

Nepal Electricity Authority
(A Government of Nepal Undertaking)
Transmission Directorate
Tumlingtar Shitalpati 220kV Transmission Line Project



**CONSTRUCTION OF BOUNDARY WALL AT SHITALPATI
SUBSTATION, SANKHUWASABHA**

IFB NO: SHITALPATI/CW/76/77/ -1

BID DOCUMENT (NCB)

Volume I of II

(ITB, GCC, SCC, PRICE SCHEDULE)

Issued on:

Issued to :



Abbreviations

BD	Bidding Document
BDF	Bidding Forms
BDS	Bid Data Sheet
BOQ	Bill of Quantities
COF	Contract Forms
DP	Development Partners
DoLIDAR	Department of Local Infrastructure Development and Agricultural Roads
ELI	Eligibility
EQC	Evaluation and Qualification Criteria
EXP	Experience
FIN	Financial
GCC	General Conditions of Contract
GoN	Government of Nepal
ICC	International Chamber of Commerce
IFB	Invitation for Bids
ITB	Instructions to Bidders
JV	Joint Venture
LIT	Litigation
NCB	National Competitive Bidding
PAN	Permanent Account Number
PPA	Public Procurement Act
PPMO	Public Procurement Monitoring Office
PPR	Public Procurement Regulations
PL	Profit & Loss
SBD	Standard Bidding Document
SCC	Special Conditions of Contract
TS	Technical Specifications
VAT	Value Added Tax
WRQ	Works Requirements



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Invitation for Bids

Tumlingtar Shitalpati 220 kV Transmission Line Project

Transmission Directorate

Nepal Electricity Authority

Invitation for Bids for the “**Construction of Boundary Wall at Shitalpati Substation, Sankhuwasabha**”

IFB No: SHITALPATI/CW/76/77/ -1

Date of first publication: **November 24, 2019**

1. Nepal Electricity Authority (NEA), Tumlingtar Shitalpati 220kV Transmission Line Project invites electronic bids from eligible bidders for the **Construction of Boundary wall at Shitalpati Substation, Sankhuwasabha** under National Competitive Bidding – Single Stage Two Envelope Bidding procedures.

Only eligible bidders with the following key qualifications should participate in this bidding:

- Minimum Average Annual Construction Turnover of the last 3 years: **NRs 32,000,000/- (In words, Thirty Two Million Nepalese Rupees Only)**
 - Minimum Work experience of similar size and nature: **At least 2 (Two) Contracts, each with at least NRs 26,000,000/- (In words, Twenty Six Million Nepalese Rupees Only)**
2. Eligible Bidders may obtain further information from the project office, at the address given below from 10:00 AM to 4:00 PM Sunday through Friday or may visit PPMO e-GP system www.bolpatra.gov.np/egp.
 3. A complete set of Bidding Documents may be downloaded from PPMO's e-GP system www.bolpatra.gov.np/egp from **November 24, 2019** up to **December 23, 2019** by eligible Bidders on the deposition of a non-refundable fee of **NRs. 5,650.00 (In words, Five Thousand Six Hundred Fifty Rupees Only)** for the cost of bidding document in the Project's Rajaswa (revenue) account as specified below

Information to deposit the cost of bidding document in Bank:

Name of the Bank: Everest Bank Limited

Name of Office: Tumlingtar Shitalpati 220kV Transmission Line Project

Office Code no.: 354234

Office Account no.: 00200105201381

4. Bidders are strongly advised to visit the site to acquaint themselves with site conditions and associated details of substation land before submission of Bids.
5. Electronic bids must be submitted through PPMO's e-GP system www.bolpatra.gov.np/egp on or before **12:00 Hrs (NST)** on **December 24, 2019**. Bids received after this deadline will be rejected.
6. The bids will be opened in the presence of Bidders' representatives who choose to attend at **13:00 Hrs (NST) on December 24, 2019** at the office address given below. Bids must be valid for a period of **90 days** after bid opening and must be accompanied by a scanned copy of the bid security in pdf format amounting to a minimum of **NRs. 1,200,000.00 (In words, Twelve Lakh Rupees Only)**, which shall be valid for 30 days beyond the validity period of the bid (*i.e. April 22, 2020*)
7. If the last date of purchasing and /or submission falls on a government holiday, then the next working day shall be considered as the last date. In such case the validity period of the



- bid security shall remain the same as specified for the original last date of bid submission.
8. The bidder shall bear all costs associated with the preparation and submission of its bid, and NEA will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process
 9. The employer reserves the right to accept or reject, wholly or partly any or all the bids without assigning reason, whatsoever
 10. The address referred to above is:

The Project Manager
Tumlingtar Shitalpati 220 kV Transmission Line project
Transmission Directorate
Nepal Electricity Authority
NEA Training Centre Building, Kharipati, Bhaktapur, Nepal
Telephone: +977 1 6616 865
Facsimile number: +977 1 6616891
Electronic mail: ts220kv@nea.org.np

Part I: BIDDING PROCEDURES

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Section I: Instructions to Bidders

A. General	
1. Scope of Bid	<p>1.1 In connection with the Invitation for Bids indicated in the Bid Data Sheet (BDS), the Employer, as indicated in the BDS, issues this Bidding Document for the procurement of Works as specified in Section VI (Works Requirements). The name, identification, and number of Contracts of the National Competitive Bidding (NCB) are provided in the BDS.</p> <p>1.2 Throughout this Bidding Document:</p> <ul style="list-style-type: none"> (a) the term “in writing” means communicated in written form and delivered against receipt; (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and (c) “day” means calendar day.
2. Source of Funds	<p>2.1 GoN Funded: In accordance with its annual program and budget, approved by the GoN, the implementing agency indicated in the BDS plans to apply a portion of the allocated budget to eligible payments under the contract(s) for which this Bidding Document is issued.</p> <p>Or</p> <p>Public Entities' own Resource Funded: In accordance with its annual program and budget, approved by the public entity, the implementing agency indicated in the BDS plans to apply a portion of the allocated budget to eligible payments under the contract(s) for which this Bidding Document is issued.</p> <p>Or</p> <p>DP Funded: The GoN has applied for or received financing (hereinafter called “funds”) from the Development Partner (hereinafter called “the DP”) indicated in the BDS toward the cost of the project named in the BDS. The GoN intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.</p> <p>2.2 DP Funded: Payment by the DP will be made only at the request of the GoN and upon approval by the DP in accordance with the terms and conditions of the financing agreement between the GoN and the DP (hereinafter called the “Loan/Grant Agreement”), and will be subject in all respects to the terms and conditions of that Loan/Grant Agreement. No party other than the GoN shall derive any rights from the Loan Agreement or have any claim to the funds.</p>
3. Fraud and Corruption	<p>3.1 Procuring Entities as well as Bidders, suppliers and contractors and their sub-contractors shall adhere to the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this;:</p> <ul style="list-style-type: none"> (a) the Employer adopts, for the purposes of this provision, the terms as defined below:

	<p>(i) “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;</p> <p>(ii) “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;</p> <p>(iii) “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;</p> <p>(iv) “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.</p> <p>v) “obstructive practice” means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an investigation; (b) making false statements to investigators in order to materially impede an investigation; (c) failing to comply with requests to provide information, documents, or records in connection with an investigation; (d) threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or (e) materially impeding GoN/DP’s contractual rights of audit or access to information; and</p> <p>vi) “integrity violation” is any act which violates Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of GoN/DP sanctions, retaliation against whistleblowers or witnesses, and other violations of Anticorruption Policy, including failure to adhere to the highest ethical standard.</p> <p>(b) the Employer will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the contract;</p> <p>(c) DP will cancel the portion of the financing allocated to a contract if it determines at any time that representative(s) of the GoN or of a beneficiary of DP-financing engaged in corrupt, fraudulent, collusive, or coercive practices or other integrity violations during the procurement or the execution of that contract, without the GoN having taken timely and appropriate action satisfactory to DP to remedy the situation.</p> <p>(d) DP will impose remedial actions on a firm or an individual, at any time, in accordance with DP’s Anticorruption Policy and related Guidelines (as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate in DP-financed, -administered, or -supported activities or to benefit from an DP-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has,</p>
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	<p>directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and</p> <p>(e) The Contractor shall permit the GoN/DP to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the GoN/DP, if so required by the GoN/DP.</p> <p>3.2 The Bidder shall not carry out or cause to carry out the following acts with an intention to influence the implementation of the procurement process or the procurement agreement :</p> <p>(a) give or propose improper inducement directly or indirectly,</p> <p>(b) distortion or misrepresentation of facts,</p> <p>(c) engaging in corrupt or fraudulent practice or involving in such act,</p> <p>(d) interference in participation of other competing bidders,</p> <p>(e) coercion or threatening directly or indirectly to cause harm to the person or the property of any person to be involved in the procurement proceedings,</p> <p>(f) collusive practice among bidders before or after submission of bids for distribution of works among bidders or fixing artificial/uncompetitive bid price with an intention to deprive the Employer the benefit of open competitive bid price,</p> <p>(g) Contacting the Employer with an intention to influence the Employer with regards to the bids or interference of any kind in examination and evaluation of the bids during the period from the time of opening of the bids until the notification of award of contract.</p> <p>3.3 PPMO, on the recommendation of the Procuring Entity may blacklist a Bidder for a period of one (1) to three (3) years for its conduct including on the following grounds and seriousness of the act committed by the bidder:</p> <p>(a) if convicted by a court of law in a criminal offence which disqualifies the Bidder from participating in the contract,</p> <p>(b) if it is established that the contract agreement signed by the Bidder was based on false or misrepresentation of Bidder's qualification information,</p> <p>(c) if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for, or in executing, a GoN/DP-financed contract.</p> <p>(d) if the Successful Bidder fails to sign the Contract.</p>
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	<p>3.4 A bidder declared blacklisted and ineligible by the GoN, Public Procurement Monitoring Office (PPMO) and/or the DP in case of DP funded project, may be ineligible to bid for a contract during the period of time determined by the GoN, PPMO and/or the DP.</p> <p>3.5 In case of a natural person or firm/institution/company which is already declared blacklisted and ineligible by the GoN, any other new or existing firm/institution/company owned partially or fully by such Natural person or Owner or Board of director of blacklisted firm/institution/company; shall not be eligible bidder.</p> <p>3.6 Furthermore, Bidders shall be aware of the provisions of GCC (GCC 28.3 and 72.3(j)).</p>
<p>4. Eligible Bidders</p>	<p>4.1 A Bidder may be a natural person, private entity, or government owned entity subject to ITB 4.5 or any combination of them in the form of a Joint Venture (JV) under an existing agreement, or with the intent to constitute a legally-enforceable joint venture. In the case of a JV:</p> <p>(a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. Maximum number of JV shall be as specified in the BDS. and</p> <p>(b) the JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during Contract execution.</p> <p>4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section V (Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed sub-contractors or suppliers for any part of the Contract including related services.</p> <p>4.3 A Bidder shall not have a conflict of interest. A Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process, if any of, including but not limited to, the following apply:</p> <p>(a) they have controlling shareholders in common; or</p> <p>(b) they receive or have received any direct or indirect subsidy from any of them; or</p> <p>(c) they have the same legal representative for purposes of this bid; or</p> <p>(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or</p> <p>(e) a Bidder participates in more than one bid in this bidding process either individually or as a partner in a joint venture. This will result in the disqualification of all Bids in which it is involved. However, subject to</p>

