

20



REQUIST FOR PROPOSAL (RFP)

FOR

**SELECTION OF AGENCY/CONSULTANT FOR CARRYING OUT FEASIBILITY STUDY,
PREPARATION OF DPR, BID PROCESS MANAGEMENT AND DESIGN AND SUPERVISION
WORK FOR DEVELOPMENT OF SKYWALK IN JHARKHAND**

RFP No. :- 839

Dated :- 20/10/2022

Directorate of Tourism

MDI Building, 2nd floor, HEC Campus, Dhurwa, Ranchi -
834 004E-mail : dirjharkhandtourism@gmail.com
Website: www.tourism.jharkhand.gov.in

INDEX

INDEX.....	2
NOTICE INVITING TENDER(NIT).....	3
1. Part-1 Introduction.....	4
2. Part-2 Instructions to bidder.....	7
3. Documents.....	11
4. Preparation and Submission of Proposals.....	13
5. Proposal Evaluation Process.....	17
6. Appointment of Agency.....	19
7. Part 3-Criteria for Evaluation.....	21
8. Part 4- Fraud and Corrupt Practices.....	22
9. Part 5- Pre-Bid Query Format.....	24
10. Part 6 -Miscellaneous.....	24
11. Part 7 – Schedules (Schedule 1- Terms of References).....	25
12. Deliverables and Timelines.....	34
13. Payment Terms.....	35-36
14. Schedule-2: Format for Agreement.....	37-47
15. Annexure A: Bank guarantee Format.....	44
16. Appendix 1: Technical Proposal (Form 1 to Form 9).....	49-64
17. Appendix 2: Financial Proposal (Form 1 to Form 2).....	66-67

178



GOVERNMENT OF JHARKHAND
DEPARTMENT OF TOURISM, ART CULTURE, SPORTS & YOUTH AFFAIRS
(DIRECTORATE OF TOURISM)
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NOTICE INVITING TENDER

SELECTION OF AGENCY/CONSULTANT FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DPR, BID PROCESS MANAGEMENT AND DESIGN AND SUPERVISION WORK FOR DEVELOPMENT OF SKYWALK IN JHARKHAND

Ref. No. :-

Dated :

Directorate of Tourism, Government of Jharkhand invites proposals from interested technical consultant agency for conducting carrying out feasibility study, preparation of DPR, Bid process management and design and supervision work for development of Skywalk in Patratu Valley, Jonha, Hundru & Dashum Falls in Ranchi District and Netarhat area in Latehar district of Jharkhand as per the details given in Bidding Documents. A brief description of the Project may be seen in the Project Terms of Reference of this Bidding Document.

The Bidding Documents may be downloaded from the website www.tourism.jharkhand.gov.in/

The pre-Bid meeting for the Project shall be organized at the Directorate of Tourism through online mode at 11:30 A.M. on 02/11/2022. The last date for submission of proposal shall be 30/11/2022 up to 1500 hours at the office of Directorate of Tourism at the above-mentioned address. All notifications, changes and amendments to the Bidding Document will be posted only on the website www.tourism.jharkhand.gov.in and shall not be published in the newspapers.

Directorate of Tourism shall have the right to reject one or all proposals and also cancel the bid process at any stage without assigning any reason whatsoever.

In case of any queries/clarifications on the project/ documents please contact Directorate of Tourism.

Sd/-
Director,
Tourism.

177

I. Part – I – Introduction

I.1. Background:

Directorate of Tourism (DoT), Government of Jharkhand seeks to appoint consultant for selection of Agency for Feasibility study, DPR, Bid Process Management, and Construction Supervision for Proposed Skywalk Project, in

1. Patratu Valley, Ranchi
2. Hundru, Jonha and Dasham falls, Ranchi
3. Netarhat, Latehar

(The location may be changed or some new place by the directorate, prior information will be intimated to the selected Agency)

I.2. Project Background

Directorate of Tourism has been mandated as nodal agency for Tourism and its related Infrastructure Development in the state of Jharkhand. In-continuation of the scope, Directorate of Tourism is in process of developing and modernization of an Aerial Skywalk facility/Project at Patratu Valley, Jonha, Hundru & Dasham Fall in Ranchi District and Netarhat area in Latehar district of Jharkhand. The project intends to promote and enhance the participation of local communities as stakeholders in the development of tourist locations, products and services through capacity building, leading to the empowerment and upliftment of the socio-economic status of the communities.

I.2.1. Objective

The Directorate of Tourism, Government of Jharkhand ("DoT, GoJ" or "Authority") is engaged in the development of tourism infrastructure in the State of Jharkhand. The key objective of the tender is to appoint agency for carrying out feasibility study, DPR, bid process management and design and supervision work for development of Skywalk in Patratu Valley, Jonha, Hundru & Dasham Fall in Ranchi District and Netarhat area in Latehar district of Jharkhand.

The following activities are proposed -

- a) Undertake Feasibility study for construction of Skywalk at above sites as mentioned above as per the BIS standards, as per all relevant rules and acts, and following all government guidelines regarding safety standards.
- b) Development of Detailed Project Reports as per the BIS standards, as per all relevant rules and acts, and following all government guidelines.
- c) Assistance in development of Bid Documents and Bid Process Management
- d) To ensure high standards of quality assurance in the execution of work and completion of work within stipulated period as per BIS standard.
- e) Comprehensive supervision of project implementation activities carried out by the Contractor to

ensure complete compliance with the drawings, technical specifications and various stipulations contained in the Contract Documents.

- f) Efficient construction supervision by personnel who are experienced in modern methods of construction supervision and contract management.
- g) Act independently and on behalf of the Directorate of Tourism /such agency as deemed fit, to review all activities associated with Construction to ensure compliance of requirements of Contract Agreement in order to have a sound Project.
- h) Report to DoT on the financial and technical aspects of the project.
- i) Assist the DoT in arriving at an amicable settlement of dispute.
- j) The Secondary objective is to assist the DoT for effective project monitoring by providing project management and monitoring support.

1.2.2 A brief description of the assignment and its objectives are given in the Appendix-1, "Terms of Reference".

1.2.3. The Directorate of Tourism, Jharkhand Invites Proposals (the "Proposals") for selection of Technical Consultant (the "Consultant") to prepare Feasibility Report and bid documents. The consultant should have expertise in carrying out similar kind of job. Consultants are hereby invited to submit proposal in the manner as prescribed in the RFP document.

1.2.4 The Consultants may apply either as a sole firm or forming Joint Venture with other consultants. In case of Joint Venture, the maximum number of Joint Venture partners is limited to three including Associate partner, if any (i.e. Case 1: one lead + JV 1 +JV 2 or Case 2: one Lead + one JV partner + one Associate partner). The Applicant whether a sole applicant or joint venture may include an Associate company also.

1.2.4 To obtain first-hand information on the assignment and on the local conditions, the consultants are encouraged to pay a visit to the client before submitting a proposal and attend a pre-proposal conference. They must fully inform themselves of local and site conditions and take them into account in preparing the proposal.

1.2.5 Please note that

- (i) costs of preparing the proposal and of negotiating the contract, including visits to the Client, etc., are not reimbursable as a direct cost of the assignment; and
- (ii) Client is not bound to accept any of the proposals submitted and reserve the right to reject any or all proposals without assigning any reason.

The proposals must be properly signed as detailed below:

1.2.6.

- (i) by the proprietor in case of a proprietary firm.
- (ii) by the partner holding the Power of Attorney in case of a firm in partnership (A certified copy of the Power of Attorney on a stamp paper of Rs.100 and duly notarized shall accompany the Proposal).



(iii) by a duly authorized person holding the Power of Attorney in case of a Limited Company or incorporation (A certified copy of the Power of Attorney on a stamp paper of Rs. 100 and duly notarized shall accompany the proposal).

(iv) by the authorized representative in case of Joint Venture.

1.2.7. In case a Joint Venture/Association of firms, the proposal shall be accompanied by a certified copy of legally binding Memorandum of Understanding (MOU) on a stamp paper of Rs.100, signed by all firms to the joint venture confirming the following there in:

- i. Date and place of signing
- ii. Purpose of Joint Venture /Association (must include the details of contract works for which the joint venture has been invited to bid)
- iii. A clear and definite description of the proposed administrative arrangements for the management and execution of the assignment. Name of Lead Firm and other partner of JV should be clearly defined in the MOU.
- iv. Delineation of duties/ responsibilities and scope of work to be undertaken by each firm along with resources committed by each partner of the JV/Association for the proposed services.
- v. An undertaking that the JV firms are jointly and severally liable to the Employer for the performance of the services.
- vi. The authorized representative of the joint venture/Association shall give a Letter of Association, MOU as in (i) to (vi) above except (v), letter of Authorization, copies of GPA/SPA for the person signing the documents and a certificate of incorporation.

1.2.8. In case of Joint venture, one of the firms which preferably have relatively higher experience, will act as the lead firm representing the Joint Venture. The duties, responsibilities and powers of such lead firm shall be specifically included in the MOU /agreement. It is expected that the lead partner would be authorized to incur liabilities and to receive instructions and payments for and on behalf of the Joint Venture. Payment to be made to the JV can also be made to the account of the JV. For a JV to be eligible for bidding, the experience of lead partner and other partner should be a syndicated in data sheet.

1.2.9. A firm can bid for a project either as a sole consultant or in the form of joint venture with other consultant or in association with any other consultant. However, alternative proposals i.e. one as sole or in JV with other consultant and another in association / JV with any other consultant will be summarily rejected. In such cases, all the involved proposals shall be rejected.

1.2.10 Pre-proposal conference shall be held on the date, time and venue given in Data Sheet.

1.3 Bid Security

1.3.1 The Bidder shall furnish as part of its BID, a BID Security referred to the form of a bank guarantee issued by nationalized bank, or a Scheduled Bank in India in favour of the Authority in the format at Appendix-II (the "Bank Guarantee") and having a validity period of not less than 180 (one hundred eighty) days from the BID Due Date, inclusive of a claim period of 60 (sixty) days, and may be extended as may be mutually agreed between the Authority and the Bidder from time to time. For the avoidance of doubt, Scheduled Bank shall mean a bank as defined under Section 2(e) of the Reserve Bank of India Act, 1934. A scanned copy of the Bank Guarantee shall be uploaded on e-procurement portal while applying to the

tender.

1.3.2 Any Bid not accompanied by the Bid Security shall be summarily rejected by the Authority as non-responsive.

1.3.3 The Applicant, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to the Directorate of Tourism, GoJ any other right or remedy here under or in law or otherwise, the Applicant shall be debarred from participating in the future projects of the Department of Tourism, GoJ in the following situations:-

- (a) If an Applicant withdraws its Proposal during the period of its validity as specified in this RFP and as extended by the Applicant from time to time.
- (b) In the case of a Selected Applicant, if the Applicant fails to sign the Agreement.

Certificate regarding Compliance with Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs) as per Appendix VII.

I. "Bidder" (including the terms "tendered", or "service provider" in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

II. "Bidder" means :

- a. An entity incorporated, established or registered in such a country, or
- b. A subsidiary of an entity incorporated, established or registered in such a country; or
- c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d. An Indian (or other) agent of such an entity; or
- e. A natural person who is a citizen of such a country; or
- f. A Consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

III. Beneficial owner for the purpose of (III) above means:

In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more judicial person, has a controlling ownership interest or who exercises control through other means.

Explanation:

- a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company.
- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholding agreements or voting agreements;
- c. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person; has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- d. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the



- 173
- c. property or capital or profits of such association or body of individual;
 - d. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 - e. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

IV. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

V. The Selected Bidder/ Concessionaire shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contract or is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in Clause III above.

Certificate regarding Compliance:

A certificate shall be required to be submitted by the bidders in the format prescribed at Appendix-VII.

It may be noted that in case the above certification is found to be false, this would be a ground for immediate rejection of Bid/termination and further legal action in accordance with law.

2. Documents

- 2.1 To enable you to prepare a proposal, please find and use the attached documents listed in the Data Sheet.
- 2.2 Consultants requiring a clarification of the documents must notify the Client, in writing, by 01.11.2022 at 1400 Hrs. Any request for clarification in writing or by e-mail must be sent to the Client's address indicated in the Data Sheet. The Client will upload replies to pre-bid queries on its website.
- 2.3 At any time before the submission of proposals, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by a Consulting firm, modify the Documents by amendment or corrigendum. The amendment will be uploaded on Directorate of Tourism, GoI of website. The Client may at its discretion extend the deadline for the submission of proposals and the same shall also be uploaded on Directorate of Tourism, GoI website.

3. Schedule of Bidding Process

The DoT would endeavor to adhere to the following schedule:

Sl No	Description	Date
1	Pre-Bid Queries Submission (Through E-mail)	01.11.2022 by 15:00 Hours
2	Pre-Bid Conference(Online)	02.11.2022 by 15:00 Hours at DoT Office
3	Bid Due Date	30.11.2022 by 14:00 Hours

4	Technical Evaluation Presentation & Financial Bid opening Conference	02.11.2023 at 11:30 AM Venue Details Director Directorate of Tourism Government of Jharkhand MDF Building, 2nd Floor, IITC Campus, Dhruva, Ranchi, Jharkhand TEL NO: +91 651 240093
5	Bid Validity Period	90 days from Bid Due Date
6	Tender/Bid Document Fee	Rs. 5,000/- (Rupees Five Thousand Only) inclusive of GST (Not Refundable)
7	Earnest Money Deposit	Rs. 1,00,000/- (Rupees one Lakh Only)

4. Preparation of Proposal

The proposal must be prepared in three parts viz.

