



Government of Nepal
Ministry of Federal Affairs and Local Development
District Development Committee
District Technical Office

UNNATI, Inclusive Growth Programme in Nepal
Bhojpur

REQUEST FOR PROPOSAL (RFP)

Procurement of Consulting Services

for

"Detailed Engineering Survey, Design and Road Inventory of Proposed Roads and Other Structures (for upgrading of this Section to all weather standards) and Preparation of Detailed Project Report (DPR), Contract Documents" as per ToR

of

Hilebhanjayang - Helaucha -Boya - Sangpang -Deurali Road

January, 2017



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Section 1. Letter of Invitation

Date: 2073/10/05

1. The Government of Nepal has undertaken the implementation of the **UNNATI, Inclusive Growth Programme in Nepal, (UNNATI, the Programme)** started in January 2014 with assistance from Government of **Denmark** and it intends to apply a part of this grant to payments under this Contract. The Programme is being implemented in the districts of **Taplejung, Panchthar, Ilam, Sankhuwasabha, Dhankuta, Terhathum, and Bhojpur**.
2. District Technical Office, **Bhojpur, UNNATI-Inclusive Growth Programme** in Nepal now invites proposals to provide the following consulting services:

SN	Name of road	Proposed length (km)	District
1	Hilebhanjayang - Helaucha -Boya - Sangpang - Deurali Road(10DR024)	38.52	Bhojpur

More details on the services are provided in the attached Terms of Reference.

3. The Request for Proposal (RFP) has been addressed to the below shortlisted consultants:
 - a. **ECoCoDE Nepal (P) Ltd, Milestone design and planning consult P.Ltd and Api point engineering construction and consult Nepal pt. Ltd. JV, kathmandu**
 - b. **Environment and Resource Management Consultancy Pvt. Ltd. (ERMC), ERMCs international P.Ltd.(ERMCs) and Green Planet Engineer's Associate P.Ltd. (Green Planet) JV, kathmandu**
 - c. **TAEC Consult P.Ltd,Integrated Management and Engineering Research Consultancy P.Ltd. (IMERC) and Rajdevi Engineering Consultant (P) Ltd. (REC) JV,kathmandu**
 - d. **Grid design Nepal Design Associates- Engineering Support Consult Pvt.Ltd - Design Engineering Consultant Pvt. Ltd JV, kathmandu**
 - e. **North Star Engineering Consultant (P). Ltd and ITECO Nepal (P).Ltd., kathmandu**
 - f. **Beam Consultant Pvt.Ltd- National Synergy Engineering Solution Pvt.Ltd and Engineering and Educational Service Pvt.Ltd JV. ,kathmandu**
4. A consultant will be selected under Quality and Cost-Based Selection (QCBS) and procedures described in this RFP.
5. The RFP includes the following documents:
 - Section 1 - Letter of Invitation
 - Section 2 - Information to Consultants
 - Section 3 - Technical Proposal - Standard Forms
 - Section 4 - Financial Proposal - Standard Forms
 - Section 5 - Terms of Reference
 - Section 6 - Standard Forms of Contract.



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6. RFP must be submitted (Technical and Financial proposal in separate envelope with sealed) to office of District Technical Office, Bhojpur on or before office hour, 30th day (2073/11/05). Proposals received after the deadline will not be entertained.
 7. Received Technical Proposal shall be opened in the presence of firm representatives who choose to attend at 13:00 hours on the next day (2073/11/06) in District Technical Office, Bhojpur.
 8. If the last date of submission/opening falls on a government holiday then the next working day shall be considered as the last day.
 9. The employer reserves the right to accept or reject, wholly or partly any or all of the proposals without assigning any reasons whatsoever.
 10. The Standard RFP form will be available upon request at dtobhojpur.2014@gmail.com and can be collected from website www.ddcbhojpur.gov.np

Yours sincerely,

Chief District Engineer
District Technical Office, Bhojpur



Section 2. Information to Consultants

- 1. Introduction**
- 1.1 The Client named in the Data Sheet will select a consultant among those listed in the Letter of Invitation, in accordance with the method of selection specified in the Data Sheet.
 - 1.2 The consultants are invited to submit a Technical Proposal and a Financial Proposal, for services as specified in the Data Sheet. The proposal will be the basis for contract negotiations and ultimately for a signed contract with the selected consultant.
 - 1.3 The consultants must familiarize themselves with local conditions and take them into account in preparing their proposals. To obtain first-hand information on the assignment and on the local conditions, consultants are encouraged to visit the Client before submitting a proposal and are advised to attend a pre-proposal conference if one is specified in the Data Sheet.
 - 1.4 The Client will provide the inputs specified in the Data Sheet, assist the consultant in obtaining licences and permits needed to carry out the services, and make available relevant project data and reports.
 - 1.5 Please note that (i) the costs of preparing the proposal and of negotiating the contract, including a visit to the Client, are not reimbursable as a direct cost of the assignment; and (ii) the Client is not bound to accept any of the proposals submitted.
 - 1.6 GoN (or Donor Agency) policy requires that consultants provide professional, objective, and impartial advice and at all times hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflicts with other assignments or their own corporate interests. Consultants shall not be hired for any assignment that would be in conflict with their prior or current obligations to other clients, or that may place them in a position of not being able to carry out the assignment in the best interest of the Client.
 - 1.7.1 Without limitation on the generality of this rule, consultants shall not be hired under the circumstances set forth below:
 - a. A consultant, who has been engaged by the Client to provide goods or works for a project, and any of their affiliates, shall be disqualified from providing consulting services for the same project. Conversely, consultants hired to provide consulting services for the preparation or implementation of a project, and any of their affiliates, shall be disqualified from subsequently providing goods or works or services related to the initial assignment (other than a continuation of the consultant's earlier consulting services) for the same project.
 - b. Consultants or any of their affiliates shall not be hired for any assignment which, by its nature, may be in conflict with another assignment of the consultants.
 - 1.7.2 Any previous or ongoing participation in relation to the assignment by the consultant, its professional staff or affiliates or associates under a contract with the GoN may result in rejection of the proposal. Consultants should clarify their situation in that respect with the Client before preparing the proposal.



