including special span/obligatory/standard/non standard/I-girder by launching girder or any other proposed scheme.

- Review of alignment w.r.t SOD & clearance & suggest modifications/improvements.
- Track supporting structure (Track Plinth).

Incase tenderer intends to use any patented design of any firm/agency, requisite license as per rule may be obtained.

- Substructure and Foundation:
  - Proof checking of structural design and scheme of construction submitted by the Contractor for bearings, sub-structures and foundation of viaduct.
  - All temporary structures, enabling works, construction scheme, lifting plans etc. shall also be proof checked by the DDC.

    Proof checking of:

    - Rail/Structure Interaction reports
    - Track plinth design
    - Stray current and earthing design
    - Design of any special arrangement on parapet such as view cutter, noise barrier, etc.
    - Design of structural arrangement for all traction, signaling & electrical works such as supporting arrangement for cables etc.
  - Catenary pole anchorage design.
  - Approval of all shop drawings such as bearings, expansion joints, steel structures submitted by contractor.

Elevated Station:

- The scope of DDC covers the Proof Checking of all the structural component of station building and its ancillary components including entries, exits, connecting corridors/FOBs etc submitted by the contractor. The proof-checking, which we assume will require counter-calculations/independent calculation to be performed. The adequacy between calculation reports and drawings, and ensure compatibility with contract provisions proposed construction sequence/Method statement.

them virtually before they are constructed. During construction, it enables NMRCs, contractors and suppliers to integrate all components cutting out waste and reducing the risk of errors. In operation it provides users with real-time information about available services and facility managers with accurate assessments of the condition of assets.

All station designs (including architectural design, structure design, E&M services design, interior fit outs, plumbing design etc.) as well as viaduct designs/proof checking shall be done using BIM modelling. DDC shall implement the necessary hardware, software and human resources towards this end. 3D Coordination between all disciplines shall be achieved by incorporating them in a single model. BIM Model LOD and related deliverables shall be as per Clients requirement.

DDC shall be required to produce, update and present to NMRC on a fortnightly basis an integrated 3D BIM model incorporating rail track, topography, architecture, structure, plumbing and all other building services and system wide requirements in design review meetings. These models shall be 3D rendered and shall help in design visualization and clash detection of elements as well as finalization of design. **The DDC shall deploy one BIM expert (minimum experience 5 years) in addition to the team specified in organization structure and who shall be housed in either NMRC office at NOIDA. Decision of NMRC in this regard shall be final & binding**.

In addition, DDC shall also provide following individual models: -

1. Station Architecture Modelling
2. Station Mechanical Modelling
3. Station Electrical Modelling
4. Station Plumbing Modelling
5. Station HVAC Modelling
6. Rail Track Modelling/Viaduct modelling
7. Terrain modelling
8. Clash Detection
9. Quantity takeoff from BIM model
10. Visualization and Animated Walkthroughs

Final coordinated GFC drawings of all disciplines shall only be generated from the BIM model.

Detailed cost estimates shall also be prepared only on the basis of approved 3D BIM model.

financial soundness and work experience shall not be considered for evaluation of JV/Consortium. Partners having 26% or more percentage participation shall be termed as substantial partner.

c. In case of JV/Consortium, change in constitution or percentage participation shall not be permitted at any stage after their submission of application otherwise the applicant shall be treated as non-responsive.

Minimum Eligibility Criteria:

A. Work Experience: The tenderers will be qualified only if they have completed work(s) during last seven years ending **31.12.2019** as given below:

At least one work of DDC (Detail Design Consultant) of Viaduct (of at **least 7.7 km length) and Stations (4 nos.)** for Metro Rail / Light Rail / Railway of value **INR 2.20 crores** or more.

If the above work of **INR 2.20 crores** has been done by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done works equal to **INR 2.20 crores** outside the country of the foreign partner.

OR

Two works of DDC (Detail Design Consultant) of Viaduct (of total length at least **7.7 km) and total 4 nos. of Stations** for Metro Rail / Light Rail / Railway each of value **INR 1.38 crores** or more.

If the above two works each of **INR 1.38 crores** has been done by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done works equal to **INR 1.38 crores** outside the country of the foreign partner.

OR

Three works of DDC (Detail Design Consultant) of Viaduct (of total length at least **7.7 km) and total 4 nos. of Stations** for Metro Rail / Light Rail / Railway each of value **INR 1.10 crores** or more.

