accounts”** means the respective sub-accounts of the Escrow Account, into which the monies specified in Clause 4.1 would be credited every month and paid out if due, and if not due in a month then appropriated proportionately in such month and retained in the respective sub-accounts and paid out therefrom on the Payment Date(s).

### **1.2 Interpretation**

1.2.1 References to Lenders’ Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders’ Representative, acting for and on behalf of Senior Lenders.

1.2.2 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the Concession Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the Concession Agreement.

- 1.2.3 References to Clauses are, unless stated otherwise, references to Clauses of this Agreement.
- 1.2.4 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Concession Agreement shall apply, mutatis mutandis, to this Agreement.

## **2 ESCROW ACCOUNT**

### **2.1 Escrow Bank to act as trustee**

- 2.1.1 The Concessionaire hereby appoints the Escrow Bank to act as trustee for the Authority, the Lenders' Representative and the Concessionaire in connection herewith and authorizes the Escrow Bank to exercise such rights, powers, authorities and discretion as are specifically delegated to the Escrow Bank by the terms hereof together with all such rights, powers, authorities and discretion as are reasonably incidental hereto, and the Escrow Bank accepts such appointment pursuant to the terms hereof.
- 2.1.2 The Concessionaire hereby declares that all rights, title and interest in and to the Escrow Account shall be vested in the Escrow Bank and held in trust for the Authority, the Lenders' Representative and the Concessionaire, and applied in accordance with the terms of this Agreement. No person other than the Authority, the Lenders' Representative and the Concessionaire shall have any rights hereunder as the beneficiaries of or as third party beneficiaries under this Agreement.

### **2.2 Acceptance of Escrow Bank**

The Escrow Bank hereby agrees to act as such and to accept all payments and other amounts to be delivered to and held by the Escrow Bank pursuant to the provisions of this Agreement. The Escrow Bank shall hold and safeguard the Escrow Account during the term of this Agreement and shall treat the amount in the Escrow Account as monies deposited by the Concessionaire, Senior Lenders or the Authority with the Escrow Bank. In performing its functions and duties under this Agreement, the Escrow Bank shall act in trust for the benefit of, and as agent for, the Authority, the Lenders' Representative and the Concessionaire or their nominees, successors or assigns, in accordance with the provisions of this Agreement.

### **2.3 Establishment and operation of Escrow Account**

- 2.3.1 Within 30 (thirty) days from the date of this Agreement, and in any case prior to the Appointed Date, the Concessionaire shall open and establish the Escrow Account with the (name of Branch) Branch of the Escrow Bank. The Escrow Account shall be denominated in Rupees.
- 2.3.2 The Escrow Bank shall maintain the Escrow Account in accordance with the terms of this Agreement and its usual practices and applicable regulations, and pay the maximum rate of interest payable to similar customers on the balance in the said account from time to time.
- 2.3.3 The Escrow Bank and the Concessionaire shall, after consultation with the Lenders' Representative, agree on the detailed mandates, terms and conditions, and operating procedures for the Escrow Account, but in the event of any conflict or inconsistency

between this Agreement and such mandates, terms and conditions, or procedures, this Agreement shall prevail.

- 2.4 Escrow Bank's fee The Escrow Bank shall be entitled to receive its fee and expenses in an amount, and at such times, as may be agreed between the Escrow Bank and the Concessionaire. For the avoidance of doubt, such fee and expenses shall form part of the O&M Expenses and shall be appropriated from the Escrow Account in accordance with Clause 4.1.
- 2.5 Rights of the Parties Save and except as otherwise provided in the Concession Agreement, the rights of the Authority, the Lenders' Representative and the Concessionaire in the monies held in the Escrow Account are set forth in their entirety in this Agreement and the Authority, the Lenders' Representative and the Concessionaire shall have no other rights against or to the monies in the Escrow Account.
- 2.6 Substitution of the Concessionaire The Parties hereto acknowledge and agree that upon substitution of the Concessionaire with the Nominated Company, pursuant to the Substitution Agreement, it shall be deemed for the purposes of this Agreement that the Nominated Company is a Party hereto and the Nominated Company shall accordingly be deemed to have succeeded to the rights and obligations of the Concessionaire under this Agreement on and with effect from the date of substitution of the Concessionaire with the Nominated Company.

### **3 DEPOSITS INTO ESCROW ACCOUNT**

#### **3.1 Deposits by the Concessionaire**

3.1.1 The Concessionaire agrees and undertakes that it shall deposit into and/or credit the Escrow Account with:

- (a) All monies received in relation to the Project from any source, including the Senior Lenders, lenders of Subordinated Debt and the Authority;
- (b) All funds received by the Concessionaire from its shareholders, in any manner or form;
- (c) Any other revenues; rentals, deposits or capital receipts, as the case may be, from or in respect of the Project; and
- (d) All proceeds received pursuant to any insurance claims.

3.1.2 The Concessionaire may at any time make deposits of its other funds into the Escrow Account, provided that the provisions of this Agreement shall apply to such deposits.

#### **3.2 Deposits by the Authority**

The Authority agrees and undertakes that, as and when due and payable, it shall deposit into and/or credit the Escrow Account with:

- (a) Grant and any other monies disbursed by the Authority to the Concessionaire;
- (b) All revenues collected by the Authority in exercise of its rights under the Concession Agreement; and

(c) Termination Payments

Provided that, notwithstanding the provisions of Clause 4.1.1, the Authority shall be entitled to appropriate from the aforesaid amounts, any amounts due and payable to it by the Concessionaire, and the balance remaining shall be deposited into the Escrow Account.

**3.3 Deposits by Senior Lenders**

The Lenders' Representative agrees, confirms and undertakes that the Senior Lenders shall deposit into and/or credit the Escrow Account with all disbursements made by them in relation to or in respect of the Project; provided that notwithstanding anything to the contrary contained in this Agreement, the Senior Lenders shall be entitled to make direct payments to the EPC Contractor under and in accordance with the express provisions contained in this behalf in the Financing Agreements.

**3.4 Interest on deposits**

The Escrow Bank agrees and undertakes that all interest accruing on the balances of the Escrow Account shall be credited to the Escrow Account; provided that the Escrow Bank shall be entitled to appropriate therefrom the fee and expenses due to it from the Concessionaire in relation to the Escrow Account and credit the balance remaining to the Escrow Account.