- Part1: Proof of eligibility
- Part2: Technical Proposal
- Part3: Financial Proposal

4.1 Document in support of proof of eligibility

4.1.1 The minimum essential requirement in respect of eligibility has been indicated in the Data Sheet. The proposal found deficient in any respect of these requirements will not be considered for further evaluation. The following documents must be furnished in support of proof of eligibility as per Formats given in Appendix-II:

- (i) **Forwarding letter for Proof of Eligibility in the Form-E1.**
- (ii) **Firm's relevant experience and performance for the last 10 years:** Project sheets in support of relevant experience as per Form-E2/T3 supported by the experience certificates from clients in support of experience as specified in data sheet for the project size preferably in terrain of similar nature as that of proposed project shall be submitted. Certificate should indicate clearly the firms Design /DPR experience, in for Passenger cable propelled transit system in the last 10 years, etc. If the experience certificate from client is in any other language than English, then English translation of experience certificate by authorized translator shall be submitted along with original certificates. Scope of services rendered by the firm should be clearly indicated in the certificate obtained from the client. The information given in Form E2/T3 shall also be considered as part of Technical Proposal and shall be evaluated accordingly. The Consultants are therefore advised to see carefully the evaluation criteria for Technical Proposal and submit the Project Sheets accordingly.
- (iii) **Firm's turnover for the last 5 years:** A tabular statement as in Form E3 showing the turnover of the applicant firm(s) for the last five years beginning with the last financial year certified by the Chartered Account along with certified copies of the audit reports shall be submitted in support of the turn over shall

be submitted.

(iv) **Document Fee** : The fee for the document amounting to Rs.5,000 (Rupees Five Thousand only)

through Bank Draft/ Demand Draft in favour of Director, Directorate of Tourism, Jharkhand

(v) **Bid Security**: BID Security of Rs. 1.00 Lakh (Rupees One Lakh only) in the form of Bank Draft/ Bank Guarantee as per Form E4 from a Scheduled Bank (to be submitted physically as well) in favour of Director, Directorate of Tourism, Jharkhand.

(vi) **Power of Attorney** on a stamp paper of Rs.100 and duly notarized authorizing to submit the proposal.

(vii) In case of Joint Venture/ Association of firms, the proposal shall be accompanied by a certified copy of legally binding Memorandum of Understanding (MOU) on a stamp paper of Rs.100, signed by all firms to the joint venture/ Association as detailed at para 1.8.2 above.

4.1.2 The minimum essential requirement in respect of eligibility has been indicated in the data sheet. The proposal found deficient in any respect of these requirements will not be considered for further evaluation.

4.2 Technical Proposal

4.2.1 You are expected to examine all terms and instructions included in the Documents. Failure to provide all requested information will be at your own risk and may result in rejection of your proposal.

4.2.2 During preparation of the technical proposal, you must give particular attention to the following:

Total assignment period is as indicated in the enclosed TOR. You shall make your own assessment of support personnel both technical and administrative to undertake the assignment. Additional support and administrative staff need to be provided for timely completion of the project within the total estimated cost. It is stressed that the time period for the assignment indicated in the TOR should be strictly adhered to.

4.2.3 The technical proposal shall be submitted strictly in the Formats given in Appendix- III and shall comprise of following documents:

- i. Forwarding letter for technical proposal duly signed by the authorized person on behalf of the bidder, as in Form-T-1
- ii. Details of projects for which Technical and Financial Proposals have been submitted by a consultant as in Form-T-2
- iii. Firm's references - Relevant Services carried out in the last seven years as per Form- E2/T-3. This information submitted as part of Proof of Eligibility shall be evaluated and need not be submitted again as a part of the technical proposal.
- iv. The composition of the proposed Team and Task Assignment to individual personnel: Maximum three pages (Form-T-4).
- v. Proposed methodology for the execution of the services illustrated with bar charts of activities, including any change proposed in the methodology of services indicated in the TOR, and procedure for quality assurance. The proposed methodology should be accompanied by the consultant's initial view, key challenges they foresee and potential solutions: limited to six A4 size pages in 1.5 space and 12 font including photographs, (Form-T-5)
- vi. CVs of following 5(five) Key Personnel may be submitted only as per Form-T-8

'Team Leader', 'Fire and Safety Expert', 'Environment cum Social Expert', 'Transportation Planner' and 'Real

Estate cum Financial Expert'

Note: For remaining sub professional staff, the CVs need to be submitted for approval prior to signing of contract.

- vii. Certificate regarding Compliance with Restrictions under Rule 144(xi) of the General Financial Rules (GFRs) as per Appendix VII.

4.2.4 CVs of Key Persons:

- (i) The minimum requirements of Qualification and Experience of all key personnel are listed in Enclosure-I of TOR. CV of a person who does not meet the minimum experience requirement as given at Enclosure-I of TOR shall be evaluated and the marks obtained shall be taken into consideration during evaluation of Technical Proposal (except Team leader). However, if a firm with such key personnel is declared the "most preferred bidder", such key personnel should be replaced before signing of contract with a person meeting requirement of Qualification and Experience as given at enclosure-I of TOR and whose CV secures 75% marks and above. If proposed key personnel does not possess the minimum (essential) educational qualification as given at enclosure-I of TOR, zero marks shall be assigned to such CV and such CV shall not be evaluated further.
- ii. Team Leader, Fire and Safety Expert, Environment cum Social Expert, Transportation Planner and Real Estate cum Financial Expert should be available from beginning of the project.
- iii. The availability of key personnel must be ensured for the duration of project as per proposed work programme. If a firm claims that key personnel proposed by them is a permanent employee of the firm (the personnel should have worked in the firm continuously for a period of at least 1 year), a certificate to the effect be furnished by the firm.
- iv. The age limit for key personnel is 60 years as on the date of bid submission. The proof of age and qualification of the key personnel must be furnished in the technical proposal.
- v. An undertaking from the key personnel must be furnished that he/she will be available for entire duration of the project assignment and will not engage himself/ herself in any other assignment during the period of his/her assignment on the project. After the award of work, in case of non-availability of key personnel in spite of his/her declaration, he/she shall be debarred for a period of two years for all projects of Department of Tourism, GoJ.
- vi. Age limit for supporting staff to be deployed on project is 60 years as on the date of bid submission.
- vii. A good working knowledge of Hindi & English Language is essential for key professional staff on this assignment. Study reports must be in English Language.
- viii. Photo, contact address and phone/mobile number of key personnel should be furnished in the CV.
- ix. Availability of few key personnel engaged for preparation of Feasibility Report for the envisaged project may be ensured during first 3 to 4 months after start of the civil work at site during the period of survey and review of Feasibility Report by the Supervision consultant/Authority Engineer. For this purpose, payment shall be made as per actual site deployment of the key personnel at the man month rates quoted by the firm in their financial proposal.



- 69
5. In case a firm is proposing key personnel from educational/ research institutions, a 'No Objection Certificate' from the concerned institution should be enclosed with the CV of the proposed key personnel committing his services for the instant project.

4.2.5 The technical proposal must not include any financial information.

4.3 Financial Proposal

4.3.1 The Financial proposal should include the costs associated with the assignment. These shall normally cover: remuneration for staff (foreign and local, in the field, office etc.), accommodation, transportation, equipment, printing of documents, surveys, geotechnical investigations etc. This cost should be broken down into foreign and local costs. Your financial proposal should be prepared strictly as per the **Appendix - IV**. Financial proposal shall be submitted strictly in the excel sheet submitted along with the bid. Your financial proposal should clearly indicate the amount asked for by you without any assumptions of conditions attached to such amounts. Conditional offer or the proposal not furnished in the format attached in **Appendix-IV** shall be considered non-responsive and is liable to be rejected.

4.3.2 The financial proposal shall take into account all types of the tax liabilities and cost of insurance specified in the Data Sheet.

4.3.3 **Costs shall be expressed in Indian Rupees in case of domestic as well as for foreign Consultant.** The payments shall be made in Indian Rupees by the National Highways Logistics Management Limited and the Consultant themselves would be required to obtain foreign currency to the extent quoted and accepted by National Highways Logistics Management Limited. Rate for foreign exchange for payment shall be at the rate established by RBI applicable at the time of making each payment instalment on items involving actual transaction in foreign currency. No compensation done to fluctuation of currency exchange rate shall be made.


5. Submission of Proposals

5.1 The Applicants shall submit the proposal (Proof of Eligibility and Technical Proposal) comprising the documents as mentioned under clause 3.1.1 and 3.2.3 respectively to meet the requirements of 'Proof of Eligibility' and 'Technical Proposal' online only. Financial proposal is only to be submitted online and no hard copy of the financial proposal should be submitted.

The document listed in para 3.1.1 (iv), (vi), (vii), (viii) shall be submitted in original by the H-bidder to the Authority before issue of LOA.

5.2 The proposal must be prepared in indelible ink and must be signed by the authorized representative of the consultants. The letter of authorization must be confirmed by a written power of attorney accompanying the proposals. All pages of the Proof of Eligibility and Technical Proposal must be initialed by the person or persons signing the proposal.

5.3 The proposal must contain no justifications or overwriting except as necessary to correct errors made by the Consultants themselves, in which cases such corrections must be initialed by the person or persons signing the proposal.

5.4 The proposal must be valid for the number of days stated in the Data Sheet  until the closing date of submission of proposal.

108

6. Proposal Evaluation

6.1 Stage I-Proof of Eligibility

A three-stage procedure will be adopted in evaluating the proposal. In the first stage-Proof of Eligibility, it will be examined as to whether:

- i) The proposal is accompanied by Document fee.
- ii) The Proposal is accompanied by Bid Security.
- iii) The firms(s) have required experience.
- iv) The firms(s) have required turnover.
- v) The documents are properly signed by the authorized signatories and whether the proposal contains proper PDA as mentioned at para 1.8.1 above
- vi) The proposals have been received on or before the deadline of submission.
- vii) In case a Joint Venture/ Association of firms, the proposal shall be accompanied by a certified copy of legally binding Memorandum of Understanding (MOU) on a stamp paper of Rs.100, signed by all firms to the joint venture/Association as detailed atpara 1.8.2 above

In case answers to any of the above items is "No" the bid shall be declared as non- responsive and shall not be evaluated further.

A Consultant satisfying the minimum Eligibility Criteria as mentioned in the Data sheet and who had submitted the above-mentioned documents shall be declared "pass" in Proof of Eligibility and the Technical Proposals of only those consultants shall be opened and evaluated further.

6.2 Stage II- Technical evaluation

In the second stage the technical proposal shall be evaluated as per the detailed evaluation criteria given in Data Sheet.

6.3 Stage III – Evaluation of Financial Proposal

6.3.1 The evaluation committee will determine whether the financial proposals are complete (i.e. whether they have included cost of all items of the corresponding proposals; if not, then their cost will be considered as NIL but the consultant shall however be required to carry out such obligations without any compensation. In case, if client feels that the work cannot be carried out within overall cost of financial proposal, the proposal can be rejected. The client shall correct any computational errors and correct prices in various currencies to the single currency specified in Data Sheet. The evaluation shall exclude those taxes, duties, fees, levies and other charges imposed under the applicable law & applied to foreign components/ resident consultants.

6.3.2 The procedure as mentioned at Clauses 5.3.4, 5.4 and, 5.5 as mentioned below shall be followed for determining the "most preferred bidder (H-1 bidder)".

227

6.3.3 The lowest financial proposal (FM) will be given a financial score (SF) of 100 points. The financial scores of other proposals will be computed as follows:

$$SF=100 \times FM/F$$

(SF=Financial Score, FM=Amount of lowest bid, F=Amount of financial proposal converted in the common currency)

6.4 Combined evaluation of Technical and Financial Proposals.

Proposals will finally be ranked according to their combined technical (ST) and Financial (SF) scores using the weights indicated in the Data Sheet:

$$S=ST \times T + SF \times F$$

Where,

S=Combined Score, ST=Technical Score out of 100

SF= Financial Score out of 100

T and F are values of weight age for technical and financial proposals respectively as given in the Data Sheet.

6.5 Most Preferred Bidder (H-1).

A Consultant with having the maximum combined score(S) shall be declared as the **most preferred bidder** (H-1).

Subject to the provisions of Clause 5.4, the Bidder whose BID is adjudged as responsive. The bidder shall be declared as the selected Bidder (the "Selected Bidder") as procedure defined as under:

- (i) Among all the responsive bidder, the most preferred bidder will be termed as H-1. If H-1 is 'Class-I Local Bidder', the contract will be awarded to H-1.
- (ii) If H-1 is not 'Class-I local bidder', then the most preferred bidder among the 'Class-I local bidder'(having Highest combined Technical and Financial Score as per RFP among 'Class-I local bidder'), will be invited to match H-1 Financial quote subject to Class-I local bidder's quoted price falling within the margin of purchase preference, and the contract will be awarded to such preferred 'Class-I local bidder' subject to 'Class-I local bidder' matching the financial quote of H-1 or his quote whichever is lower.
- (iii) In case such preferred eligible 'Class-I local bidder' fails to match the H-1 price, the 'Class-I local bidder' with next Highest combined score (having next Highest combined Technical and Financial Score as per RFP among Class-I local bidders), within the margin of purchase preference shall be invited to match the H-1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local bidder' within the margin of purchase preference matches the H-1 price, the contract shall be awarded to the H-1 bidder.

'Margin of purchase preference' means the maximum extent to which the price quoted by 'Class-I local bidder' may be above/below the H-1 for the purpose of purchase preference. **The margin of purchase preference shall be 20%.**

166

7. Performance Security

- 7.1 (i) The consultant will furnish within 15 days of the issue of Letter of Acceptance (LOA), an unconditional Bank Guarantee equivalent to 5% of the total contract value from a Nationalized Bank,
- 7.2 In the event the Consultant fails to provide the security within 15 days of date of LOA, it may seek extension of time for a period of 15 (Fifteen) days on payment of damages for such extended period in a sum of calculated at the rate of 0.05% (Zero Point Zero Five Percent) of the Bid price for each day until the performance security is provided. For the avoidance of doubt the agreement shall be deemed to be terminated on expiry of additional 15 days' time period.
- 7.3 Notwithstanding anything to the contrary contained in this Agreement, the Parties agree that in the event of failure of the Consultant to provide the Performance Security in accordance with the provisions of Clause 6.1 and 6.2 within the time specified there in or such extended period as may be provided by the Authority, in accordance with the provisions of Clause 6.3, all rights, privileges, claim and entitlements of the Consultant under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Consultant and the LoA shall be deemed to have been withdrawn by mutual agreement of the Parties. Authority may take action to debar such firms for future projects for a period of 1-2 year.

8. Penalty

The consultant will indemnify for any direct loss or damage that accrue due to deficiency in services in carrying out the Feasibility Study. Penalty shall be imposed on the consultants for poor performance/ deficiency in service as expected from the consultant and as stated in General Conditions of Contract.

