

Tender ID: 2024\_MoRTH\_833034\_1

Tender Reference Number: RO/BBSR/11017/NH(O)/2023-24

**Subject:** Widening & strengthening of Daringbadi ghat portion from km 231.000 to 256.000 (Design chainage from km 229.500 to 256.468) of NH-59 under NH(O) in Hybrid Annuity Mode Plan 2023-24 in the State of Odisha (Design length 26.968 Kms)- **Reply to pre-bid queries.**

Sl No.	Clause No/ Section / Page No.	Description	Queries of bidder	Reply of Authority
1	Clause 4.0, Sr. No. ix page 169 of Schedule - B	Elevated Structure	In Schedule-B it is mentioned that the "Viaducts to be Constructed with Composite Steel Girder deck slabs confirming to RDSO standard". As the Maximum span of Viaduct is 30.0m, can Contractor change the Girder instead of Composite steel Girder provide PSC I Girder & RCC T Girder?  Please Confirm	No change is contemplated. As per RFP.
2	Clause 9.0, Sr. No. iii (b), page 192 of Schedule - B	1. Major Bridge at CH. 244+640 2. Elephant Crossing at Ch. 247+310	In GAD of Major Bridge & Elephant Crossing Girder arrangement showing Composite Steel Girder As the Maximum span of Major Bridge & Elephant Crossing is 30.0m, can Contractor change the Girder instead of Composite steel Girder provide PSC I Girder & RCC T Girder? Please Confirm.	No change is contemplated. As per RFP.

3	General	Geotech Report	Geotech Report is not available in Bid Documents Kindly Provide the same.	Bore hole data showing sub-surface profile has been indicated in the GAD along with required SBC at founding level. The information regarding Sub-soil profile as indicated in the GAD is for reference only. Bidder has to collect all required information for design of structures.
4	General	Hydrology Report	Hydrology Report is not available in Bid Documents Kindly Provide the same.	Information of Hydrological data has been indicated in the GAD along with specified RL and height at different level. The said information as indicated in the GAD is for reference only. Bidder has to collect all required information for design of structures.
5	Clause 7.0, Sr. No. iii b (i), page 148 of Schedule - B	Pavement Design	Minimum Crust Compositions mention in Schedule - B Clause 7.0 Sr. no. iii b (i) for Main Carriageway. Please Clarify can Bidder change the Crust Composition according to codal provision (IRC 37 2018)	As per RFP. Please refer Corrigendum - III.
6	Clause 5.0, Sr. No. I, page 183 of Schedule - B	Junctions	Junctions Development drawings are not available in Bid documents. Kindly provide the same.	Junction drawing will be available. Please refer Corrigendum -III.
7	Clause 5.0, Sr. No. I, page 183 of Schedule - B	Junctions pavement crust thickness	In Schedule - B, Junction Pavement Crust thickness not mentioned, Please Clarify what are the crust thickness Contractor will adopt for Junction Developments or Contractor can adopt Crust thickness for Junctions as per Codal provision? Please Clarify.	The Crust thickness of the any junction shall be same as the Crust thickness of Main Carriageway.

8	General	Forest Clearance	Is the Project passes through any Forest area? And also Clarify is any requirement of forest clearance?	Yes, the project road passes through forest area. Forest Diversion work is required and it will be carried out by the Authority.
9	General	Land Acquisition Status	Please Clarify the exact Land Acquisition status of the Project.	Land Acquisition is in progress and it is at '3D'-stage. Authority shall provide land for construction of project highway on appointed date.
10	General	Due Diligence	The project is a HAM project, bidders need to do due diligence and required more time for prepare the Bid.	Yes, the Bid due date has since been extended. Please refer corrigendum-II.
11	General	Bid due Extension	We request the authority to extend the Bid due date for at least 15 days considering non availability of few documents for bid preparation.	The Bid has since been extended. Please refer corrigendum-II.
12.	Section - 1, Introduction, Clause No. 1.2 Brief description of Bidding Process, Sub Clause No. 1.2.3	The Complete Bidding Documents including the draft agreement for the Project is enclosed for the Bidders. The Feasibility report/Detailed Project report prepared by the Authority/ Consultants of the Authority (the "Feasibility Report/Detailed Project Report") is also enclosed for guidance purposes only. Subject to the provisions of clause 2.1.3, the aforesaid documents and any addenda issued subsequent ti this RFP Document will be	This is to inform you that, we have gone through the complete tender document (RFP) but we have not found the Detailed Project report (DPR) as mentioned in RFP Clause No. 1.2, sub clause No. 1.2.3.  Hence, we request your Good Office to Kindly share the Detailed Project Report (DPR) enabling us to analyze the Project Requirements and costing so that we can provide a competitive price and participate in this tender well in time.	Please refer Corrigendum III