**4 WITHDRAWALS FROM ESCROW ACCOUNT**

**4.1 Withdrawals during Concession Period**

4.1.1 At the beginning of every month, or at such shorter intervals as the Lenders' Representative and the Concessionaire may by written instructions determine, the Escrow Bank shall withdraw amounts from the Escrow Account and appropriate them in the following order by depositing such amounts in the relevant Sub-Accounts for making due payments, and if such payments are not due in any month, then retain such monies in such Sub-Accounts and pay out therefrom on the Payment Date(s):

- (a) All taxes due and payable by the Concessionaire for and in respect of the Project;
- (b) Deleted;
- (c) All payments relating to construction of the Project, subject to and in accordance with the conditions, if any, set forth in the Financing Agreements;
- (d) O&M Expenses, subject to the ceiling, if any, set forth in the Financing Agreements;
- (e) O&M Expenses and other costs and expenses incurred by the Authority in accordance with the provisions of the Concession Agreement, and certified by the Authority as due and payable to it;
- (f) Any amounts due and payable to the Authority;
- (g) Monthly proportionate provision of Debt Service due in an Accounting Year;

- (h) all payments and Damages certified by the Authority as due and payable to it by the Concessionaire pursuant to the Concession Agreement;
  - (i) Monthly proportionate provision of debt service payments due in an Accounting Year in respect of Subordinated Debt;
  - (j) any reserve requirements set forth in the Financing Agreements; and
  - (k) Balance, if any, in accordance with the instructions of the Concessionaire.
- 4.1.2 No later than 60 (sixty) days prior to the commencement of each Accounting Year, the Concessionaire shall provide to the Escrow Bank, with prior written approval of the Lenders' Representative, details of the amounts likely to be required for each of the payment obligations set forth in this Clause 4.1; provided that such amounts may be subsequently modified, with prior written approval of the Lenders' Representative, if fresh information received during the course of the year makes such modification necessary.
- 4.2 Withdrawals upon Termination upon Termination of the Concession Agreement, all amounts standing to the credit of the Escrow Account shall, notwithstanding anything in this Agreement, be appropriated and dealt with in the following order:
- (a) All taxes due and payable by the Concessionaire for and in respect of the Project;
  - (b) Deleted;
  - (c) 90% (ninety per cent) of Debt Due excluding Subordinated Debt;
  - (d) all payments and Damages certified by the Authority as due and payable to it by the Concessionaire pursuant to the Concession Agreement, including any claims in connection with or arising out of Termination;
  - (e) Retention and payments arising out of, or in relation to, liability for defects and deficiencies set forth in Article 33 of the Concession Agreement;
  - (f) Outstanding Debt Service including the balance of Debt Due;
  - (g) Outstanding Subordinated Debt;
  - (h) Incurred or accrued O&M Expenses;
  - (i) Any other payments required to be made under the Concession Agreement; and
  - (j) Balance, if any, in accordance with the instructions of the Concessionaire: Provided that the disbursements specified in Sub-clause (i) of this Clause 4.2 shall be undertaken only after the Vesting Certificate has been issued by the Authority.

**4.3 Application of insufficient funds:**

Funds in the Escrow Account shall be applied in the serial order of priority set forth in Clauses 4.1 and 4.2, as the case may be. If the funds available are not sufficient to meet all the requirements, the Escrow Bank shall apply such funds in the serial order of priority until exhaustion thereof.

**4.4 Application of insurance proceeds**

Notwithstanding anything in this Agreement, the proceeds from all insurance claims, except life and injury, shall be deposited into and/or credited to the Escrow Account and utilized for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project, and the balance remaining, if any, shall be applied in accordance with the provisions contained in this behalf in the Financing Agreements.

**4.5 Withdrawals during Suspension**

Notwithstanding anything to the contrary contained in this Agreement, the Authority may exercise all or any of the rights of the Concessionaire during the period of Suspension under Article 30 of the Concession Agreement. Any instructions given by the Authority to the Escrow Bank during such period shall be complied with as if such instructions were given by the Concessionaire under this Agreement and all actions of the Authority hereunder shall be deemed to have been taken for and on behalf of the Concessionaire.

**5 OBLIGATIONS OF THE ESCROW BANK**

**5.1 Segregation of funds**

Monies and other property received by the Escrow Bank under this Agreement shall, until used or applied in accordance with this Agreement, be held by the Escrow Bank in trust for the purposes for which they were received, and shall be segregated from other funds and property of the Escrow Bank.

**5.2 Notification of balances**

7(seven) business days prior to each Payment Date (and for this purpose the Escrow Bank shall be entitled to rely on an affirmation by the Concessionaire and/or the Lenders' Representative as to the relevant Payment Dates), the Escrow Bank shall notify the Lenders' Representative of the balances in the Escrow Account and Sub-Accounts as at the close of business on the immediately preceding business day.

**5.3 Communications and notices**

In discharge of its duties and obligations hereunder, the Escrow Bank:

- (a) May, in the absence of bad faith or gross negligence on its part, rely as to any matters of fact which might reasonably be expected to be within the knowledge of the Concessionaire upon a certificate signed by or on behalf of the Concessionaire;
- (b) may, in the absence of bad faith or gross negligence on its part, rely upon the authenticity of any communication or document believed by it to be authentic;
- (c) shall, within 5 (five) business days after receipt, deliver a copy to the Lenders' Representative of any notice or document received by it in its capacity as the Escrow Bank from the Concessionaire or any other person hereunder or in connection herewith; and

- (d) shall, within 5 (five) business days after receipt, deliver a copy to the Concessionaire of any notice or document received by it from the Lenders' Representative in connection herewith.

#### **5.4 No set off**

The Escrow Bank agrees not to claim or exercise any right of set off, banker's lien or other right or remedy with respect to amounts standing to the credit of the Escrow Account. For the avoidance of doubt, it is hereby acknowledged and agreed by the Escrow Bank that the monies and properties held by the Escrow Bank in the Escrow Account shall not be considered as part of the assets of the Escrow Bank and being trust property, shall in the case of bankruptcy or liquidation of the Escrow Bank, be wholly excluded from the assets of the Escrow Bank in such bankruptcy or liquidation.

#### **5.5 Regulatory approvals**

The Escrow Bank shall use its best efforts to procure, and thereafter maintain and comply with, all regulatory approvals required for it to establish and operate the Escrow Account. The Escrow Bank represents and warrants that it is not aware of any reason why such regulatory approvals will not ordinarily be granted to the Escrow Bank.

### **6 ESCROW DEFAULT**

#### **6.1 Escrow Default**

6.1.1 Following events shall constitute an event of default by the Concessionaire (an "Escrow Default") unless such event of default has occurred as a result of Force Majeure or any act or omission of the Authority or the Lenders' Representative:

- (a) the Concessionaire commits breach of this Agreement by failing to deposit any receipts into the Escrow Account as provided herein and fails to cure such breach by depositing the same into the Escrow Account within a Cure Period of 5 (five) business days;
- (b) the Concessionaire causes the Escrow Bank to transfer funds to any account of the Concessionaire in breach of the terms of this Agreement and fails to cure such breach by depositing the relevant funds into the Escrow Account or any Sub-Account in which such transfer should have been made, within a Cure Period of 5 (five) business days; or
- (c) the Concessionaire commits or causes any other breach of the provisions of this Agreement and fails to cure the same within a Cure Period of 5 (five) business days.

6.1.2 Upon occurrence of an Escrow Default, the consequences thereof shall be dealt with under and in accordance with the provisions of the Concession Agreement.

### **7 TERMINATION OF ESCROW AGREEMENT**

#### **7.1 Duration of the Escrow Agreement**

This Agreement shall remain in full force and effect so long as any sum remains to be advanced or is outstanding from the Concessionaire in respect of the debt, guarantee or financial assistance received by it from the Senior Lenders, or any of its obligations to

the Authority remain to be discharged, unless terminated earlier by consent of all the Parties or otherwise in accordance with the provisions of this Agreement.

## **7.2 Substitution of Escrow Bank**

The Concessionaire may, by not less than 45 (forty five) days prior notice to the Escrow Bank, the Authority and the Lenders' Representative, terminate this Agreement and appoint a new Escrow Bank, provided that the new Escrow Bank is acceptable to the Lenders' Representative and arrangements are made satisfactory to the Lenders' Representative for transfer of amounts deposited in the Escrow Account to a new Escrow Account established with the successor Escrow Bank.

