

National Highways & Infrastructure Development Corporation Limited

Project Name: Construction of 2-lane Aizawl Bypass from km 15.200 to km 34.500 (Package-3) on Sairang - Phaibawk section of NH-6 in the State of Mizoram under Bharatmala Pariyojna on EPC Mode.

Contract Package No.: NHIDCL/Mizoram/NH-6/AizawlBypass/Package-3/2022

Tender Id: 2022_NHIDC_726626_1

Amendment No. 1

Sl. No.	Reference/Clause no./ Annexure	Existing Provision	Modified Provision (To be read as)
1.	NIT, Page no. 1 & Page no. 4 in RFP, Clause 1.1.1 of Section-1, of RFP, Page no. 8	Estimated Cost (Civil + Utility Shifting) exclusive of GST (Rs. in Crore) : 594.38	Estimated Cost (Civil + Utility Shifting) exclusive of GST (Rs. in Crore) : 472.17
2.	Clause 1.2.11 of Section-1, of RFP, Page no. 12	A BID Security of Rs. 5.94 Crore (the "BID Security") in formBank.	A BID Security of Rs. 4.72 Crore (the "BID Security") in formBank.
3.	Clause 2.2.2.2 (i) of Section-2 of RFP, Page no. 24	For demonstrating technical capacity and experience (the "Technical Capacity"), the Bidder shall, over the past [5 (five)] financial years preceding the Bid Due Date, have received payments for construction of Eligible Project(s), or has undertaken construction works by itself in a PPP project, such that the sum total thereof, as further adjusted in accordance with clause 2.2.2.5 (i) & (ii), is more than [Rs. 594.38 Crore] (the "Threshold Technical Capacity").	For demonstrating technical capacity and experience (the "Technical Capacity"), the Bidder shall, over the past [5 (five)] financial years preceding the Bid Due Date, have received payments for construction of Eligible Project(s), or has undertaken construction works by itself in a PPP project, such that the sum total thereof, as further adjusted in accordance with clause 2.2.2.5 (i) & (ii), is more than [Rs. 472.17 Crore] (the "Threshold Technical Capacity").
4.	Clause 2.2.2.2 (ii) of Section-2 of RFP, Page no. 24	For normal Highway projects (including Major Bridge/ROB/Flyovers/Tunnels): Provided that at least one similar work of 20% of Estimated Project Cost [Rs. 118.88 Crore] shall have been.....the following:	For normal Highway projects (including Major Bridge/ROB/Flyovers/Tunnels): Provided that at least one similar work of 20% of Estimated Project Cost [Rs. 94.434 Crore] shall have been..... the following:
5.	Clause 2.2.2.3 (i) of Section-2 of RFP, Page no. 26	The Bidder shall have a minimum Net Worth (the "Financial Capacity") of 5% (five percent) of the Estimated Project Cost (i.e. Rs. 29.72 Crore) at the close of the preceding financial year.	The Bidder shall have a minimum Net Worth (the "Financial Capacity") of 5% (five percent) of the Estimated Project Cost (i.e. Rs. 23.61 Crore) at the close of the preceding financial year.
6.	Clause 2.2.2.3 (ii) of Section-2 of RFP, Page no. 26	The Bidder shall have a minimum Average Annual Turnover (updated to the price level of the year based on factors indicated in table below) of 15% (Fifteen percent) of the Estimated Project Cost (i.e. Rs. 89.16 Crore) for the last 5 (five) financial years.	The Bidder shall have a minimum Average Annual Turnover (updated to the price level of the year based on factors indicated in table below) of 15% (Fifteen percent) of the Estimated Project Cost (i.e. Rs. 70.83 Crore) for the last 5 (five) financial years.

Sl. No.	Reference/Clause no./ Annexure	Existing Provision	Modified Provision (To be read as)
7.	Clause 2.11.1 (f) of Section-2 of RFP, Page no. 35	BID Security of Rs. 5.94 Crore , if in the form of Bank Guarantee/DD/FD from a Scheduled Bank (to be submitted physically as well);	BID Security of Rs. 4.72 Crore , if in the form of Bank Guarantee/DD/FD from a Scheduled Bank (to be submitted physically as well);
8.	Clause 2 of Section-7 of RFP, Page no. 52	Cost of Bid /RFP document (Refer Clause No. 1.2.4): Rs. 70,800/- (Incl. of 18% GST)	Cost of Bid /RFP document (Refer Clause No. 1.2.4): Rs. 59,000/- (Incl. of 18% GST)
9.	Clause 4 of Section-7, Data Sheet of RFP, Page no. 53	Threshold Technical Capacity (Refer Clause No. 2.2.2.2): Rs. 594.38 Crore	Threshold Technical Capacity (Refer Clause No. 2.2.2.2): Rs. 472.17 Crore
10.	Clause 5.1 (a) of Section-7, Data Sheet of RFP, Page no. 53	Estimated Project Cost (Excl. GST) : Rs. 594.38 Crore	Estimated Civil Cost (Excl. GST) : Rs. 472.17 Crore
11.	Clause 8 of Section-7, Data Sheet of RFP, Page no. 53	Bid Security: Rs. 5.94 Crore	Bid Security: Rs. 4.72 Crore
12.	Schedule-H	Modified Schedule-H is attached as Annexure-I .	