		deemed to form part of the Bidding Documents.		
13.	Annexure-I, (Schedule-B) viii. Protection Wall. c. Retaining Wall/Toe Wall:	viii. Protection Wall. c. Retaining Wall/Toe Wall: Retaining Wall/Toe Wall with varying height from 2.0m to 15.0m for a length of 6170m to be constructed at specified locations as shown in TCS.	Retaining wall with all approved technologies as per MoRTH, IRC-102, IRC SP-59, and IRC-116 may be allowed.	As per RFP.
14.	Annexure-I, (Schedule-B) viii. Protection Wall.	viii. Protection Wall. from Gabion fascia which may be allowed, and location be o. Gabion Wall with Geogrid and Polyester needle: Gabion Wall with Geogrid and Polyester needle for a	MoRTH and IRC 102 allow different kinds of fascia apart from Gabion fascia which may be allowed and location be suggested and freezed.	Other types of prescribed fascia shall be allowed as specified in IRC, subject to the adequacy of design criteria requirements with approval of Authority. The bidder should verify the suggested locations and assess them on-site, duly considering all relevant aspects before bidding.

		length of 2540m to be constructed at specified locations as shown in TCS.		
15.	Annexure-I, (Schedule-B) 10. Slope Protection. Para-2.	Cut Slope should be designed in such a manner as to keep the cutting within available RoW and protection measures like rock bolting/ soil nailing/ reinforcing, as appropriate, shall be applied to ensure both stability and protection from erosion/withering.	Location and quantum work are to be free zed as it is not shown in TCS and not an item in Schedule-H or non-defined in table.	Locations are shown in the TCS. However Bidder should make a thorough assessment of site duly verifying the locations with all relevant aspects before bidding.
16.	10. Slope Protection. Para-1.	Fill slopes in embankment shall be protected by using appropriate protection measures wherever required along the project road. The slope protection up to 3m height shall be carried out with turfing and slope protection above 3m height shall be carried out with geogrid /geo blanket, similar environment- friendly material/technology, as per IRC: SP:59-2019.	Please share the Table.	As the responsibility of design lies with Concessionaire, bidder should assess the same provision at site duly keeping the view of the relevant provision of RFP before bidding.
17.	Annexure-I,	All Materials, works	IRC SP - 48 Hill side Road Manual to be allowed.	Please refer to Manual of

	(Schedule-D) A. Specifications and Standards.	and construction operations shall conform to the Manual of Specifications and Standards for Two-Laning of Highways (IRC: SP:73 2018), referred to as the Manual, and MORTH Specifications for Road and Bridge Works. Where the specification for a work is not given, Good Industry Practice shall be adopted to the satisfaction of the Independent Engineer.		Specifications and Standards for Two-Laning of Highways (IRC: SP:73 2018) , which has already included provision in Section-13 to refer hill Road Manual IRC SP:48.
18.	Annexure-I, (Schedule-B b) Sab. Saucer Drain.	Saucer Drainage system for the Project Highway shall be provided. Total Length = 5989m (As mentioned in TCS 10).	No Saucer Drain in TCS-10. Kindly Clarify.	Revised drawing with Saucer drain in TCS-10 is uploaded. Please refer corrigendum-III.
19.	Annexure-I, (Schedule-B) Design Traffic.	Notwithstanding anything to the contrary contained in this Agreement or the Manual, the Concessionaire shall design the flexible pavement for main carriageway for design traffic for a minimum design traffic of 20 MSA or actual traffic as per manual	IRC-59 allows the use of Geogrid for reduction in pavement layers, so therefore, it must be allowed, and mandatory minimum thickness to be removed.	As per RFP. Please refer Corrigendum -III.