9. Award of Contract

The Client shall issue letter of award to selected Consultant and ask the Consultant to provide Performance Security as in Para 6 above. If the selected Consultant fail to provide performance security within the prescribed time or the Consultant fail to sign the Contract Agreement within prescribed time, the Client may invite the 2nd highest ranking bidder Consultant and follow the procedure outlined in Para 8 and 9 of this Letter of Invitation.

10. Signing of Contract Agreement

After having received the performance security and verified it, the Client shall invite the selected bidder for signing of Contract Agreement on a date and time convenient to both parties within 13 days of receipt of valid Performance Security.

11. Bid process Information

The Client shall keep the bidders informed during the entire bidding process and shall host the following information on its website:

- i) Notice Inviting Tender (NIT)
- ii) Request For Proposal (RFP)
- iii) Replies to pre-bid queries, if any
- iv) Amendments/ corrigendum to RFP

165

- v) List of bidders who submitted the bids upto the deadline of submission
- vi) List of bidders who didnot pass the eligibility requirements, stating the broad deficiencies
- vii) List of bidders who didnot pass the Technical Evaluation stating the reasons.
- viii) List of bidders along with the technical score, who qualified for opening the financial bid
- ix) Final Score of qualified bidders
- ix) Name of the bidders who is awarded the Contract

12. Bidding Practices

It is the National Highways Logistics Management Limited policy that the consultants observe the highest standard of ethics during the selection and execution of such contracts. In pursuance of this policy, the National Highways Logistics Management Limited:

- (a) Define, for the purpose of this paragraph, the terms set forth below as follows:
 - (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution;
 - (ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;
 - (iii) "collusive practices" means a scheme or arrangement between two or more consultants with or without the knowledge of the Client, designed to establish prices at artificial, non-competitive levels;
 - (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.
- (b) will reject a proposal for award if it determines that the Consultant recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question;
- (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract; and
- (d) will have the right to require that a provision be included requiring consultant stagger it the Employer to inspect their accounts and records relating to the performance of the contract and to have the Mandate by authorized representatives of Employer."
- (e)

13. Confirmation

We would appreciate you informing us by facsimile/e-mail whether or not you will submit a proposal.

Further break-up of each criteria has been Detailed out below:

A. Firm's relevant experience in last 10 years (40)

Clause	Evaluation criteria	Maximum Marks
A	Experience of the Firm related to the assignment	40
A1	Experience in DPR and Feasibility study of Skywalk	20
A2	Experience in Supervision of Construction or Operations and maintenance of Skywalk systems.	20
B	Adequacy of the proposed work plan and methodology in response to the TOR followed by presentation (if desired by evaluation committee) <ul style="list-style-type: none"> • Project appreciation and understanding of assignment. • Project approach & methodology • Duties and responsibilities of the team leader and other key personnel • Work plan and staffing schedule 	10
C	Qualification and competence of the proposed key staff for the Assignment.	50
	Total Maximum Marks	100

Note:

- (i) Projects need not be exclusive among A1, A2, A3 & A4. In case the project showcased under A4 is of project management consultancy, then the feasibility / DPR and maintenance and operation period shall be shown separately.
- (ii) All the technical experience in terms of years wherever quoted above shall be from Bid due date.
- (iii) Weightage of marks to be given when experience by a Firm as Sole Firm/Lead Partner in a JV/Other Partner in a JV/As Associate

No.	Status of the firm in carrying	Weightage for experience
1	Sole firm	100%
2	Lead partner or other partner or associate in a JV	% Share proportionate to share in JV/ Association*

* For weightage of experience in any past Consultancy assignment experience certificate from the client shall be accepted. In the absence of experience certificate from the client, proportion of payment received towards Consultancy work duly certified by statutory body like Chartered Accountant or Independent Auditor who are competent to do so as recognized by the Act / Law concerned shall be accepted.

- (iv) Consultant shall hire a sub consultant for carrying out the services relating to forest, wildlife and environment clearances and compliances till the approval. The sub-consultant shall be accredited by NABET/MoEF & CC.

- 163
- (K) The Client will notify the Applicants who secure the minimum qualifying technical score, indicating the date and time set for opening the Financial Proposals. The notification may be sent by registered letter, facsimile or electronic mail.

S.No.	Key personnel	Points
1	Team Leader	20
2	Fire cum Safety Expert	10
3	Environment cum Social Expert	8
4	Transportation Planner	6
5	Real Estate cum Financial Expert	6
	Total	50

Qualification and Competence of the Key Staff for adequacy of the Assignment.

Detailed evaluation criteria which is to be used for evaluation of technical bids is as indicated at Appendix-V.

The Consultant should carryout self-evaluation based on the evaluation criteria at Appendix-V. While submitting the self-evaluation along with bid, Consultant shall make references to the documents submitted in their proposal which have been relied upon in self-evaluation. Result of technical evaluation shall be made available on the website giving opportunity to the bidders to respond in case they have any objection.

12.2 Third stage-Evaluation of Financial proposal

Financial Proposals of all Qualified Consultants in accordance with clause 5.2 and 5.3 of Letter of Invitation shall be opened. The consultancy services will be awarded to the consultant scoring highest marks in combined evaluation of Technical and Financial proposals in accordance with clause 1.3 and 5.4 hereof.

The Factors are:

The weight given to Technical Proposal (T) = 0.80. The weight given to Financial Proposal(F) = 0.20

13. The common currency is "Indian Rupee".

(Ref. Para 3.3.3)

Consultant have to quote in Rupees both for domestic Consultant as well as Foreign Consultants

14. Commencement of Assignment (Date, Location) : The Consultants shall commence the Services within fifteen days of the date of effectiveness of the contract at locations as required for the project stretch stated in TOR. (Ref. Para 1.2 of LOI and 2.3 of G.O/SC)

APPENDIX-I

TERMS OF REFERENCE (TOR)

Consultancy Services for carrying out Feasibility Study for development of Sky walk Project.

1 General

Directorate of Tourism, Jharkhand has been entrusted with the assignment of with the assignment of undertaking development of Sky Walk Projects

Directorate of Tourism will be the employer and executing agency for the consultancy services and the standards of output required from the appointed consultants are of international level both in terms of quality and adherence to the agreed time schedule. The consultancy firm will solely be responsible for submission of quality work in stipulated period.

2 Objective

Department of Tourism (The "Authority") invites Application (the "Bids") for carrying out feasibility study, preparation of DPR, Bid process management and design and supervision work for development of aerial passenger Skywalk in Patratu Valley, Ramgarh District Netarhat area in Latehar district of Jharkhand: (the "Project").

Prospective Locations: Ranchi, Ramgarh and Latehar.

3 Scope of Services

The consultant shall carry out detailed feasibility study report, preparation of DPR, Bid process management and design and supervision work for developing Sky Walk. The consultant shall: -

- Carryout bench marking study of different Sky Walk across the world and compare them on key parameters related to the project topography, length, PPH/ PPHPD and other comparable features. The consultant shall identify critical success factors for these projects.
- Assess the various Skywalk technologies and the standards available for development and operations of Sky Walk and suggest the best suitable standards considering the project functionand location.
- Carry out detailed demand assessment through primary surveys and secondary analysis to arrive at the current and future demand potential for the Sky Walk.
- Carry out various engineering surveys inclusive of but not limited to topographical, geotechnical, goodetic, avalanche (if required) etc. for development of the project.
- Prepare detailed alignment plan for the Skywalk for each project location and design key elements of Sky Walk from point of origin to destination including number of intermediate stations etc.
- Prepare detailed cost estimate for developing the Sky Walk at the project location and carry out detailed financial analysis with outcome as NPV, IRR, payback period etc. The consultant shall also carry out the sensitivity analysis on key parameters and also the scenarioanalysis.
- Carry out economic analysis of the project and determine the EIRR.
- Carry out social and environmental impact assessment with due consideration for impact on environment, forest and wildlife.
- Identify land required for the project and prepare Land Acquisition Plan (LAP) for developing the project.
- Procure environmental and forest clearance for the project by liaising with concerned stake holders and government departments.



- 61
- Suggest institutional mechanism and project structuring and policy for development of the Sky Walk Project.
 - Prepare bid documents including Draft Concession Agreement for selection of developer
 - Carry out Project risk assessment and prepare an implementation plan for the project.
 - Carry out stake holder alignment and assist the Authority in obtaining all the necessary approval related the bringing the project on ground.

3.1 Bench marking of international Sky Walk Assessment of suitable technologies/options and recommendation

The Consultant shall carry out detailed benchmarking study and understand key needs for providing best-in-class modernized Skywalk and understand best practices in developing Skywalk projects internationally and across India.

The consultant shall carry out the following:

- a) Identify the best suitable cases (6 cases outside India across countries and 2 cases in India) for carrying out the benchmarking study.
- b) Study various aspects of Sky Walk project related to each such as terrain where the project is implemented, type of Skywalk technology used, reason for using the particular skywalk technology, development standards used, equipment used, passenger demand.
- c) Study and showcase the 5 year and 10-year impact of increase in passenger traffic after installation of Sky Walk for all the cases.
- d) The case study should include at least 1 Skywalk system used for urban transport and at least 1 used for the tourism.

The output of the benchmarking study shall be a set of eight case studies of best practices across the various locations studied, and a synthesis of relevant practices, relevant technologies, standards that can be considered for implementation of Sky Walk projects.

The Consultant will assist in organizing at least one visit of a DoT team to another best-in-class country to understand Sky Walk Systems. The cost of the visit shall be borne by the authority however, consultant shall be responsible for arranging the whole tour and shall liaise with the respective Skywalk agencies for visit.

3.2 Market demand assessment and Traffic Survey

The consultant shall determine the passenger transport demand for the Skywalk by carrying out the following:

- a) Macro analysis of the region to understand including regional GDP and the contribution from tourism sector.
- b) The consultant shall assess the tourism and pilgrim (if applicable) potential of the region through surveys, past growth trends, etc.
- c) The consultant shall collect requisite data through various primary surveys that need to be conducted for the study. The surveys include: Passenger count, Origin – Destination Survey to determine the number of passengers travelling from one point to the other along the planned Skywalk system. The consultant shall also determine the seasonality passenger traffic across the months, peak month for passenger traffic and peak traffic during the day.
- d) The consultant shall analyze other competing modes of transport and the distribution of demand through these modes of transport and assess other modes of transport available for carrying passengers from Skywalk stations to other locations, if applicable.

- e) Consultant shall carry out the historical trend analysis to determine the increase in passenger traffic between the origin and destination over the years.
- f) The consultant shall determine the future demand potential and estimate the future passenger traffic projections for next 30 years. While estimating the future passenger demand shall consider the existing regulatory restrictions (such as number of permits per day etc.)
- g) The consultant shall assess the demand for commercial and real estate included as a part of Skywalk project and determine appropriate tariff levels
- h) The outcome market demand assessment shall be the passenger per hour in peak direction and the demand for commercial and real estate zone.
- i) The consultant shall carry out scenario analysis – Business as Usual, Optimistic and pessimistic on the passenger demand potential.
- j) The consultant shall carryout willingness to pay survey to determine the fare structure for using the Sky Walk system.

3.4 Site Selection

The requirement of land location with geo-coordinates, dimension (LxH) for each structure to develop the project at specific location shall be clearly mentioned in Feasibility Report. The land available with Govt. agencies and additional land required if any shall be clearly mentioned in Feasibility Report.

3.5 Engineering Surveys Reconnaissance

- i. The consultant should make an in-depth study of the topographic maps, satellite imageries and air photographs of the project area, geological maps, catchment area maps, contour plans, flood flow data and seismological data and other available relevant information collected by them concerning the project. Required maps and information needed from potential sources have to be arranged by the consultant. Consultant should make efforts for minimizing land acquisition. Greater use of technology for Land acquisition be adopted by the consultant at the Feasibility stage so as to have a precise land acquisition process.
- ii. The detailed ground reconnaissance may be taken up immediately after the study of maps and other data. The primary tasks to be accomplished during the reconnaissance surveys include:
 - Topographical features of the area
 - Typical physical features and land use pattern
 - Critical areas requiring detailed investigations
 - Requirements for carrying out investigations such as stability of mountains, snow avalanches, windspeed, temperature variations, Hydrological catchment studies, etc. influencing the project.
 - Type and extent of existing utility services and their relocation assessment
- iii. The data derived from the reconnaissance surveys would be utilized by consultant for planning and programming the investigations. All field studies should be taken upon the basis of information derived from the reconnaissance surveys.
- iv. The data and information obtained from the reconnaissance surveys should be documented. The data obtained from the reconnaissance surveys should be compiled in the tabular as well as graphical (chart) form indicating the major physical features for DoT's comments. The data analysis and the recommendations concerning the field studies should be included in the Inception Report. The data

159

obtained from the reconnaissance surveys should form the core of the database which would be supplemented and augmented using the data obtained from detailed field studies and investigations.

Topographic Surveys

The basic objective of the topographic survey would be to capture the essential ground features along the alignment in order to consider most optimal alignment and most economical cost on the basis of technology to be used depending on project requirement. The detailed topographic surveys should normally be taken up after the completion of reconnaissance surveys.

1. The carrying out of topographic surveys will be one of the most important and crucial field tasks under the project. Technologies which can meet the following accuracy levels shall be adopted. For land-based surveys (a) Fundamental horizontal accuracy of 5cm or better at stations and tower locations (b) Fundamental vertical accuracy of 5cm or better at stations and tower locations. To establish accuracy, appropriate check surveys shall be carried out with the full satisfaction of the Authority.