The termination of this Agreement shall take effect only upon coming into force of an Escrow Agreement with the substitute Escrow Bank.

## **7.3 Closure of Escrow Account**

The Escrow Bank shall, at the request of the Concessionaire and the Lenders' Representative made on or after the payment by the Concessionaire of all outstanding amounts under the Concession Agreement and the Financing Agreements including the payments specified in Clause 4.2, and upon confirmation of receipt of such payments, close the Escrow Account and Sub- Accounts and pay any amount standing to the credit thereof to the Concessionaire. Upon closure of the Escrow Account hereunder, the Escrow Agreement shall be deemed to be terminated.

# **8 SUPPLEMENTARY ESCROW AGREEMENT**

## **8.1 Supplementary escrow agreement**

The Lenders' Representative and the Concessionaire shall be entitled to enter into a supplementary escrow agreement with the Escrow Bank providing, inter alia, for detailed procedures and documentation for withdrawals from Sub- Accounts pursuant to Clause 4.1.1 and for matters not covered under this Agreement such as the rights and obligations of Senior Lenders and lenders of Subordinated Debt, investment of surplus funds, restrictions on withdrawals by the Concessionaire in the event of breach of this Agreement or upon occurrence of an Escrow Default, procedures relating to operation of the Escrow Account and withdrawal therefrom, reporting requirements and any matters incidental thereto; provided that such supplementary escrow agreement shall not contain any provision which is inconsistent with this Agreement and in the event of any conflict or inconsistency between provisions of this Agreement and such supplementary escrow agreement, the provisions of this Agreement shall prevail.

# **9 INDEMNITIES**

## **9.1 General indemnity**

- 9.1.1 The Concessionaire will indemnify, defend and hold the Authority, Escrow Bank and the Senior Lenders, acting through the Lenders' Representative, harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of any breach by the Concessionaire of any of its obligations under this Agreement or on account of failure of the Concessionaire to comply with Applicable Laws and Applicable Permits.



- 9.1.2 The Authority will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Authority to fulfil any of its obligations under this Agreement materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement or this Agreement other than any loss, damage, cost and expense arising out of acts done in discharge of their lawful functions by the Authority, its officers, servants and agents.
- 9.1.3 The Escrow Bank will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Escrow Bank to fulfil its obligations under this Agreement materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Escrow Bank, its officers, servants and agents.

**9.2 Notice and contest of claims**

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 9.1 or in respect of which it is entitled to reimbursement (the "Indemnified Party"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "Indemnifying Party") within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

**10 DISPUTE RESOLUTION**

**10.1 Dispute resolution**

- 10.1.1 Any dispute, difference or claim arising out of or in connection with this Agreement, which is not resolved amicably, shall be decided finally by reference to arbitration to a Board of Arbitrators comprising one nominee of each Party to the dispute, and where the number of such nominees is an even number, the nominees shall elect another person to such Board. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996.
- 10.1.2 The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The place of arbitration shall be the capital of the State and the language of arbitration shall be English.

**11. MISCELLANEOUS PROVISIONS**

**11.1 Governing law and jurisdiction**

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts in the State shall have jurisdiction over all matters arising out of or relating to this Agreement.

**11.2 Waiver of sovereign immunity** The Authority unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Authority with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgment or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgment that may be made or given in connection therewith).

**11.3 Priority of agreements**

In the event of any conflict between the Concession Agreement and this Agreement, the provisions contained in the Concession Agreement shall prevail over this Agreement.

**11.4 Alteration of terms**

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorized representatives of the Parties.

**11.5 Waiver**

**11.5.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:**

- (a) Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- (b) shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and
- (c) shall not affect the validity or enforceability of this Agreement in any manner.

**11.5.2 Neither the failure by any Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by any Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.**

11.6 No third party beneficiaries This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.

**11.7 Survival**

**11.7.1 Termination of this Agreement:**

- (a) shall not relieve the Parties of any obligations hereunder which expressly or by implication survive termination hereof; and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such termination or arising out of such termination.

11.7.2 All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

**11.8 Severability**

If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to dispute resolution under Clause 10.1 of this Agreement or otherwise.

**11.9 Successors and assigns**

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

**11.10 Notices**

All notices or other communications to be given or made under this Agreement shall be in writing and shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each Party, its facsimile number and e-mail are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on a business day, or on a day that is not a business day, the notice shall be deemed to be received on the first business day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally, or send it by courier or registered post to the addressee of such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

## **PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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### **11.11 Language**

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

### **11.12 Authorized representatives**

Each of the Parties shall, by notice in writing, designate their respective authorized representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorized representative by similar notice.

### **11.13 Original Document**

This Agreement may be executed in four counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

THE COMMON SEAL OF CONCESSIONAIRE has been affixed pursuant to the resolution passed by the Board of Directors of the Concessionaire at its meeting held on the day of 20 hereunto affixed in the presence of, Director, who has signed these presents in token thereof and Company Secretary / Authorized Officer who has countersigned the same in token thereof\*

SIGNED SEALED AND  
DELIVERED  
For and on behalf of  
SENIOR LENDERS by the  
Lender's representative:

(Signature)

(Signature)

(Name)

(Name)

(Designation)

(Designation)

(Address)

(Address)

(Fax No.)

(Fax N°)

(E-mail address)

(E-mail address)

SIGNED, SEALED AND

SIGNED, SEALED AND

DELIVERED

DELIVERED

For and on behalf of

for and on behalf of

---

\*To be affixed in accordance with the articles of association of the Concessionaire and the resolution passed by its Board of Directors.

**PUBLIC PRIVATE PARTNERSHIP IN HYBRID ANNUITY PROJECTS**

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THE ESCROW BANK by

(Signature)

(Name)

(Designation)

(Address)

(Fax No.)

(E-mail address)

SIGNED, SEALED

In the presence of:

THE AUTHORITY by:

(Signature)

(Name)

(Designation)

(Address)

(Fax No.)

(E-mail address)

**SCHEDULE - P**

(See Clause 27.2.1)

**PANEL OF CHARTERED ACCOUNTANTS**

**1 Panel of Chartered Accountants**

Pursuant to the provisions of Clause 27.2.1 of the Agreement, the Authority and the Concessionaire shall prepare a mutually agreed panel of 5 (five) reputable firms of Chartered Accountants having their registered offices in India (the "Panel of Chartered Accountants"). The criteria for preparing such Panel and the procedure to be adopted in this behalf shall be as set forth in this Schedule-P.

**2 Invitation for empanelment**

2.1 The Authority shall invite offers from all reputed firms of Chartered Accountants who fulfil the following eligibility criteria, namely:

- (a) the firm should have conducted statutory audit of the annual accounts of at least one hundred companies registered under the Companies Act, 1956, including any re-enactment or amendment thereof, of which at least ten should have been public sector undertakings;
- (b) The firm should have at least 5 (five) practicing Chartered Accountants on its rolls, each with a minimum experience of ten years in the profession;
- (c) The firm or any of its partners should not have been disqualified or black-listed by the Comptroller and Auditor General of India or the Authority; and
- (d) The firm should have an office in the State or in an adjacent State with at least 2 (two) practicing Chartered Accountants on its rolls in such State.