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- 1.8 It is the GoN's policy to require its implementing agencies, as well as consultants under GoN (or Donor Agency) financed contracts, to observe the highest standard of ethics during the selection and execution of such contracts. In pursuance of this policy, the GoN:
- a. defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution; and
 - ii. "fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Client, and includes collusive practices among consultants (prior to or after submission of proposals) designed to establish prices at artificial, non-competitive levels and to deprive the borrower of the benefits of free and open competition.
 - b. will reject a proposal for award if it determines that the consultant recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question;
 - c. will cancel the consultant's contract if it at any time determines that corrupt or fraudulent practices were engaged in by representatives of the consultant or the Client during the selection process or the execution of that contract;
 - d. will debar a consultant for a stated period of time, to be awarded a contract if it at any time determines that the consultant has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract; and
 - e. will have the right to require that, a provision be included requiring consultants to permit the Client inspect their accounts and records relating to the performance of the contract and to have them audited by auditors appointed by the Client.
- 1.9 Consultants shall not be under a debarment for corrupt and fraudulent practices issued by GoN accordance with the above sub paragraph 1.8 (d).
- 1.10 Consultants shall be aware of the provisions on fraud and corruption stated in the Standard Contract under the clauses indicated in the Data Sheet.
- 2. Clarification and Amendment of RFP Documents**
- 2.1 Consultants may request a clarification of any of the RFP documents up to the number of days indicated in the Data Sheet before the proposal submission date. Any request for clarification must be sent in writing by paper mail, cable, telex, facsimile, or electronic mail to the Client's address indicated in the Data Sheet. The Client will respond by cable, telex, facsimile, or electronic mail to such requests and will send written copies of the response (including an explanation of the query but without identifying the source of inquiry) to all invited consultants who intend to submit proposals.
- 2.2 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 an invited consultant, amend the RFP. Any amendment shall be issued in writing through addenda. Addenda shall be sent by mail, cable, telex, facsimile, or electronic mail to all invited consultants and will be binding on them. The Client may at its discretion extend the deadline for the submission of proposals.

3. Preparation of Proposal

Technical Proposal

3.1 Consultants are requested to submit a proposal Sub - Clause 1.2 written in the language(s) specified in the Data Sheet.

3.2 In preparing the Technical Proposal (TP), consultants are expected to examine the documents constituting this RFP in detail. Material deficiencies in providing the information requested may result in rejection of a proposal.

3.3 While preparing the Technical Proposal, consultants must give particular attention to the following:

- i. If a consultant considers that it does not have all the expertise for the assignment, it may obtain a full range of expertise by associating with individual consultant(s) and/or other consultants or entities in a joint venture or sub-consultancy, as appropriate. Consultants may associate with the other consultants invited for this assignment only with approval of the Client as indicated in the Data Sheet. Consultants must obtain the approval of the Client to enter into a joint venture with consultants not invited for this assignment.
- ii. For assignments on a staff-time basis, the estimated number of professional staff-months is given in the Data Sheet. The proposal shall, however, be based on the number of professional staff-months estimated by the consultant. For fixed-budget-based assignments, the available budget is given in the Data Sheet, and the Financial Proposal shall not exceed this budget.
- iii. It is desirable that the majority of the key professional staff proposed be permanent employees of the consultant or have an extended and stable working relationship with it.
- iv. Proposed professional staff must, at a minimum, have the experience indicated in the Data Sheet, preferably working under conditions similar to those prevailing in Nepal.
- v. Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.
- vi. Reports to be issued by the consultants as part of this assignment must be in the language(s) as specified in the Data Sheet.

3.4 The Technical Proposal shall provide the following information using the attached Standard Forms (Section 3):

- i. A brief description of the consultant's organization and an outline of recent experience on assignments (Section 3B) of a similar nature. For each assignment, the outline should indicate, *inter alia*, the client, location and duration of the assignment, contract amount, and consultant's involvement.



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- ii. Any comments or suggestions on the Terms of Reference and on the data, a list of services, and facilities to be provided by the Client (Section 3C).
 - iii. A description of the methodology and work plan for performing the assignment (Section 3D).
 - iv. The list of the proposed staff team by specialty, the tasks that would be assigned to each staff team member, and their timing (Section 3E).
 - v. CVs recently signed by the proposed professional staff and the authorised representative submitting the proposal (Section 3F). Key information should include number of years working for the consultant/entity and degree of responsibility held in various assignments during the last ten (10) years.
 - vi. Estimates of the total staff input (professional and support staff; staff time) needed to carry out the assignment, supported by bar chart diagrams showing the time proposed for each professional staff team member (Sections 3E and 3G).
 - vii. A detailed description of the proposed methodology, staffing, and monitoring of training, if the Data Sheet specifies training as a major component of the assignment.
 - viii. Any additional information requested in the Data Sheet.
- 3.5 The Technical Proposal shall not include any financial information.
- Financial Proposal**
- 3.6 In preparing the Financial Proposal (FP), consultants are expected to take into account the requirements and conditions outlined in the RFP documents. The Financial Proposal should follow Standard Forms (Section 4). It lists all costs associated with the assignment, including (a) remuneration for staff (in the field and at headquarters), and (b) reimbursable expenses such as subsistence (per diem, housing), transportation (mobilization and demobilization), services and equipment (vehicles, office equipment, furniture, and supplies), office rent, insurance, printing of documents, communication (Telephone, Fax etc.) surveys, and training, if it is a major component of the assignment. If appropriate, these costs should be broken down by activity.
- 3.7 The Financial Proposal should include all duties, taxes and other levies, and other charges imposed under the applicable law payable by the Consultant under the Contract or for any other cause.
- 3.8 Consultants shall express the price of their services in Nepalese Rupees.
- 3.9 The Data Sheet indicates the required validity period of the proposals. During this period, the consultant is expected to keep available the professional staff proposed for the assignment. The Client will make its best effort to complete negotiations within this period. If the Client wishes to extend the validity period of the proposals, the consultants who do not agree have the right not to extend the validity of their proposals.
- 4. Submission, Receipt, and**
- 4.1 The original proposal (TP and FP) shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary



Opening of Proposals

to correct errors made by the consultant itself. Any such corrections must be initialled by the persons or person who sign(s) the proposals.

- 4.2 An authorized representative of the Consultants shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal.
- 4.3 For each proposal, the consultants shall prepare the number of copies indicated in the Data Sheet. Each Technical Proposal and Financial Proposal shall be marked "**ORIGINAL**" or "**COPY**" as appropriate. If there are any discrepancies between the original and the copies of the proposal, the original governs.
- 4.4 The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked "**Technical Proposal,**" and the original and all copies of the Financial Proposal in a sealed envelope clearly marked "**FINANCIAL PROPOSAL**" and warning: "**DO NOT OPEN WITH THE TECHNICAL PROPOSAL.**" Both envelopes shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address and other information indicated in the Data Sheet and be clearly marked, "**DO NOT OPEN, EXCEPT IN PRESENCE OF THE EVALUATION COMMITTEE.**"
- 4.5 The completed Technical and Financial Proposals must be delivered at the submission address on or before the time and date stated in the Data Sheet. Any proposal received after the closing time for submission of proposals shall be returned unopened.
- 4.6 After the deadline for submission of proposals, the Technical Proposal shall be opened immediately by the evaluation committee. The Financial Proposal shall remain sealed and deposited with the Client's Procurement Unit until all submitted proposals are opened publicly.

5. Proposal Evaluation

General

- 5.1 From the time the bids are opened to the time the contract is awarded, if any consultant wishes to contact the Client on any matter related to its proposal, it should do so in writing at the address indicated in the Data Sheet. Any effort by the consultant to influence the Client in the Client's proposal evaluation, proposal comparison or contract award decisions may result in the rejection of the consultant's proposal.
- 5.2 Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation, is concluded.

Evaluation of Technical Proposals (QCBS,QBS,FBS, LCBS))

- 5.3 The evaluation committee, appointed by the Client as a whole, and each of its members individually, evaluates the proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria and point system specified in the Data Sheet. The evaluation committee shall compute the score obtained by each proposal by taking the average of the scores given by each member to the particular proposal. Each responsive proposal will be given a technical score (St). A proposal shall be rejected at this stage if it does not respond to important aspects of the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Data Sheet.