		<p>whichever is higher. However, the minimum crust composition shall be as follows:</p> <p>(i) Main Carriageway (minimum crust thickness)</p> <p>Pavement Layers</p> <p>Thickness in mm</p> <p>BC (VG-40) 30</p> <p>DBM (VG-40) 50</p> <p>WMM GSB 250</p> <p>GSB 200</p>		
20.	Annexure-1, (Schedule-B) a) Design Period and strategy.	Flexible pavement for new pavement or for widening and strengthening of the existing pavement shall be designed for a minimum design period of 20 years and minimum CBR of subgrade as 10%. Stage construction shall not be permitted.	Please elaborate physically not possible due to traffic issues.	As per RFP.
21.	Nature of proposed project is HAM.		The project has been proposed under the Hybrid Annuity Mode (HAM); however, the traffic at the site appears to be relatively low, ranging between 1000 to 1200 PCU. Given the current traffic conditions, it raises concerns about the financial viability of the project under the HAM structure for this particular stretch.	As per RFP.
22.			As per site visit various rock fall zones and landslide zones has been identified based on hazard board shown at site some of the chainages has been marked below:-	Concessionaire has to visit the site and take care of all aspects to satisfy the design standards.

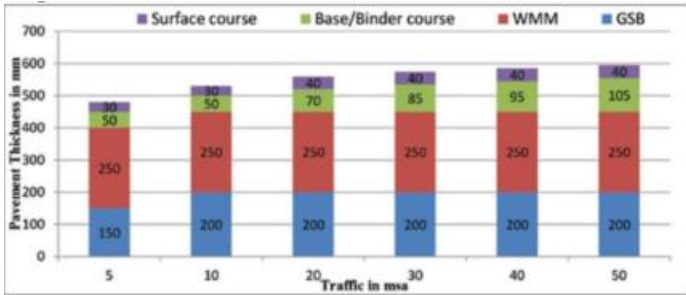
			<ol style="list-style-type: none"> <li>1. 234+550</li> <li>2. 236+950</li> <li>3. 237+100</li> <li>4. 238+100</li> <li>5. 239+200</li> <li>6. 239+600</li> <li>7. 241+500.</li> </ol> <p>As a protective measure special protection is needed at all such locations but in CA there is no mention of such protection. Please bring light on the scenario, what proposal is to be considered for such locations and their treatment proposal while execution.</p>	
23.	As per clause 10.3 of annex-II of contract agreement	ROW provided will be 30m.	As per site visit most of the stretch seems to be reserve forest and no row pillars found at site. Specially land acquisition is a major concern in bypass section since most of the major structures are in that part and if the land availability gets delayed in this part, then it may hamper the project completion significantly, kindly provide the exact status of land acquisition.	Authority shall provide land for construction of project highway on appointed date.
24.	In Technical Schedule B, Clause No. 4 (Geometric Design and General Features) Para (ix)	Length of structures are not matching with the span breakup given in table below.	Which length is to be followed in the point of confusion. Whether total length or span break up.	Span arrangement of Structure to be considered. Suitable approach length to be designed as per Codal provision. Please refers corrigendum-III.
25.			<p>1. Structure Drawings are missing in attached tender documents (GAD Drawing). We request to you please provide the drawings related to the following chainage:</p> <ol style="list-style-type: none"> <li>1. 234+570: 5x30m = 150m</li> <li>2. 235+020: 1x10m = 10m</li> <li>3. 239+870: 2x20m = 40m</li> </ol>	GAD uploaded. Please refer corrigendum-III.