(Udaya Singh)

General Manager (Technical)



Schedule - H

(See Clauses 10.1 (iv) and 19.3)

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	Weightage in percentage to the contract Price		Stage for Payment	Percentage Weightage
1	2		3	4
Road works including culverts, widening and repair of culverts.	49.05%	B.1	Reconstruction/ New 2-Lane realignment/ bypass (Flexible pavement)	
		1	Earthwork up to top of the sub-grade	58.12%
		2	Earthwork in Shoulders	0.88%
		3	Sub-base Course	9.03%
		4	Non bituminous Base course	5.95%
		5	Bituminous Base course	8.50%
		6	Wearing Coat	6.69%
		D	Re- Construction and New culverts on existing road, realignments, bypassed:	
		a	RCC Box Culvert	10.83%
Major Bridge (length < 60 m.) works and ROB/RUB. Elevated sections/ flyovers including viaducts, if any	25.88%	A2	New Major Bridges	
		1	Foundation	15.25%
		2	Sub-structure	18.24%
		3	Super-structure (including bearings)	63.32%
		4	Wearing Coat including expansion joints	1.16%
		5	Miscellaneous items like hand rails, crash barriers, road markings etc.)	2.03%
Other works	25.04%	(i)	Toll plaza	0.00%
		(ii)	Road side drains	5.22%
		(iii)	Road signs markings, km stones, safety devices,...	
		a	Traffic Sign	0.16%

Item	Weightage in percentage to the contract Price		Stage for Payment	Percentage Weightage
1	2		3	4
		b	Pavement marking	0.89%
		c	Direction and Place Identification signs upto 0.9 sqm size board.	0.03%
		d	Boundary stone, km stone, 5th km stone, & hectometre stones	0.03%
		e	Traffic blinker LED Delineator, stud, reflective payment marker, tree reflector	0.13%
		f	Road furniture	0.26%
		g	Steel Crash Barrier	1.88%
		h	Minor junction	0.48%
		i	Major Junction	2.15%
		j	Catch Water Drain	0.11%
		k	Chute Drain	1.98%
		l	Site Clearance	0.34%
		(iv)	Project Facilities	
		(a)	Truck lay-byes	0.33%
		(b)	Wayside Amenities	0.10%
		(c)	Busbays	0.20%
		(v)	Roadside plantation	
		a	Road side plantation & medium Plantation.	0.00%
		b	Plantation (Vetiver, Hydro seeding & Turfing etc.) for slope protection on exposed hill slopes as slide mitigation measure.	1.56%
		(vi)	Repair of protection works other than approaches to the bridges, elevated section/ flyovers/ grade separators and ROBs.	0.00%
		(vii)	Safety and traffic management during construction	0.00%
		(viii)	Protection works	
		a	Breast wall	10.46%
		b	Retaining wall	35.69%
		c	Gabion wall	5.64%
		d	Toe wall	2.83%
		e	Gabion RE Wall	25.31%

Item	Weightage in percentage to the contract Price		Stage for Payment	Percentage Weightage
1	2		3	4
		f	Seeding and Mulching (Soil Cut Slope)	0.94%
		g	Erosion Control Blanket	2.21%
		h	Vegetated bamboo crib wall	1.07%
Electrical utilities and Public Health Utilities (Water pipe lines and Sewage lines)	0.03%	(i)	Electrical lines	100%
		(ii)	Water and sewage pipelines	-

1.3 Procedure of estimating the value of work done.

1.3.1 Road works

Procedure for estimating the value of road work done shall be as follows:

Table 1.3.1

	Stage of Payment	Percentage-weightage	Payment Procedure
B.1	Reconstruction/New 2-lane realignment/bypass (Flexible pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro rata basis on completion of a stage in a length of not less than 500 m.
1	Earthwork up top of the sub-grade	58.12%	
2	Earthwork in shoulders	0.88%	In case of Hill cutting, the payment procedure will be as under:
3	Sub-Base Course	9.03%	
4	Non Bituminous Base Course	5.95%	
5	Bituminous Base Course	8.50%	Hill cutting: 40% of weightage of B.1 (1). Preparation of Sub-grade: 60% of weightage of B.1 (1).
6	Wearing Coat	6.69%	
D	Re- Construction and New culverts on existing road, realignments, bypasses,; Culverts (length,6m)		Cost of each culvert shall be determined on pro rata basis with respect to the total number of culverts. Payment shall be made on the completion of at least 01 (One) culvert.
	RCC Box culvert	10.83%	