	<p>any finding of a conflict of interest in terms of ITB 4.3 (a)-(d) above, this does not limit the participation of the same subcontractor in more than one bid; or</p> <p>(f) a Bidder or any of its affiliated entity, participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or</p> <p>(g) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer as Engineer for the Contract.</p> <p>4.4 A firm that is under a declaration of ineligibility by the GoN in accordance with ITB 3, at the date of the deadline for bid submission or thereafter, shall be disqualified. A firm shall not be eligible to participate in any procurement activities under an DP-financed, -administered, or -supported project while under temporary suspension or debarment by DP pursuant to the DP's Anticorruption Policy (see ITB 3), whether such debarment was directly imposed by the DP, or enforced by other DPs pursuant to the Agreement for Mutual Enforcement of Debarment Decisions. A bid from a temporary suspended or debarred firm will be rejected.</p> <p>4.5 Enterprises owned by Government shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law, and that they are not a dependent agency of the GoN.</p> <p>4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.</p> <p>4.7 Firms shall be excluded in any of the cases, if</p> <p>(a) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Nepal prohibits any import of goods or Contracting of works or services from that country or any payments to persons or entities in that country. Where Nepal prohibits payments to a particular firm or for particular goods by such an act of compliance, that firm may be excluded;</p> <p>(b) DP Funded: as a matter of law or official regulation, Nepal prohibits commercial relations with that country, provided that the DP is satisfied that such exclusion does not preclude effective competition for the supply of goods or related services required;</p> <p>(c) DP Funded: a firm sanctioned or temporarily suspended by the DP in relation to their guidelines or appropriate provisions on preventing and combating fraud and corruption in projects financed by them.</p> <p>4.8 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.</p>
<p>5. Eligible Materials, Equipment and</p>	<p>5.1 The materials, equipment and services to be supplied under the Contract shall have their origin in any source countries as defined in</p>

Services	<p>accordance with Section V (Eligible Countries) and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.</p> <p>5.2 For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.</p>
B. Contents of Bidding Documents	
6. Sections of Bidding Document	<p>6.1 The Bidding Document consist of Parts I, II, and III, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.</p> <p>PART I Bidding Procedures</p> <p>Section I Instructions to Bidders (ITB)</p> <p>Section II Bid Data Sheet (BDS)</p> <p>Section III Evaluation and Qualification Criteria (EQC)</p> <p>Section IV Bidding Forms (BDF)</p> <p>Section V Eligible Countries</p> <p>PART II Requirements</p> <p>Section VI Works Requirements (WRQ)</p> <p>Section VII Bill of Quantities (BOQ)</p> <p>PART III Conditions of Contract and Contract Forms</p> <p>Section VIII General Conditions of Contract (GCC)</p> <p>Section IX Special Conditions of Contract (SCC)</p> <p>Section X Contract Forms (COF)</p> <p>6.2 The Invitation for Bids issued by the Employer is not part of the Bidding Document.</p> <p>6.3 The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.</p> <p>6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document and to furnish with its bid all information and documentation as is required by the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.</p>
7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting	<p>7.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address indicated in BDS or raise any question or curiosity during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received within the period as mentioned in ITB 7.5. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the</p>

	inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.
	7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and responsibility, all information that may be necessary for preparing the bid and entering into a Contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
	7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
	7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS . The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
	7.5 The Bidder is requested, to submit any questions in writing, to reach the Employer as mentioned in BDS .
	7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
	7.7 Non attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.
8. Amendment of Bidding Document	8.1 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing agenda.
	8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.
	8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2
C. Preparation of Bids	

9. Cost of Bidding	9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
10. Language of Bid	10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS . Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS , in which case, for purposes of interpretation of the Bid, such translation shall govern.
11. Documents Comprising the Bid	<p>11.1 The Bid shall comprise two envelopes submitted simultaneously, one called the Technical Bid containing the documents listed in ITB 11.2 and the other the Price Bid containing the documents listed in ITB 11.3, both envelopes enclosed together in an outer single envelope.</p> <p>11.2 The Technical Bid shall comprise the following:</p> <ul style="list-style-type: none"> (a) Letter of Technical Bid; (b) Bid Security in accordance with ITB 19; (c) alternative Technical Bid, at Bidder's option and if permissible, in accordance with ITB 13; (d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2; (e) documentary evidence in accordance with ITB 17, establishing the Bidder's qualifications to perform the contract; (f) Technical Proposal in accordance with ITB 16; (g) Bids submitted by a Joint Venture shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all partners and submitted with the Bid, together with a copy of the proposed agreement. The Joint Venture agreement, or letter of intent to enter into a Joint Venture including a draft agreement shall indicate at least the parts of the Works to be executed by the respective partners; and (h) any other required documents, which is not against the provision of Procurement Act/Regulation/Directives and Standard Bidding Document issued by PPMO as specified in the BDS. <p>11.3 The Price Bid shall comprise the following:</p> <ul style="list-style-type: none"> (a) Letter of Price Bid; (b) completed Bill of Quantities(BoQ), in accordance with ITB 12 and ITB 14, or as stipulated in the BDS; (c) alternative price Bids, at Bidder's option and if permissible, in accordance with ITB 13; (d) Any other document required in the BDS.

	11.4 The Bidder is solely responsible for the authenticity of the submitted documents.
12. Letter of Bid and Schedules	12.1 The Letters of Technical Bid and Price Bid, Schedules, and all documents listed under ITB 11, shall be prepared using the relevant forms in Section IV (Bidding Forms) and in Section VII (Bill of Quantities). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
13. Alternative Bids	13.1 Unless otherwise specified in the BDS , alternative bids shall not be considered.
	13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS , as will the method of evaluating different times for completion.
	13.3 When specified in the BDS pursuant to ITB 13.1, and subject to ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.
	13.4 When specified in the BDS , Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section VI (Works Requirements). The method for their evaluation will be stipulated in Section III (Evaluation and Qualification Criteria).
14. Bid Prices and Discounts	14.1 The prices and discounts quoted by the Bidder in the Letter of Price Bid and in the Schedules shall conform to the requirements specified below.
	14.2 The Bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section VII (Bill of Quantities). In case of Unit Rate Contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
	14.3 The price to be quoted in the Letter of Price Bid shall be the total price of the Bid, excluding any discounts offered. Absence of the total price in the Letter of Price Bid or the Bid Price in the Bill of Quantities shall result in rejection of the Bid.
	14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Price Bid, in accordance with ITB 12.1.
	14.5 If so indicated in ITB 1.1, bids are invited for individual Contracts or for any

	combination of Contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all Contracts are submitted and opened at the same time.
	14.6 Unless otherwise provided in the BDS and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Table of Adjustment Data in Section IV (Bidding Forms) and the Employer may require the Bidder to justify its proposed indices and weightings.
	14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total bid price submitted by the Bidder.
15. Currency of Bid and Payment	15.1 The currency of the bid and payment shall be in Nepalese Rupees.
16. Documents Comprising the Technical Proposal	16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.
17. Documents Establishing the Qualifications of the Bidder	17.1 To establish its qualifications to perform the Contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section IV (Bidding Forms).
18. Period of Validity of Bids	18.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.
	18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended 30 days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its Bid and to include any additional conditions against the provisions specified in Bid Documents.
19. Bid Security	19.1 The Bidder shall furnish as part of its bid, in original form, a bid security as specified in the BDS . In case of e-submission of bid, the Bidder shall upload

	<p>scanned copy of Bid security letter at the time of electronic submission of the bid. The Bidder accepts that the scanned copy of the Bid security shall, for all purposes, be equal to the original. The details of original Bid Security and the scanned copy submitted with e-bid should be the same otherwise the bid shall be non-responsive.</p>
	<p>19.2 The bid security shall be, at the Bidder's option, in any of the following forms:</p> <ul style="list-style-type: none"> (a) an unconditional bank guarantee from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law or; (b) a cash deposit voucher in the Employer's Account as specified in BDS. <p>In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section IV (Bidding Forms) or in another Form acceptable to the employer. The form must include the complete name of the Bidder. The bid security shall be valid for minimum thirty (30) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.</p>
	<p>19.3 The bid security issued by any foreign Bank outside Nepal must be counter guaranteed by Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal.</p>
	<p>19.4 Any bid not accompanied by an enforceable and substantially compliant bid security shall be rejected by the Employer as nonresponsive. In case of e- Submission, if the scanned copy of an acceptable Bid Security letter is not uploaded with the electronic Bid then Bid shall be rejected.</p>
	<p>19.5 The bid security of unsuccessful Bidders shall be returned within three days, once the successful Bidder's furnishing of the required performance security and signing of the Contract Agreement pursuant to ITB 40.1 and 41.1</p>
	<p>19.6 The bid security shall be forfeited if:</p> <p>GoN funded :</p> <ul style="list-style-type: none"> (a) a Bidder requests for withdrawal or modification of its bid, except as provided in ITB 18.2: <ul style="list-style-type: none"> (i) during the period of bid validity specified by the Bidder on the Letter of Technical Bid and Price Bid, in case of electronic submission; (ii) from the period twenty-four hours prior to bid submission deadline up to the period of bid validity specified by the Bidder on the Letter of Technical Bid and Price Bid, in case of hard copy submission. (b) a Bidder changes the prices or substance of the bid while providing information pursuant to clause 27.1; (c) a Bidder involves in fraud and corruption pursuant to clause 3.1; (d) the successful Bidder fails to: <ul style="list-style-type: none"> (i) furnish a performance security in accordance with ITB 40.1;