			4. 241+215:1x30mx11x10m = 140m	
26.			It is requested to provide hydrology and Geotech report for the stretch for precise calculation of bid.	Kindly refer Pt.3 and 4 of the Table
27.			As per schedule-B there is no detail of bypass while going through P&P and site visit a 3 km bypass has been proposed. Please bring light on the matter.	Plan & Profile, KMZ file (with Co-Ordinate) are being provided. Please refer corrigendum-III.
28.	General		The authority is requested to kindly provide the complete DPR for the proposals majorly containing but not limited to for better understanding of the project: - (i) Survey and Analysis (ii) Material Investigation Report (iii) Geotechnical Investigation Report	Please refer Corrigendum III
29.	General		The authority is requested to kindly provide the kmz file for understanding the project and surrounding areas.	KMZ file (with Co-Ordinate) are being provided. Please refer corrigendum-III.

30.	Schedule A Clause no. 1; Point no. (iv)	<p>The alignment plans of the Project Highway are specified in Annex-III. In the case of sections where no modification in the existing Alignment of the Project Highway is contemplated, the alignment plan has not been provided. Alignment plans have only been given for sections where the existing alignment is proposed to be upgraded.</p> <p>The proposed profile of the Project Highways shall be followed by the contractor with minimum FRL as indicated in the alignment plan. The Contractor, however, improve/upgrade the Road Profile as indicated in Annex-III based on site/design requirement</p>	<p>1. It is understood that, wherever existing Highway alignment contemplated, then nothing to do by Concessionaire. Kindly clarify for all bidders.</p> <p>2. The project to be executed under HAM mode, the conceptualization and design of Plan &amp; Profile including other proposed facilities are under the scope of Concessionaire. The Concessionaire shall design the project highway according to the prevailing site conditions and as per design requirements specified in schedule D and other technical specifications. Therefore, the minimum FRL clause is inappropriate for the Concessionaire while planning and designing the proposed project highway. So, Concessionaire should be given the flexibility to design the project highway according to the site conditions/topography / design requirements while maintaining the standards and specifications as specified in Schedule D. Therefore, the authority is requested to kindly delete/amend the minimum FRL clause.</p>	Please refer Corrigendum III. The Concessionaire shall design the flexible pavement for main carriageway for design traffic for a minimum design traffic of 20 MSA or actual traffic as per manual whichever is higher for design period of 20 years.
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31.	Schedule A Annex-III "Alignment Plans" Point no. (i) & (ii)	<p>(i) The alignment of the Project Highway is enclosed in alignment plan. Finished road level indicated in the alignment plan shall be followed by the contractor as minimum FRL. In any case, the finished road level of the project highway shall not be less than those indicated in the alignment plan. The contractor shall, however, improve/upgrade the Road profile as indicated in Annex-III based on site/design requirement.</p> <p>(ii) Traffic Signage plan of the Project Highway showing numbers &amp; location of traffic signs is enclosed. The contractor shall, however, improve/upgrade upon the traffic signage plan based on site/design requirement as per the relevant specifications /IRC Codes/Manual.</p>	The authority is requested to kindly provide the Alignment Plan & Traffic Signage Plan for better evaluation of quantities.	Plan & Profile along & Misc drawings have been uploaded along with NIT dated 29.10.2024.
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32.	General	Sanctioned estimates of utilities to be relocated or Utility Survey & Relocation Plan (both underground & overhead).	The authority is requested to kindly provide the details of existing utilities within the PROW and its relocation plan for the project highway for better evaluation of shifting quantities or the authority is requested to kindly provide the sanctioned Estimates of the utilities to be relocated from the concerned departments.	The shifting of utilities shall be carried out by the Concessionaire. The cost of the same shall be borne by the Concessionaire. Therefore, bidder has to visit the site for assessing the required details.
33.	Schedule B Annex-I (i) Width of Carriageway	(a) Two-Lane with paved shoulder shall be undertaken. The paved carriageway shall be 7 m wide along with paved shoulder of 1.5m each on either side causing the paved portion as 10m wide in open country and 8.80m in hilly portion including 11.50m wide at hair pin bend locations in accordance with the typical cross sections drawings as mentioned in the Table below.	The authority is requested to kindly provide the extra widening provisions at curve locations/sharp bends as per IRC codal provisions and attach revised Plan Profile drawing for uniformity to all bidders.	Plan & Profile, TCS are being provided. Please refer corrigendum-III.
34.	Schedule B4. Geometric Design and General Features.	(ii) Design speed The design speed shall be the minimum design speed of 40-60 km per hr for hilly terrain. The Concessionaire shall adopt ruling design speed for designing the respective sections of the Project Highway in conformity with the provisions of the Manual. Minimum	The authority is requested to kindly provide basis of minimum speed of 40kmph on sharp bends like 20m Radius Hair pins locations. Kindly clarify to all bidders for uniformity.	The hairpin bend shall be designed as per Manual.