@ For calculation of payment stage for main carriageway the project length shall be converted into equivalent 2 lane length. For example, if the total length of 4 lane main carriageway is 100 km, then the equivalent length for calculation of payment stage will be 2 x 100 km. Now, if the total length of bituminous work to be done is 100 km, the cost per km of bituminous work shall be determined as follows:

$$\text{Cost per km} = P \times \text{weightage for road work} \times \text{weightage for bituminous work} \times (1/L)$$

Where

P = Contract Price

L = Total equivalent 2-Lane length in km as defined above

Similarly, the rates per km for other stages shall be worked out accordingly.

Note: The length affected due to law and order problems or litigation during execution including the length not handed over to the Contractor under clause 8.3 of this Contract Agreement due to which the Contractor is unable to execute the work, may be deducted from the total project length for payment purposes. The total length calculated here is only for payment purposes and will not affect and referred in other clauses of the Contract Agreement.

1.3.2 Minor Bridges and Underpasses/Overpasses

Procedure for estimating the value of Minor bridge and Underpasses/Overpasses shall be as stated in table 1.3.2:

Table 1.3.2

	Stage of Payment	Percentage-weightage	Payment Procedure
	1	2	3
	Nil		

1.3.3 Major Bridge works, ROB/RUB and Structures

Procedure for estimating the value of Major Bridge works, ROB/RUB and Structures Work shall be as stated in table 1.3.3:

Table 1.3.3

	Stage of Payment	Percentage-weightage	Payment Procedure
	1	2	3
A.2	New major Bridges		
1	Foundation: On completion of the foundation work including foundations for return walls, abutments, piers.		Cost of each Major Bridge shall be determined on pro rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro- rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of
a	CH:20580 (3X40)	16.14%	
b	CH:22680 (1X20+2X60)	13.89%	

	Stage of Payment	Percentage-weightage	Payment Procedure
	1	2	3
c	CH:24145 (1X50+1X60+2X50)	13.74%	the major Bridge as per weightage given in this table, subject to completion of at least two foundations in all respect.
d	CH:24405 (1X20+1X50+1X20)	22.80%	
e	CH:24840 (2X60+2X50)	14.99%	
f	CH:33435 (1X40+2X50+1X40+1X50+1X40)	13.56%	In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
2	Sub-structure: On completion of abutments, piers upto the abutment/ pier cap		Payment against Sub- structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub- structure of the major bridge subject to completion of at least two sub-structures of abutments/piers upto abutment/pier cap level of the major bridge.
a	CH:20580 (3X40)	20.75%	
b	CH:22680 (1X20+2X60)	19.40%	
c	CH:24145 (1X50+1X60+2X50)	13.81%	
d	CH:24405 (1X20+1X50+1X20)	27.53%	
e	CH:24840 (2X60+2X50)	16.87%	
f	CH:33435 (1X40+2X50+1X40+1X50+1X40)	17.16%	
3	Super-structure: On completion of the superstructure in all respects including Girder, Deck slab, bearings		Casting of girders/ fabrication of girders (steel), 40% weightage: Unit of measurement is numbers. Payment against casting of girders/ fabrication of girders shall be made on pro-rata basis with respect to total numbers of girders required in the structure on completion of a stage i.e. not less than completion of casting/ fabrication of at least five girders of a structure.
a	CH:20580 (3X40)	59.61%	
b	CH:22680 (1X20+2X60)	63.62%	
c	CH:24145 (1X50+1X60+2X50)	69.41%	
d	CH:24405 (1X20+1X50+1X20)	46.19%	
e	CH:24840 (2X60+2X50)	65.35%	
f	CH:33435 (1X40+2X50+1X40+1X50+1X40)	66.05%	Erection of girders, deck slab and bearings, 60% weightage: Payment shall be made on pro-rata basis on completion of a stage i.e. Completion of super-structure including bearing of at least one span in all respects as specified.
4	Wearing Coat including expansion joints		Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
a	CH:20580 (3X40)	1.35%	
b	CH:22680 (1X20+2X60)	1.13%	
c	CH:24145 (1X50+1X60+2X50)	1.05%	
d	CH:24405 (1X20+1X50+1X20)	1.45%	
e	CH:24840 (2X60+2X50)	0.95%	
f	CH:33435 (1X40+2X50+1X40+1X50+1X40)	1.15%	