	<p>(ii) sign the Contract in accordance with ITB 41.1; or</p> <p>(iii) accept the correction of arithmetical errors pursuant to clause 33.1</p> <p>DP funded:</p> <p>The bid security shall be forfeited</p> <p>(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid, except as provided in ITB 18.2; or</p> <p>(b) if the successful Bidder fails to</p> <p>(i) furnish a performance security in accordance with ITB 40.1; or</p> <p>(ii) sign the Contract in accordance with ITB 41.1;</p> <p>(iii) accept arithmetical corrections in accordance with ITB 33.1;</p> <p>19.7 The Bid Security of a Joint Venture shall be in the name of the Joint Venture that submits the bid. If the Joint Venture has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.</p>
<p>20. Format and Signing of Bid</p>	<p>20.1 The Bidder shall prepare one original set of the Technical Bid and one original of the Price Bid comprising the Bid as described in ITB 11 and clearly mark it “ORIGINAL – TECHNICAL BID” and “ORIGINAL – PRICE BID.” Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked “ALTERNATIVE”. In addition, the Bidder shall submit copies of the bid in the number specified in the BDS, and clearly mark each of them “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.</p> <p>In case of e-submission of bid, the Bidder shall submit his bid electronically in PDF or web forms files as specified in ITB Clause 21.1(b).</p> <p>20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid, except for un amended printed literature, shall be signed or initialed by the person signing the bid.</p> <p>20.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.</p>
<p>D. Submission and Opening of Bids</p>	
<p>21. Sealing and Marking of Bids</p>	<p>21.1 Unless otherwise specified in BDS, Bidders shall submit their bids by electronic or by mail/by hand/by courier. Procedures for submission, sealing and marking are as follows:</p> <p>(a) Bidders submitting bids by mail, by hand or by courier</p>

shall enclose the original of the Technical Bid, and the original of the Price Bid and each copy of the Technical Bid and Price Bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “**ORIGINAL TECHNICAL BID**”, “**ORIGINAL – PRICE BID**”, “**ALTERNATIVE**” and “**COPY No. – TECHNICAL BID**” and “**COPY NO. PRICE BID**” These envelopes containing the original and the copies shall then be enclosed in one single envelope.

- (b) Bidders submitting Bids electronically shall follow the electronic bid submission procedure specified in this clause.
- i. The bidder is required to register in the e-GP system <https://www.bolpatra.gov.np/egp> following the procedure specified in e-GP guideline.
 - ii. Interested bidders may either purchase the bidding document from the Employer's office as specified in the Invitation for Bid (IFB) or bidders may download the IFB and bidding document from e-GP system.
 - iii. The registered bidders need to maintain their profile data required during preparation of bids.
 - iv. In order to submit their bids the cost of the bidding document can be deposited as specified in IFB. In addition, electronic scanned copy (.pdf format) of the bank deposit voucher/cash receipt should also be submitted along with the technical bid.
 - v. The bidder can prepare their technical and price bids using data and documents maintained in bidder's profile and forms/format provided in bidding document by Employer. The bidder may submit bids as a single entity or as a joint venture. The bidder submitting bid in joint venture shall have to upload joint venture agreement along with partner(s) Bolpatra ID provided during bidder's registration.
 - vi. Bidders (all partners in case of JV) should update their profile data and documents required during preparation and submission of their technical bids.
 - vii. In case of bid submission in JV, the consent of the partners shall be obtained through the confirmation link sent to the registered email address and the partners shall have to acknowledge their confirmation.

The required forms and documents shall be part of technical bids.

No.	Document	Requirement	Remarks
1.	Letter of Technical Bid	Mandatory	PDF
2.	Bid Security/Bank Guarantee	Mandatory	PDF
3.	Company registration Certificate	Mandatory	PDF
4.	VAT registration Certificate	Mandatory for domestic bidders	PDF
5.	Business Registration Certificate	Mandatory	PDF
6.	Tax Clearance Certificate/Tax return submission	Mandatory for domestic bidders	PDF



		evidence/evidence of time extension		
	7.	Power of Attorney of Bid signatory	Mandatory	PDF
	8.	Bank Voucher for cost of bid document	Mandatory	PDF
	9.	Joint venture agreement	Mandatory in case of JV Bids Only	PDF
	10.	Qualification Documents	Mandatory	Using profile data(financial details, contract details etc.) and Technical Proposal
	11.	Additional documents] specified in ITB 11.2 (h)	If applicable	PDF

The required forms and documents shall be part of price bids.

No.	Document	Requirement	Remarks
1.	Letter of Price Bid	Mandatory	PDF
2.	Completed Bill of Quantities (BoQ)	Mandatory	Online Forms
3.	Price Adjustment Table	If applicable	Online Forms
4.	Additional Documents specified in ITB 11.3 (d)	If applicable	PDF

Note:

a) Bidders (all partners in case of JV) should verify/update their profile documents as appropriate for the specific bid before submitting their bid electronically.

viii. After providing all the details and documents, two separate bid response documents i.e technical bids and price bids will be generated from the system. Bidders are advised to download and verify the response documents prior to bid submission.

ix. For verifying the authentic user, the system will send one time password (OTP) in the registered e-mail address of the bidder. System will validate the OTP and allow bidder to submit their bid.

x. Electronically submitted bids can be modified and/or withdrawn through system. The bidder may modify their bids multiple times online within bid submission date and time specified in e-GP system. Once a Bid is withdrawn, bidder won't be able to submit another bid response for the same bid.

xi. The Bidder / Bid shall meet the following requirements and conditions for e-submission of bids;

aa) The e-submitted bids must be readable through PDF reader.

bb) The facility for submission of bid electronically through e-submission is to promote transparency, non-discrimination, equality of access, and open competition in the bidding process. The Bidders are fully responsible to use the e- submission facility properly in e-GP system as per specified procedures and in no case the Employer shall be held liable for Bidder's inability to use this facility.

	<p>cc) When a bidder submits electronic bid through the PPMO e-GP portal, it is assumed that the bidder has prepared the bid by studying and examining the complete set of the Bidding documents including specifications, drawings and conditions of contract.</p> <p>21.2. The inner and outer envelopes shall:</p> <p>(aa) bear the name and address of the Bidder;</p> <p>(bb) be addressed to the Employer as provided in BDS 22.1;</p> <p>(cc) bear the specific identification of this bidding process indicated in BDS 1.1; and</p> <p>21.3 The outer envelope and the inner envelope containing Technical Proposal shall bear a warning not to open before the time and date for the opening of Technical Bid in accordance with ITB 25.1.</p> <p>21.4 The inner envelope containing the Price Bid shall bear a warning not to open until advised by the Employer in accordance with ITB 25.7</p> <p>21.5 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.</p>
22. Deadline for Submission of Bids	<p>22.1 Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS.</p> <p>In case of e-submission, the standard time for e-submission is Nepal Standard Time as set out in the server. The e-procurement system will accept the e-submission of bid from the date of publishing of notice and will automatically not allow the e-submission of bid after the deadline for submission of bid.</p> <p>22.2 The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.</p>
23. Late Bids	<p>23.1 The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.</p>
24. Withdrawal, and Modification of Bids	<p>24.1 A Bidder may withdraw, or modify its bid- Technical or Price - after it has been submitted either in hard copy or by e-submission. Once a Bid is withdrawn, bidder shall not be able to submit another bid for this bidding process. Procedures for withdrawal or modification of submitted bids are as follows:</p> <p>(i) Bids submitted in Hard Copy GoN Funded:</p> <p>a) Bidders may withdraw or modify its bids by sending a written notice in a sealed envelope, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2. The corresponding modification of the bid must accompany the respective written notice. All notices must be:</p>

	<p>(aa) prepared and submitted in accordance with ITB 20 and ITB 21, and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL”, “MODIFICATION,” and</p> <p>(bb) received by the Employer twenty four hour prior to the deadline prescribed for submission of bids, in accordance with ITB 22.</p> <p>DP Funded:</p> <p>A Bidder may withdraw or modify its Bid – Technical or Price – after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding modification of the Bid must accompany the respective written notice. All notices must be</p> <ol style="list-style-type: none"> i) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” and “MODIFICATION;” and ii) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22. <p>ii) E-submitted bids.</p> <ol style="list-style-type: none"> a) Bidder may submit modification or withdrawal prior to the deadline prescribed for submission of bids through e-GP system by using the forms and instructions provided by the system. <p>24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall not be opened. In case of hard copy submission, the Bid will be returned unopened to the Bidders.</p> <p>24.3 The following provisions apply for withdrawal or modification of the Bids:</p> <p>GoN Funded:</p> <ol style="list-style-type: none"> (i) In case of bids submitted in hard copy no bid shall be withdrawn or modified in the interval between 24 hours prior to the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof. (ii) In case of e-submitted bids no bids shall be withdrawn or modified in the interval between deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Technical Bid and Price Bid or any extension thereof. <p>DP Funded:</p> <p>No Bid may be withdrawn or modified in the interval between the deadline for submission of Bids and the expiration of the period of bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid or any extension thereof.</p> <p>24.4 Except in case of any modification or correction in bid document made by procuring entity, Bidder may submit request for withdrawal or modification only one time.</p> <p>24.5 In case of hard copy bid, no bid may be withdrawn if the bid has already been modified; except in case of any modification or correction in bid document by procuring entity.</p> <p>24.6 Request for withdrawal or modification must be made through the same</p>
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	medium of submission. Request for withdrawal or modifications through different medium shall not be considered.
25. Bid Opening	25.1 The Employer shall open the Technical Bids in public at the address, on the date and time specified in the BDS in the presence of Bidders' designated representatives who choose to attend. The Price Bids will remain unopened and will be held in custody of the Employer until the specified time of their opening. If the Technical Bid and Price Bid are submitted together in one envelope, the Employer shall reject the entire Bid.
	25.2 The Employer shall download the e-submitted Technical Bid. The e-GP system allows the Employer to download the e-submitted technical bid only after bid opening date and time after login simultaneously by at least two members of the Bid Opening Committee.
	25.3 Electronically submitted Technical Bid shall be opened at first in the same time and date as specified above. Electronic Bids shall be opened one by one and read out. The e-submitted technical bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files shall be considered incomplete.
	25.4 Thereafter, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be Permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding bid. No Technical Bid and/or Price Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out and recorded at bid opening. Only the Technical Bid, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original and Modification, will remain unopened in accordance with ITB 25.1.
	25.5 All other envelopes holding the Technical Bid shall be opened one at a time, reading out: the name of the Bidder; whether there is a modification; the presence of a bid security and any other details as the Employer may consider appropriate. Only Technical Bids read out and recorded at bid opening shall be considered for evaluation. No bid shall be rejected at opening of Technical Bids except for late bids, in accordance with ITB 23.1.
	25.6 The Employer shall prepare a record of the opening of Technical Bids that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, or modification; and the presence or absence of a bid security. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record.