5.4 In the case of Quality-Based Selection, the highest ranked consultant is invited to negotiate its proposal and the contract on the basis of the Technical Proposal and the Financial Proposal submitted in accordance with the instructions given in paragraph 1.2 and the Data Sheet.

Public Opening and Evaluation of Financial Proposals (CBS Only)

5.5. The Financial Proposals shall be opened publicly in the presence of the consultants' representatives who choose to attend. The name of the consultant and the proposed prices shall be read aloud and recorded. The Client shall prepare minutes of the public opening.

Public Opening and Evaluation of Financial Proposals (QCBS , FBS,LCBS)

5.6 After the evaluation of quality is completed, the Client shall notify those consultants whose proposals did not meet the minimum qualifying mark or were considered non-responsive to the RFP and Terms of Reference, indicating that their Financial Proposals will be returned unopened after completing the selection process. The Client shall simultaneously notify the consultants that have secured the minimum qualifying mark, indicating the date and time set for opening the Financial Proposals. The opening date shall be 7 after the notification date. The notification may be sent by registered letter, cable, telex, facsimile, or electronic mail.

5.7 The Financial Proposals shall be opened publicly in the presence of the consultants' representatives who choose to attend. The name of the consultant, the technical scores, and the proposed prices shall be read aloud and recorded when the Financial Proposals are opened. The Client shall prepare minutes of the public opening.

5.8 The evaluation committee will determine whether the Financial Proposals are complete (i.e., whether they have coated all items of the corresponding Technical Proposals; if not, the Client will cost them and add their cost to the initial price), correct any computational errors.

5.9 In case of Fixed Budget Selection (FBS), the consultant's Financial Proposals with cost more than the specified fixed budget ceiling by the Client in Data Sheet shall be rejected.

5.10 In case of Least Cost Based Selection (LCBS), the consultant's proposal which has scored the minimum pass mark in the Technical proposal and is of the least cost in the financial proposal shall be invited for negotiation.

5.11 In case of QCBS and FBS with financial proposal within specified fixed budget ceiling, the lowest Financial Proposal (Fm) will be given a financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Proposals will be computed as indicated in the Data Sheet. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) indicated in the Data Sheet: $S = St \times T\% + Sf \times P\%$. The consultant achieving the highest combined technical and financial score will be invited for negotiations.

6. Negotiations

6.1 Negotiations will be held at the address indicated in the Data Sheet. The aim is to reach agreement on all points and sign a contract.



- 6.2 Negotiations will include a discussion of the Technical Proposal, the proposed methodology (work plan), staffing and any suggestions made by the consultant to improve the Terms of Reference. The Client and consultant will then work out final Terms of Reference, staffing, and bar charts indicating activities, staff, periods in the field and in the home office, staff-months, logistics, and reporting. The agreed work plan and final Terms of Reference will then be incorporated in the "Description of Services" and form part of the contract. Special attention will be paid to getting the most the consultant can offer within the available budget and to clearly defining the inputs required from the Client to ensure satisfactory implementation of the assignment.
- 6.3 Unless there are exceptional reasons, the financial negotiations will involve neither the remuneration rates for staff (no breakdown of fees) nor other proposed unit rates in the cases of QCBS methods. For QBS, the consultant should provide the information on remuneration rates described in the Appendix to this information.
- 6.4 Having selected the consultant on the basis of, among other things, an evaluation of proposed key professional staff, the Client expects to negotiate a contract on the basis of the experts named in the proposal. Before contract negotiations, the Client will require assurances that the experts will be actually available. The Client will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or that such changes are critical to meet the objectives of the assignment. If substitution is considered then the proposed alternative candidate shall be evaluated as per the original criteria. The qualification and experience of the substitute candidate shall equal to or higher than the originally proposed candidate. If this is not the case and if it is established that key staff were offered in the proposal without confirming their availability, the consultant may be disqualified.
- 6.5 The negotiations will conclude with a review of the draft form of the contract. If negotiations fail, the Client will invite the consultant whose proposal received the second highest score to negotiate a Contract.

7. Award of Contract

- 7.1 Pursuant to Sub-Clause 6.5, the consultant, with whom agreement is reached following negotiation, shall be selected for approval of his proposal and the Client shall notify it's intention to accept the proposal to the selected consultant and other short-listed consultants within 7 days of selection of the winning proposal.
- 7.2 Any consultant, who has submitted a proposal and is not satisfied with the procurement process or Client's decision provided as per Sub - Clause 7.1 and believes that the Client has committed an error or breach of duty which has or will result in loss to him then the consultant may give an application for review of the decision to the Client with reference to the error or breach of duty committed by the Client. The review application should be given within 7 days of receipt of information regarding the issue of letter by the Client notifying it's intention to accept the winning proposal pursuant to Sub Clause 7.1.
- 7.3 If the review application is not received by the Client pursuant to Sub-Clause 7.2 then the proposal of the Consultant, selected as per



Sub-Clause 7.1 shall be accepted and the successful consultant shall be notified to come for signing the Agreement within 15 days.

- 7.4 If the Consultant fails to sign an agreement pursuant to Sub-Clause 7.3 then the Client will invite the consultant whose proposal received the next highest score to negotiate a contract.
- 7.5 If a review application is received by the Client pursuant to Clause 7.1 then the Client will clarify and respond within 5 days of receiving such application
- 7.6 If the applicant is not satisfied with the decision given by the procuring entity and/ or the decision is not given by the Procuring Entity Chief within 5 days then the applicant can file a complaint to the Review committee within 7 days.
- 7.7 The Client shall return the unopened Financial Proposals of those consultants who did not pass the technical evaluation.
- 7.8 The consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet.

8. Confidentiality

- 8.1 Information relating to evaluation of proposals and recommendations concerning awards shall not be disclosed to the consultants who submitted the proposals or to other persons not officially concerned with the process, until the letter of intention to accept the proposal is not issued to the selected consultant pursuant to Sub- Clause 7.1.