2.2 Interested firms meeting the eligibility criteria shall be required to submit a statement of their capability including the bio-data of all the practicing Chartered Accountants on its rolls. In particular, each firm shall be required to furnish year-wise information relating to the names of all the companies with an annual turnover exceeding Rs. 25,00,00,000 (Rs. twenty five crore) whose annual accounts were audited by such firm in any of the preceding 5 (five) Accounting Years

**3 Evaluation and selection**

3.1 The information furnished by each firm shall be scrutinized and evaluated by the Authority and 1 (one) point shall be awarded for each annual audit of the companies specified in Paragraph 2.2 above. (For the avoidance of doubt and by way of illustration, a firm which has conducted audit of the annual accounts of any such company for 5 (five) years shall be awarded 5 (five) points).

3.2 The Authority shall prepare a list of all the eligible firms along with the points scored by each such firm and 5 (five) firms scoring the highest points shall be identified and included in the draft Panel of Chartered Accountants.

**4 Consultation with the Concessionaire**

The Authority shall convey the aforesaid panel of firms to the Concessionaire for scrutiny and comments, if any. The Concessionaire shall be entitled to scrutinize the relevant records of the Authority to ascertain whether the selection of firms has been undertaken in accordance with the prescribed procedure and it shall send its comments, if any, to the Authority within 15 (fifteen) days of receiving the aforesaid panel.

**5 Mutually agreed panel**

- 5.1 The Authority shall, after considering all relevant factors including the comments, if any, of the Concessionaire, finalize and constitute a panel of 5 (five) firms which shall be deemed to be the mutually agreed Panel of Chartered Accountants.
- 5.2 After completion of every 5 (five) years from the date of preparing the mutually agreed Panel of Chartered Accountants, or such earlier period as may be agreed between the Authority and the Concessionaire, a new panel shall be prepared in accordance with the provisions of this Schedule-P.

**SCHEDULE - Q**

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*Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode*

(See Clause 32.4)

**VESTING CERTIFICATE**

- 1 The Managing Director, National Highways & Infrastructure Development Corporation Limited (the **“Authority”**) refers to the Concession Agreement dated ..... (the **“Agreement”**) entered into between the Authority and ..... (the **“Concessionaire”**) for Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna(the **“Project Highway”**) on design, build, operate and transfer (**“DBOT Annuity or Hybrid Annuity”**) basis.
- 2 The Authority hereby acknowledges compliance and fulfilment by the Concessionaire of the Divestment Requirements set forth in Clause 32.1 of the Agreement on the basis that upon issue of this Vesting Certificate, the Authority shall be deemed to have acquired, and all title and interest of the Concessionaire in or about the Project shall be deemed to have vested unto the Authority, free from any encumbrances, charges and liens whatsoever.
- 3 Notwithstanding anything to the contrary contained hereinabove, it shall be a condition of this Vesting Certificate that nothing contained herein shall be construed or interpreted as waiving the obligation of the Concessionaire to rectify and remedy any defect or deficiency in any of the Divestment Requirements and/or relieving the Concessionaire in any manner of the same.

Signed this..... day of....., 20..... At.....

AGREED, ACCEPTED AND SIGNED

SIGNED, SEALED AND DELIVERED

For and on behalf of

for and on behalf of

CONCESSIONAIRE by:

AUTHORITY by:

(Signature)

(Signature)

(Name)

(Name)

(Designation)

(Designation)

(Address)

(Address)

In the presence of:

1.

2.



## SCHEDULE - R

(See Clause 34.3.1)

### SUBSTITUTION AGREEMENT

THIS SUBSTITUTION AGREEMENT is entered into on this the.....day of.....20.....

#### AMONGST

- 1 The NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED, established under the Companies Act, 2013, represented by its Managing Director and having its principal offices at 3rd Floor, PTI Building, 4 Parliament Street, Sansad Marg Area, New Delhi-110001 (Hereinafter referred to as the “Authority” which expression shall unless repugnant to the context or meaning thereof include its administrators, successors and assigns);
- 2 .....Limited, a company incorporated under the provisions of the Companies Act, 2013 and having its registered office at ..... (Hereinafter referred to as the “**Concessionaire**” which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns and substitutes);
- 3 ..... (insert name and particulars of Lenders’ Representative) and having its registered office at....., acting for and on behalf of the Senior Lenders as their duly authorized agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the “**Lenders’ Representative**”, which expression shall unless repugnant to the context or meaning thereof include its successors and substitutes);

#### WHEREAS:

- (A) The Authority has entered into a Concession Agreement dated..... With the Concessionaire (the “**Concession Agreement**”) for the Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna (the “**Project**”) on design, build, operate and transfer basis (the “**DBOT Annuity or Hybrid Annuity**”), and a copy of which is annexed hereto and marked as Annex-A to form part of this Agreement.
- (B) Senior Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Agreements.
- (C) Senior Lenders have requested the Authority to enter into this Substitution Agreement for securing their interests through assignment, transfer and substitution of the Concession to a Nominated Company in accordance with the provisions of this Agreement and the Concession Agreement.
- (D) In order to enable implementation of the Project including its financing, construction, operation and maintenance, the Authority has agreed and undertaken to transfer and

assign the Concession to a Nominated Company in accordance with the terms and conditions set forth in this Agreement and the Concession Agreement.

**NOW, THEREFORE**, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

## **1 DEFINITIONS AND INTERPRETATION**

### **1.1 Definitions**

In this Substitution Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them: **“Agreement”** means this Substitution Agreement and any amendment thereto made in accordance with the provisions contained in this Agreement;

**“Financial Default”** means occurrence of a material breach of the terms and conditions of the Financing Agreements or a continuous default in Debt Service by the Concessionaire for a minimum period of 3 (three) months;

**“Lenders’ Representative”** means the person referred to as the Lenders’ Representative in the foregoing Recitals;

**“Nominated Company”** means a company, incorporated under the provisions of the Companies Act, 1956, including any re-enactment or amendment thereof, selected by the Lenders’ Representative, on behalf of Senior Lenders, and proposed to the Authority for assignment/transfer of the Concession as provided in this Agreement;

**“Notice of Financial Default”** shall have the meaning ascribed thereto in Clause 3.2.1; and

**“Parties”** means the parties to this Agreement collectively and **“Party”** shall mean any of the Parties to this Agreement individually.

### **1.2 Interpretation**

1.2.1 References to Lenders’ Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders’ Representative, acting for and on behalf of Senior Lenders.

1.2.2 References to Clauses are, unless stated otherwise, references to Clauses of this Agreement.

1.2.3 The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the Concession Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the Concession Agreement.

1.2.4 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Concession Agreement shall apply, mutatis mutandis, to this Agreement.

## **2 ASSIGNMENT**

**2.1 Assignment of rights and title**

The Concessionaire hereby agrees to assign the rights, title and interest in the Concession to, and in favor of, the Lenders' Representative pursuant to and in accordance with the provisions of this Agreement and the Concession Agreement by way of security in respect of financing by the Senior Lenders under the Financing Agreements.

**3 SUBSTITUTION OF THE CONCESSIONAIRE**

**3.1 Rights of substitution**

3.1.1 Pursuant to the rights, title and interest assigned under Clause 2.1, the Lenders' Representative shall be entitled to substitute the Concessionaire by a Nominated Company under and in accordance with the provisions of this Agreement and the Concession Agreement.