	25.7 At the end of the evaluation of the Technical Bids, the Employer will invite bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the Employer. Bidders shall be given at least 7 days notice for the opening of Price Bids.
	25.8 The Employer will notify Bidders in writing who have been rejected on the grounds of their Technical Bids being substantially nonresponsive to the requirements of the Bidding Document and return their Price Bids unopened.
	25.9 The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, in the presence of Bidders' representatives who choose to attend at the address, on the date, and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.
	25.10 All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded: <ul style="list-style-type: none"> (a) the name of the Bidder; (b) whether there is a modification; (c) the Bid Prices, including any discounts and alternative offers; and (d) any other details as the Employer may consider appropriate. Only Price Bids, discounts, modifications, and alternative offers read out and recorded during the opening of Price Bids shall be considered for evaluation. No Bid shall be rejected at the opening of Price Bids.
	25.11 The Employer shall prepare a record of the opening of Price Bids that shall include, as a minimum, the name of the Bidder, the Bid Price (per lot if applicable), any discounts, modifications and alternative offers. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record.
E. Evaluation and Comparison of Bids	
26. Confidentiality	26.1 Information relating to the examination, evaluation, comparison, and post-qualification of bids and recommendation of Contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.
	26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid.
	26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any

	matter related to the bidding process, it may do so in writing.
27. Clarification of Bids	27.1 To assist in the examination, evaluation, and comparison of the Technical and Price Bids, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the substance of the Technical Bid or prices in the Price Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Price Bids, in accordance with ITB 33. In case of e-submission of bid, upon notification from the employer, the bidder shall also submit the original of documents comprising the Technical and Price Bid as per ITB 11.2 and ITB 11.3 for verification of submitted documents for acceptance of the e-submitted bid.
	27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.
28. Deviations, Reservations, and Omissions	28.1 During the evaluation of bids, the following definitions apply: <ul style="list-style-type: none"> (a) "Deviation" is a departure from the requirements specified in the Bidding Document; (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.
29. Examination of Technical Bid	29.1 The Employer shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB 11.2 have been provided, and to determine the completeness of each document submitted.
	29.2 The Employer shall confirm that the following documents and information have been provided in the Technical Bid. If any of these documents or information is missing, the offer shall be rejected. <ul style="list-style-type: none"> (a) Letter of Technical Bid; (b) written confirmation of authorization to commit the Bidder; (c) Bid Security; and (d) Technical Proposal in accordance with ITB 16
30. Determination of Responsiveness of Technical Bid	30.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB 11.2.
	30.2 A substantially responsive Technical Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, <ul style="list-style-type: none"> (a) if accepted, would:

	<p>(i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract;</p> <p>or</p> <p>(ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or</p> <p>(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.</p>
	<p>30.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section VI (Works Requirements) have been met without any material deviation, reservation or omission.</p>
	<p>30.4 If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.</p>
	<p>30.5 In case of e-submission bids, the Employer evaluates the bid on the basis of the information in the electronically submitted bid files. If the Bidder cannot substantiate or provide evidence to establish the information provided in e-submitted bid through documents/ clarifications as per ITB Clause 27.1, the bid shall not be considered for further evaluation.</p>
31. Nonconformities Errors, and Omissions	<p>30.6 In Case, a corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such bidder's bid shall be excluded from the evaluation, if public entity receives instruction from Government of Nepal.</p> <p>30.7 Except in case of e-submission, the Financial Bid of the bidder, which is evaluated as substantially non-responsive in technical bid, shall be returned to the respective bidders.</p>
	<p>31.1 Provided that a bid is substantially responsive, the Employer may waive any non-conformities in the bid that do not constitute a material deviation, reservation, or omission.</p>
	<p>31.2 Provided that a Technical Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the Price Bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.</p>
	<p>31.3 Provided that a Technical Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison</p>

	purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the methods indicated in Section III (Evaluation and Qualification Criteria).
	31.4 If the monetary value of such non-conformities is found to be more than fifteen percent of the Bid Price of the bidder pursuant to ITB 31.3, such bid shall be considered nonresponsive and shall not be involved in evaluation.
32 Qualification of the Bidder	32.1 The Employer shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders meet the qualifying criteria specified in Section III (Evaluation and Qualification Criteria).
	32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.
	32.3 An affirmative determination shall be a prerequisite for the opening and evaluation of a Bidder's Price Bid. A negative determination shall result into the disqualification of the Bid, in which event the Employer shall return the unopened Price Bid to the Bidder.
33. Correction of Arithmetical Errors	<p>33.1 During the evaluation of Price Bids, the Employer shall correct arithmetical errors on the following basis:</p> <ul style="list-style-type: none"> (a) only for unit price Contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected; (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; (c) If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Price Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Price Bid will be corrected. (d) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b) and (c) above.
	33.2 If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security shall be forfeited.
34 Subcontractors	34.1 In case of Prequalification, the Bidder's Bid shall name the same subcontractor as submitted in the prequalification application and approved by the Employer.

	<p>In case of Post-qualification, the Employer may permit subcontracting for certain specialized works as indicated in Section III. When subcontracting is permitted by the Employer, the sub-contractor shall meet the qualifications criteria as indicated in section III.</p> <p>Sub-contractors' qualification and experience will not be considered for evaluation of the Bidder. The Bidder on its own (without taking into account the qualification and experience of the sub-contractor) should meet the qualification criteria.</p> <p>Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the BDS.</p>
35. Evaluation of Price Bids	35.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
	<p>35.2 To evaluate a Price Bid, the Employer shall consider the following:</p> <ul style="list-style-type: none"> (a) the bid price, excluding Value Added Tax, Provisional Sums, and the provision, if any, for contingencies in the Summary Bill of Quantities, for Unit Rate Contracts, or Schedule of Prices for lump sum Contracts, but including Day work items, where priced competitively; (b) price adjustment for correction of arithmetic errors in accordance with ITB 33.1; (c) price adjustment due to discounts offered in accordance with ITB 14.4; (d) adjustment for nonconformities in accordance with ITB 31.3; (e) application of all the evaluation factors indicated in Section III (Evaluation and Qualification Criteria);
	35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
	35.4 If this Bidding Document allows Bidders to quote separate prices for different Contracts, and to award multiple Contracts to a single Bidder, the methodology to determine the lowest evaluated price of the Contract combinations, including any discounts offered in the Letter of Price Bid, is specified in Section III (Evaluation and Qualification Criteria).
	35.5 if the bid for an Unit Rate Contract, which results in the lowest Evaluated Bid Price is seriously unbalanced or front loaded or extremely low in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder as mentioned in BDS to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract or may consider the bid as non-responsive .

	35.6 In case of e-submission bids, the Employer evaluates the bid on the basis of the information in the electronically submitted bid files. If the Bidder cannot substantiate or provide evidence to establish the information provided in e-submitted bid through documents/ clarifications as per ITB Clause 27.1, the bid shall not be considered for further evaluation.
	35.7 In Case, a corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such bidder's bid shall be excluded from the evaluation, if public entity receives instruction from Government of Nepal.
36. Comparison of Bids	36.1 The Employer shall compare all substantially responsive bids in accordance with ITB 35.2 to determine the lowest evaluated bid.
37. Employer's Right to Accept Any Bid, and to Reject Any or All Bids	37.1 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all Bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.
F. Award of Contract	
38. Award Criteria	38.1 The Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
39. Letter of Intent to Award the Contract/Notification of Award	39.1 The Employer shall notify the concerned Bidder whose bid has been selected in accordance with ITB 38.1 within seven days of the selection of the bid, in writing that the Employer has intention to accept its bid and the information regarding the name, address and amount of selected bidder shall be given to all other bidders who submitted the bid.
	39.2 If no bidder submits an application pursuant to ITB 42 within a period of seven days of the notice provided under ITB 39.1, the Employer shall, accept the bid selected in accordance with ITB 38.1 and Letter of Acceptance shall be communicated to the selected bidder prior to the expiration of period of Bid validity, to furnish the performance security and sign the contract within fifteen days.
	39.3 In Case, a corruption case is being filed to Court against the Natural Person or Board of Director of the firm/institution /company or any partner of JV, such Natural Person or Board of Director of the firm/institution /company or any partner of JV such bidder's bid shall be excluded from the evaluation, if public entity receives instruction from Government of Nepal.
40. Performance Security	40.1 Within Fifteen (15) days of the receipt of Letter of Acceptance from the Employer, the successful Bidder shall furnish the performance security in

	<p>accordance with the Conditions of Contract, subject to ITB 35.5, as specified below from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal using Sample Form for the Performance Security included in Section X (Contract Forms), or another form acceptable to the Employer. The performance security issued by any foreign Bank outside Nepal must be counter guaranteed by Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal.</p> <p>i) If bid price of the bidder selected for acceptance is up to 15 (fifteen) percent below the approved cost estimate, the performance security amount shall be 5 (five) percent of the bid price.</p> <p>ii) For the bid price of the bidder selected for acceptance is more than 15 (fifteen) percent below of the cost estimate, the performance security amount shall be determined as follows:</p> <p>Performance Security Amount = [(0.85 x Cost Estimate – Bid Price) x 0.5] + 5% of Bid Price.</p> <p>The Bid Price and Cost Estimate shall be inclusive of Value Added Tax.</p> <p>40.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily. The process shall be repeated according to ITB 39.</p>
41 Signing of Contract	<p>41.1 The Employer and the successful Bidder shall sign the Contract Agreement within the period as stated ITB 40.1.</p> <p>41.2 At the same time, the Employer shall affix a public notice on the result of the award on its notice board and make arrangement for causing such notice to be affixed on the notice board also of the District Coordination Committee, District Administration Office, Provincial Treasury and Controller Office and District Treasury and Controller Office. The Employer may make arrangements to post the notice into its website, if it has; and if it does not have, into the website of the Public Procurement Monitoring Office, identifying the bid and lot numbers and the following information: (i) the result of evaluation of bid; (ii) date of publication of notice inviting bids; (iii) name of newspaper; (iv) reference number of notice; (v) item of procurement; (vi) name and address of bidder making contract and (viii) contract price</p> <p>41.3 Within thirty (30) days from the date of issuance of notification pursuant to ITB 39.1 unsuccessful bidders may request in writing to the Employer for a debriefing seeking explanations on the grounds on which their bids were not selected. The Employer shall promptly respond in writing to any unsuccessful Bidder who, requests for debriefing.</p> <p>41.4 If the bidder whose bid has been accepted fails to sign the contract as stated ITB 40.1, the Public Procurement Monitoring Office shall blacklist the bidder on recommendation of the Public Entity.</p>
42. Complaint and	<p>42.1 If a Bidder is dissatisfied with the Procurement proceedings or the decision</p>