	Stage of Payment	Percentage-weightage	Payment Procedure
	1	2	3
5	Miscellaneous Items like hand rails, crash barrier, road markings etc.		Payments shall be made on completion of all miscellaneous works like hand rails, crash barriers, road markings etc. complete in all respects as specified.
a	CH:20580 (3X40)	2.15%	
b	CH:22680 (1X20+2X60)	1.96%	
c	CH:24145 (1X50+1X60+2X50)	1.99%	
d	CH:24405 (1X20+1X50+1X20)	2.03%	
e	CH:24840 (2X60+2X50)	1.84%	
f	CH:33435 (1X40+2X50+1X40+1X50+1X40)	2.08%	

1.3.4 Other Works.

Procedure for estimating the value of other works done shall be as stated in table 1.3.4:

	Stage of Payment	weightage	Payment Procedure
(i)	Toll plaza	0.00%	
(ii)	Roadside drains	5.22%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 5% (five per cent) of the total length.
(iii)	Road signs markings, km stones, safety devices,		
a	Traffic Sign	0.16%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 5% (five per cent) of the total length.
b	Pavement marking	0.89%	
c	Direction and Place Identification signs upto 0.9 sqm size board.	0.03%	
d	Boundary stone, km stone, 5th km stone, & hectometre stones	0.03%	
e	Traffic blinker LED Delineator, stud, reflective payment marker, tree reflector	0.13%	
f	Road furniture	0.26%	
g	Steel Crash Barrier	1.88%	
h	Minor junction	0.48%	Payment shall be made on pro rata basis for completed facilities.
i	Major Junction	2.15%	
j	Catch Water Drain	0.11%	Unit of measurement is linear length in km. Payment shall be made on pro rata basis on completion of a stage in a length of not less than 5% (five per cent) of the total length.
k	Chute Drain	1.98%	
l	Site Clearance	0.34%	

	Stage of Payment	weightage	Payment Procedure
(iv)	Project Facilities		
(a)	Truck Lay-Byes	0.33%	Payment shall be made on pro rata basis for completed facilities.
(b)	Wayside Amenities excluding Slip Roads & but including all internal roads (Service areas including Truck Lay-Byes)	0.10%	
(c)	Busbays	0.20%	
(v)	Roadside plantation		
a	Road side plantation & medium Plantation.	0.00%	Payment shall be made on pro rata basis on completion of a stage in a length of not less than 5% (five per cent) of the total length.
b	Plantation (Vetiver, Hydro seeding & Turfine etc.) for slope protection on exposed hill slopes as slide mitigation measure.	1.56%	
(vi)	Repair of protection works other than approaches to the bridges, elevated section/ flyovers/grade separators and ROB's.	0.00%	
(vii)	Safety and traffic management during construction	0.00%	
(viii)	Protection works		
a	Breast wall	10.46%	Payment shall be made on pro rata basis on completion of a stage in a length of not less than 5% (five per cent) of the total length.
b	Retaining wall	35.69%	
c	Gabion wall	5.64%	
d	Toe wall	2.83%	
e	Gabion RE Wall	25.31%	
f	Seeding and Mulching (Soil Cut Slope)	0.94%	
g	Erosion Control Blanket	2.21%	
h	Vegetated bamboo crib wall	1.07%	

1.3.5 **Electrical utilities and Public Health Utilities (Water pipelines and sewage lines)**
Procedure for estimating the value of other works done shall be as stated in table 1.3.5:

Table 1.3.5

Stage of	Weightage	Payment Procedure
(i) Electrical lines including crossings, transformer s if any.	100%	Unit of measurement is as per completed activities. Cost per activity shall be determined on pro-rata basis as per its weightage with reference to total cost of Electrical lines. Payment shall be made for completed activity. The average weightage of major activities (only for payment purpose) in shifting work is :- (i) Erection of Poles- 20%, (ii) Conductor stringing including laying of cable- 30%, (iii) DTR erection (if involved)- 15% and (iv) Charging of line including dismantling and site clearance- 35%
(ii) Water and sewage pipelines including crossing if any.	-	Unit of measurement is as per completed activities. Cost per activity shall be determined on pro-rata basis as per its weightage with reference to total cost of pipeline. Payment shall be made for completed activity. The average weightage of major activities (only for payment purpose) in shifting work is:- (i) Laying of pipe- 50%, (ii) Charging of line including all miscellaneous works and dismantling and site clearance- 50%.

2. Procedure for payment for Maintenance

2.1 The cost for maintenance shall be as stated in Clause 14.1.1.

2.2 Payment for Maintenance shall be made in quarterly installments in accordance with the provisions of Clause 19.7.