3.1.2 The Authority hereby agrees to substitute the Concessionaire by endorsement on the Concession Agreement in favor of the Nominated Company selected by the Lenders' Representative in accordance with this Agreement. For the avoidance of doubt, the Senior Lenders or the Lenders' Representative shall not be entitled to operate and maintain the Project as Concessionaire either individually or collectively.

**3.2 Substitution upon occurrence of Financial Default**

3.2.1 Upon occurrence of a Financial Default, the Lenders' Representative may issue a notice to the Concessionaire (the "Notice of Financial Default") along with particulars thereof, and send a copy to the Authority for its information and record. A Notice of Financial Default under this Clause 3 shall be conclusive evidence of such Financial Default and it shall be final and binding upon the Concessionaire for the purposes of this Agreement.

3.2.2 Upon issue of a Notice of Financial Default hereunder, the Lenders' Representative may, without prejudice to any of its rights or remedies under this Agreement or the Financing Agreements, substitute the Concessionaire by a Nominated Company in accordance with the provisions of this Agreement.

3.2.3 At any time after the Lenders' Representative has issued a Notice of Financial Default, it may by notice require the Authority to suspend all the rights of the Concessionaire and undertake the operation and maintenance of the Project in accordance with the provisions of Article 30 of the Concession Agreement, and upon receipt of such notice, the Authority shall undertake Suspension under and in accordance with the provisions of the Concession Agreement. The aforesaid Suspension shall be revoked upon substitution of the Concessionaire by a Nominated Company, and in the event such substitution is not completed within 180 (one hundred and eighty) days from the date of such Suspension, the Authority may terminate the Concession Agreement forthwith by issuing a Termination Notice in accordance with the provisions of the Concession Agreement; provided that upon written request from the Lenders' Representative and the Concessionaire, the Authority may extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days. For the avoidance of doubt, the Authority expressly agrees and undertakes to terminate the Concession Agreement

forthwith, upon receipt of a written request from the Lenders' Representative at any time after 240 (two hundred and forty) days from the date of Suspension hereunder.

**3.3 Substitution upon occurrence of Concessionaire Default**

- 3.3.1 Upon occurrence of a Concessionaire Default, the Authority shall by a notice inform the Lenders' Representative of its intention to issue a Termination Notice and grant 15 (fifteen) days' time to the Lenders' Representative to make a representation, stating the intention to substitute the Concessionaire by a Nominated Company.
- 3.3.2 In the event that the Lenders' Representative makes a representation to the Authority within the period of 15 (fifteen) days specified in Clause 3.3.1, stating that it intends to substitute the Concessionaire by a Nominated Company, the Lenders' Representative shall be entitled to undertake and complete the substitution of the Concessionaire by a Nominated Company in accordance with the provisions of this Agreement within a period of 180 (one hundred and eighty) days from the date of such representation, and the Authority shall either withhold Termination or undertake Suspension for the aforesaid period of 180 (one hundred and eighty) days; provided that upon written request from the Lenders' Representative and the Concessionaire, the Authority shall extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days; provided further that the Lenders' Representative may at any time withdraw its representation hereunder and upon such withdrawal, the Authority may terminate this Agreement in accordance with the provisions hereof.

**3.4 Procedure for substitution**

- 3.4.1 The Authority and the Concessionaire hereby agree that on or after the date of Notice of Financial Default or the date of representation to the Authority under Clause 3.3.2, as the case may be, the Lenders' Representative may, without prejudice to any of the other rights or remedies of the Senior Lenders, invite, negotiate and procure offers, either by private negotiations or public auction or tenders for the take over and transfer of the Project including the Concession to the Nominated Company upon such Nominated Company's assumption of the liabilities and obligations of the Concessionaire towards the Authority under the Concession Agreement and towards the Senior Lenders under the Financing Agreements.
- 3.4.2 To be eligible for substitution in place of the Concessionaire, the Nominated Company shall be required to fulfil the eligibility criteria that were laid down by the Authority for short listing the bidders for award of the Concession; provided that the Lenders' Representative may represent to the Authority that all or any of such criteria may be waived in the interest of the Project, and if the Authority determines that such waiver shall not have any material adverse effect on the Project, it may waive all or any of such eligibility criteria.
- 3.4.3 Upon selection of a Nominated Company, the Lenders' Representative shall request the Authority to:
- (a) Accede to transfer to the Nominated Company the right to construct, operate and maintain the Project in accordance with the provisions of the Concession Agreement;

- (b) Endorse and transfer the Concession to the Nominated Company, on the same terms and conditions, for the residual Concession Period; and
- (c) Enter into a Substitution Agreement with the Lenders' Representative and the Nominated Company on the same terms as are contained in this Agreement.

3.4.4 If the Authority has any objection to the transfer of Concession in favor of the Nominated Company in accordance with this Agreement, it shall within 15 (fifteen) days from the date of proposal made by the Lenders' Representative, give a reasoned order after hearing the Lenders' Representative. If no such objection is raised by the Authority, the Nominated Company shall be deemed to have been accepted. The Authority shall thereupon transfer and endorse the Concession within 15 (fifteen) days of its acceptance/deemed acceptance of the Nominated Company; provided that in the event of such objection by the Authority, the Lenders' Representative may propose another Nominated Company whereupon the procedure set forth in this Clause 3.4 shall be followed for substitution of such Nominated Company in place of the Concessionaire.

3.4.5 The transfer of Concession hereunder to a Nominated Company may, notwithstanding anything to the contrary in this Agreement and the Concession Agreement, be undertaken by transfer of no less than 75% (seventy five per cent) of the equity of the Concessionaire to the Nominated Company, and upon such transfer hereunder, the Concessionaire shall be deemed to be the Nominated Company under and in accordance with the provisions of this Agreement and the Concession Agreement.

### **3.5 Selection to be binding**

The decision of the Lenders' Representative and the Authority in selection of the Nominated Company shall be final and binding on the Concessionaire. The Concessionaire irrevocably agrees and waives any right to challenge the actions of the Lenders' Representative or the Senior Lenders or the Authority taken pursuant to this Agreement including the transfer/assignment of the Concession in favor of the Nominated Company. The Concessionaire agrees and confirms that it shall not have any right to seek revaluation of assets of the Project or the Concessionaire's shares. It is hereby acknowledged by the Parties that the rights of the Lenders' Representative are irrevocable and shall not be contested in any proceedings before any court or Authority and the Concessionaire shall have no right or remedy to prevent, obstruct or restrain the Authority or the Lenders' Representative from effecting or causing the transfer by substitution and endorsement of the Concession as requested by the Lenders' Representative.

## **4 PROJECT AGREEMENTS**

### **4.1 Substitution of Nominated Company in Project Agreements**

The Concessionaire shall ensure and procure that each Project Agreement contains provisions that entitle the Nominated Company to step into such Project Agreement, in its discretion, in place and substitution of the Concessionaire in the event of such Nominated Company's assumption of the liabilities and obligations of the Concessionaire under the Concession Agreement.

## **5 TERMINATION OF CONCESSION AGREEMENT**

**5.1 Termination upon occurrence of Financial Default**

At any time after issue of a Notice of Financial Default, the Lenders' Representative may by a notice in writing require the Authority to terminate the Concession Agreement forthwith, and upon receipt of such notice, the Authority shall undertake Termination under and in accordance with the provisions of Article 31 of the Concession Agreement.