Review	made by the Employer in opening of the price bid or the intention to award the Contract, it may file an application to the Chief of the Public Entity or Public Procurement Monitoring Office or office established as per Clause 145(a) of the Public Procurement Regulation within Seven (7) days of providing the notice under ITB 25.8 and ITB 39.1 by the Public Entity, for review of the proceedings stating the factual and legal grounds.
	42.2 Late application filed after the deadline pursuant to ITB 42.1 shall not be processed.
	42.3 The chief of Public Entity shall, within five (5) days after receiving the application, give its decision with reasons, in writing pursuant to ITB 42.1: (a) whether to suspend the procurement proceeding and indicate the procedure to be adopted for further proceedings; or (b) to reject the application. The decision of the chief of Public Entity shall be final for the Bid amount up to the value as stated in 42.4.
	42.4 If the Bidder is not satisfied with the decision of the Public Entity in accordance with ITB 42.3, is not given within five (5) days of receipt of application pursuant to ITB 42.1, it can, within seven (7) days of receipt of such decision, file an application to the Review Committee of the GoN, stating the reason of its disagreement on the decision of the chief of Public Entity and furnishing the relevant documents, provided that its Bid amount, equal or more than Rupees Twenty Million (NRs. 20,000,000). The application may be sent by hand, by post, by courier, or by electronic media at the risk of the Bidder itself.
	42.5 Late application filed after the deadline pursuant to ITB 42.4 shall not be processed.
	42.6 Within three (3) days of the receipt of application from the Bidder, pursuant to ITB 42.4, the Review Committee shall notify the concerning Public Entity to furnish its procurement proceedings, pursuant to ITB 42.3.
	42.7 Within three (3) days of receipt of the notification pursuant to ITB 42.6, the Public Entity shall furnish the copy of the related documents to the Review Committee.
	42.8 The Review Committee, after inquiring from the Bidder and the Public Entity, if needed, shall give its decision within one (1) month of the receipt of the application filed by the Bidder, pursuant to ITB 42.4.
	42.9 The Bidder, filing application pursuant to ITB 42.4, shall have to furnish a cash amount or Bank guarantee from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law equivalent to one percent (1%) of its quoted Bid amount with the validity period of at least ninety (90) days from the date of the filing of application pursuant to ITB 42.4.

	42.10 If the claim made by the Bidder pursuant to ITB 42.4 is justified, the Review Committee shall have to return the security deposit to the applicant, pursuant to ITB 42.9, within seven (7) days of such decision made.
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Section II: Bid Data Sheet

A. General	
ITB 1.1	The number of the Invitation for Bids is: IFB No: SHITALPATI/CW/76/77/ -1
ITB 1.1	The Employer is: Tumlingtar Shitalpati 220 kV Transmission Line project Transmission Directorate Nepal Electricity Authority NEA Training Centre Building, Kharipati, Bhaktapur, Nepal Telephone: +977 1 6616 865 Facsimile number: +977 1 6616891 Electronic mail: ts220kv@nea.org.np
ITB 1.1	The number and identification of this bidding process is: IFB No: SHITALPATI/CW/76/77/ -1 “Construction of Boundary Wall at Shitalpati Substation, Sankhuwasabha.”
ITB 2.1	The name of the Project is Tumlingtar Shitalpati 220kV Transmission Line Project The DP is Not Applicable The implementing agency is Not Applicable GoN Funded or DP Funded: GoN/NEA Funded
ITB 4.1 (a)	For GoN Funded: Maximum number of partner in a joint venture shall be: 3 (three)
ITB 4.4	For DP: Not Applicable
B. Bidding Document	
ITB 7.1	For clarification purposes only, the Employer’s address is: The Project Manager Tumlingtar Shitalpati 220kV Transmission Line Project, Transmission Directorate Nepal Electricity Authority Kharipati, NEA Training Center Building, Bhaktapur, Nepal Telephone: +977 1 6616865 Facsimile number: +977 1 6616891 Electronic mail address: ts220kv@nea.org.np
ITB 7.4	A Pre-Bid meeting shall not be organized Bidders are strongly requested to visit the site on their own. A site visit “shall not be” organized by the Employer

ITB 7.5	Time for request: Requests for clarification should be received by the Employer no later than 10 days prior to the deadline for submission of bids.
C. Preparation of Bids	
ITB 10.1	The language of the bid is: English
ITB 11.2 (h)	The Bidder shall submit with its Technical Bid the following additional documents: <ul style="list-style-type: none"> i) Up to date Firm/Company Registration Certificate ii) Tax Clearance Certificate up to FY 2075/76 or evidence of time extensions iii) VAT, PAN Registration Certificate v) A written declaration made by the Bidder stating that the Bidder is not ineligible to participate in the Bid; has no conflict of interest in the proposed bid procurement proceedings and has not been punished for the profession or businesses related offence. vi) Notarized Joint Venture Agreement if any
ITB 11.3 (b)	In accordance with ITB 12 and ITB 14, the following schedules shall be submitted with the bid, including the priced Bill of Quantities for Unit Rate Contracts and Schedule of Prices for lump sum contracts: Not Applicable
ITB 13.1	Alternative bids shall not be permitted.
ITB 13.2	Alternative times for completion shall not be permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: Not Applicable
ITB 14.6	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
ITB 18.1	The bid validity period shall be: Ninety 90 days
ITB 19.1	The Bidder shall furnish a bid security, from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law with a minimum of NRs. 1,200,000.00 (In words, Twelve Lakh Rupees Only) which shall be valid for 30 days beyond the validity period of the bid.
ITB 19.2 (b)	Account Name: Tumlingtar Shitalpati 220 kV Transmission Line Project Bank Name: Everest Bank Ltd. Bank Address: New Road, Kathmandu Account Number: 00200105201381 Office Code: 354234
ITB 20.1	In addition to the original of the bid, the number of copies are: NA

ITB 20.2	<p>The written confirmation of authorization to sign on behalf of the Bidder shall indicate:</p> <p>(a) The name and description of the documentation required to demonstrate the authority of the signatory to sign the Bid such as a Power of Attorney; and</p> <p>(b) In the case of Bids submitted by an existing or intended JV, an undertaking signed by all parties (i) stating that all parties shall be jointly and severally liable, and (ii) nominating a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.</p>
D. Submission and Opening of Bids	
ITB 21.1	Bidders shall have the option of submitting their bids "by electronic only"
ITB 22.1	<p>For bid submission purposes only, the Employer's address is:</p> <p>The Project Manager Tumlingtar Shitalpati 220kV Transmission Line Project, Transmission Directorate Nepal Electricity Authority NEA Training Center Building, Kharipati, Bhaktapur, Nepal Telephone: +977 1 6616865 Facsimile number: +977 1 6616891 Electronic mail address: ts220kv@nea.org.np</p> <p>The deadline for bid submission is: Date: 24 December, 2019 Time: 12:00 Hrs (NST)</p>
ITB 25.1	<p>The Technical Bid opening shall take place at :</p> <p>Tumlingtar Shitalpati 220kV Transmission Line Project, Transmission Directorate Nepal Electricity Authority Kharipati, NEA Training Center Building, Bhaktapur, Nepal</p> <p>Date : 24 December, 2019 Time : 13:00 Hrs (NST) Immediately after bid submission</p>
E. Evaluation and Comparison of Bids	
ITB 34.1	a) Contractor's proposed subcontracting: Maximum percentage of subcontracting permitted is: Not Permitted

	b) Sub-contractors' qualification and experience will not be considered for evaluation of the Bidder. The Bidder on its own (without taking into account the qualification and experience of the sub-contractor) should meet the qualification criteria.
ITB 35.5	The amount of the performance security be increased by Eight (8) percent of the quoted bid price.

Section III: Evaluation and Qualification Criteria

This Section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders by post-qualification exercise. GoN/DP requires bidders to be qualified by meeting predefined, precise minimum requirements. The method sets pass-fail criteria, which, if not met by the bidder, results in disqualification. In accordance with ITB 32 and ITB 35, no other methods, criteria and factors shall be used. The Bidder shall provide all the information requested in the forms included in Section IV (Bidding Forms).

1. Evaluation

In addition to the criteria listed in ITB 35.2 (a) - (e) the following criteria shall apply:

Note:

Use the evaluation criteria listed below as appropriate and required for the project.

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity, to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VI (Works Requirements).

1.2 Multiple Contracts: Not applicable

1.3 In Case, other than Multiple Contracts

Bidders have the option to Bid for any one or more Contracts. The contracts will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer, subject to the selected Bidder(s) meeting the required qualification which shall be the sum of the minimum requirements for respective individual contracts as specified under items Required Bid Capacity as per 2.3.3. Under this case, Contract shall be awarded based on Least Cost Combination to the Employer.

1.4 Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows:

Alternative Completion time more than specified in the bid document shall not be permitted. The Completion time shall be of **24 months from the Contract Effectiveness**

Bids with completion Time more than above shall be rejected.

.5 Alternative Technical Solutions

Alternative Technical Solutions are not permitted.



1.6 Quantifiable Nonconformities and Omissions

Subject to ITB 14.2 and ITB 35.2, the evaluated cost of quantifiable nonconformities including omissions, is determined as follows:

Pursuant to ITB 31.3, the cost of all quantifiable nonmaterial nonconformities shall be evaluated, but excluding omission of prices in the BoQ. The Employer will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of bids.