9. Conduct of Consultants

- 9.1 The Consultant shall be responsible to fulfil his obligations as per the requirement of the Contract Agreement, RFP documents and GoN's Public Procurement Act and Regulations.
- 9.2 The consultant shall not carry out or cause to carryout the following acts with an intention to influence the implementation of the procurement process or the procurement agreement :
- a. give or propose improper inducement directly or indirectly,
 - b. distortion or misrepresentation of facts
 - c. engaging or being involved in corrupt or fraudulent practice
 - d. interference in participation of other prospective bidders.
 - e. coercion or threatening directly or indirectly to impair or harm, any party or the property of the party involved in the procurement proceedings,
 - f. collusive practice among consultants before or after submission of proposals for distribution of works among consultants or fixing artificial/uncompetitive proposal price with an intention to deprive the Client the benefit of open competitive proposal price.
 - g. contacting the Client with an intention to influence the Client with regards to the proposals or interference of any kind in examination and evaluation of the proposals during the period after opening of proposals up to the notification of award of contract



10. Blacklisting Consultant

10.1 Without prejudice to any other rights of the Employer under this Contract, the Public Procurement Monitoring Office may blacklist a Consultant for his conduct up to three years on the following grounds and seriousness of the act committed by the consultant:

- a) if it is proved that the bidder committed acts pursuant to the Information to Consultants clause 9.2
- b) if the bidder fails to sign an agreement pursuant to Information to Consultants clause 7.3
- c) if it is proved later that the bidder/contractor has committed substantial defect in implementation of the contract or has not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract
- d) if convicted by a court of law in a criminal offence which disqualifies the consultant from participating in the contract
- e) if it is proved that the contract agreement signed by the consultant was based on false or misrepresentation of consultant's qualification information
- f) other acts mentioned in the Data Sheet or SCC

10.2 A Consultant declared blacklisted and ineligible by the Non-Public procurement Office and or concerned Donor Agency in case of donor funded project shall be ineligible to bid for a contract during the period of time determined by the GON and or the concerned donor agency.



INFOFMTION DATA SHEET

Clause Reference

1.1	The name of the Client is: District Technical Office, Bhojpur UNNATI-Inclusive Growth Programme in Nepal The method of selection is: QCBS
1.2	The name, objectives, and description of the assignment are: Name : Detailed Engineering Survey, Design and Road Inventory of Proposed Roads and Other Structures (for upgrading of this Section to all weather standards) and Preparation of Detailed Project Report (DPR), Contract Documents. Objectives: To conduct survey, design and preparation of DPR of proposed roads as per ToR.
1.3	A pre-proposal conference will be held: Yes , 15th days from the date of issue of letter of invitation, 13:00 hours at District Technical Office, Bhojpur The name(s), address(es), and telephone numbers of the Client's official(s) are: Name: District Technical Office, Bhojpur UNNATI-Inclusive Growth Programme in Nepal, Bhojpur Telephone No. : 029-420031
1.4	The Client will provide the following inputs: NA
1.10	The clauses on fraud and corruption in the Contract are: As per prevailing laws of Nepal
2.1	Clarifications may be requested 7 days before the submission date The address for requesting clarifications is: District Technical Office Bhojpur Telephone: 029-420031
3.1	Proposals should be submitted in the following language(s): English
3.3	(i) Short listed consultants/entity may associate with other short listed consultants: Not Applicable (ii) The estimated number of professional staff-months required for the assignment is: As per TOR (iii) The minimum required proposed professional staff is: As per TOR (iv) Reports that are part of the assignment must be written in the following language(s): English
3.4	(vii) Training is a specific component of this assignment: No (viii) Additional information in the Technical Proposal includes: See TOR



3.9	Proposals must remain valid 90days after the submission date.																
4.3	Consultants must submit an original and one additional copies of each proposal.																
4.4	<p>The proposal submission address: District Technical Office, Bhojpur</p> <p>UNNATI-Inclusive Growth Programme in Nepal Bhojpur Email : dtobhojpur.2014@gmail.com Telephone: 029-420031</p> <p>Information on the outer envelope should also include : Name of the Project or consulting services</p> <p>Technical Proposal or Financial Proposal (Separate in Two Envelope)</p>																
4.5	Proposals must be submitted no later than: As mentioned in the Letter of Invitation																
5.1	<p>The address to send information to the Client is: District Technical Office, Bhojpur</p> <p>Email : dtobhojpur.2014@gmail.com Telephone: 029-420031</p>																
5.3	<p>The number of points to be given under each of the evaluation criteria are:</p> <p>(i) Relevant Experience of the Consultant 10</p> <p>a) General Experience 5 b) Specific Experience 3 c) Turnover 2</p> <p>(ii) Understanding of the TOR and Methodology of work 40</p> <p>d) Understanding of TOR 5 e) Coverage 5 f) Relevant task schedule/ Workplan 10 g) Manning Schedule 5 h) Proposal Presentation 5 i) Innovativeness and comments on ToR 10</p> <p>(iii) Key Personnels 40</p> <ul style="list-style-type: none"> • Team Leader 15 • Highway/Civil Engineer (survey and design engineer) 2 nos @ 7.5=15 • Sub-Engineer/Surveyors 2 nos @ 5 = 10 <p>(iv) Transfer of Technology 5 (v) Technical Resources 5</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">Description of Equipment and Facilities</th> <th style="text-align: center;">Unit</th> <th style="text-align: center;">Required Quantity</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Total station</td> <td style="text-align: center;">No</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Level Machine</td> <td style="text-align: center;">No</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Road Design Software</td> <td style="text-align: center;">No</td> <td style="text-align: center;">1</td> </tr> </tbody> </table>	S. No.	Description of Equipment and Facilities	Unit	Required Quantity	1	Total station	No	2	2	Level Machine	No	2	3	Road Design Software	No	1
S. No.	Description of Equipment and Facilities	Unit	Required Quantity														
1	Total station	No	2														
2	Level Machine	No	2														
3	Road Design Software	No	1														



	4	Laptop/Computer	No	2
	5	Leveling Staff	No	2
	6	Printer (A4 and A3)	No	2
				Total Points: 100
	The minimum technical score required to pass : 70			
5.8	<u>The fixed Budget Ceiling for the assignment is : N/A</u>			
5.10	The formula for determining the financial scores is the following: [Either $Sf = 100 \times Fm/F$, in which Sf is the financial score, Fm is the lowest price and F the price of the proposal under consideration, or another proportional linear formula] The weights given to the technical and Financial Proposals are: T (Technical Proposal) = 0.80 and P (Financial Proposal) = 0.20			
6.1	The address for negotiations is: District Technical Office, Bhojpur UNNATI-Inclusive Growth Programme in Nepal Bhojpur Email : dtobhojpur.2014@gmail.com Telephone: 029-420031			
7.8	The assignment is expected to commence on 7th day from the signing of the contract			

Section 3. Technical Proposal - Standard Forms

- 3A. Technical Proposal submission form.
- 3B. Consultant's references.
- 3C. Comments and suggestions of consultants on the Terms of Reference and on data, services, and facilities to be provided by the Client.
- 3D. Description of the methodology and work plan for performing the assignment.
- 3E. Team composition and task assignments.
- 3F. Format of curriculum vitae (CV) for proposed professional staff.
- 3G. Time schedule for professional personnel.
- 3H. Activity (work) schedule.



3A. TECHNICAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: [Name and address of Client]

Ladies/Gentlemen:

We, the undersigned, offer to provide the consulting services for [Title of consulting services] in accordance with your Request for Proposal dated [Date] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope.

If negotiations are held during the period of validity of the Proposal, i.e., before [Date] we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature:

Name and Title of Signatory:

Name of Consultant:

Address:



3B. CONSULTANT'S REFERENCES

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

Using the format below, provide information on each assignment for which the Consultant/entity, either individually as a corporate entity or as one of the major companies within an association, was legally contracted.