The following are the set of deliverables which should be submitted after completion of survey:

- (a) Raw DGPS data for the entire stretch and adjoining areas of interest
 - (b) Point cloud data or equivalent for the entire stretch and adjoining areas of interest in a format/platform as per industry good practice which shall be a readable to operations by DoT/Consultant. DoT may decide about format/platform of point cloud data.
 - (c) Topographic map of scale 1:1000 of the entire stretch and adjoining areas of interest.
 - (d) Develop a digital elevation/ surface model (bare earth model from survey data) digital terrain model combining topographic data from LiDAR.
2. For land-based surveys, Mobile LiDAR (Light Detection and Ranging) or total station or better technology that can meet above requirements shall be adopted. For aerial based surveys, Aerial Mobile LiDAR (Light Detection and Ranging) or better technology that can meet above requirements may be adopted.
 3. In case of mobile LiDAR or better technology, 360-degree panoramic images of the entire stretch and adjoining areas of interest shall be submitted. In case of aerial LiDAR or better technology, ortho-images of the entire alignment and adjoining areas of interest shall be submitted.
 4. The detailed field surveys would essentially include the following activities:
 - i. Topographic Surveys along the Route: Carrying out topographic survey using LiDAR, total station or better technology, wherever required and properly referencing the same with reference pillars fixed on either side of the centre-line at safe places along the route.
 - ii. The detailed field surveys would essentially include the topographic surveys along the proposed location of alignment.
 - iii. The detailed topographic surveys should be carried out at tower locations and location of the stations approved by DoT.
 - iv. Collection/ Extraction of details for all features such as structures (bridges, culverts etc.) utilities, existing roads, electric and telephone installations (both O/H as well as underground), huts, buildings, fencing and trees (with girth greater than 0.3metre), trees inventory with the height difference between the cable system and tree top less than 5m, oil and gas lines, geo-coordinates of wild life, reserve forests, biodiversity/ biosphere parks, sensitive mountain ecosystem, etc. falling within the extent of survey.
 - v. The collection of requisite data along with geo-coordinates of wildlife, reserve forests, biodiversity

biosphere parks, sensitive mountain ecosystem, etc. affecting the project which require statutory clearances as per the prevailing policies, act or law.

5. The surveyed alignment shall be transferred on to the ground as under:
 - i. Reference Pillar and Bench Mark / Reference pillar of size 15 cm X 15 cm X 45cm shall be cast in RCC of grade M 15 with asphalted in the centre of the top surface. The reference pillar shall be embedded in concrete upto a depth of 30cm with CC M10 (5 cm wide all around). The balance 15 cm above ground shall be painted yellow. The spacing shall be 250m apart. In case Bench Mark Pillar coincides with Reference Pillar, only one of the two needs be provided.
 - ii. Establishing Bench marks at site connected to GTS Bench marks at a interval of 250 metres on Benchmark pillar made of RCC as mentioned above with RL and BM No. marked on it with red paint.

Details of utility Services and Other Physical Features

1. The Consultants shall collect details of all important physical features along the alignment which will impact the project such as place of worship, rivers, water catchment, mountains and its stability, transmission towers/ its lines, flight path, any bird sanctuary/ bird poth along with direction & height as per guidelines of Forest/ MoEF for such project, snow avalanches, wind speed, etc. The survey would cover the entire route/ alignment of the Skywalk systems, the adequate allowance for possible shifting of the central lines at some of the critical locations.
2. Consultant shall also map out sub-surface utilities impacting the station and tower location. To assess the sub-surface utilities and its accuracy, consultant shall use Ground Penetrating Radar, Induction Locator or better technologies.
3. The information collected during reconnaissance and field surveys shall be shown on a strip plan so that the proposed improvements can be appreciated and the extent of land acquisition with LA schedule, utility removals of each type etc. assessed and suitable actions can be initiated. Separate strip plan for each of the services involved shall be prepared for submission to the concerned agency.

Geo-technical Investigations and Sub-Soil Exploration

1. Geo-technical Investigations and Sub-Soil Exploration The Consultants shall carry out geo-technical investigations and sub-surface explorations and conduct all relevant laboratory and field tests on soil and rock samples at station and tower locations.
2. Geo-technical Investigations and Sub soil Explorations shall be carried out to determine the nature and properties of existing strata for the project at stations and tower locations requiring investigations. The nature and properties of various strata to a sufficient depth below the level suitable for foundations, safe intensity of pressure on the foundation strata, proneness of site to artesian conditions, seismic disturbance and other engineering properties of soil etc. Geo-technical investigation and Sub-soil Exploration shall be done as per best international practices. Consultant while proposing the investigation to be done to the Authority, need to detail out the procedure adopted internationally and in India for similar terrain.
3. The Consultant is required to carry out the detailed investigation for the project region with respect to the stability of mountains, study of snow avalanche if applicable, the impact of change in climate in the project area, wind speed, seismicity, slope failures study for assessing the probability of landslides and any other critical investigation/study which may impact the project in along run.
4. The consultant shall carry out various alignment options studies considering all critical investigation, assess statutory clearances required, high level cost of the various alignment options etc. and shall compare with the options studies detailing out the merits and demerits of all the options with recommending the most feasible option.

157

3.6 Sky Walk Planning and design

The consultant shall carryout the planning, design based on various technologies available, etc. required for implementing the Sky Walk system.

- a) The consultant shall prepare concept plan with alignment options for the development of appropriate Sky Walk technology indicating the number of stations, land requirement at each station, number of towers, tower height, distance between towers, number and type of the cabins etc.
- b) Commercial zone development at origin, destination, and intermediate stations
- c) Design entire Sky Walk system including civil and architectural design of stations, columns, any other structure required as per the concept plan as well as QAP for the Sky Walk systems. The aesthetics of the stations shall be an important aspect while planning and designing the stations and towers.
- d) Alignment plan for the development of Sky Walk including all the necessary infrastructure, required for the effective operation of Skywalk including but not limited to dispersal of traffic, parking, administrative offices, security, cloak room, evacuation of people, medical aid system, toilets, commercial zone including retail facilities, refreshment facilities, firefighting, utilities including drainage, sewage etc.
- e) The Consultant shall assess the power supply and any other utilities and obtain the estimates from the concerned agency, required for the Sky Walk project.
- f) The Consultant shall prepare 3 D printing miniature model with component detailing on an appropriate scale in consultation with the Authority with maximum size by 8 feet x 4 feet

Specification, Standards and available Technology

The consultant shall detail out the standards and specifications available Globally and in India and carryout finer comparison affecting operation efficiency and safety. Further provide report on the available technologies for cable propelled systems globally and in India and identify most suited technology for efficient and cost-effective operation and management system of the project. The assessment of technologies for Skywalk system shall be comprehensive and shall include (but not limited to) the following factors :

- a. Suitability with respect to topography & terrain and estimate deolignment length
- b. Carrying capacity and ease of capacity augmentation
- c. Efficiency of the proposed technology
- d. Implementation of technology in similar terrain/ geography and its operational high lights and challenges.
- e. Capital Investment, operating and maintenance cost (total life cycle cost)
- f. Technology age and evolution.
- g. Reliability of technology
- h. Accreditations received
- i. Safety systems
- j. Failure events across globe and reasons
- k. Available Manufacturers across the globe.
- l. Cabin design, comfort and performance
- m. Passenger perception on safety (if any)
- n. Any other factors

3.7 Financial Assessment

- a) The consultant shall propose cost estimates related with the Skywalk System project along with the project construction schedule with particular reference to critical areas of work. The consultant will estimate the costs associated with various equipment and infrastructure components for the station and tower. The revenue generation from passenger fee, all the possible commercial and real estate activities taking place in the Skywalk project area and the value-added service, etc. shall be determined for a period of 30 years. Similarly, the operation and maintenance cost of providing the services and maintenance of infrastructure shall be calculated to assess the annual recurring expenses of the Skywalk system.
- b) The consultant shall develop a detailed financing model to work out cash flow statement and the financial viability of the project including IRR along with sensitivity analysis based on the revenue stream and cost of setting up such Skywalk project. Financial indicators need to be worked out that shall include payback period, IRR, NPV, profitability ratios, VGF requirement, sensitivities and scenarios. Sensitivity analysis with parameters like capital cost, operation and maintenance costs, tariff structure, traffic levels etc. may be made to present the viability scenario for taking appropriate decision by the client. The cost of operation and maintenance should have rational basis with staffing pattern, AMC cost etc. instead of a fixed percentage of capital cost.
- c) Based upon the inputs from the above analysis, alternate financial structures for the project will be developed and a financially viable model will be suggested for the project so as to attract private sector participation and to minimize the financial burden. The consultant shall carry out scenario analysis for developing the project on EPC, PPP or HAM structure and recommend the most optimum structure.
- d) The consultant shall also provide necessary information and prepare documents as per the formats provided by DoT for budgetary approvals, fund allocation and bidding procedure for project implementation. Financial analysis should be carried out with respect to multiple scenarios from the perspective of all stake holders.

3.8 Economic Assessment

The consultant should undertake detailed economic analysis for the project, which shall include but not limited to economic analysis, estimation of economic IRR etc. for the project. The economic internal rate of return (EIRR) will include calculation of all the financial and non-financial benefits of the project in monetary terms. The various non-financial benefits and costs to be considered include the decongestion impact, impact on passenger convenience, social impact, environmental impact, ecological impact etc.

- 1. The Consultants shall carry out economic analysis for the project. The analysis should be for each of the sections covered under this TOR. The benefit and cost streams should be worked out for the project using HDM- IV or other internationally recognized life-cycle costing model.
- 2. The economic analysis shall cover but be not limited to be following aspects:
 - i. Assess the capacity of existing modes of transport and the effects of capacity constraints on travel costs;
 - ii. Quantify all economic benefits, including those from reduced congestion, travel distance, maintenance cost savings and reduced incidence of accidents; and,
 - iii. Estimate the economic internal rate of return (EIRR) for the project over a 30-year period. In calculating the EIRRs, identify the tradable and non-tradable components of projects costs and the border price value of the tradable components.
 - iv. Saving in time value.

- 155
1. Economic Internal Rate of Return (EIRR) and Net Present Value (NPV), "with" and "without time and accident savings" should be worked out based on these cost-benefit stream. Further more, sensitivity of EIRR and NPV worked out for four different scenarios as given under:

Scenario-I	Base Costs and Base Benefits
Scenario-II	Base Costs plus 25% and Base Benefits
Scenario-III	Base Costs and Base Benefits minus 25%
Scenario-IV	Base Costs plus 25% and Base Benefits minus 25%

The sensitivity scenarios given above are only indicative. The Consultants shall select the sensitivity scenarios taking into account possible construction delays, construction costs overrun, traffic volume, revenue shortfalls, operating costs, exchange rate variations, convertibility of foreign exchange, interest rate volatility, non-compliance or default by contractors, political risks and force majeure.

4. The economic analysis shall take into account all on-going and future transport infrastructure projects and future development plans in the project area.

3.9 Institutional Mechanisms and Project structuring

- The consultant shall suggest different institutional mechanisms for setting up and running/ managing the Skywalk Project and based on merits/ demerits of each, recommend the best possible institutional mechanism for the station based on relevant details specific to each one of them. The consultant shall also carry out financial scenario/ analysis with respect to the proposed project structuring options.
- A study of existing legal and institutional frameworks governing the working of public and private transportation operators in India shall also be undertaken by the consultant. The Skywalk Project will cater to tourists and non-tourist passengers, and the consultant shall analyse the current regulatory ecosystem and recommend interventions required to facilitate integrated operations of public as well as private players.
- Consultant shall evolve broad project structuring model (EPC/ PPP) for implementation through private sector funding/ public private partnership and evolve alternative scenarios including considering the option of Viability Gap Funding (VGF) for enhancing the financial viability of Skywalk system project. The consultant shall suggest the project structuring options by also keeping in mind all the relevant policies and guidelines of various ministries/ authorities issued from time to time. The consultant will also need to prepare the draft policy frame work for development of Sky Walk in the country in consultation with DoT and other stake holders and also the Concessionaire Agreement(DCA). The consultant shall prepare a summary of the proposed works, stages of project implementation activities and the consultant's recommendations with regards to different aspect of the project.
- The necessary statutory/ administrative/ security clearances required for setting up the Skywalk system project from different agencies like environmental authorities, Centre/ state government and its bodies etc. shall also be identified and listed. Moreover, the onus of preparation of EIA report, Forest clearance along with any other statutory clearances and getting it approved from the environmental authorities shall lie with the Consultant.
- The consultant shall deliberate the role of regulatory bodies/ government agencies/ other stake holders in setting up of the Skywalk Project along with necessary statutory provisions and recommend ways for smooth functioning of the station.

- f) The consultant shall prepare the bid documents and Concession/contract Agreement based on Institutional structure approved by client.
- g) Based on the above sections, the consultant shall prepare Financial Evaluation and Project Structuring modules as part of Feasibility study Report.
- h) During the procurement of Concessionaire/ contractor the consultant shall assist DoT including pre-bid meeting, preparing replies to pre-bid meetings and other clarifications sought during course of procurement of Concessionaire/ Contractor.

3.10 Social and environmental impact assessment

i. Analysis of social impact

- a) Social assessment to be carried out by conducting both primary, secondary surveys and site visits in order to know the overall social, economic, cultural; religious impact of the project. The report should establish the further action plan required for the project planning and implementation. Following specific tasks to be performed for preparation of social impact assessment:
 - Review of the Social Characteristics of the Project
 - Site Visit
 - Social Screening
 - Stake holders' consultation
 - Vulnerable issues
- b) The consultant shall prepare compliance procedures for implementation of the project. These will include safety concerns, prevention of child labour, compliance of labour laws in India, acceptable targets for employing women in construction activities, basic wages for skilled/ unskilled workers, wage equality, child care facilities of workers around the sites.
- c) The consultant would conduct base line socio-economic and census survey to assess the impacts on the people, properties and loss of livelihood. The socio-economic survey will establish the benchmark for monitoring of R&R activities. A social assessment is conducted for the entire project to identify mechanisms to improve project designs to meet the needs of different stake holders. A summary of stake holder discussions, issue raised and how the project design was developed to meet stake holders need would be prepared.
- d) The consultant shall prepare Land Acquisition Plan and assist the Client in acquisition of land under various Acts.
- e) The consultant would prepare Resettlement and Rehabilitation Plan and assess feasibility and effectiveness of income restoration strategies and suitability and availability to relocation sites. There settlement plan which accounts for land acquisition and resettlement impacts would be based on a 25% socio-economic survey and 100% census survey of project affected people which provides the



complete assessment of the number of affected households and persons, including common property resources. All entitled occupants are recorded at the initial stages and identity cards will be issued to ensure there is no further influx of people into the project area. All consultations with affected persons (to include list of participants) should be fully documented and records made available to the Client.