**5.2 Termination when no Nominated Company is selected**

In the event that no Nominated Company acceptable to the Authority is selected and recommended by the Lenders' Representative within the period of 180 (one hundred and eighty) days or any extension thereof as set forth in Clause 3.3.2, the Authority may terminate the Concession Agreement forthwith in accordance with the provisions thereof.

**5.3 Realization of Debt Due**

The Authority and the Concessionaire hereby acknowledge and agree that, without prejudice to their any other right or remedy, the Lenders' Representative is entitled to receive from the Concessionaire, without any further reference to or consent of the Concessionaire, the Debt Due upon Termination of the Concession Agreement. For realization of the Debt Due, the Lenders' Representative shall be entitled to make its claim from the Escrow Account in accordance with the provisions of the Concession Agreement and the Escrow Agreement.

**6 DURATION OF THE AGREEMENT**

**6.1 Duration of the Agreement**

This Agreement shall come into force from the date hereof and shall expire at the earliest to occur of the following events:

- (a) Termination of the Agreement; or
- (b) No sum remains to be advanced and no sum are outstanding to the Senior Lenders, under the Financing Agreements.

**7 INDEMNITY**

**7.1 General indemnity**

7.1.1 The Concessionaire will indemnify, defend and hold the Authority and the Lenders' Representative harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense of whatever kind and nature arising out of any breach by the Concessionaire of any of its obligations under this Agreement or on account of failure of the Concessionaire to comply with Applicable Laws and Applicable Permits.

7.1.2 The Authority will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Authority to fulfil any of its obligations under this Agreement, materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement or this Agreement, other than any loss,

damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Authority, its officers, servants and agents.

- 7.1.3 The Lenders' Representative will indemnify, defend and hold the Concessionaire harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Lenders' Representative to fulfil its obligations under this Agreement, materially and adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Lenders' Representative, its officers, servants and agents.

## **7.2 Notice and contest of claims**

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 7.1 or in respect of which it is entitled to reimbursement (the "Indemnified Party"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "Indemnifying Party") within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, such approval not to be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

## **8 DISPUTE RESOLUTION**

### **8.1 Dispute resolution**

- 8.1.1 Any dispute, difference or claim arising out of or in connection with this Agreement which is not resolved amicably shall be decided by reference to arbitration to a Board of Arbitrators comprising one nominee each of the Authority, Concessionaire and the Lenders' Representative. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to provisions of the Arbitration and Conciliation Act, 1996.
- 8.1.2 The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The place of arbitration shall be the capital of the State and the language of arbitration shall be English.

## **9 MISCELLANEOUS PROVISIONS**

### **9.1 Governing law and jurisdiction**

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts in the New Delhi shall have jurisdiction over all matters arising out of or relating to this Agreement.

### **9.2 Waiver of sovereign immunity**

The Authority unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Authority with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgment or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgment that may be made or given in connection therewith).

**9.3 Priority of agreements**

In the event of any conflict between the Concession Agreement and this Agreement, the provisions contained in the Concession Agreement shall prevail over this Agreement.

**9.4 Alteration of terms**

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorized representatives of the Parties

**9.5 Waiver**

**9.5.1 Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:**

- (a) Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- (b) Shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and
- (c) Shall not affect the validity or enforceability of this Agreement in any manner.

**9.5.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.**

**9.6 No third party beneficiaries**

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.



**9.7 Survival**

**9.7.1 Termination of this Agreement:**

- (a) Shall not relieve the Parties of any obligations hereunder which expressly or by implication survive termination hereof; and
  - (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such termination or arising out of such termination.
- 9.7.2 All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

**9.8 Severability**

If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to dispute resolution under Clause 8 of this Agreement or otherwise.

**9.9 Successors and assigns**

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

**9.10 Notices**

All notices or other communications to be given or made under this Agreement shall be in writing, shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each Party, its facsimile number and e-mail address are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on any day, or on a day that is a public holiday, the notice shall be deemed to be received on the first working day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally, or send it by courier or registered post to the addressee of such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

**9.11 Language**

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

**9.12 Authorized representatives**

Each of the Parties shall by notice in writing designate their respective authorized representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorized representative by similar notice.

**9.13 Original Document**

This Agreement may be executed in three counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

**IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN**

THE COMMON SEAL OF CONCESSIONAIRE has been affixed pursuant to the resolution passed by the Board of Directors of the Concessionaire at its meeting held on the.....day of the .....20.....here unto affixed in to the presence of.....the Director, who has signed these presents in token thereof, .....Company Secretary /Authorized Officer who has countersigned the same in token thereof <sup>¥</sup> .	SIGNED, SEALED AND DELIVERED For and behalf of THE AUTHORITY by:
(Signature) (Name) (Designation) (Address) (Fax No.) (e-mail address)	(Signature) (Name) (Designation) (Address) (Fax No.) (e-mail address)

**SIGNED, SEALED AND DELIVERED**

For and on behalf of

**SENIOR LENDERS** by the

Lenders' Representative:

(Signature)

(Name)

(Designation)

(Address)

(Fax No.)

(E-mail address)

In the presence of:

1.

2.

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<sup>¥</sup>To be affixed in accordance with the articles of association of the Concessionaire and the resolution passed by its Board of Directors  
*Four laning of Silchar (near Nutan Dayapur village) – Budha Nagar Section under Package: SJ-1 of NH-37 from Existing km 260+000 (D. Ch.4+560) to Existing km 233+000 (D. Ch. 24+560) in the State of Assam under Bharatmala Pariyojna on Hybrid Annuity Mode*

**SCHEDULE – S**

**Procedure for Dispute Resolution Board**

The parties to the Concession Agreement mutually agree as follows:

- (1) The Board shall comprise of three Members having experience in the field of construction or have been involved in the Works related to construction and with the interpretation of contractual documents. One Member shall be selected by each of the Authority and the Concessionaire from the list maintained by NHIDCL hosted on its website ([www.nhidcl.com](http://www.nhidcl.com)). In the event the parties fail to select the member within 28 days of the date of the signing of Concession Agreement, in that eventuality, upon the request of either or both parties such Member shall be selected by SAROD within 14 days. The third Member shall be selected by the other two members from the same list. If the two Members selected by or on behalf of the parties fail to select the third Member within 14 days after the later of their selections, then upon the request of either or both parties such third Member shall be selected by SAROD within 14 days. The third Member shall serve as Chairman of the Board
- (2) The Board shall be constituted when each of the three Board Members has signed a Board Member's declaration of Acceptance as required by the DRB's rules and procedures (which, along with the declaration of acceptance form, are attached as Annexure herewith).
- (3) In the event of death, disability, or resignation of any Member, such Member shall be replaced in the same manner as the Member being replaced was selected. If for any other reason, a Member fails or is unable to serve, the Chairman (or failing the action of the Chairman then either of the other Members) shall inform the Parties and such non-serving Member shall be replaced in the same manner as the Member being replaced was selected. Any replacement made by the parties shall be completed within 28 days after the event giving rise to the vacancy on the Board, failing which the replacement shall be made by SAROD in the same manner as described above. Replacement shall be considered complete when the new Member signs the Board Member's Declaration of Acceptance. Throughout any replacement process, the Members not being replaced shall continue to serve and the Board shall continue to function and its activities shall have the same force and effect as if the vacancy had not occurred, provided, however, that the Board shall not conduct a hearing nor issue a decision until the replacement is completed
- (4) If either the Authority or the Concessionaire is dissatisfied with any decision of the Board, and/or if the Board fails to issue its decision within 56 days after receipt of all the pleadings (along with the supporting documents) of the parties by the Chairman of the Board or any extension mutually agreed upon by the Authority and the Concessionaire, in such a case, either the Authority or the Concessionaire may, within 28 days after his receipt of the decision, or within 28 days after the expiry of the said period, as the case may be, give notice to the other party, with a copy for information to the Independent Engineer, of his intention to refer the matter to the Conciliation Committee of Independent Experts (CCIE) of the Authority for Conciliation/amicable settlement.
- (5) It is mandatory to refer all the disputes to DRB before issuance of completion certificate and satisfactory completion of punch list items. No dispute shall be entertained after completion of aforementioned date.