2. Qualification

2.1 Eligibility

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
2.1.1 Nationality					
Nationality in accordance with ITB sub-clause 4.2	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid Forms ELI –1; ELI –2 with attachments
2.1.2 Conflict of Interest					
No conflicts of interest in accordance with ITB Sub-Clause 4.3.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
2.1.3 Government/DP Eligibility					
Not having been declared ineligible by government/DP, as described in ITB Sub-Clause 4.4.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
2.1.4 Government-owned Entity					
Bidder required to meet conditions of ITB Sub-Clause 4.5.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Forms ELI - 1, ELI - 2, with attachments
2.1.5 UN Eligibility					
Not having been declared ineligible based on a United Nations resolution or Employer's country law, as described in ITB Sub-Clause 4.8.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Letter of Technical Bid

2.1.6 Other Eligibility					
Firm Registration Certificate	must meet requirement	not applicable	must meet requirement	not applicable	Document attachment
Business Registration Certificate	must meet requirement	not applicable	must meet requirement	not applicable	Document attachment
VAT and PAN Registration certificate	must meet requirement	not applicable	must meet requirement	not applicable	Document attachment
Tax Clearance Certificate/Tax return submission evidence/evidence of time extension for the F/Y 2075/76	must meet requirement	not applicable	must meet requirement	not applicable	Document attachment
Notarized Power of attorney. In case of JV signed and seal by all the JV partners	must meet requirement	not applicable	not applicable	not applicable	Document attachment
In case of JV Notarized Power of attorney to person who sign the JV agreement and combined Power of Attorney for the Bid	not applicable	not applicable	must meet requirement	not applicable	Document attachment

2.2 Pending Litigation

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
2.2.1 Pending Litigation					
All pending litigation shall be treated as resolved against the Bidder and so shall in total not represent more than 50% (Fifty) Percent of the Bidder's net worth.	must meet requirement by itself or as partner to past or existing JV	not applicable	must meet requirement by itself or as partner to past or existing JV	not applicable	Form LIT - 1

2.3 Financial Situation

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
2.3.1 Historical Financial Performance					
Submission of audited balance sheets and income statements, for the last 3 (Three) years to demonstrate the current soundness of the Bidder's financial position. As a minimum, a Bidder's net worth calculated as the difference between total assets and total liabilities should be positive.	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1 with attachments

2.3.2 Average Annual Construction Turnover



Minimum average annual construction turnover of NRs 32 Million without VAT calculated as total certified payments received for construction contracts in progress or completed, within last three fiscal years.	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN -2 certified by Auditor or Chartered Accountant
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2.3.3 Financial Resources					
Using Forms FIN - 3 in Section IV (Bidding Forms) the Bidder must demonstrate access to, or availability of, financial resources in the form of "Lines of Credit", <input type="checkbox"/> The following cash-flow requirement NRs. 6 Million Rupees	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 3 Certified by the Auditor or Chartered Accountant
2.3.4 Required Bid Capacity					
The bidding capacity of the bidder should be equal to or more than the NRs 41 Million Rupees	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 4,5 by the Auditor or Chartered Accountant

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirement
		All Partners Combined	Each Partner	One Partner	
2.4.1 General Construction Experience					
Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last 5 (Five) years prior to the applications submission deadline.	must meet requirement	not applicable	must meet requirement	not applicable	Form EXP - 1

2.4.2 Specific Construction Experience					
(a) Contracts of Similar Size and Nature					
Participation as Prime contractor, management contractor, or subcontractor, in at least 2 (Two) Contracts within the last ten (10) years, each with a value of at least NRs 26 Million Rupees without VAT that have been successfully or are substantially completed and that are similar to the proposed works (Civil works). The similarity shall be based on the physical size, complexity, methods, technology or other characteristics as described in Section VI, Works Requirements.	must meet requirement	must meet requirement	not applicable	not applicable	Form EXP – 2(a)

(b) Construction Experience in Key Activities					
For the above or other contracts executed during the period stipulated in 2.4.2(a) above, a minimum construction experience in the following key activities: (a) Stone Masonry wall of at least 1800 cum of Volume	must meet all requirements	must meet all requirements	not applicable	not applicable	Form EXP - 2(b)

2.5 Personnel

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

SN.	Position	Required No.	Academic Qualification [When position demands]	Total Work Experience [Years]	Experience in Similar Works [years]
1.	Project Engineer	1 (One)	Bachelor in Civil Engineering	10	5
2.	Overseer (Civil)	2 (Two)	Diploma in Civil Engineering	3	2
3	Foreman	3 (Three)	SLC/SEE	3	2

In case the bidder proposes to consider Personnel that may be spared from committed/ongoing contracts for evaluation, the bidder shall provide details of personnel which will be spared from such committed/ongoing contracts based on the physical progress at the date of bid submission.

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Information Forms included in Section IV (Bidding Forms).

2.6 Equipment

The Bidder must demonstrate that it has the key equipment listed hereafter:

No.	Equipment Type and Characteristics	Min. Number Requirement
1.	Mixer Machine	2
2.	Dumpy Level Machine	1

3.	Backhoe	1
4.	Wheel barrow	3

In case the Bidder proposes to consider Equipment that may be spared from committed/ongoing contracts for evaluation, the Bidder shall provide details of Equipment which will be spared from committed / ongoing contracts clearly demonstrating the availability of such equipment with respect to the physical progress of the ongoing contracts on the date of bid submission.

In case of Equipment to be leased/hired the same procedure as mentioned above shall apply.

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV (Bidding Forms)

2.7 Subcontractors

Sub contracting shall not be permitted.

Section IV: Bidding Forms

This Section contains the forms which are to be completed by the Bidder and submitted as part of its Bid.



Letter of Technical Bid

The Bidder must accomplish the Letter of Bid in its letterhead clearly showing the Bidder's complete name and address.

Date:

Name of the contract:

Invitation for Bid No.: SHITALPATI/CW/76/77/ -1

To:.....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works:
- (c) Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period **90 (Ninety)** days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (d) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2 and meet the requirements of ITB 3.4, & 3.5
- (e) We are not participating, as a Bidder or as a subcontractor, in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (f) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by DP, under the Employer's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council;
- (g) We are not a government owned entity/We are a government owned entity but meet the requirements of ITB 4.5;¹
- (h) We declare that, we including any subcontractors or suppliers for any part of the contract do not have any conflict of interest in accordance with ITB 4.3 and we have not been punished for an offense relating to the concerned profession or business.
- (i) We declare that we are solely responsible for the authenticity of the documents submitted by us. The document and information submitted by us are true and correct. If any document/information given is found to be concealed at a later date, we shall accept any legal actions by the Employer.
- (j) We agree to permit the Employer/DP or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors



appointed by the Employer.

- (k) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section III (Evaluation and Qualification Criteria) and our technical proposal, or as otherwise agreed with the Employer.

Name:

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date



Letter of Price Bid

The Bidder must accomplish the Letter of Bid in its letterhead clearly showing the Bidder's complete name and address.

Date:

Name of the contract:

Invitation for Bid No.: IFB NO: SHITALPATI/CW/76/77/ -1

To:.....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8;
- (b) We offer to execute in conformity with the Bidding Documents the following Works:
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is: NRs.; or when left blank is the Bid Price indicated in the Bill of Quantities.
- (d) The discounts offered and the methodology for their application are:.....
- (e) Our bid shall be valid for a period of **Ninety (Ninety) days** from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;
- (g) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:¹

Name of Recipient	Address	Reason	Amount
.....
.....

- (h) We understand that this bid, *together with your written acceptance thereof* included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;

¹ If none has been paid or is to be paid, indicate "None".



- (i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and
- (j) We declare that we are solely responsible for the authenticity of the documents submitted by us.
- (k) We agree to permit the Employer/DP or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by the Employer.

Name:

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date



Table of Price Adjustment Data

Not Applicable



Table of Price Adjustment Data
[Not Applicable]



Bid Security

Bank Guarantee

Bank's Name, and Address of Issuing Branch or Office

(On Letter head of the Commercial bank or any Financial Institution eligible to issue Bank Guarantee as per prevailing Law)

Beneficiary: **name and address of Employer**

Date: Bid Security No.:

We have been informed that, **[insert name of the Bidder]** (hereinafter called "the Bidder") intends to submit its bid (hereinafter called "the Bid") to you for the execution of **name of Contract** under Invitation for Bids No. ("the IFB"). Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we, **name of Bank** hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . **amount in figures** (**amount in words**) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

(a) has withdrawn or modifies its Bid:

i) during the period of bid validity specified by the Bidder on the Letter of Technical and Price Bid, in case of electronic submission

(ii) from the period twenty-four hours prior to bid submission deadline up to the period of bid validity specified by the Bidder on the Letter of Technical Bid and Price Bid, in case of hard copy submission; or

(b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or

(c) changes the prices or substance of the bid while providing information pursuant to clause 27.1 of ITB; or

(d) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB.

(e) is involved in fraud and corruption in accordance with the ITB

This guarantee will remain in force up to and including the date **number** days after the deadline for submission of Bids as such deadline is stated in the instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

This Bank guarantee shall not be withdrawn or released merely upon return of the original guarantee by the Bidder unless notified by you for the release of the guarantee.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

... **Bank's seal and authorized signature(s)** ...

Note:

The bid security of has been counter guaranteed by the Bank on (Applicable for Bid Security of Foreign Banks).



Letter of Commitment for Bank's Undertaking for Line of Credit

Bank's Name, and Address of Issuing Branch or Office
(On Letter head of the Commercial bank or any Financial Institution eligible to issue Bank Guarantee as per prevailing Law)

Invitation for Bids No:

Date:

Contract No:

Name of Contract :

To:

[Name and address of the Procuring Entity]

CREDIT COMMITMENT No: *[insert number]*

We have been informed that *[name of Bidder]* (hereinafter called "the Bidder") intends to submit to you its Bid (hereinafter called "the Bid") for the execution of the Works of ***[description of works]*** under the above Invitation for Bids (hereinafter called "the I").

Furthermore, we understand that, according to your conditions, the Bidder's Financial Capacity i.e. Liquid Asset must be substantiated by a Letter of Commitment of Bank's Undertaking for Line of Credit.

At the request of, and arrangement with, the Bidder, we *[name and address of the Bank]* do hereby agree and undertake that *[name and address of the Bidder]* will be provided by us with a revolving line of credit, in case awarded the Contract, for execution of the Works viz. *[insert name of the works]*, for an amount not less than NRs*[in figure]* (*in words*) for the sole purpose of the execution of the above Contract. This Revolving Line of Credit will be maintained by us until issuance of "**Taking-Over Certificate**" by the Procuring Entity.

In witness whereof, authorised representative of the Bank has hereunto signed and sealed this Letter of Commitment.

Signature

Signature



Technical Proposal Format

Personnel

Equipment

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Others



Personnel

Form PER - 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

No.	Name	Position*	Academic Qualification	Total Work Experience [Years]	Experience in Similar Works [years]
1.					
2.					
3.					
4.					
5.					

* As listed in Section III (Evaluation and Qualification Criteria).

Form PER - 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Fields with asterisk (*) shall be used for evaluation.

Position*		
Personal Information	Name	Date of Birth
	Professional qualifications	
Present employment	Name of employer	
	Address of employer	
	Telephone	Contact (manager/personnel officer)
	Fax	E-mail
	Job title	Years with present employer

Summarize professional experience over the last twenty years in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From*	To*	Company, Project, Position and Relevant Technical and Management Experience*

Note:

In case of e-submission the Resume of Proposed Personnel shall be submitted on notification by the Employer as per ITB 27.



Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

(i) For the equipment under Bidder's ownership

No.	Equipment Type and Characteristics	Total Nos. of Equipment under Bidder's Ownership	No. of Equipment engaged/proposed for ongoing/committed contracts	Nos. of Equipment proposed for this contract
1.				
2.				
3.				
4.				
5.				