- i. Assessment on the impact of the project on the poor and vulnerable groups
- ii. Based on the identified impacts, developing entitlement matrix for the project affected people
- iii. Assessment on social issues
- iv. Implementation budgets, sources and timing of funding and schedule of tasks.
- v. Responsibility of tasks, institutional arrangements and personnel for delivering entitlement and plans to build institutional capacity.
- vi. Internal and external monitoring plans, key monitoring indicators and grievance redress mechanism.
- vii. Incorporating any other suggestions of the Client and other stake holders

ii. Analysis of Environmental Impact

- a) An indicative term of reference for the EIA has been illustrated below. However, the consultant is required to take the Terms of Reference (TOR) clearance from the MoEF / State Environment Impact Assessment Authority and Environmental study would be carried forward based on the Approved TOR.
- b) The consultant shall prepare Environmental Impact Assessment report in accordance with the requirement of developing a comprehensive environmental baseline database with respect to:
 - The quality of existing environment in the project area and 15km radius of its surroundings.
 - CRZ classification and their distances from the project sites (if applicable)
 - Whether the site or near surrounding have mangroves or is inhabited by endangered species or is a place for migratory birds or is a spawning area for aquatic species
 - Identification of the boundary of recorded forests and the number of trees to be cut (Height, diameter, species etc.)
 - Whether the site has any history of industrial pollution or any penalties levied by the Pollution Control Board
 - Whether the site has any features like natural drainage channels (nalas), creeks etc.
 - Whether there are any structures of cultural/ historical/ religious importance near the site or any ASI (Archaeological Survey of India) designated sites
 - Identification of Sensitive Receptors: Sensitive receptors such as schools, hospitals, religious places near the site will be identified using satellite images, field reconnaissance and interviews with local residents.
- c) Apart from the above, the environmental baseline data base should also include but not limited to the following items:
 - Physical environment: geology; topography; soils; climate and meteorology; ambient air quality; surface and ground - water hydrology; coastal and oceanic parameters; existing sources of air emissions; existing water pollution discharges; and receiving water quality;

- Biological environment: flora, fauna; rare or endangered species, wildlife; sensitive habitats, including parks or preserves, significant natural sites, etc.; species of commercial importance; and species with potential to become nuisances, vectors or dangerous.
 - Socio-cultural environment (include both present and projected where appropriate): population; land use; planned development activities; community structure; employment; distribution of income, goods and services; recreation; public health; cultural properties; tribal peoples; and customs, aspirations and attitudes.
- d) The consultant shall conduct studies to assess the influence on physical, chemical and ecological and biodiversity related aspects of environment in the area.
 - e) The consultant shall describe alternatives that were examined in the course of developing the proposed project and identify other alternatives which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements. To the extent possible, quantify the costs and benefits of each alternative, incorporating the estimated costs of any associated mitigating measures.
 - f) Include the alternative of not constructing the project, in order to demonstrate environmental conditions without it.
 - g) Based on baseline conditions and the planned project activities, Environmental impacts should be predicted by the standard methodology. These projections would identify whether the pre-project critical environmental conditions would be further degraded. Identify the list of NOCs, clearances, permissions, approvals from relevant authorities (e.g. Forest clearance, permission from ASI, etc.) to be received from various authorities and stake holders for development, implementation and operation of the project.
 - h) The consultant shall determine potential impacts of the Sky Walk System Project. In this analysis, distinction between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts is to be undertaken to identify the impacts which are unavoidable or irreversible. Wherever possible, the consultant should describe impact quantitatively in terms of environmental costs and benefits.
 - i) The environmental management and monitoring plan should be prepared by the consultant including proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the plans. The environmental management plan may be proposed to be made part of the bid document for implementation by the successful bidder. A monitoring system shall also be developed for proper mitigation of the adverse environmental impact and implementation of the plan.
 - j) The consultant will need to create all documents for statutory clearance including environment and forest clearance and work with authorities to get the necessary approvals.
 - k) The consultant shall also carry out study to find out any Court/ Tribunal rule/ order restraining development of Skywalk Systems and its allied infrastructure at the sites mentioned in Annexure-I or suggested by the Consultant.

3.11 Stake holder Alignment

- a) The consultant will need to conduct workshops across the duration of the project with the client and

151

relevant stake holders to align on the key recommendations and project outputs

- b) The consultant will need to carry out the workshops and alignment meetings with the Authority and stake holders at their own cost.
- c) All costs related to workshops/ meetings need to be included in the financial bid as part of overhead costs. Costs related to visit to Sky Walk Project site abroad will be borne by the client, however the consultant will do the detail arrangement & liaisoning for the whole visit. Specific Sky Walk Project to be visited will be determined in consultation with the client.

3.12 Project Risk Assessment

As part of the study, the consultant will need to build a comprehensive risk assessment framework across internal and external risks and identify the same for the project. The consultant will need to identify the risk variables and the range of variability for each of the key external and internal risks. In addition, high level impact assessment needs to be conducted along with suitable mitigation measures & strategies.

3.13 Obtaining Approvals

- i. Obtaining approvals regarding statutory/ administrative clearances required for setting up Sky Walk Systems from different agencies such as Environmental authorities, Forest and wildlife Department, Centre/ State government and its bodies, Local Authorities etc. and the same shall also be identified and listed. Necessary assistance in this regard will be provided by the Authority.
- ii. The Consultant shall make presentations regarding proposals as and when required for obtaining approvals, clearances etc.
- iii. The responsibility for explaining/discussing the plans/proposals and designs including modifications thereto, if any, before the various authorities shall remain with the Consultant


3.14 Assistance and Acquisition

The parameters for evaluating and assessing the suitability of the identified land parcels should include (but not limited to):

- i. Land availability, usability for construction and suitability with respect to future growth and land use
- ii. Land acquisition requirements and cost

Consultant shall assess the land requirement and carry out detailed onsite study for land acquisition and prepare all Land Acquisition papers for acquisition of land as per Concerned Authority/ State Act and help revenue officer for disbursement of land compensation.

3.15 Land Acquisition process Conduct all required surveys/ valuation

- i. Identify all land parcels that need to be acquired as part of project
 - ii. Conduct Joint measurement survey in conjunction with Competent Authority for Land Acquisition (CALA), DoT, Land revenue department and Forest and wildlife Authority to verify land records, if any.
 - iii. Conduct valuation of land related assets (Structures, trees, crops etc.) and liaison with respective State authority for authentication of the valuation
- 

Digitization of Cadastral Maps

- i. Consultants shall procure or create digitized, geo-referenced cadastral/ land revenue maps for the purposes of land acquisition activities.
- ii. Where state governments or local agencies have already digitized cadastral maps, the consultant shall arrange to acquire these maps.
- iii. For acquired maps, the consultant shall check and verify the level of accuracy in the maps and their suitability for the purposes of supporting the land acquisition effort for the project in terms of both dimensional accuracy and details available.
- iv. Where digitized land maps are unavailable or are deemed to be insufficient for the purposes of this project, the consultant shall digitize the cadastral/ land revenue maps of the area falling in and surrounding the existing and proposed route and alignment of the Sky Walk systems, keeping the following in mind:
 - a. The digitized map shall exactly match the original map, like a contact print, since the dimensions and area of plot, or the whole village is to be extracted from the map itself.
 - b. An accuracy of 1mm or higher in a 1:1000 scale map shall be ensured, as this translates into an accuracy of 1m or higher on ground.
 - c. In addition, ground control points will be used to adjust the digitized map to exactly match the ground situation.
 - d. Geo-location information from the control points should be added to the digitized map to allow for import into a GIS system. Suitable land details and features should also be added to the GIS system to enable review of individual land parcels.
 - e. In digitization and feature addition, the consultant shall endeavor to follow any standards, requirements and formats laid down by the relevant state/ central government agency for land ownership and revenue management or that set by the authority involved in digitization of land records.
- v. Where applicable, the consultant must then share back the digitized cadastral maps with the relevant local agency or state Government.

Liaison with relevant state departments throughout process

- i. The consultant should liaison with State' departments including but not limited to Land Revenue Office (or Tehsil), Registrar office and with other State departments (like Public works department, horticulture department etc.) to expedite the Land acquisition process.

3.16 Utility shifting proposal and estimates

Identify type and location of all existing utilities impacting the project

- i. Consultant will review information available with all utility's agencies in the region, consult maps/ plans available with DoT and state agencies, consult with locals and municipal bodies to ascertain the presence and location of utilities, including but not limited to water-mains, gas, telephone, electricity and fiber-optic installations in and around the project.
- ii. Deploy ground penetrating radar, inductor locators or better technology to accurately map the location, type and size of utilities impacting the project as required in the section of this TOR.
- iii. Develop a detailed strip plan and digitized maps showing:
 - a. type, size and current location of all the utilities identified.
 - b. relative offset from the center line.



44
c. existing right of way.

Plan for utilities in future design

- i. The consultant needs to identify utilities that will require shifting to enable construction of the proposed project.
- ii. Incorporate space required for elevated and under-ground utilities corridors and utilities crossings as required for existing and future utilities in consultation with user departments.

Develop a utilities location plan

- i. The consultant needs to develop and submit a utilities relocation plan in consultation with DoT and user departments clearly identifying current utilities and suggested relocations along with crossings as required.
- ii. Plan and conduct discussions, consultations and joint site visits required for the planning of utilities shifting and the development of required drawings and proposals.
- iii. Prepare necessary details, documents and suggested relocation plan to be submitted to user department.
- iv. Develop initial cost estimates based on suggested relocation plan and the latest available schedule of rates for inclusion in the cost of the project at the time of approval.

Estimates and approvals

- i. Consultants need to obtain draft utilities shifting proposal from user departments for all utilities identified for shifting along project.
- ii. Prepare utility shifting cost estimates using latest schedule of rates and obtain approval from user departments.
- iii. Review final designs submitted, cost estimates, complete check list, obtain required declarations and submit to DoT for approval.
- iv. Work with user department, PU and RO as required to incorporate any changes requested in shifting proposal and cost estimate by RO and DoT.
- v. Obtain all required utilities shifting proposal estimates and required approvals from both user departments and DoT within the time stipulated in contract.

3.17 Assistance in preparing documents for bid preparation

The consultant will need to assist the client in preparation of necessary documentation for the RFP process for selection of a contractor to execute the project including the following:-

- i. Inputs into preparation of tender documents including RFP & RFQ documents.
- ii. Documents for marketing support in the pre-bid stage.
- iii. Preparation of draft concession agreement.
- iv. Preparation of Project Information Memorandum including technical concept of the Ropewa and Sky Walk Systems, out put based technical specifications for construction, technical specifications for operations & maintenance.
- v. Assistance in addressing queries during the bidding process including clarification on technical outputs of the study and any other support as deemed necessary from final submission of feasibility report and award of tender for construction.

ENCLOSURE-I

Qualification and Experience Requirement of Key Personnel

S. No.	Position	Minimum years of professional experience	Specific expertise
1.	Team Leader	20	<p>The team leader should be a Graduate in Civil/ Mechanical/ Electrical Engineering or any specialized courses in Ropeways/Skywalk/ cable propelled transit system preferably with a Post Graduate degree in Civil/ Mechanical/ Electrical Engineering or any specialized courses in Ropeways/ Skywalk/cable propelled transit system.</p> <p>Should have relevant experience as detailed in APPENDIX V</p>
2.	Fire & Safety Expert	20	<p>Should be a graduate in engineering field/ science or equivalent preferably advanced course on Fire & safety aspects of Cable Cars/ Cable Propelled Transit System/ Vehicles including Aircrafts, Helicopters, Rail Coaches, Ships for minimum 6 months period.</p> <p>Should have experience in designing fire & safety system related to electrical & mechanical systems of passenger transportation.</p> <p>Should have relevant experience as detailed in APPENDIX V</p>
3.	Environment cum Social Expert	15	<p>Should be a graduate degree holder in Environmental Engineering/ Science or equivalent preferably with Post- Graduation in Environmental Engineering/ Science or equivalent.</p> <p>Should have experience in environmental impact assessment, environmental management plan, statutory clearance management & clean development mechanism related to large scale linear transportation.</p> <p>Should have relevant experience as detailed in APPENDIX V</p>
4.	Transportation Planner	15	<p>Should be a graduate in Civil Engineering or equivalent preferably with MBA/ Post Graduate in Traffic/ Transportation Engineering</p> <p>Should have relevant experience as detailed in APPENDIX V</p>
5.	Real Estate cum Financial Expert	15	<p>Should be a graduate in Civil Engineering/ Planning/ Management or equivalent preferably with MBA (Finance)/CA/post-Graduation in real estate management/ Planning/ economics or equivalent.</p> <p>Should have experience in passenger transportation related Real Estate development involving Govt. undertakings/ PSUs/ State Governments, market analysis, Financial Analysis/ financial structuring, Infrastructure Finance on PPP projects including econometric analysis and estimating economic NPV & IRR.</p> <p>Should have relevant experience as detailed in APPENDIX V</p>

- 147
- The client reserves the right to ask for the details regarding the proof of age, qualification, experience and association of the key staff with the firm.
 - Consultants, who are executing on going mandates from Client, must propose a separate team of key staff while bidding for this project.
 - The key staff proposed above should be available for presentations/ discussions/ meetings with the Client at Delhi or through video conference as per direction of authority.
 - The Consultant should carryout self-evaluation based on the evaluation criteria at Appendix-V. While submitting the self-evaluation along with bid, Consultant shall make references to the documents submitted in their proposal which have been relied upon in self-evaluation.

ENCLOSURE-II

Schedule for submission of Reports and Documents

The checklist for different stages of submission of report has been enclosed as under and the same shall be appended with proper references and page numbering. The checklist/s shall be appended with there port without which no payment shall be made.