If the above three works each of **INR 1.10 crores** has been done by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done works equal to **INR 1.10 crores** outside the country of the foreign partner.

AND

Each substantial partner should have completed at least one DDC work of Viaduct and / or Station of value **INR 0.55** crores or more.

Notes:

To substantiate experience the tenderer shall submit technical proposal with following details:

NOTICE INVITING TENDER

NOIDA METRO RAIL CORPORATION LIMITED

Name of Work:

Noida Metro Rail Corporation (NMRC) Ltd. invites Open e-Tenders from eligible applicants, who fulfil qualification criteria as stipulated in Clause 1.1.3 of NIT, for the work, "**Contract NGNDDC: Engagement of Detailed Design Consultant (DDC) for Civil, Architectural and E & M Works of Noida-Greater Noida Metro Corridor from Sector – 51 Noida to Greater Noida Sector – 2 , consisting of 9.605 Km Viaduct including 5 Elevated Stations".**

Key details :

Approximate cost of work	INR 2.76 crores.(excluding GST)
Tender Security amount	INR 2.76 lacs.
Completion period of the Work	24 months
Uploading of Bid	22.01.2020
Cost of Tender documents	INR 23600/- (inclusive of 18% GST) Non-Refundable (RTGS)
Pre-bid Meeting	10.02.2020, 1100 hrs (IST)
Last Date of Seeking Clarifications	11.02.2020
Last date of issuing addendum	**19.02.2020**
Date & time of Submission of Tender	**04.03.2020, 1700 hrs (IST)**
Date & time of opening of Tender	**5.03.2020, 1100 hrs (IST)**
• Authority to purchase tender document, seeking clarifications and submission of completed tender document • Place for pre-bid meeting	GM (Technical) Noida Metro Rail Corporation, Block-III, 3rd Floor, Ganga Shopping Complex, Sector-29, Noida 201301 Email: nmrcnoida@gmail.com Website: www.nmrcnoida.com
• Detail of Bank account of NMRC for tender security & tender fee	**State Bank of India (04077) – Sector 18, Noida** **Gautam Budh Nagar, Uttar Pradesh -201301** **IFSC Code: SBIN0004077** **A/c No. 37707840592** **Noida Metro Rail Corporation Ltd.**

APPENDIX-1

[REQUIREMENTS UNDER CONDITIONS OF CONTRACT]

S.No.	DESCRIPTION	REF TO CLAUSE NO.	REQUIREMENT
i	Tender security	Clause 1.1.2 of NIT & 4.1 & 4.2 of ITT	
ii	Amount of Performance Guarantee	clause 8.0 of ITT & 3.2 of GCC	**10%** of the Contract Price in types and proportions of currencies in which the contract price is payable. In the event of variations during the execution of the contract which result in payments to the Consultant over and above the contract price, the Performance Guarantee shall be suitably adjusted.
iii	'Date for commencement' of the Works	Clause 3 of the SCC	Date of issue of +Notice of Award by NMRC
iv	'Time for completion' of the work from the date of commencement of the work	Clause 3 of the SCC	The Date of Completion of the services shall be as given in 'Progress Schedule Column' of Payment Schedule (Part - III, Financial Package) of Volume -3 of the contract. The whole of the scope of work has to be completed within **24 months**.
v	Liquidated Damages	Clause 16 of GCC & Clause 4 of the SCC	For any delay in any of the activities to be completed as given in Progress Schedule of volume 2 beyond the key date given thereof shall attract a Liquidated Damage per week or part thereof at the rate of 0.35% of the total amount (subject to correction) payable for that activity. The maximum limit of Liquidated Damages shall be 10% of the Fixed Lump Sum Price of the Contract.
vi	'Duration of Liability' for the whole of the Works	Clause 12 of GCC & Clause 2 of SCC	**24 months** after the date of issue of Completion Certificate for the Whole of the Works.
vii	Amount of Professional Indemnity Insurance (PII).	Clause 36 of GCC	The DDC shall effect and maintain professional Indemnity Insurance (PII) with AOA **(any one accident) limit in INR equal to the contract value** in respect to all works covered under scope of work to be carried out by, or on behalf of them with AOY (any one year) limit of **two incidents in a year**. PII Policy shall be obtained within four weeks from 'date of commencement' and before any payment is released to DDC. The insurance which shall ensure the DDC's liability by reason of professional negligence and errors in respect of all works covered under scope of work, shall be valid from the date of commencement of works, until two years after commissioning of work. It is a deemed accepted condition of contract that the