(ii) For the Equipment to be leased/hired

No.	Equipment Type and Characteristics	Total Nos. of Equipment under the ownership of lease/hire provider	No. of Equipment engaged/committed for other works	Nos. of Equipment proposed to be leased/hired for this contract
1.				
2.				
3.				
4.				
5.				

Type of Equipment*		
Equipment Information	Name of manufacturer	Model and power rating
	Capacity*	Year of manufacture
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

The following information shall be provided only for equipment not owned by the Bidder.



Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	email
Agreements	Details of rental / lease / manufacture agreements specific to the project	

The Bidder shall be solely responsible for the data provided. However, this shall not limit the right of Employer to verify the authenticity of submitted information.

Note:

In case of e-submission the “Agreements” shall be submitted on notification by the Employer as per ITB 27.1



Bidder's Information and Qualification Format

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Others



Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI - 1: Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
In case of JV, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following original documents.	
<ol style="list-style-type: none">1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and 4.2.2. Authorization to represent the firm or JV named in above, in accordance with ITB 20.2.3. In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1.4. In case of a government-owned entity, any additional documents not covered under 1 above required to comply with ITB 4.5.	



Form ELI - 2: JV Information Sheet

Each member of a JV must fill in this form

JV / Specialist Subcontractor Information	
Bidder's legal name	
JV Partner's or Subcontractor's legal name	
JV Partner's or Subcontractor's country of constitution	
JV Partner's or Subcontractor's year of constitution	
JV Partner's or Subcontractor's legal address in country of constitution	
JV Partner's or Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following original documents.	
<ol style="list-style-type: none"> 1. articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and 4.2. 2. Authorization to represent the firm named above, in accordance with ITB 20.2. 3. In the case of government-owned entity, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5. 	



Form LIT - 1: Pending Litigation

Each member of a JV must fill in this form

Pending Litigation			
<input type="checkbox"/> No pending litigation in accordance with Criteria 2.2 of Section III (Evaluation and Qualification Criteria) <input type="checkbox"/> Pending litigation in accordance with Criteria 2.2 of Section III (Evaluation and Qualification Criteria)			
Year	Matter in Dispute	Value of Pending Claim in NRS	Value of Pending Claim as a Percentage on Net Worth

Form FIN - 1: Financial Situation

Each Bidder or member of a JV must fill in this form

Financial Data for Previous 3 Years [in NRS]		
Year 1 :	Year 2 :	Year 3 :

Information from Balance Sheet

Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Information from Income Statement

Total Revenues			
Profit Before Tax			
Profit After Tax			

- Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three or above years, as indicated above, complying with the following conditions.
- All such documents reflect the financial situation of the Bidder or partner to a JV, and not sister or parent companies.
- Historic financial statements must be audited by a certified auditor.
- Historic financial statements must be complete, including all notes to the financial statements.
- Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Note:

In case of e-submission the attachments should not be uploaded but shall be submitted on notification by the Employer as per ITB 27.1



Form FIN - 2: Average Annual Construction Turnover

Each Bidder or member of a JV must fill in this form

The information supplied should be the Annual Turnover of the Bidder or each member of a JV in terms of the amounts billed to clients for each year for work in progress or completed to NRs at the end of the period reported. And it must be Certified by the Auditor or Chartered Accountant

Annual Turnover Data for the Last 10 Years (Construction only)	
Year	Amount Currency

- **Average Annual Construction Turnover
(Best three years within the last 10 years)**

Form FIN - 3: Financial Resources

Specify proposed sources of financing, as “lines of credit”, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in Section III (Evaluation and Qualification Criteria).

Financial Resources		
No.	Source of financing	Amount (in NRS)
1		
2		
3		

Note : The letter from the Bank must be in the prescribed format and stated details/terms and conditions as per the Bid Forms “Letter of Commitment for Bank’s Undertaking for Line of Credit” And it must be Certified by the Auditor or Chartered Accountant

Form FIN - 4: Bid Capacity

Each Bidder or member of a JV must fill in this form

$$\text{Bid Capacity} = [(7 \times A) - B]$$

A = Average Annual Turnover of last three years.

B = Annual Value of the existing commitments and works (ongoing) to be completed, calculated from **FIN-5**.

SN	Name of Bidder	Pan No.	A, in Million	B, in Million	Bid Capacity, in Million
1					
2					
3					

Total Bid Capacity :

Signature of Bidder

Note: This form must be Certified by the Auditor or Chartered Accountant



Form FIN-5: Current Contract Commitments / Works in Progress

Bidders and each partner to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments (For Calculation of B with reference of FIN-4)									
No.	Name of Contract	Name of the Contractor/s	Employer's Contact Address, Tel, Fax	Contract Share in % (a)	Contract Amount in Millions (b)	Contract Date (yyyy-mm) (c)	Initial or Revised Contract Duration (months) (d)	Value of outstanding works [In Millions, NRS] [#] (e)	Estimated Time in Month to Complete the outstanding works (f) = (c) + (d) – Date of Invitation of Bid (f)
1									
2									
3									
4									

Signature of Bidder

The Outstanding Works means Contract Price (excluding Vat) minus Work Evaluated by Employer till the reference date. Bidder shall have to submit the relevant documentary evidence to substantiate the facts/figures.

Note 1: “B” shall be calculated as : $B = \sum \left[\frac{(e) \times (a)}{(f)} \right] \times 12$, If (f) is less than 12, then value of (f) shall be taken as 12.



Note 2: If Initial or Revised Contract Date is run out with respect to Date of Invitation of Bid, the Estimated Time in Month to Complete the outstanding works shall be taken equal to 12 months.

Note 3: This form must be Certified by the Auditor or Chartered Accountant



Form EXP - 1: General Construction Experience

Each Bidder or member of a JV must fill in this form.

General Construction Experience				
Starting Month Year	Ending Month Year	Year	Contract Identification and Name and Address of Employer Brief Description of the Works Executed by the Bidder	Role of Bidder



Form EXP - 2(a): Specific Construction Experience

Fill up one (1) form per contract.

Contract of Similar Size and Nature			
Contract No..... of.....	Contract Identification		
Award Date		Completion Date	
Role in Contract	<input type="checkbox"/> Contractor	<input type="checkbox"/> Management Contractor	<input type="checkbox"/> Subcontractor
Total Contract Amount	<input type="checkbox"/> NRS		
If Partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone/Fax Number E-mail			
Description of the similarity in accordance with Criteria 2.4.2 (a) of Section III			
<p>Note :</p> <p><i>The Employer should insert here contract size, complexity, methods, technology, or other characteristics as described in Section VI (Work Requirements) against which the bidder demonstrates similarity in the box on the right-hand-side.</i></p>			



Form EXP - 2(b): Specific Construction Experience in Key Activities

Fill up one (1) form per contract.

Contract of Similar Size and Nature			
Contract No..... of.....	Contract Identification		
Award Date		Completion Date	
Role in Contract	<input type="checkbox"/> Contractor	<input type="checkbox"/> Management Contractor	<input type="checkbox"/> Subcontractor
Total Contract Amount	<input type="checkbox"/> NRS		
If Partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone/Fax Number E-mail			
Description of the similarity in accordance with Criteria 2.4.2 (a) of Section III			
Note : <i>The Employer should insert here production rate(s) for the key activity (activities) subject contract against which the bidder demonstrates in the box on the right-hand-side production rates achieved by him on previous contracts.</i>			



Section V - Eligible Countries

For the purpose of ITB 4.2: “**Nepal**”; and

For the purpose of Country of Origin ITB 5.1 and GCC 79.2: “**all Countries**”



Part II : BIDDING PROCEDURES



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Section VI: Works Requirements

This Section contains the Specification, the Drawings, and supplementary information that describe the Works to be procured.



Scope of Work

[Insert brief scope of works.]



Specifications

Notes on the Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Employer without qualifying or conditioning their Bids. The specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is encouraged by the Funding Agency in case of funding assisted projects. Most specifications are normally written specially by the Employer or Project Manager to suit the Contract Works in hand. The available standard specification of works of Ministry of Physical Infrastructure and Transport, DoLIDAR and Other line Ministries can be adopted for respective civil construction works.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, however it may not necessarily be adequate to be used in a particular Works Contract and may necessitate preparation of Particular (Special) Specifications to amend and or supplement the provision of the General Specifications to meet the requirement of the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards of Nepal or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable.

Employers should decide whether technical solutions to specified parts of the Works are to be permitted. Alternatives are appropriate in cases where obvious (and potentially less costly) alternatives are possible to the technical solutions indicated in the Procurement Documents for certain elements of the Works, taking into consideration the comparative specialized advantage of potential bidders. For example:

The Employer should provide a description of the selected parts of the Works with appropriate references to Drawings, Specifications, Bill of Quantities, and Design or Performance criteria, stating that the alternative solutions if applicable shall be at least structurally and functionally equivalent to the basic design parameters and specifications.



Such alternative solutions shall be accompanied by all information necessary for a complete evaluation by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, proposed construction methodology, and other relevant details.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Project Manager's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Project Manager at least 30 days prior to the date when the Contractor desires the Project Manager's consent. In the event the Project Manager determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These Notes for Preparing Specifications are intended only as information for the Employer or the person drafting the Procurement Documents. They should not be included in the final documents.



[Insert Specifications]



NEPAL ELECTRICITY AUTHORITY

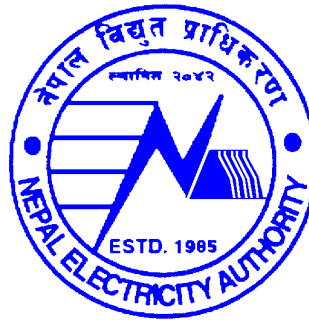
(An Undertaking of Government of Nepal)

TRANSMISSION DIRECTORATE

220kV Major Transmission Line Projects

Tumlingtar Shitalpati 220kV Transmission Line Project

NEA, Training Center, Kharipati, Bhaktapur



BID DOCUMENT (NCB) VOLUME –II OF II (WORKS REQUIREMENT)

IFB No: **SHITALPATI/CW/76/77/ -1**

Issued on:

Issued to:



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A.SPECIFICATION FOR MATERIALS-CIVIL WORKS

FOR COMPOUND WALL

1 GENERAL

In order evacuate the power generated either from Government or Private IPPs from the Rivers lying at the boundary of Bhojpur and Sankhuwasabha District, Government of Nepal has considered to develop the Tumlingtar Shitalpati 220kV Transmission Line Project. The scope of the project is to construct a 220kV substation at Shitalpati and construct about 15 km long 220 kV transmission line from Shitalpati Substation to Tumlingtar Substation. As per the planning recently, Shitalpati Tumlingtar 220 kV Transmission Line Project, NEA has acquired about 10 hectare of land at Chamabote, Khandbari 10, Sankhuwasabha District. Now the Projects intends to carry out the Construction of Boundary wall to protect the land that NEA has acquired.