No.	Description	No. of Copies
1	Inception Report, Benchmarking Report & QAP	3
2	Engineering survey results with market assessment report for finalization and approval of suitable site for Skywalk	4
3	Submission of alternatives for concept Alignment plans for Skywalk Project along with high level cost estimation across options.	4 copies each
4	Submission of all draft statutory documents for clearances. Assessment of shifting of utilities required and providing connectivity of inter-station with requisite utilities.	4 copies each
5	Submission of all Final statutory documents for clearances. Assessment of shifting of utilities required and providing connectivity of inter-station with requisite utilities.	6 copies each
6	Final Alignment plan after due consultation with client and relevant stake holders.	4
7	Draft Feasibility Report including Engineering Plan, structural drawings, detailed Economic Analysis, Financial Feasibility and Project Structuring aspects etc.	4 copies
8	Final Feasibility Report including submission of bid documents for selection of developing agency.	8 copies
9	Draft Forest clearance stage1 and draft environment impact assessment report (EIA) clearance, Social impact Assessment and draft documents related to the clearances required.	4 copies each
10	Final Forest clearance stage1 and Final environment impact assessment report (EIA) clearance, Social Impact Assessment and final documents related to the clearances required	6 copies each
11	Other statutory clearance report	6 copies each
12	3 Drunning miniature model (8 feet x 4 feet)	One
13	Simulation Graphic video with voice over (3 min)	One

**Schedule for approval of Reports and Documents by PD after submission
by consultant**

The checklist for different stages of submission of report has been enclosed as under and the same shall be appended with proper references and page numbering. The checklist/s shall be appended with the report without which no payment shall be made.

S. No.	Milestone	Timeline (in weeks) from commencement
1	Inception and Benchmarking Report	D+4
2	Market and demand assessment report for Skywalk (forecast to be of 30-year Horizon) in time-to-time consultation with Client	D+6
3	Submission of Alignment Options including options of technology along with high level cost estimation across options. Submission of all statutory documents for required clearances in time-to-time consultation with Client. Assessment of shifting of utilities required and providing connectivity to the Skywalk Stations with requisite utilities.	D+8
4	Submission of Draft Feasibility Report including Alignment Plans, detailed Economic Analysis, unlocked and editable excel model for economic analysis, Financial Feasibility, unlocked and editable excel financial model and Project Structuring aspects etc. after due consultation with the Client and relevant stake holders. Submission of all statutory documents for clearances related to Land Acquisition such as 3a and 3A or equivalent notifications.	D+12
5	Submission of Final Feasibility Report Submission of all statutory documents for clearances Forest clearance stage I and draft environment impact assessment report (EIA) clearance, Social Assessment and documents related to other clearances required. Submission of bid documents and technical schedules for selection of developing agency.	D+14
6	Submission of 3D notification related to land acquisition.	D+18
7	Submission of 3D running miniature model with component detailing on an appropriate scale in consultation with the Authority with maximum size by 8 feet x 4 feet and high-resolution graphic simulation video with voice over. Obtaining final estimated for utility shifting and requisite utilities required for Skywalk Project from the concerned agencies and submission to Client.	D+20
8	Obtaining EIA clearance, Stage I Forest clearance and obtaining other statutory clearances 3G and 3H notification related to land acquisition.	D+24

*Start date shall be the date of Commencement of Services as provided in General Conditions of Contract, Section 2

The relevant core staff of the consultant will be required to give a presentation to client regarding the road features of the deliverable before the submission of each deliverable as per the delivery mile stone. The comments of the client shall be incorporated in the final scheduled deliverable.

ENCLOSURE-III

Formats for submission of Reports and Documents

1. Standard formats for deliverables

- i. During the course of the assignment to prepare feasibility report, several reports, drawings and documents will need to be submitted by the consultants to National Highways Logistics Management Limited.
- ii. For the purposes of submission, format requirements have been laid out for some of the reports and drawing deliverables in this enclosure, which shall be adhered to strictly
- iii. In addition, consultants are to align and agree with National Highways Logistics Management Limited officials the format of submission for all reports.

2. Format for submission of report deliverables

Printed hard copies of reports

- i. All reports and documents shall be submitted in both printed hard copy and digital formats.
- ii. For hard copies, the consultant shall submit bound volumes (and not in spiral binding form) after completion of each stage of work as per the schedule and in the number of copies as given in Enclosure II

Digital copies of reports

1. Every report shall also be submitted in digital format to the authority in the following formats:
 - i. The final report as submitted in the portable document format (pdf).
 - ii. An editable document in the relevant Open Document Format for Office Applications (ODF) and if available the relevant Microsoft Office document format (MS Office).
 - iii. All tables and models used to and referred to in the reports shall also be submitted as spread-sheets in the relevant ODF format and MS Office format.
 - iv. The digital copies of reports shall be submitted in the form of removable storage devices (CD or USB pen drive) and also hosted on a secured online document storage and retrieval platform as described in clause 2 Data products.
2. The movable storage device submitted at each deliverable stage shall contain:
 - i. Reports for that stage.
 - ii. All draft and final reports previously submitted.
 - iii. Correspondence with DoT.
 - iv. Clients' comments on submitted reports.
 - v. Any communication, letters and approvals to and from other government and local agencies and any other relevant body.
 - vi. An updated index of all the contents on the movable storage device.
3. Every submission will be accompanied by a table of contents and index of all documents submitted for ease of reference.

2 Data products

1. During the course of the assignment, the consultant shall perform several surveys and collect data that will be used for the design of the Sky Walk systems and delivered to the client.
2. Consultants are encouraged to keep commonly available software and data packages, and typical uses for data while deciding final formats of data within the constraints of this document or where a format has not been defined
3. In order to standardize data formats and simplify hand over and re-use of data, some requirements for minimum content and format are laid down below.

Sr No	Data product	Contents required (definition)	Data format
0	Formats to be used	List of data, drawing and design outputs, reporting format, digital format suggested, key data to be included (column headers), units and system to be used	CSV or ODF sheet, .xlsx optional
1	Traffic surveys		
1.1	List of traffic survey points	Point no, location coordinates (lat, long), location of survey point, chainage, no lanes/ type of junction, type of survey, date of survey, length of survey, any commentary, equipment/ technique used, link to survey output.	CSV or ODF sheet, .xlsx optional
1.3	O-D and other surveys	Survey point, survey location, location at, long, chainage, date, time, period of survey, technique/ equipment used in addition to the survey data itself.	CSV or ODF sheet, .xlsx optional
2	Engineering surveys and investigations		
2.1	Raw DGPS data	Notes must contain Date, time of survey, equipment used, corrections applied is any. Data: Survey benchmarks, benchmark points, location data points.	CSV or ODF, Receiver Independent Exchange Format (RINEX)
2.2	LiDAR point cloud	Notes must contain Date, time of survey, equipment, summary post processing applied. Data: Survey benchmarks, data points, point cloud of entire project corridor as defined in.	LASER file format for exchange CSV sheet, .xlsx optional
2.3	Images	360 Deg/ ortho images of entire stretch of alignment.	Geographic Tagged Image File Format (Geo TIFF)
2.4	Video	Traverse video of entire project length	Audio video interleave (.avi) or MPEG-4 file (.mp4)

Sr No	Data product	Contents required (definition)	Data format
2.5	Topographic map + contours	1:1000 scale map with 50 cm contours	Contours: geo-referenced shape files (.shp) or .dxf files. .dwg/.dgn files options
2.6	Digital elevation model	Digital terrain model led from aerial and ground surveys	Digital elevation model in USGS Spatial Data transfer standard (SDTS) format
2.7	Longitudinal and cross sections	Location of cross-section-existing, design chainage,lat, long. Cross section drawing	.dxf files, .dwg/.dgn files options
2.8	As-is terrain map	3D digital map of as-is project containing earth surface, road layers, utilities, buildings and trees with feature data extracted and mapped in layers, marked on the map and tabulated data provided separately.	Digital terrain model and maps in Land XML/.dxf format, .dwg/.dgn files options Separate CSV or ODF sheet, .xlsx optional offeature data in addition to map
2.9	Details of utility	type of utility, no, class and category of utility installation (e.g. 66 kV xlpe), location, distance from center line, user agency.	CSV or ODF sheet, .xlsx optional
2.10	Utility maps	Existing utilities at stations, towers or alignment impacting project.	geo referenced shape files (.shp) and drawings in .dxf format
2.11	Sub-grade and soil strength	In the format of the testing lab, summary details must be tabulated and must include: test pit no, location, lat/ long, date, time of test, tester/ lab details, in-situ density, moisture content, field CBR, characterization, in-lab moisture and density, lab CBR.	Summary in CSV or ODF sheet
3.1	Final alignment geometry	Geo referenced center line horizontal and vertical alignment. Additional details etc.	Geometry or shape files : .shp/.dxf, .dwg/.dgn files options
3.2	Proposed structures	Geo referenced location and alignment, 3D model of structure and appurtenances, cross section, plan and profile drawings for construction	.dxf.dtm
4	Other deliverables		

141

SrNo	Data product	Contents required (definition)	Data format
4.1	Digitized cadastral maps	Digitized revenue map overlaid with key landmarks, land size, survey number and ownership data, min 1:1000 scalemap with >1mm accuracy	Geometry or shape files : .shp/.dxf, .dwg/.dgn files options
4.2	Financial analysis	Spread sheet model within structions, index and containing all inputs and assumptions, time series construction and operating costs, revenues, financing and equity cash flows, NPV/IRR, sensitivity scenarios and results	ODF sheets, MS office .xlsx optional

3 Online hosting and archival of deliverables

Hosting deliverables online

- i. The consultant shall store all deliverables from this assignment on a secure online file hosting platform that is remotely accessible by authorized users on the world wide web.
- ii. The consultant shall provide read only access to all relevant officers of DoT and provide further access to additional users as and when requested by DoT.
- iii. Consultant shall provide a point of contact for access to these files, solving any technical issues and shall respond to all requests in a time lymanner.
- iv. Consultant shall ensure that the files are hosted in a platform that conforms to any file hosting and file sharing security standards as may be laid down by the Government of India.

Deliverables to be hosted

- i. Data and deliverables to be hosted in an online accessible format shall include but not be limited to:
- ii. All draft and final deliverables in the digital formats prescribed in this TOR and in file formats in wide use where formats are not specified.
- iii. Data, images and videos from all surveys and investigations conducted of this enclosure.
- iv. All correspondence to and from DoT, including clients' comments on submitted reports.
- v. Any communication, letters and approvals to and from other Government local agencies and any other relevant body.
- vi. The platform shall also contain an index and table of contents of information being hosted for ease of access and use.

Time period and costs

- i. Access to above mentioned files will be provided till the end of construction (final commercial operations date of contractor/ concessionaire) that form a part of this assignment at the cost of the consultant.
- ii. Access to additional users shall also bear no additional cost to the authority.

APPENDIX-I

Proof of Eligibility

Form-E1

Letter of Proposal (On Applicant's letter head)

(Date and Reference)

To

Director
Directorate of Tourism, Government of Jharkhand
MDI Building, 2nd Floor, HEC Campus,
Dhurwa, Ranchi, Jharkhand- 834004

Sub: Selection of Consultant/Agency for conducting carrying out feasibility study, preparation of DPR, Bid process management and design and supervision work for development of aerial passenger Skywalk in Patratu Valley, Ramgarh District Netarhat area in Latehar district of Jharkhand.

Dear Sir,

With reference to your RFP Document dated....., I/we i.e.M/s-----
----- (Name of Bidder) having examined all relevant documents and understood their contents, hereby submit our Proposal for selection as Consultant. The proposal is unconditional and unqualified.

2. All information provided in the Proposal and in the Appendices is true and correct and all documents accompanying such Proposal are true copies of the irerespective originals.
3. This statement is made for the express purpose of appointment as the Consultant for the aforesaid Project.
4. I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
5. I/We acknowledge the right of the authority to reject our application without assigning any reason or otherwise and hereby waive our right to challenge the same on any account what so ever.
6. I/We certify that in the last three years, we or any of our Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breachon our part.
7. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Consultant, without incurring any liability to the Applicants in accordance with Clause 1.7 of the RFP document.
8. I/We declare that we/ any member of the consortium, are/ is not a Member of any other Consortium applying for Selection as a Consultant.
9. I/We certify that in regard to matters other that secrity and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory

129

authority which would cast a doubt on our ability to undertake the Consultancy for the Project or which relate to a grave offence that outrages the moral sense of the community.

10. I/We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
11. I/We further certify that no investigation by a regulatory authority is pending either against us or against our Associates or against our CEO or any of our Directors/ Managers/ employees.
12. I/We here by irrevocably waive any right or remedy which we may have at any stage at law or how so ever otherwise arising to challenge or question any decision taken by the Authority [and/ or the Government of India] in connection with the selection of consultant or in connection with the Selection Process itself in respect of the above mentioned Project.
13. I/We offer a BID Security of Rs. 1.00 Lakh (Rupees one Lakh only) to the Authority in accordance with the RFP Document.
14. I/We agree and understand that the proposal is subject to the provisions of the RFP document. In case, shall I/we have any claim or right of what so ever nature if the Consultancy for the Project is not awarded to me/us or our proposal is not opened or rejected.
15. I/We agree to keep this valid for 180 (One hundred and Eighty) days from the Proposal Due Date specified in the RFP.
16. A Power of Attorney in favor of the authorized signatory to sign and submit this Proposal and documents is attached here with.
17. In the event of my/our firm/consortium being selected as the Consultant, I/we agree to enter into any Agreement in accordance with this RFP. We agree not to seek any changes in the aforesaid form and agree to abide by the same.
18. I/We have studied RFP and all other documents carefully and also surveyed the Project site. We understand that except to the extent as expressly set forth in the Agreement, we shall have no claim, right or title arising out of and documents or information provided to us by the Authority or in respect of any matter arising out of or concerning or relating to the Selection Process including the award of Consultancy.
19. The Proof of Eligibility and Technical proposal are being submitted online (as per clause 4.1 of Lot). Financial Proposal is being submitted online only. This Proof of Eligibility read with Technical Proposal and Financial Proposal shall constitute the Application which shall be binding on us.
20. I/We agree and undertake to abide by all the terms and conditions of the RFP Document. In witness thereof, I/we submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,

(Signature, name and designation of the authorized signatory)

(Name and seal of the Applicant/ Lead Member)

Appendix-II

Form-E2/T3

FIRM'S REFERENCES

Relevant Services Carried out in the Last Ten Years (2010-11 onwards) Which Best Illustrate Qualifications

The following information should be provided in the format below for each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within a consortium, was legally contracted by the client:

Assignment Name:		Country:
Location within Country:		Professional Staff Provided by your firm:
Name of Client:		No. of Staff:
Address:		No. of Staff Months:
Start Date (Month/Year)	Completion Date (Month/Year)	Approx. Value of Services: (in INR/ current USD):
Name of JV/ Association Firm(s) if any:		No. of Months of Professional Staff provided by Associated Firm(s)
Status of your Company in the Assignment i.e., Sole/ Lead Member/ Other Member/ Associate		
Project Cost:		
Length of the Skywalk project in Km:		
Terrain: Mountainous/ plan		
Technology used		
Number of towers and tower spacing		
Passenger capacity		
Narrative Description of Project:		
Description of Actual Services Provided by your Company:		

Signature of Authorized Representative

(Certificate from Employer regarding experience should be furnished)

Form-E3

Financial Capacity of the Applicant

Name of Applicant:

Sr. No.	[Financial Year]*	Annual Revenue (Rs/ US \$ in million)
1	2020-21	
2	2019-20	
3	2018-19	
4	2017-18	
5	2016-17	

Certificate from the Statutory Audit or ^S

This is to certify that----- (-name of the Applicant) has received the payments shown above against there spective years on account of Consultancy Services.