Assignment Name:		Country:
Location within Country:		Professional Staff Provided by Your Consultant/Entity(profiles):
Name of Client:		No.of Staff:
Address:		No.of Staff-Months; Duration of Assignment:
Start Date (Month/Year):	Completion Date (Month/Year):	Approx. Value of Services NRs
Name of Associated Consultants, If Any:		No.of Months of Professional Staff Provided by Associated Consultants:
Name of Senior Staff, Designation (Project Director/Coordinator, Team Leader etc.) Involved and Functions Performed:		
Narrative Description of Project: :(Actual assignment, nature of activities performed and location)		
Description of Actual Services Provided by Your Staff:		

Consultant's Name: _____



3C. COMMENTS AND SUGGESTIONS OF CONSULTANTS ON THE TERMS OF REFERENCE AND ON DATA, SERVICES, AND FACILITIES TO BE PROVIDED BY THE CLIENT

On the Terms of Reference:

- 1.
- 2.
- 3.
- 4.
- 5.

On the data, services, and facilities to be provided by the Client:

- 1.
- 2.
- 3.
- 4.
- 5.



3D. DESCRIPTION OF THE METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT

- Described/reviewed any relevant documents
- Any of key personnel has visited the site and has attached photographs
- Description of the analysis/design software that will be used for the job
- Work schedule
- Manning schedule
- Description of Technical and Engineering features, Geology and Geomorphology of the project and its area, Social and environmental aspect of project and Economical aspect of project
- Description of study and methodology of study
 - Procedure on survey Design of proposed roads
 - Detailed Engineering survey and Design of Roads and Other Structures
 - Preparation of Contract Packages Document
 - Preparation of Detailed Project Report (DPR)
- Suggestions on innovative, technology transfer & sustainable development of society by project
- Clear and good presentation as per the supplied formats



3E. TEAM COMPOSITION AND TASK ASSIGNMENTS

1. Technical/Managerial Staffs		
Name	Position	Task

2. Support Staffs		
Name	Position	Task



3F. FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

Proposed Position: _____

Name of Consultant: _____

Name of Staff: _____

Profession: _____

Date of Birth: _____

Years with Consultant/Entity: _____ Nationality: _____

Membership in Professional Societies: _____

Detailed Tasks Assigned: _____

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use about half a page.]

Education:

[Summarize college/university and other specialized education of staff member, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page]

Employment Record:

[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, titles of positions held, and locations of assignments. For experience in last ten years, also give types of activities performed and client references, where appropriate. Use about two pages]

Languages:

[For each language indicate proficiency: excellent, good, fair, or poor in speaking, reading, and writing.]

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

[Signature of staff member] Date: _____
Day/Month/Year

Full name of staff member: _____

[Signature of authorized representative of the consultant] Date: _____
Day/Month/Year

Full name of authorized representative: _____



3G. TIME SCHEDULE FOR PROFESSIONAL PERSONNEL

Name	Position	Reports Due/Activities	Months (in the Form of a Bar Chart)												Number of Months	
			1	2	3	4	5	6	7	8	9	10	11	12		
																Subtotal (1)
																Subtotal (2)
																Subtotal (3)
																Subtotal (4)

Full-time: _____
 Reports Due: _____
 Activities Duration: _____

Part-time: _____

Signature: _____
 (Authorized representative)

Full Name: _____

Title: _____

Address: _____



B. Completion and Submission of Reports

Reports	Date
1. Inception Report	
2. Draft Report	
3. Final Report	



Section 4. Financial Proposal - Standard Forms

- 4A. Financial Proposal submission form.
- 4B. Summary of costs.
- 4C. Breakdown of price per activity.
- 4D. Breakdown of remuneration per activity.
- 4E. Reimbursable per activity.
- 4F. miscellaneous expenses.



4A. FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: [Name and address of Client]

Ladies/Gentlemen:

We, the undersigned, offer to provide the consulting services for [Title of consulting services] in accordance with your Request for Proposal dated [Date] and our Proposal (Technical and Financial Proposals). Our attached Financial Proposal is for the sum of [Amount in words and figures]. This amount is inclusive of the local taxes except Value Added Tax(VAT), which we have estimated at [Amount(s) in words and figures].

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e., [Date].

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name of Consultant:
Address:



Government of Nepal
Ministry of Federal Affairs and Local Development
Office of District Development Committee
District Technical Office
UNNATI, Inclusive Growth Programme in Nepal
Bhojpur

BILL OF QUANTITIES

Detailed Engineering Survey, Design and Road Inventory of Proposed Roads and Other Structures (for upgrading of this Section to all weather standards) and Preparation of Detailed Project Report (DPR), Contract Documents for Upgrading of Gravel Standard as per TOR.

Sn	Description of Works	Unit	Quantity	Rate		Amount
				In Figure	In Words	
1	Hilebhanjayang - Helaucha -Boya - Sangpang -Deurali Road(10DR024)	Km	38.52			
			Sub Total			
			13% VAT			
			Grand Total			



Terms of Reference (TOR)

FOR PREPARATION OF DETAIL PROJECT REPORT (DPR) CONSISTING OF DETAILED ENGINEERING SURVEY, DESIGN, DRAWING AND COST ESTIMATE, ROAD INVENTORY OF PROPOSED ROADS.

1.0 Introduction

Nepal having poverty-stricken rural countryside communities, rural development is one of the main agenda of development. The ultimate goal of rural development is attainment of sustainable livelihood and improved well-being of rural people. In the absence of better access to the goods and services that they value the same suffers. Rural people's needs for sustainable livelihood and improved well-being are such that they require better access to information, markets and opportunities; they need better access to health, education and other goods and services.

The UNNATI-Inclusive growth programme in Nepal comprises three components: 1) the Value chain component; 2) the Infrastructure component; 3) the enabling environment component. The infrastructure component addresses the infrastructure constraints of the selected value chains tea, ginger and dairy. Because the most significant constraints are found in the mountain and hill districts of Koshi and Mechi corridors, it is in these districts that the main activities of the component will be focused. These are also the relatively poorer areas of the selected corridors.

The Government of Nepal has undertaken the implementation of the UNNATI, Inclusive Growth Programme in Nepal, (UNNATI, the Programme) started in January 2014 with assistance from Government of Denmark. The Programme is being implemented in the districts of Taplejung, Panchthar, Ilam, Sankhuwasabha, Dhankuta, Terhathum, and Bhojpur.

Rural transportation infrastructure (RTI) facilities to be provided could include motorable roads, motorable bridges, foot trails, trail bridges and gravity ropeways. Public market related infrastructure (PMI) might consist of collection centers, storage facilities, market place facilities, small-scale irrigation schemes, and possibly other types of works.

The development objective of the programme is "promotion of sustainable inclusive growth that reduces poverty and raises living standards" and the intermediate objective of the infrastructure component is "A sustainable improvement in rural infrastructure that supports local economic development". This will address rural infrastructure that leads to poor and seasonally interrupted access to social and economic services, high transaction costs, low competitiveness and low productivity of rural economy.

Consultancy services on preparation of Detail Project Report (DPR) Consisting Detailed engineering survey, Design and Cost estimate, Drawing, Road inventory, of following roads as given in the table number 1 under UNNATI-Inclusive Growth Programme in Nepal.