		design speed shall be adopted only where the site conditions are restrictive and adequate ROW is not available.		
35.	Schedule B 4. Geometric Design and general features.	(ix) Elevated structures shall be provided as per provision of the relevant manual. The requisite particulars are given below: "Viaducts to be constructed with composite Steel girder deck slabs conforming to RDSO standard."	The authority is requested that Concessionaire should be given the flexibility to design type of superstructure and substructure as per the project highway according to the site conditions/topography/design requirements while maintaining Sl. No. Clause of RFP/Technical Schedules Description Query / Clarification Required General Features the standards and specifications as specified in Schedule D. Therefore, the authority is requested to kindly delete/amend this clause for uniformity to all bidders.	As per RFP. Please refer corrigendum-III.
36.	Schedule B 4. Geometric Design and General Features	(xi) Figure 11-Typical cross section for 2 lane carriageways with paved shoulder for Hair Pin bend with Gabion Structure	Total width required more than 30.0m and width of ROW mentioned as 30.0m. Authority is requested to kindly provide amendments in ROW.	Construction has to be carried out within RoW, the Concessionaire has to design the structure accordingly.
37.	Schedule B 7. Pavement Design	a. Design Period and strategy Flexible pavement for new pavement or for widening and strengthening of the existing pavement shall be designed for a minimum design period of 20 years and minimum CBR of subgrade as 10%. Stage	As per IRC:37, minimum crust thickness is as below:  <p>Fig. 12.6 Catalogue for Pavement with Bituminous Surface Course with Granular Base and sub-base - Effective CBR 10% (Plate-6)</p>	Please refer corrigendum-III. The Concessionaire shall design the flexible pavement for main carriageway for design traffic for a minimum design traffic of 20 MSA or actual traffic as per manual whichever is higher for design period of 20 years

		<p>construction shall not be permitted. b. Design Traffic Notwithstanding anything to the contrary contained in this Agreement or the Manual, the Concessionaire shall design the flexible pavement for main carriageway for design traffic for a minimum design traffic of 20 MSA or actual traffic as per manual whichever is higher. However, the minimum crust composition shall be as follows: (i) Main Carriageway (minimum crust thickness).</p> <table border="1" data-bbox="411 808 724 1084"> <thead> <tr> <th>Pavement Layer</th> <th>Thickness (mm)</th> </tr> </thead> <tbody> <tr> <td>BC (VG-40)</td> <td>30</td> </tr> <tr> <td>DBM (VG-40)</td> <td>50</td> </tr> <tr> <td>WMM</td> <td>250</td> </tr> <tr> <td>GSB</td> <td>200</td> </tr> </tbody> </table>	Pavement Layer	Thickness (mm)	BC (VG-40)	30	DBM (VG-40)	50	WMM	250	GSB	200	<p>So, the Authority is requested, kindly clarify the thickness of crust shall be as per Schedule-B or IRC:37 to all bidders for uniformity among all bidders.</p>	
Pavement Layer	Thickness (mm)													
BC (VG-40)	30													
DBM (VG-40)	50													
WMM	250													
GSB	200													
38.	Schedule-B 9. Design of Structures	d. Special vehicle loading shall be considered in Design of structures	The authority is requested to kindly clarify that can SPV move on 20.0m radius sharp curves?	Structures shall be designed as per Relevant IRC codes & Ministry's guidelines.										