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- (6) If the Board has issued a decision to the Authority and the Concessionaire within the said 56 days or any extension mutually agreed upon by the Authority and the Concessionaire and no notice of intention to commence Conciliation by the Conciliation Committee of Independent Experts (CCIE) of the Authority for Conciliation/amicable settlement as to such dispute has been given by either the Authority or the Concessionaire within 28 days after the parties received such decision from the Board, the decision shall become final and binding upon the Authority and Concessionaire.
- (7) Whether or not it has become final and binding upon the Authority and the Concessionaire, a decision shall be admissible as evidence in any subsequent dispute resolution procedure, including any arbitration or litigation having any relation to the dispute to which the decision relates.
- (8) All decision of DRB which have become final and binding or till they have been reversed in subsequent conciliation/Arbitration process shall be implemented by the parties forthwith. Such implementation shall also include any relevant action of the Independent Engineer
- (9) If during the Concession Period, the Authority and the Concessionaire are of the opinion that the Disputes Resolution Board is not performing its functions properly, the Authority and the Concessionaire may together disband the Disputes Resolution Board and reconstitute it. In that case, a new board shall be selected in accordance with the provisions applying to the selection of the original Board as specified above, except that words "within 28 days after the signing of this Concession Agreement" shall be replaced by the words "within 28 days after the date on which the notice disbanding the original Board became effective
- (10) The Authority and the Concessionaire shall jointly sign a notice specifying that the Board shall stand disbanded with effect from the date specified in the notice. The notice shall be posted by email to each Member of the Board. A Member shall be deemed to have received the e mail even if he refuses to have received the same.
- (11) All other terms and conditions of the original Concession Agreement shall remain unaltered/unaffected and the parties shall remain bound by terms and conditions as contained therein.

**Annexure to Schedule-S**

**Disputes Resolution Board's Rules and Procedures**

1. Except for providing the services required hereunder, the Board Members shall not give any advice to either party or to the Independent Engineer concerning conduct of the Works. The Board Members:
  - (a). Shall have no financial interest in any party to the Concession Agreement, or the Independent Engineer, or a financial interest in the Concession, except for payment for services on the Board.
  - (b). Shall have had no previous employment by, or financial ties to, any party to the Concession Agreement, or the Independent Engineer, except for fee based consulting services/advisers on other projects, and/or be Retired Government Officers (not connected in whole or part with the project), all of which must be disclosed in writing to both parties prior to appointment to the Board.
  - (c). Shall have disclosed in writing to both parties prior to appointment to the Board any and all recent or close professional or personal relationships with any director, officer, or employee of any party to the Concession Agreement, or the Independent Engineer, and any and all prior involvement in the project to which the Concession relates;
  - (d). Shall not, while Board member, be employed whether as a consultant or adviser or otherwise by either party to the Concession Agreement, or the Independent Engineer, except as a Board Member, without the prior consent of the parties and the other Board Members,
  - (e). Shall not, while a Board Member, engage in discussion or make any agreement with any party to the Concession Agreement, or with the Independent Engineer, regarding employment whether as a consultant or otherwise whether after the Concession is completed or after service as a Board Member is completed
  - (f). Shall remain and be impartial and independent of the parties and shall disclose in writing to the Authority, the Concessionaire and one another any fact or circumstance which might be such as to cause either the Authority or the Concessionaire to question the continued existence of the impartiality and independence required of Board Members; and
  - (g). Shall be fluent in the language of the Concession.
2. Except for its participation in the Board's activities as provided in the Concession Agreement and in this Agreement none of the Authority, the Concessionaire, and or the Independent Engineer shall solicit advice or consultation from the Board or the Board Members on matters dealing with the conduct of the Works.

3. The Concessionaire shall:

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- (a). Furnish to each Board member one copy of all documents which the Board may request including Concession Agreement, progress reports and other documents pertinent to the performance of the Concession Agreement.
  - (b). In cooperation with the Authority, coordinate the site visits of the Board, including conference facilities, and secretarial and copying service.
- 4. The Board shall begin its activities following the signing of a Board Member's Declaration of Acceptance by all three Board Members, and it shall terminate these activities as set forth below:
  - (a). The Board shall terminate its regular activities when either (i) issuance of completion certificate and completion of punch list items or (ii) the parties have terminated the Concession and when, in either case, the Board has communicated to the parties and the Independent Engineer its decision on all disputes previously referred to it.
  - (b). Once the Board has terminated its regular activities as provided by the previous paragraph, the Board shall remain available to process any dispute referred to it by either party. In case of such a referral, Board Members shall receive payments as provided in paragraphs 7(a) (ii), (iii) and (iv).
- 5. Board Members shall not assign or subcontract any of their work under these Rules and Procedures.
- 6. The Board Members are Independent and not employees or agents of either the Authority or the Concessionaire.
- 7. Payments to the Board Members for their services shall be governed by the following provisions:
  - (a). Each Board Member will receive payments as follows:
    - i. A retainer fee per calendar month as specified in the schedule of fee made part of this Schedule and its revision from time to time. This retainer fee shall be considered as payment in full for:
      - (A). Being available, on 7 days' notice, for all hearings, Site Visits, and other meetings of the Board.
      - (B). Being conversant with all project developments and maintaining relevant files.
      - (C). All offices and overhead expenses such as secretarial services, photocopying and office supplies (but not include telephone calls, faxes and telexes) incurred in connection with the duties as a Board Member
    - ii. A daily fee as specified in the schedule of fee in respect of fee for site visit & meeting, fee for meeting/ hearing not at site and extra charges for days (max. of 02 days for travel on each occasion) other than hearing/meeting days.
    - iii. Expenses, in addition to the above, all reasonable and necessary travel expenses (including economy class air fare, subsistence, and other direct travel expenses)

Receipts for all expenses in excess of Rs. 2000/- (Rupees Two Thousand only) shall be provided.

- iv. Reimbursement of any taxes that may be levied on payments made to the Board Member pursuant to this paragraph 7.
- (b). The retainer fee and other fees shall remain fixed for the period of each Board Member's term until revised by NHIDCL.
- (c). Phasing out of monthly retainer fee. Beginning with the next month after the completion certificate (or, if there are more than one, the one issued last) has been issued, the Board members shall receive only one-third of the monthly retainer fee till next one year. Beginning with the next month after the Board has terminated its regular activities pursuant to paragraph 4(a) above, the Board members shall no longer receive any monthly retainer fee.
- (d). Payments to the Board Members shall be shared equally by the Authority and the Concessionaire. The concerned Project Implementation Unit (PIU) of Authority shall pay members' invoices within 30 calendar days after receipt of such invoices and shall invoice the Concessionaire for one-half of the amounts of such invoices. The Concessionaire shall pay such invoices within 30 days' time period after receipt of such invoices.