Name of Roads and details are given in Table 1

Table no.1:

SN	Name of road	Proposed length (km)	District
1	Hilebhanjayang - Helaucha -Boya - Sangpang - Deurali Road(10DR024)	38.52	Bhojpur

The consulting service has to conduct detail engineering survey, design and prepare detail drawings and cost estimate according to based on the 'DoLIDAR Technical guideline (Nepal Rural Road Standards) Including criteria fulfilling in Annex A .



1.1. Objectives

The overall objective of the consulting services is to prepare conduct detailed engineering survey, design and prepare detailed drawings and cost estimate of above proposed road of the district. The consultant should follow the DoLIDARS's Norms, Specifications and design standard.

The specific objectives, but not necessarily limited to the following, are:

- Analyze the existing situation on topographic map as well as on field.
- Conduct detailed engineering survey of the alignment and its corridor.
- Conduct hydrological studies for cross drainage works and fixing of embankment height.
- Design the road details.
- Prepare working drawings.
- Prepare cost estimate with analysis of rates.
- Prepare survey and design reports.
- Prepare Environmental Management Plan
- Prepare the contract Documents (bid document, Technical Specification, Design Drawing etc.)

1.2. Scope of Services

The consulting service is to provide high quality professional services for detail engineering survey, design and prepare detail drawings and cost estimate according to the 'DoLIDAR Technical guideline (Nepal Rural Road Standards) on Planning and DoLIDARs design standard, Design and Construction of Rural Roads'. The consultant shall carry out the necessary field works along the alignment. The team personnel to be mobilized for field visit and schedule of field tasks should be prepared and should be included in the proposal. The center line should be set out with proper establishment of bench marks, as far as possible following the existing trail or alignment. The consultant shall then carry out further survey works necessary for detailed design of the road. The consultant shall be responsible for the analysis and interpretation of the data. The scope of services to be carried out by the Consultant shall broadly include, but not be limited to, the following:

1.2.1. Engineering Details (Field Survey)

- The horizontal alignment of the road (i.e. centre line) should be determined within the survey strip of proposed corridor of the optimum alignment between control points specified as a result of the engineering investigation.
 - Accurate traverse line shall be run along the route selected.
 - In case of improvement of existing road, efforts should be made to adjust the alignment so as to match the existing road track wherever possible.
 - Strip of sufficient width (10m on either side) to accommodate cut/fill and for possible shift in the centre line at the final design shall be surveyed.
 - Traverse survey shall be done by Total station/Theodolite with angles using double reversed method.
 - Appropriate and accurate method shall be adopted for the distance measurement between two consecutive transit stations.
 - Transit stations shall be pegged and numbered following a sequential order.
 - Features like buildings, monuments, cremation center and graveyards, temples, power and telephone lines, pipelines, existing roads and trails shall be located by offset measurements from the traverse line.
 - Cross section shall be taken at 10-15m interval and at closer intervals in places having abrupt slope changes or different soil type.
 - Classification of soil in chain age wise is absolutely necessary.
 - Benchmarks shall be fixed at every 250 m intervals or at 500 m intervals in special cases. Benchmarks shall also be fixed at bridge and culvert sites.
 - Check all levels with the levels of established Benchmarks by fly leveling for accuracy.
 - Single datum preferably geodetic survey datum shall be used to tie up all levels.
-



-
- Grid survey at 1 or 2 m intervals may be necessary at places of sharp curves of difficult places and at all bridge sites.
 - Data information should be taken on all gullies, depressions, streams and rivers where cross drainage structures are required.
 - Every retaining structures, breast structures, drainage structures, slope protection measures should be supported by justification and photographs.
 - Road Inventory with details such as: existing retaining walls, check dams, chutes, pipe and slab culverts, causeways, drain, rehabilitation of existing cannel works and other structures and the consultant shall produce road inventory drawings as per DoLIDAR or other appropriate formats

1.2.2. Environmental Consideration

The basic intention of environmental consideration is to develop the best possible rural road in the given environmental settings. Environmental consideration basically addresses two aspects: *risks or threats*, which are the likely damages to the environmental quality, services and natural wealth; and *opportunity or potential* in the given natural setting for road works to harness the same. Environmental considerations should, therefore, focus on avoiding or minimizing damages and, at the same time, promoting sensible use of opportunities to improve the natural environment. So, during the detail site visit consultant should prepare the site specific Environmental Management Plan (EMP) of the proposed roads. The EMP should be prepared as per prescribed format by DoLIDAR.

1.2.3. Engineering Design Calculation

Engineering design must be shown with calculation. The format should be described properly declaring the meaning and source of variable, constants and multiplication factors should be referenced and justified. Technical Guidelines on Planning, Design and Construction of Rural Roads provided by DoLIDAR and UNNATI should be strictly followed in design works. The road should be designed according to all weather road (well graded gravel surface)

1.2.4. Preparation of Contract Documents

The contract documents shall be prepared based upon the Standard Bidding Documents (SBD) issued by PPMO.

In general it will contain:

Introduction

Section I Invitation for Bids (IFB)

Section II Instruction to Bidders (ITB)

Section III Sample Forms of Bid, Qualification

Information, Letter of Intention to Award, Letter of Acceptance and Agreement

Section IV General Condition of Contract (GCC)

Section V Special Condition of Contract (SCC)

Section VI Specifications

Section VII Drawings

Section VII Bill of Quantities

Section IX Sample Forms of Securities



The contract documents shall be submitted in 5 sets with electronic copy. Separate contract document shall be prepared for separate packages. Nos of contract packages shall be made generally 10 – 12 Km as well as it will be decided after discussion with MC and DTO.

The consultant should be instructed to incorporate terms and conditions in the bid document so that at least 20% of the unskilled labours involved in project activities would be from the local community of the programme districts.

1.2.5. Preparation and Presentation of Project Documents

All project data and information collected during the above survey should be compiled as a project document. The project document should comprise of:

- report
- cost estimate, and
- construction drawings

1.2.5.1. Report

It contains the following:

- a) **Background Information**
 - Name of the work and its scope of activities
 - Authority and plan provision
 - History, geography, climate, etc.
 - Necessity, or other words, project justification
 - b) **Road's Salient Features**
 - Route selection
 - Alignment
 - Environmental considerations
 - Right of way, roadway, carriageway and other cross-sectional elements
 - Salient features of road structures
 - Present / anticipated traffic
 - c) **Road Design and Specification**
 - Road design
 - Pavement design (Gravel Surface)
 - Protection works (other than cross - drainage works)
 - Specifications
 - d) **Drainage facilities including cross-drainage structures**
 - Discuss investigations carried out
 - Give details of the surface / sub-surface drains and drainage measures, attach design calculations / drawings.
 - Highlight and propose special measures to check soil erosion and environment.
 - Discuss the proposals on small cross-drainage structures i.e. Culverts / causeways.
 - In case of improvement of existing roads, list out the cross-drainage structures proposed to be improved.
 - State whether any standard designs were followed.
 - e) **Materials, Labor and Equipment**
 - Type, quantity and specifications of materials required and their availability.
 - Type, number and skills of labor required and its availability.
 - Type, number and specifications of tools/equipment/plants required.
 - f) **Rates**
-



- Give reference to the schedule of rates of the year adopted.
- Highlight the items for which suitable rates are not available in the schedule and for such items give reference to the analysis of rates attached to the estimate.
-

g) Construction Schedule

- Mention the proposed system of work execution to be adopted
- Mention the proposed project period.
- Discuss the prevailing and anticipated constraints to project implementation
- Draw up a construction schedule in the form of bar chart along with the responsible parties. This should be done after scheduling the activities according to the Critical Path Analysis.

h) Miscellaneous

- Indicate the camping, store and office requirements.
- Mention identified diversions and borrow pit.
- Mention arrangements for water supply and other site amenities.
- Indicate proposed roadside plantation and wayside amenities.
- To prepare the EMP

1.2.5.2. Cost-Estimate

The project's cost-estimate should provide all financial requirements and it should be realistic too. In the project's cost-estimate, it is ensured that all

- The work items are carefully listed.
- The quantities are determined to a reasonable degree of accuracy, and
- The rates provided are workable.