39.	Schedule B 9. Design of Structure	Clause no. 9.i (g) and vii List of Structure mentioned in both clauses are different	The authority is requested to kindly clarify to all bidders for uniformity.	Please refer corrigendum-III.
40.	Schedule B Clause no. 8 “Roadside Drainage”	RCC Drain cum footpaths shall conform to the cross- sectional features and other details as given in Appendix I to Schedule- B and shall be provided as under: -	The authority is requested to kindly provide the Drainage Plan & Profile for the project highway for better evaluation of Drainage quantity.	As the responsibility of design lies with Concessionaire, bidder should assess the same provision at site duly keeping the view of the relevant provision of RFP before bidding.
41.	In Schedule-B	One elephant crossing is provisioned at Km 247+020 under clause 9.i.a.g.ii, and One elephant underpass is provisioned at Km 247+310 in clause 9.b.ii. Both structures with same span arrangement of 1 x 30m. However, the GAD at Km 247+020 is provided and the FRL is shown as 188.897 whereas FRL is 197.448 in the P&P. The GAD for Km 247+310 is not provided. However, one structure of 1 x 30m is provisioned in	Kindly clarify whether both elephant crossing at Km 247+020 and elephant underpass at Km 247+310 are in the scope or only one out of these is in the scope. If both are in the scope, the GAD for Km 247+310 is required and the P&P is to be revised to that extent.	GAD are being provided. Please refer corrigendum-III.

		the Plan & Profile at Km 247+310 and the FRL is 188.897.		
42.	Unlined Drain	As per Schedule-B, unlined drain will be provided throughout the project length, except at locations where a lined drain is specified. However, clarification is needed for the unlined drain in the valley portions as nothing is specified in the TCS.	Please clarify how the unlined drain will be implemented in the valley areas.	As the responsibility of design lies with Concessionaire, bidder should assess the same provision at site duly keeping the view of the relevant provision of RFP before bidding.
43.	High Embankment Filling.	Schedule-A indicates a ROW width of 30 meters and the highest embankment filling is 17 meters. The typical	Please provide retaining wall sections for these critical locations to ensure safe construction.	Please refer modified TCS as uploaded with corrigendum III. Also, bidder has to visit the site and take care of all aspects to satisfy the design standards.

		cross-section shows a retaining wall and constructing the same in this 17-meter filling portion at valley area may pose risks in terms of construction.		
44.	High Cutting	In Schedule-A, the ROW is 30 meters, and the highest cutting is 20 meters. The typical cross-section shows a breast wall at the high-cutting portions, we need clarification on the required slope for cutting. The cutting slope will be steeper. Details of the slope protection types should be provided for better understanding and estimation.	Please provide details on the required slope protection for high cutting and specify the height of the breast wall in these areas.	Please refer modified TCS as uploaded with corrigendum III. Also, Concessionaire has to visit the site and take care of all aspects to satisfy the design standards.
45.	High Gradient Structures	According to the GAD provided with the tender document, some of the structures have a steep gradient, with values exceeding 6%. Typically, main structures, including approaches, are designed with flatter gradients. However, for the safety of these structures, it is recommended to limit the gradient to a	Therefore, we kindly request clarification on this matter, and also urge the bidders to minimize the gradient of these structures to ensure safety and feasibility.	GAD is being provided. Please refer corrigendum-III.

		maximum of 3.5%.		
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(S/d)

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