Name of the audit firm Seal of the audit firm Date

(Signature, name and designation of the authorized signatory)

^S In case the Applicant does not have a statutory auditor, it shall provide the certificate from its chartered accountant that or dinarily audits the annual account of the Applicant.

Note:

*Financial year to be modified as applicable

Please donot attach any printed Annual Financial Statement.

136 →

APPENDIX-IV

Form-E4

Bank Guarantee for BID Security

B.G.No, Dated:

1. Inconsideration of you, Directorate of Tourism, MDI Building Dhorwa, Ranchi (here in after referred to as the "Authority", which expression shall unless it be repugnant to the subject or context thereof include its successors and assigns) having agreed to receive the BID ofand having its registered office at(and acting on behalf of its JV) (here in after referred to as the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/ their executors, administrators, successors and assigns), for the Carrying out Feasibility Study for development of Sky Walk Projects (here in after referred to as "the Project") pursuant to the RFP Document dated.....issued in respect of the Project and other related documents including without limitation the draft contract Agreement (here in after collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at..... and one of its branches at.....(here in after referred to as the "Bank"), at the request of the Bidder, do hereby in terms of Clause of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forth with to the Authority an amount of Rs.5.00 Lakh (Rupees Five Lakh only) (here in after referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its BID open during the BID validity period as set forth in the said Bidding Documents for any reason what so ever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs.5.00 Lakh (Rupees Five Lakh only).
4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the BID Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its BID open during the BID validity period set forth in the and the decision of the Authority that the Bidder is in default as afore said shall be final and binding on us, not with standing any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, **merger or amalgamation** of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the full Est liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding

Documents or to extend time for submission of the BIDs or the BID validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfillment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters afore said or by reason of time being given to the said Bidder or any other forbearance, actor omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing what so ever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.

- 8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
- 9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
- 10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank here under, be outstanding or unrealized.
- 11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
- 12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the under signed is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
- 13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs.5.00 Lakh (Rupees Five Lakh only). The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before***(indicate date falling 180 days after the BID Due Date).
- 14. This guarantee shall also be operatable at our..... Branch at Ranchi, 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 there under claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.

Signed and Delivered by Bank

By the hand of Mr./Ms..... its and authorised official.

(Signature of the Authorised Signatory)

(Official-Seal)

133 →

(Form-T-2)

Details of projects for which Technical and Financial Proposals have been submitted

Sl. No.	Name of Project	Names of Proposed Key Personnel

Form-E2/T3

FIRM'S REFERENCES

Relevant Services Carried out in the Last Ten Years Which Best Illustrate Qualifications

The following information should be provided in the format below for each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within a consortium, was legally contracted by the client:

Assignment Name:		Country:
Location within Country:		Professional Staff Provided by your firm:
Name of Client:		No. of Staff:
Address:		No. of Staff Months:
Start Date (Month/Year)	Completion Date (Month/Year)	Approx. Value of Services: (in INR/ current USD):
Name of JV/Association Firm(s) if any:		No. of Months of Professional Staff provided by Associated Firm(s)
Status of your Company in the Assignment i.e., Sole/Lead Member/ Other Member/ Associate		
Project Cost:		
Length of the Skywalk project in Km:		
Terrain: Mountainous/ plain		
Technology used		
Number of towers and tower spacing		
Passenger capacity		
Narrative Description of Project:		
Description of Actual Services Provided by your Company:		

Signature of Authorized Representative

(Certificate from Employer regarding experience should be furnished)

Form-T4

Composition of the Team Personnel and the task Which would be assigned to each Team Member

I. Technical/ Managerial Staff

Sr.No.	Name	Position	Task Assignment
1.			
2.			
3.			
4.			
.....			

II. Support Staff

Sr. No.	Name	Position	Task Assignment
1.			
2.			
3.			
4.			
.....			
.....			

APPROACH PAPER ON METHODOLOGY PROPOSED FOR PERFORMING THE ASSIGNMENT

Technical approach with methodology and work plan is key component of the Technical Proposal. The consultant is suggested to present its Technical Proposal divided into the following chapters:

- a. Project appreciation and understanding of assignment.
- b. Project approach & methodology.
- c. Duties and responsibilities of the team leader and other key personnel
- d. Work plan and staffing schedule

Project appreciation and understanding of assignment – The consultant should clearly outline their understanding of the objectives and scope of the assignment. The consultant should clearly highlight the end-state envisioned for various modules and stages of the project. A clear transition from the "as-is" state to the "to-be" state should be outlined with high level articulation of project impact.

Project Approach and Methodology. In this chapter the consultant should explain the approach to the services, methodology for carrying out the activities to obtain the expected output and the degree of detail of such output. The consultant should highlight the problems to be addressed along with their importance and explain the technical approach the consultant would adopt to address them. The consultant should also explain the proposed methodologies to adopt and highlight the compatibility of those methodologies with the proposed approach. Please limit the discussion to 20 single sided pages (10 double sided pages). Discussions greater than this limit shall not be considered for evaluation.

Duties and responsibilities of the team leader and other key personnel– In this chapter, the consultant should clearly outline the roles and responsibilities of the team leader and other key personnel. Specific responsibilities towards key deliverables need to be outlined and contribution of team leader and key personnel should also be highlighted accordingly. Interfaces across the expert team should also be highlighted to indicate shared expert inputs into modules as per the work plan.

Work Plan & Staffing schedule. In this chapter the consultant should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client) and delivery dates of the reports. The proposed work plan should be consistent with technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule. In addition, the consultant should propose the structure and composition of the proposed team. The consultant should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff.

REFERENCES

Relevant Services Carried Out Which Best Illustrate Qualifications

The following information should be provided in the format below for each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within a consortium, was legally contracted by the client:

Assignment Name:		Country:
Location within Country:		Professional Staff Provided by your firm:
Name of Client:		No. of Staff:
Address:		No. of Staff Months:
Technology Used:		
Start Date (Month/ Year)	Completion Date (Month/ Year)	Approx. Value of Services: (in INR/ current USD):
Name of JV/ Association Firm(s) if any:		No. of Months of Professional Staff provided by Associated Firm(s)
Status of your Company in the Assignment i.e., Sole/ Lead Member/ Other Member/ Associate		
Narrative Description of Project:		
Description of Actual Services Provided by your Company:		

Signature of Authorised Representative

(Certificate from Employer regarding experience should be furnished)

63

Format of Curriculum Vitae (CV) For Proposed Key Personnel Curriculum Vitae (CV) for the Key Personnel (with one page of summary of experience)



- 1. Proposed Position:
- 2. Name of Staff:
- 3. Date of Birth:

(Please furnish proof of age)

- 4. Nationality:
- 5. Educational Qualification:

(Summarize college/ university and other specialized education of staff member, giving names of schools, date attended and degrees obtained). (Please furnish proof of qualification)

Contact Address with Phone and mobile numbers:

- 6. Membership of Professional Societies:
- 7. Publication:

(List of details of major technical reports/ papers published in recognized national and international journals)

8. Employment Record:

*(Starting with present position, list in reversed order, every employment held. List all positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments along with the description of duties performed. For experience **period of specific assignment must be clearly mentioned**, also give client references, where appropriate).*

9. Summary of the CV

(Furnish a summary of the above CV. The information in the summary shall be precise and accurate. The information in the summary will have bearing on the evaluation of the CV).

A) Education:

- i) Field of graduation and year

- 127
- ii) Field of post-graduation and year
 - iii) Any other specific qualification

B) Experience

- i) Total experience as desired: ___ Yrs.
- ii) Responsibility held and position : a) No. of projects and Yrs.
b) No. of projects and Yrs.
c) No. of projects and Yrs.
- iii) Relevant experience and position: ___ No. of projects and Yrs.

C) Permanent Employment with the firm: ___ Yrs. And

period If yes, how many years and period:

If no, what is the employment arrangement with the firm?

Certification:

- 1 *I am willing to work on the project and I will be available for entire duration of the project assignment and I will not engage myself in any other assignment during the currency of this assignment on the project.*
- 2 I, the under signed, certify that to the best of my knowledge and belief, this biodata correctly describes myself my qualification and my experience.

Signature of the Candidate _____

Place _____

Date _____

Signature of the Authorized Representative of the firm _____

Place _____

Date _____

Note: Each page of the CV shall be signed in ink by both the staff member and the Authorized representative of the firm. Photocopies will not be considered for evaluation.

UNDERTAKING FROM THE PROFESSIONAL

Name of Work:

Position in the Team:

I (Name) have not left any assignment with the consultants/ contractors engaged by Client viz. MoRT&H/ NHAI/ NHLML/ NHIDCL/ IAHE/ BRO/ State PWD or any other MoRTH implementing agency without completing my assignment. I will be available for the entire duration of the current project for which I am being included in the team. If I leave this assignment in the middle of the completion of the work, I may be debarred for an appropriate period to be decided by Client. I shall also have no objection if my services are extended by Client for this work in future.

I the under signed, also certify that to the best of my knowledge and belief, my biodata, information and credentials submitted in this proposal truly describe myself, my qualification and my experience. I shall be liable for any action, as deemed fit, in case there is any mis-representation in this regard.

Date:

Place:

Signature

(Name of Key Personnel)

125 →

UNDER TAKING FROM CONSULTING FIRM

Name of Work:

The under signed on behalf of (Name of Consulting Firm) certify that none of the Key Personnel included in our team to the best of our knowledge has left his/her assignment with any consulting/ contracting firm engaged by MoRT&H/ NHAI/ NHLML/ NHIDCL/ JAHE/ BRO/ State PWD or any other MoRTH implementing agency. We also confirm the truthfulness of the credentials uploaded by our firm/ JV Member/ Associate and all the Key Personnel proposed in our team.

We understand that if any information about our firm/ JV Member/ Associate/ Key Personnel is found contrary to what has been submitted in this proposal, the Client would be at liberty to remove the concerned personnel from the present assignment and debar our firm/ JV Member/ Associate/ Key Personnel for an appropriate period to be decided by the Client.

Date:

Place:

Signature

(Name of Authorized Signatory)

APPENDIX-IVA

(Form-I)

FINANCIAL PROPOSALS

FROM:

TO:

_____	_____
_____	_____
_____	_____

Sir:

Subject: Consultants' Services for

Regarding Price Proposal

I/We _____ Consultant/ consultancy firm here with enclose* Price Proposal for selection of my/ ourfirm/ organization as consultant for Package.....

Yours faithfully,

Signature _____

FullName _____

Designation _____

Address _____

(Authorized Representative)

*The Financial proposal is to be filled separately for each package strictly as per the financial bid format in the procurement portal.

Format of Financial Proposal
Summary of Cost in Local Currency

No.	Description	Amount (LC)*(INR)
I	<u>Local Consultants</u> Remuneration for Local Staff (inclusive of per diem allowance)	
II	Support Staff (inclusive of per diem allowance)	
III	Transportation	
IV	Duty Travel to Site	
V	Office Rent	
VI	Office Supplies, Utilities and Communication	
VII	Reports and Document Printing	
VIII	Surveys &	
A	Investigations Topographical	
B	Survey Investigations	
IX	Sub-consultant for activities related to Environment, forest and wildlife clearances	
	Sub-total Local Consultants:	
	Foreign Consultants	
F-I	Remuneration for Expatriate Staff	
F-II	Mobilization and Demobilization	
	Total Cost Net of Tax :	
Taxes and Duties	I. Income Tax (Expatriate) II. Other Taxes/ Duties (if any) Specify clearly	
	Total cost net of Goods & service tax**	
	Goods & Service Tax	
	TOTAL COSTS (Including GST)	

LC*Local Currency

**Total Cost Net of Goods & Service Tax shall be considered for financial evaluation

Note: No escalation will be payable during the services

Insurances shall not be allowed separately. These will be incidental to main items.

Rates for all items shall be quoted in figures.

(Form-II-A)

Location-wise Financial Proposal**Summary of Cost in Local Currency**

S.No.	Name of Stretch	Amount (LC*) (INR)
1	Foot of the hill to temple premises at hilltop at Sri Kanaka Durga Temple	
2	Fegalapentain Telangana to Srisaithama cross river Krishna	
3	Rajgad Fort	
4	Rajgad Fort	
	Total Cost Net of Tax:	
Taxes and Duties	I. Income Tax (Expatriate)	
	II. Other Taxes/ Duties (if any) Specify clearly	
	Total cost net of Goods & service tax**	
	Goods & Service Tax	
	TOTAL COSTS (Including GST)	

LC*Local Currency

**Total Cost Net of Goods & Service Tax shall be considered for financial evaluation
 Note: Noescalation will be payable during the services

Note: Total cost net of Goods & Service Tax in Form-II and Form-IIA shall be the same.