The cost -estimate should consist of

- A general abstract of cost , and
- The detailed cost - estimate for each major activity as described below.

General abstract of cost provides the total cost of the scheme along with a general break-down given under the

Following major heading:

- Site clearance
- Earthwork
- Sub-bases
- Bases
- Surfacing
- Cross drainage and other structures
- Provision for tools, equipment and plants
- Provision for contingencies
- Work charges of the establishment
- Quality control, etc.

The detailed cost-estimate for each major activity consists of

- Abstract of cost
- Estimate of rates for work items not covered by relevant schedule of rates and
- Chart of quarry / material sources

Where the project work is proposed to be executed in stages, the cost – estimate should be prepared for each stage separately. The cost- estimates for respective stage should be presented in a logical sequence.

1.2.5.3. Construction Drawings

The construction drawings should clearly show and interpret the proposed works in relation to the existing features with other necessary information for accurate translation



of the proposed in the field. All the drawings should follow a uniform standard with regard to:

- Size
- Scale, and
- Details

a) Drawing size

Drawing should be of adequate size to accommodate a reasonable length of the road or an independent structure such as a culvert in full details but, at the same time, should not be incontinently large which may require many folds.

The appropriate size of a drawing sheet is 594 mm x 420 mm corresponding to A2 size which can easily be stitched in a folio. The standard size of the folded compact is 297 mm x 210 mm.

In each sheet of this size, it is possible to accommodate the plan and longitudinal section of one kilometer length of the road with reasonable overlaps at the sides if they are drawn to the horizontal scale of 1:2500.

To facilitate the stitching of drawings into a folio, a margin of 40 mm should be kept on the left hand side of the drawing sheets.

b) Component of a set of Project Drawings

- i) Locality map-cum-site plan
 - Key map also called as locality map
 - Index map also called as site plan

Key map and index map are usually drawn in a single sheet and this sheet forms the first sheet in the folio of project drawings.

Where the length of the road is substantially long, locality map and site plan are separated in such a manner that locality map is accommodated in one sheet and the site plan on a series of sheets.

The locality map or “Key Map” should be draw to a scale of 1:250,000 and should have a bird’s eye view of the proposed work with respect to the

- Road network serving the area
- Important town / village centers, and
- Other prominent places

The site plan or “Index Map” should be drawn to a scale of 1:25000 and should show the project road with chain ages and its immediate neighborhood covering the important physical such as hills, rivers, tracks, main trails, etc.

The sheet which contains the locality-cum-site plan should have a legend to explain the abbreviations and symbols used in subsequent drawing sheets. Alternately, the legend could be shown on a separate sheet at the beginning of the folio.

- ii) The elements in a rural road are generally same for most of the length. They are:
 - Width of carriageway
 - Width of roadway, i.e. formation width
 - Width of shoulder
 - Right of way
 - Side slopes
 - Pavement cross fall
-



It is desirable to show the above mentioned elements as a typical section instead of repeating the same details on every cross-section.

- iii) The cross-sections of the road should be presented serially according to the chainage starting from 0+000. Each sheet should accommodate a number of cross-sections.
- iv) Standard design and drawings of cross-drainage structures should be used wherever possible, thus avoiding repetitive design/drawing work for similar structures. The drawings should be prepared for all:
 - Cross-drainage structures
 - Retaining walls
 - Breast walls, and
 - Other road side structures

The drawings should show clearly the details of foundation, proposed materials, etc. and should be prepared on a scale which is large enough to accommodate all details comprehensively.

1.2.5.4. Bill of Quantities

Bill of quantities of a project should cover all the required items listed in the cost estimate. All the details of labor and materials should be given as a break-down under respective work item. In general, quantities of the work items and their units should be given in the approved format.

1.2.5.5. Schedules of Labor and Materials

Schedules of labor and materials are essential, in advance, for construction planning and management purposes.

1.3. Use of Computer and Design software

Consultants are encouraged to use computers and appropriate design software. The consultant should submit the soft (electronic) copy of reports of the total output of the works.

1.4. Liaison with engineer in-charge

The consultants are required to maintain close liaison with the Management Contractor and DTO Engineer. Draft design for alignment, earthwork and pavement design and other technical aspects of the design shall be discussed with the Management Contractor and DTO Engineer for approval prior to proceeding with the final detailed design

1.5. Client's Proposed Composition of Staff

a) Professionals:

Team Leader
Transportation/Highway /civil engineer
Highway/civil engineer (Design)
Environmental Engineer
Geologist/Geo tech engineer

b) Support Staffs

Sub engineer/Surveyor
Auto CAD Operator



1.6. Qualification and Experience:

a) Team Leader: The Team Leader will take the overall responsibility for the execution of the work in accordance with the TOR and also for the co-ordination of all professional inputs. He will be responsible to the Client. He will also maintain close contact with the MC and DTO of the programme districts to ensure that the contract is implemented in accordance with the government's policies and objects.

The team leader should have a Bachelor's Degree in Civil Engineering . He should 5 years in similar nature of works as design/ construction supervision of road improvement/upgrading/ rehabilitation projects

b) Highway/Civil Engineer (survey and Design): should have wide experience and expertise in planning, detail engineering surveying, designing and construction of rural roads, including:

- ❖ Must have completed Bachelor's Degree in Civil Engineering.
 - ❖ More than 3 years experience in planning, detail engineering survey, design and construction supervision of roads.
 - ❖ Should have three years specific experience in Design of hilly roads using different road software.
- Must be registered in Nepal Engineering Council

c) Sub engineer/Surveyor

- ❖ Must have completed Diploma in Civil Engineering.
- ❖ More than 3 years experience in detail engineering survey, design and construction supervision of rural roads.