**8. Board Site Visits:**

- (a). The Board shall visit the Site and meet the representatives of the Authority, the Concessionaire and the Independent Engineer at regular intervals, at times of critical construction events, at the written request of either party, and in any case not less than 6 times in any period of 12 months. The timing of Site visits shall be as agreed among the Authority, the Concessionaire and the Board, but failing agreement shall be fixed by the Board.
- (b). Site visits shall include an informal discussion of the status of the construction of the Works. Site visits shall be attended by personnel from the Authority, the Concessionaire and the Independent Engineer
- (c). At the conclusion of each Site visit, the Board shall prepare a report covering its activities during the visit and shall send copies to the parties and to the Independent Engineer.

**9. Procedure for Dispute Referral to the Board:**

- (a) If either party objects to any action or inaction of the other party or the Independent Engineer, the objecting party may file a written Notice of Dispute to the other party with a copy to the Independent Engineer stating that it is given pursuant to the Agreement and state clearly and in details the basis of the dispute.
- (b) The party receiving the Notice of Dispute will consider it and respond to it in writing within 14 days after receipt.

(C) This response shall be final and conclusive on the subject, unless a written appeal to the response is filed with the responding party within 10 days after receiving the response and call upon Independent Engineer to mediate and assist the parties in arriving an amicable settlement thereof. Both parties are encouraged to pursue the matter further to attempt to settle the dispute.

(d) If the Independent Engineer receiving the Notice of Dispute fails to provide a written response within 14 days after receipt of such Notice or failing mediation by Independent Engineer, either party may require such dispute to be referred to the Board, either party may refer the dispute to the Board by written Request to the Board. The Request for decision shall state clearly and in full detail the specific issues of the dispute (s) to be considered by Board and shall be addressed to the Chairman of the Board, with copies to the other Board Members, the other party, and the Independent Engineer, and it shall state that it is made pursuant to this Agreement.

(e) When a dispute is referred to the Board, and the Board is satisfied that the dispute requires the Board's assistance, the Board decide when to conduct a hearing on the dispute. The Board may request that written documentation and arguments from both parties be submitted to each Board Member before the hearing begins. The parties shall submit insofar as possible agreed statements of the relevant facts.

(f) During the hearing, the Concessionaire, the Authority, and the Independent Engineer shall each have ample opportunity to be heard and to offer evidence. The Board's decision for resolution of the dispute will be given in writing to the Authority, the Concessionaire and the Independent Engineer as soon as possible, and in any event not more than 56 days or any mutually extended period between the Authority and the Concessionaire. The time period of 56 days of issuance of DRB decision will reckon/start from the day of first hearing that begins after submission of complete pleadings (including supporting documents, if any) by the parties.

**10. Conduct of Hearings:**

(a) Normally hearings will be conducted at the Site, but any location that would be more convenient and still provide all required facilities and access to necessary documentation may be utilized by the Board. Private session of the Board may be held at any cost effective location convenient to the Board. Video recordings of all hearings shall invariably be made.

(b) The Authority, the Independent Engineer and the Concessionaire shall be given opportunity to have representatives at all hearings. Parties should restrain to bring any Advocate/Law Firm during DRB hearings.

(c) During the hearings, no Board Member shall express any opinion concerning the merit of the respective arguments of the parties.

(d) After the hearings are concluded, the Board shall meet privately to formulate its decision. The private meeting (s) of the Board shall not exceed 3 sittings. All Board deliberations shall be conducted in private, with all Members' individual views kept strictly confidential. The Board's decisions, together with an explanation of its reasoning shall be submitted in writing to both parties and to the Independent Engineer. The decision shall be based on the pertinent Concession provisions, applicable laws and regulations and the facts and circumstances involved in the dispute.



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(e) The Board shall make every effort to reach a unanimous decision. If this proves impossible the majority shall decide and the dissenting Member may prepare a written minority report together with an explanation of its reasoning for submission to both parties and to the Independent Engineer.

11. In all procedural matters, including the furnishing of written documents and arguments relating to disputes, site visits and conduct of hearings, the Board shall have full and the final authority. If a unanimous decision on any such matter proves impossible, the majority shall prevail.

12. After having been selected and where necessary approved each Board Member shall sign two copies of the following declaration and make one copy available each to the Authority and to the Concessionaire.

**“BOARD MEMBER’S DECLARATION OF ACCEPTANCE”**

WHEREAS

- (a). A Concession Agreement (the **Concession**) for the \_\_\_\_\_ project [fill in the name of project] has been signed on \_\_\_\_\_ [fill in date] between \_\_\_\_\_ [name of Authority] and \_\_\_\_\_ [name of Concessionaire] (the Concessionaire).;
- (b). The provisions of Agreement and Dispute Resolution Board’s rules and procedure provided for establishment and operation of Dispute Resolution Board (DRB).
- (c). The undersigned has been selected to serve as a Board Member on said Board;

NOW THEREFORE, the undersigned Board Member hereby declares as follows:

1. I accept the selection as a Board Member and agree to serve on the Board and to be bound by the provisions of Concession Agreement and rules and procedure provided for establishment and operation of Dispute Resolution Board (DRB).
2. With respect to paragraph 1 of Dispute Resolution Board’s Rules and Procedure. said Annex A, I declare
  - (a). that I have no financial interest of the kind referred to in subparagraph (a):
  - (b). that I have had no previous employment nor financial ties of the kind referred to in subparagraph (b); and
  - (c). that I have made to both parties any disclosures that may be required by subparagraphs (b) and (c).
3. I declare that I have \_\_\_\_ no. of Arbitrations (list enclosed) and no. of DRBs (list enclosed) in progress and that I will give sufficient time for the current assignment.

BOARD MEMBER

\_\_\_\_\_

\_\_\_\_\_ (insert name of Board Member)

Date: \_\_\_\_\_

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### Schedule of expenses and fees payable to the Member (s) of Dispute Resolution Board (DRB)

The fee and other expenses payable to the Members of DRB shall be as under:-

S. No.	PARTICULAR	AMOUNT PAYABLE
1.	Retainer-ship fee, secretarial assistance and incidental charges (telephone, fax, postage etc.)	Rs. 50,000/- per month for one package and maximum of Rs. 75,000/- per month for 2 or more packages
2. (i)	Fee for site visit or meetings at site	Rs. 25,000/- per day
(ii)	Fee for meetings/hearings not at site	Rs. 10,000/- per day
3.	Traveling expenses	Economy class by air, AC first class by train and AC taxi by road
4.	Lodging & Boarding	Rs. 15,000/- per day (Metro Cities); or Rs. 10,000/- per day (in other cities); or Rs. 5,000/- per day (own arrangement)
5.	Extra charges for days other than hearing/ meeting days (travel days maximum of 2 days on each occasion)	Rs. 5,000/-
6.	Local conveyance	Rs. 2,000/-

#### Notes:

- (i) Lodging, boarding and travelling expenses will be allowed only for those members who are residing 100 kms away from the place of meeting.
- (ii) Delhi, Mumbai, Chennai, Kolkata, Bangalore and Hyderabad shall be considered as Metro Cities.
- (iii) The above schedule of fee and expenses shall be applicable on or after the date of issue of this circular.
- (iv) The expenses are to be shared equally by the parties i.e. Authority and Concessionaire.