121

(Form-III)

Estimate of Local Currency Costs

I. Remuneration for Local Staff (including per diem allowance)

_____ (Name of Project)

I. Position of Key Staff	Name	Staff month rate	Input (staff months)	Amount INR
Team Leader			6	
Fire & Safety Expert			2	
Environment cum Social Expert			4	
Transportation Planner			2	
Real Estate cum Financial Expert			2	
II. Position of Sub-professional staff	Name	Staff month rate	Input (staff months)	Amount INR
Structural Engineer			3	
Geo technical Engineer			3	
Electrical Engineer			3	
Mechanical Engineer			3	
Quantity Surveyor			3	
Assistant environment cum social expert			4	
IT & Instrumentation Engineer			2	
Total				

III. Transportation (Fixed costs)

S. No	Description	Qty.	Nos. of months	Rate/ Month (INR)	Amount (INR)
1	The vehicles provided by the Consultants shall include the cost for rental, drivers, operation, maintenance, repairs, insurance, etc. A. For use of consultants				
	Total				

IV. Duty Travel to Site (Fixed Costs)

Trips Description	No.	Rate (INR)	Amount (INR)
		Total	

V. Office Rent (Fixed Costs)

S. No.	Description	No. of Month	Monthly Rate (INR)	Amount (INR)
1	The rent cost includes maintenance, cleaning, repairs, etc.			
			Total	

VI. Office Supplies, Utilities and Communication (Fixed Costs)

No.	Item	Months	Monthly Rate (INR)	Amount In INR.
	Office Supplies Drafting Supplies Computer Running Costs Domestic and International Communication			
			Total	

VII. Reports and Document Printing

No.	Description	No. of Copies	Rate per Copy (INR.)	Amount (INR.)
1	Inception Report, Benchmarking Report & QAP	3		
2	Engineering survey results with market assessment report for finalisation and approval of suitable site for Skywalk Alignment and Stations.	4		
3	Submission of alternatives for concept Alignment plans for Skywalk System Project along with high level cost estimation Across options.	4 Copies each		
4	Submission of all draft statutory documents for clearances. Assessment of shifting of utilities required and providing connectivity of inter-station with requisite utilities.	4 copies each		
5	Submission of all Final statutory documents for clearances. Assessment of shifting of utilities required and providing connectivity of inter-station with requisite utilities.	6 copies each		
6	Final Alignment plan after due consultation with client and relevant stake holders	4		
7	Draft Feasibility Report including Engineering Plan, structural drawings, detailed Economic Analysis, Financial Feasibility and Project Structuring aspects etc.	4 copies		
8	Final Feasibility Report including submission of bid documents for selection of developing agency.	8 copies		
9	Draft Forest clearance stage and draft environment impact assessment report (EIA) clearance, social impact Assessment and draft documents related to other clearances required	4 copies each		

No.	Description	No. of Copies	Rate per Copy (INR.)	Amount (INR.)
10	Final Forest clearance stage land Final environment impact assessment report (EIA) clearance, Social Impact Assessment and final documents related to other clearances required	6 copies each		
11	Other statutory clearance report	6 copies each		
12	3 Drunning miniature model with component detailing on an appropriate scale in consultation with the Authority with maximum size by 8 feet x 4 feet	One		
13	Simulation Graphic video with voice over (3 min)	One		

VIII. Survey and Investigation

A. Topographical Survey (Fixed Cost)

No.	Item	Amount (INR)
1	Detailed Topographic Survey using LIDAR/ Total Station or both or better technology	

B. Other Engineering Investigation (Fixed cost)

No.	Description	Amount (INR)
1		

IX. Sub-consultant for activities related to Environment, forest and wildlife clearances

No.	Description	Amount (INR)
1	Sub-consultant accredited by NABET/ MoEF & CC	

DETAILED EVALUATION CRITERIA**1. First Stage Evaluation-Proof of Eligibility (Para 12.1 of Data Sheet)****Minimum Eligibility Requirements**

Clause	Minimum Qualification Criteria	Minimum Number of projects
A	Experience in preparation of Detailed Project Report/ Detailed Feasibility report (DPR)*for Passenger cable propelled transit system in the last 10 years ² . Ongoing projects (complete up to 90%) will be considered for which experience of consultancy services is claimed.	2
Clause	Minimum Qualification Criteria	Financial Capacity
B	Average annual turn over for last 5 financial years i.e. 2016-17, 2017-18, 2018-19, 2019-20 & 2020-21. ²	INR 15 Cr.

#All the technical experience in terms of years wherever quoted above shall be from Bid due date.

- I. The firm needs to provide detailed experience certificates for all projects claimed under category 'A' detailing out the period of assignment, commencement of date of services, completion of services date, percentage completed (if the project is on going), project cost, cost of consultancy services, length of Passenger cable propelled transit project, tower lengths, number of stations, terrain of the project, designed PHPDT from the engaging government agency/ certified by statutory auditor.
- (i) The sole applicant shall fulfill all the requirements given in Table-I.
- (ii) In case of JV, the Lead Partner or JV on combined basis should fulfill 100% of all the eligibility requirements for "A" and "B".
- (iii) In case of JV, the partner having experience in design & installation will be allowed to participate in the EPC/BOT Tender on the basis of this DPR/Feasibility Report

² Annual turnover duly certified by Chartered Accountant shall be accepted. In case of non-availability of such documents, now eight age of turnover/ experience will be considered. Annual Average Turn Over for the last 5 years [In cases where, Audited/ Certified copy of Balance Sheet for the FY 2020-21 is available, last five years shall be counted from 2016-17 to 2020-21. However, where audited/ certified copy of the Balance Sheet for the FY 2020-21 is not available (as certified by the Statutory auditor) then in such cases last five years shall be considered from 2015-16 to 2019-20; of the firm from Consultancy services should be equal to more than Rs. 50 crore.

2. Second Stage Evaluation-Technical Evaluation (Para 12.2 of Data Sheet)

(A) Firm's Relevant Experience (40) and (B) Project Understanding, approach and methodology etc.

S. No	Description	Max. Points
A	Experience of the Firm Related to the Assignment	40
A1	Experience in preparation of Detailed Project Report/ Detailed Feasibility Report for setting up of Passenger cable propelled transit system in the last 10 years. On going projects (complete upto 90%) will be considered for which experience of consultancy services is claimed.	20
	<2 projects	0
	2 projects	15
	For each additional project above 2 (upto a maximum of 5 additional projects)	1 mark per project
A2	Experience in preparation of Detailed Project Report/ Detailed Feasibility Report for setting up of Passenger cable propelled transit system for Urban transport in the last 10 years.	7
	<1 project	0
	1 project	05
	For each additional project above 1 (upto a maximum of 2 additional projects)	01 mark per project
A3	Experience in preparation of Detailed Project Report/ Detailed Feasibility Report for setting up of Passenger cable propelled transit system in Mountainous terrain of minimum length of [1.5] Kms per project in the last 10 years.	8
	<1 project	0
	1 project	6
	For each additional project above 1 (upto a maximum of 2 additional projects)	1 mark per project
A4	Experience in Supervision of Construction or Operations and maintenance of Passenger Skywalk systems/ Passenger cable propelled transit system in the last 10 years.	5
	<2 projects	0
	2 projects	4
	For each additional project above 2 (upto a maximum of 2 additional projects)	0.5 mark per project
B	Adequacy of the proposed work plan and methodology in response to the TOR followed by presentation (if desired by evaluation committee)	10
I	Project appreciation and understanding of assignment	4
II	Project approach & methodology	2
III	Duties and responsibilities of the team leader and other key personnel	2
IV	Work plan and staffing schedule	2

Note:

- (i) Projects need not be exclusive among A1, A2 and A3 and A4.
- (ii) All the technical experience in terms of years wherever quoted above shall be from Bid due date.
- (iii) For project under A4, supervision period to be clearly stated in the project details submitted
- (iv) The minimum technical score required to qualify technical evaluation is 75 Points out of 100. A proposal will be considered unsuitable and will be rejected at this stage if it does not respond to important aspects of RFP Document and the Terms of Reference or if it fails to achieve the minimum technical score. The Client will notify Applicants who fail to score the minimum technical score and their financial bid shall

	For each additional project above 4 (upto a maximum of 2 additional projects)	1 mark each	
(iv)	Experience as a team leader in projects related to Passenger Skywalk Systems/ Passenger cable propelled transit system with minimum length of [1.5]Kms per project in mountainous region		15
	<1 project	0	
	1 project	12	
	For each additional project above 1 (upto a maximum of 1 additional project)	3 mark each	
S.No.	Description		Max.Points
	additional project)		
(v)	Experience of leading the team or as a Skywalk Expert in Super vision of Construction/ Operations of Passenger Skywalk Systems Passenger cable propelled transit system for a minimum period of 1 year for each project.		10
	<1 project	0	
	1 project	8	
	For each additional project above 1 (upto a maximum of 1 additional project)	2 mark each	
(vi)	Experience of leading assignments in Advising Government Authorities, policy making in projects related to Passenger Skywalk Systems/ Passenger cable propelled transit system on PPP mode of delivery, a part from the projects related to DPR/ feasibility studies in the experience claimed.		5
III	Employment with Firm		5
	Less than 1 year	0	
	More than or equal to 1 year	5	
	Total		100

Note-

- Projects show cased among (iii), (iv) and (v) of S.No.II(b) need not be exclusive.
- Supervision period to be clearly stated in the project details submitted.

FIRE AND SAFETY EXPERT

S.No.	Description	Max.Points
I	General Qualification	25
i)	Degree in Engineering field/ Science or equivalent	22
ii)	Advance course on Fire & Safety aspects of Cable Cars/ Cable Propelled Transit System/ Vehicles including Aircrafts, Helicopters, Rail Coaches, Ships for minimum 6 months period.	3
II	Relevant Experience & Adequacy for the Project	70
a)	Total Professional Experience	15
	<20 years	0
	20 years	12
	For each additional year of experience upto 3 additional years	1 mark per year
b)	Experience in designing fire & safety systems related to electrical & mechanical systems of passenger transportation.	15
	<15 years	0
	15 years	10
	For each additional year of experience upto 5 additional years	1 mark per year
c)	Experience in designing fire & safety systems related to electrical & mechanical systems of passenger transportation.	10
	<2 projects	0
	2 projects	6
	For each additional project above 2 (upto a maximum of 2 additional projects)	2 mark per project
d)	Experience as Fire & safety Expert of electrical & mechanical components of cable cars & other components of Passenger Skywalk Systems/Passenger cable propelled transit system	30
	<2 projects	0
	2 projects	20
	For each additional project above 4 (upto a maximum of 2 additional projects)	5 mark per project
III	Retainership with Firm	5
	Less than 1 year	0
	More than or equal to 1 year	5
	Total	100

ENVIRONMENTAL cum SOCIAL EXPERT

S.No.	Description	Max. Points
I	General Qualification	25
i)	Degree in Environmental Engineering/ Science or equivalent	22
ii)	Post-Graduation in Environmental Engineering/ Science or equivalent	3
II	Relevant Experience & Adequacy for the Project	70
a)	Total Professional Experience	15
	<15 years	0
	15 years	12
	For each additional year of experience upto 3 additional years	1 mark per year
b)	Experience in environmental impact assessment, environmental management plan, statutory clearance management & clean development mechanism related to large scale linear transportation infrastructure projects	25
	<10 years	0
	10 years	20
	For each additional year of experience upto 5 additional years	1 mark per year
c)	Experience in environmental impact assessment, environmental management plan, statutory clearance management & clean development mechanism related to large scale linear transportation infrastructure projects	30
	<4 projects	0
	4 projects	25
	For each additional project above 4 (upto a maximum of 2 additional projects)	2.5 mark per project
III	Retainership with Firm	5
	Less than 1 year	0
	More than or equal to 1 year	5
	Total	100

TRANSPORTATION PLANNER

S.No.	Description	Max.Points
I	General Qualification	25
i)	Degree in Civil Engineering or equivalent	22
ii)	MBA/ Post graduate in Traffic/ Transportation Engineering	3
II	Relevant Experience & Adequacy for the Project	75
(a)	Total Professional Experience	15
	< 15 years	0
	15 years	12
	For each additional year of experience upto 3 additional years	1 mark per year
(b)	Experience in public/ private companies/ govt. agencies on topics related to development of passenger transportation infrastructure.	55
	<5 Projects	0
	5 projects	45
	For each additional project above 5 (upto a maximum of 5 additional projects)	2 marks per project
III	Retainership with Firm	
	Less than 1 year	0
	More than 1 year	5
	Total	100

REAL ESTATE CUM FINANCIAL EXPERT

S.No.	Description	Max. Points
I	General Qualification	25
i)	Degree in Civil Engineering / Planning/ Management or equivalent	22
ii)	MBA Post-Graduation in Real Estatemangement/ Planning/ Management (Finance)/ Economics/ Statistics or equivalent.	3
II	Relevant Experience & Adequacy for the Project	70
a)	Total Professional Experience	15
	<15 years	0
	15 years	12
	For each additional year of experience upto 3 additional years	1 mark per year
b)	Experience in passenger transportation related Real Estate development, market analysis, Financial Analysis/ financial structuring of infrastructure projects related to Passenger transport systems in similar capacity	15
	<10 years	0
	10 years	12.5
	For each additional year of experience upto 5 additional years	0.5 mark per year
c)	Experience in passenger transportation related Real Estate development, market and demand analysis and user-product mix for infrastructure projects related to Passenger transport systems.	20
	<4 Projects	0
	4 Projects	15
	For each additional project above 4 (upto a maximum of 5 additional projects)	1 mark per project
d)	Experience in financial analysis in similar capacity for passenger related transportation projects of similar nature in the field of Infrastructure Finance on PPP projects including econometric analysis and estimating economic NPV & IRR	10
	<1 Projects	0
	1 Projects	06
	For each additional project above 1 (upto a maximum of 2 additional projects)	2 mark per project
e)	Experience in financial advisory related to passenger transportation projects, policy making on PPP mode of delivery, apart from the projects related to DPR/ feasibility studies in the experience claimed.	10
	<1 Projects	0
	1 Projects	06
	For each additional project above 1 (upto a maximum of 2 additional projects)	2 mark per project
III	Retainership with Firm	5
	Less than 1 year	0
	More than or equal to 1 year	5
	Total	100

Sub-Professional Staff

The Consultant shall deploy Sub Professional Staff with minimum 10years' experience in related field. All CVs are to be approved by client before deployment.

SrNo	Sub-Professional Staff
1	Structural Engineer
2	Geo technical Engineer
3	Electrical Engineer
4	Mechanical Engineer
5	Quantity Surveyor
6	Assistant Environment cum social expert
7	IT & Instrumentation Engineer