1.7. Duration of the Study and Reporting

The duration for the assigned task is three month. The consultant shall submit the following reports:

- i) Inception report** The consultant shall submit 2 (Two) copies of Inception report within 1 month of signing the contract agreement for the consulting services.
- ii) Draft report:** The consultant shall submit 2 (Two) copies of the draft report within 2.5 months of signing the contract agreement for the consulting services. The report should have two volumes. **Volume I** should contain the main report and cost estimate and **Volume II** should contain detail engineering drawings, maps and contract documents (bidding documents, Technical specifications of each packages)
- iii) Final report:** The consultant shall submit 6 (Six) copies of final reports within 15 (Fifteen) days after receiving comments, incorporating comments and suggestions on the draft reports. The report should be also in three Volumes of each, as mentioned for draft report. The final report and maps should be in hard as well as in soft copies in Pen Drive.
-



1.8 Indicative Reporting Outline

Acknowledgement

Synopsis

Salient Features

Summary of Cost

Table of contents

Executive Summary

1. Introduction

1.1 Background

1.2 Objective

1.3 Scope and Limitation

1.4 Approach and Methodology

2. Geometric Design Standards

2.1 Road classification, traffic and loading

2.2 Design speed

2.3 Horizontal curves

2.3.1 Minimum radius of curve

2.3.2 Super elevation

2.3.3 Transit curves

2.3.4 Extra widening

2.4 Vertical curves

2.4.1 Minimum radius of curve

2.4.2 Gradient

2.5 Sight distance

2.6 Lateral and vertical clearance

2.7 Right of way

2.8 Sign posts

3. Alignment Survey

3.1 Survey procedure

3.2 Alignment description

3.3 Bench marks and other reference points

3.4 Materials survey

4. Engineering Design

4.1 Horizontal alignment

4.2 Vertical alignment

4.3 Cross-section design

4.4 Drainage

4.5 Pavement design

4.6 Cross-drainage structures

4.7 Retaining structures

4.8 Breast structures

4.9 Road side development works

4.10 Measure for environment protection

4.11 Bio-engineering measures.

5. Quantity Survey and Cost-Estimate

5.1 Project costs

5.1.1 Summary of cost

5.1.2 Cost of site clearance

5.1.3 Cost of earthwork

5.1.4 Cost of cross-drainage works

5.1.5 Cost of retaining structures

5.1.6 Cost of breast structures

5.1.7 Cost of slope protection

5.1.8 Cost of pavement construction if any

5.1.9 Cost of road side development works if any

6. Conclusion

7. Recommendation



1.9. Proposal Submission

The consultants shall submit technical and financial proposals under two-envelope system. The technical and financial proposals must be enclosed in separate wax sealed envelopes, clearly mentioning the type of proposal (Technical and Financial) and name of the task. Then both the sealed envelopes must be enclosed in an outer waxed sealed envelope, clearly stating the name of proposal, purchaser's address and the firms' name and address.

1.10. Payment Schedule

The payment schedule will be as per the following:

After submission of inception report = 20% of the total contract amount.

After submission of the draft report = 50 % of the total contract amount.

After submission and approval of the final report = 30% of the total contract amount.

ANNEX A :

Road Geometrics Design Standards and Surfacing Options for UNNATI

Road Geometrics Design Standards				
Sr. No	Road Components	Design Standards		Remarks
		Terai	Hills	
1.	Carriageway Width (m) • Traffic < 100 VPD • Traffic > 100VPD < 400VPD	3.00 3.75	3.00 3.75	
2.	Shoulder Width (m)	1.50	0.75	On both sides
3.	Roadway Width (m) • Traffic < 100 VPD (see notes below) • Traffic > 100VPD < 400VPD	6.00 6.75	4.50 5.25	Excludes width of drain, parapet & retaining wall top
4.	Right of Way (m)	20.00	20.00	10mRoW on either side from the road centreline
5.	Corridor of Impact or COI (see notes below)	As specified in as per the provision of the Environmental and Social Management Framework (ESMF) of SNRTP		COI will be the minimum width to cover the actual road construction boundary plus 1.00m on each side of the construction line.
6.	Design Speed • Ruling • Minimum	50 40	25 20	
7.	Stopping Sight Distance (m)	45.00	20.00	
8.	Lateral Clearance (m) • Normal • Minimum	1.50 1.00	1.00 0.50	
9.	Vertical Clearance (m)	5.00	5.00	
10.	Radius of Horizontal Curves (m) • Ruling • Minimum	≥90.00 60.00	≥20.00 12.50	Exceptional case: 10m
11.	Hairpin bends			
	Desirable Spacing (m)	NA	100	Distance between two bends
	Minimum Radius (m)	NA	12.5	Exceptional Case: 8.5m
	Minimum Roadway width at	NA	5.5	For curves with radius < 12.5m



	apex(m)			provide 7.00 width
12.	Gradient (%)			
	Ruling	5	7	
	Limiting	6	10	
	Exceptional	7	12	Up to 15% in hill roads for short stretch of 50m in unavoidable situation except in hairpin bends.
	Maximum for Bridge approach	5	6	
	Minimum in hill roads	NA	0.50	
13.	Extra Widening (m)			
	For curve radius ≤ 20 m	1.5	1.5	
	For curve radius 20 -60 m	0.60	0.60	
	For curve radius > 60 m	Nil	Nil	
Road Geometrics Design Standards				
Sr. No	Road Components	Design Standards		Remarks
		Terai	Hills	
14.	Camber minimum (%)			
	Earthen Roads	5	5	Hills: Unidirectional camber sloping either towards hill side or valley side <i>Terai</i> : both side camber from center line
	Gravel Roads	4	4	Hills: Unilateral camber in carriageway sloping towards hill side <i>Terai</i> : both side camber from center line
	Bituminous Roads	3	3	Hills: Unilateral camber in carriageway sloping towards hill side <i>Terai</i> : both side camber from center line
15.	Passing zone/Bus lay Byes	Width 2.5m in addition to carriageway width and length 30m along the edge of carriageway tapered to 20m along the outer edge or at least of dimensions as specified in NRSS-2013		
16.	Traffic Signs and Road Safety	As detailed in the NRRS 2013		
17.	Carriageway Width (cross-drainage structures)			
	Culvert	6.00	4.5	Distance between parapet walls
	Bridge	4.25	4.25	Distance between kerb on one side and footpath (min ^m 1.00m width) on the other side (see notes below)
18.	Road side drains	Hill roads: tick drain with masonry (1:4) back wall and 10cm thick M-15 grade concrete sloped bed throughout the road length as required Built up areas: Type G drain specified in DoLIDAR Technical Guideline with adequate cover slabs for crossings.		
Surfacing Options				
1.	Gravel Surface	15 cm thick in carriageway for both hill		Hill roads : 15cm gravel surfacing in



		and terai roads.	carriageway to be extended in the hill side shoulder up to inner edge of the drain. Tapering gavel hard shoulder (15cm to 6cm) in the valley side with slope towards the valley. Terai Roads: 1.00m wide tapering gavel hard shoulder (15cm to 6 cm) with slope towards the embankment on either side of the carriageway
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Notes:

- a) The standards are mainly adapted from Nepal Rural Road Standards (NRRS), 2013. However, in some cases separate standards are proposed where NRSS standards are found to be inadequate or missing.
 - b) VPD - Vehicles per Day (VPD) as per definitions of NRRS, 2013.
 - c) Main objective of the capping layer is to increase CBR of sub grade to at least 10%. Locally available suitable materials will be used for the capping layer.
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