This specification covers the general requirements for exploration, factory test, supply, construction and field testing of civil works for the construction of Boundary wall. This part of the project shall be funded by Nepal Government/NEA.

The Contractor shall perform all the works to meet the requirements of these Specifications, the attached drawings and all the relevant Articles in these Contract Documents.

1.1 STANDARD AND REFERENCES

All equipment, materials, fabrication and tests under these Specifications shall conform to the latest applicable standards, manuals and Specifications contained in the following list or, to equivalent applicable standards, manuals and Specifications, established and approved in the country of manufacturer, and approved as equal by Employer.

ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standard Institute
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing Materials
AWS	American Welding Society
JIS	Japanese Industrial Standards
DIN	Deutsches Institute für Normung

Any details not specifically covered by these standards and specifications shall be subject to approval of Employer. In the event of contradictory requirements between the standards and these Specification requirements, the terms of the Specifications shall apply.

Unless specifically mentioned, reference to standards and specifications or to equipment and materials of the particular manufacture shall be considered as followed by "or equivalent". The Contractor may propose equivalent specifications, materials or equipment,

which shall be equal or higher in every respect to that specified. If the Contractor, for any reason, proposes equivalents to or, deviates from, the above standard, he shall state the exact nature of the change and shall submit complete specifications of the materials, as well as copies of pertinent standards, for the approval of Employer and decision of Employer in the matter of quality shall be final.

1.2 SCOPE OF WORKS

The following works shall be carried out at Shitalpati substation so as to complete the civil works in all respects, as required for the proper functioning of the substations:

- Construction of Compound wall all along the boundary of substation with necessary construction joints and to the line and level as mentioned in drawings.

The main activities to be performed by the contractor include but not limited to the following:

- It shall be the responsibility of the contractor to make any temporary arrangement for the transportation of the materials and goods up to the Shitalpati Substation and within the proposed site.
- Setting up fully fledged site office either at or nearby Shitalpati Substation.
- All associated and necessary civil and architectural works to complete the specified scope of work

1.2.1 Working Schedule

A binding graphical working schedule with an explanatory report shall be submitted before the construction work shall start. For any reason if the construction work lags the schedule, NEA may interfere and may demand for new work schedule to catch up the timeline of the project.

1.3 GENERAL NOTES FOR CONTRACTOR AND DEFINITIONS

- 1.1 The work shall be carried out according to the specifications whether specifically mentioned in it or not. No extra in any form shall be paid unless it is definitely stated as an item in the Bill of Quantities. Whenever the specifications are not given or ambiguous, the relevant International Standards and further amendments or decision of the Employer/Engineer shall be considered as final and binding.
- 1.2 The work shall be related to the drawings which the contractor is presumed to have studied. Construction at Site strictly shall follow the engineering construction drawings as provided.
- 1.3 The source of materials stated in the specifications are those from which materials are generally available. However, materials not conforming to the specifications shall be rejected even if they come from the stated sources. The contractor should satisfy himself that sufficient quantity of material of acceptable specification is available from the stated or other sources.

Where terms "Resident Engineer/Employer", "Representative", "Contractor", "Works" etc. are used, they shall have the meaning defined in the Conditions of Contract or defined in the subsequent specification.

1.5 "Owner" shall mean,

**Tumlingtar Shitalpati 220 kV Transmission Line Project
Major 220 kV Transmission Line Projects
Transmission Directorate
Nepal Electricity Authority
Kharipati, Bhaktapur**

1.6 The requirements of specifications for the materials shall be fulfilled by the Contractor without extra charge including transportation or any other taxes involved that is the item rates quoted shall be deemed to have taken these into account.

2. GENERAL OFFICIAL ACCESSORIES

2.1 OFFICE ACCOMMODATION

The contractor shall provide at his own expense adequate temporary accommodation and toilet facilities for his worker as well as working office space for his staffs and Employer/ Engineer on duty for construction supervision and keep the same in good order. This may be done to suit site conditions with the approval of the Employer / Engineer. The above mentioned temporary structures shall be removed on the completion of works at contractors own cost.

2.2 BOARDS

A board of size of 1.5m x 1.0m shall be made and put at an approved place on the site. This board shall be painted in approved color with names of (a) The proposed construction and owner (b) The Contractor (c) The Engineer/Employer and (d) any other specialist consultant, as directed by the Employer/ Engineer. This shall be provided by the Employer/Engineer.

2.3 DRAWING, INSTRUCTION, MEASUREMENTS

All the work shall be done according to the drawings and instructions of the Employer/ Engineer and the Contractor shall arrange to test materials and/ or portions of the works at his own cost in order to prove their soundness and sufficiency. If after any such test and in the opinion of the Employer/ Engineer any work or portion of work is found to be defective or unsound, the Contractor shall pull down and re-execute the same at his own cost. Defective materials shall be removed from the site.

2.4 PREPARING AND CLEARING THE SITE

The site described and shown on the plans shall be cleared of all obstructions, loose stones and materials, rubbish of all kinds as well as brush-wood. All holes or hollows whether originally existing or produced shall be well rammed and levelled off as directed. No extra shall be paid for this.

2.5 TREES

No trees shall be cut without prior permission. If any trees have to be cut, this shall form an extra item. The rate shall be based on the district rate and the volume of the tree as obtained by measuring the circumference of the tree at Chest Height and using the formula as stated in Forest Act. For the purpose of the specification a tree shall be defined as growth whose circumference of the trunk at 300mm from the base is not less than 900 mm.

2.6 MEASURING MATERIALS

Materials requiring measuring shall be measured separately in boxes of appropriate sizes before being mixed. They should be calibrated and marked with red if necessary in presence of the Employer/Engineer.

2.7 TEMPORARY PROTECTION

All trenches, walls, newly laid concrete or other work requiring protection from weather or accidental injury shall be protected by means of tarpaulin or in any other way so as to keep the work safe. Nothing extra shall be paid for this matter.

2.8 QUALITY OF WORK

Materials, tools and plants and workmanship shall be the best of several kinds obtainable in the market and as approved by the Employer/ Engineer.

2.9 LEAVE CLEAN

On completion, all works must be cleaned, rubbish removed and the works and land cleaned of surplus materials, debris and other accumulations and everything left in clean and orderly condition.

2.10 SAMPLES

Samples of each class of work required shall be submitted by the Contractor for the approval of the Employer/ Engineer and after such approval these samples shall be deposited at a place chosen by the Employer/ Engineer. The Contractor will be required to perform all works under the contract in accordance with these approved samples.

2.11 PROVISIONAL ITEMS

All provisional items in the schedule shall be carried out at the discretion of the Employer/Engineer, and may or may not form part of the contract. In case, the provisional items are carried out by the Contractor the rates shall be settled as for extra items as stated in the conditions of contract.

2.12 STORAGE

Safe, dry and proper storage shall be provided for all materials, particularly for cement. The capacity of the cement storage shall be equal to one-fourth of the total quantity to be used but may not exceed 200 tones at the site of work.

2.13 SURVEYING EQUIPMENT

The Contractor should supply following surveying instrument if necessary and required for above for checking of contractor's work to the Employer/ Engineer.

- | | | |
|--|---|---------|
| a) Theodolite (least count 10") | - | 1 set. |
| b) Level (Dumpy level) | - | 1 set. |
| c) Measuring tape (Tazima Standard) | - | 2 sets. |
| d) Necessary staff and other equipments. | | |

The Contractor shall maintain the equipment in a serviceable condition and immediately corrected or replaced if it is found to be inaccurate.

3. MATERIALS

3.1 GENERAL

The materials supplied and used in the works shall comply with the requirements of these Specifications. They shall be new, except as may be provided elsewhere in the Contract or permitted by the Employer/ Engineer in writing. The materials shall be manufactured, handled and used in a workman like manner to ensure completed work in accordance with the Contract. Where an Indian Standard is specified, the latest version of the standard quoted shall be considered to apply.

3.2 SOURCES

The source of materials should be selected and notified to the Employer/ Engineer and approved by him. The use of any one kind or class of material from more than one source is prohibited, except by written permission of the Employer/ Engineer. Such permission, if granted, will set forth the conditions under which the change may be made. The source or kind of materials shall not be changed at any time without written permission of the Employer/ Engineer. If the product from any source proves unacceptable at any time, the Contractor shall make such arrangements as may be necessary to assure acceptable material, either by alterations in plant operations or by a change of source. Claims for increased costs which may be occasioned by such alterations or changes will not be given consideration, unless the source of the unacceptable material was designated in the Contract as a source of material.

When any manufactured product, either new or used, is furnished by the owner, the location at which such material will be delivered to the Contractor will be designated in the contract. In such cases the contractor shall haul the materials from the designated delivery point to point of use, and compensation for such hauling will be considered to be included in the Contract unit price for placing the materials in the finished work.

3.3 INSPECTION AND ACCEPTANCE OF MATERIALS

Final inspection and acceptance of materials will be made only at the site of the work. The Employer/ Engineer reserves the right to sample, inspect and test materials

throughout the duration of the work, and to reject any materials which are found to be unsatisfactory at the time of use.

A preliminary inspection of materials may be made at the source for the convenience of the Contractor, but the presence of Employer/ Engineer at the source shall not relieve the Contractor of the responsibility of furnishing materials which comply with these specifications. The Employer/ Engineer shall have free entry at all times to those parts of any plant which concern the manufacture or production of the materials ordered.

3.4 SAMPLES AND TESTS

The Contractor shall submit sample of all materials for the approval of the Employer/ Engineer prior to commencement of work. The Contractor shall give immediate notification of the placing of orders for shipment of materials to permit testing. He shall furnish without charge all samples required and he shall afford such facilities as the Employer/ Engineer requires for collecting and forwarding such samples.

The Contractor shall not make use of or incorporate into the work the materials represented by the samples until the tests have been made and the materials are found to comply with the requirements of the specifications, except that any materials which have a satisfactory record of compliance with the Specifications may, at the discretion of the Employer/ Engineer, be used until the tests are completed. If the material fails to pass the tests, no further use thereof shall be made until the Contractor has taken steps satisfactory to the Employer/ Engineer to correct the deficiencies.

When required by the Employer/ Engineer preliminary samples of the character and quantity prescribed shall be submitted by the Contractor or producer for examination and shall be tested in accordance with the methods referred to in this Specification. The acceptance of a preliminary sample, however, shall not be constructed as acceptance of materials from the same source delivered later. Only the materials actually delivered for the work will be considered, and their acceptance or rejection will be based on the results of the tests and inspections prescribed in these Specifications.

3.5 DEFECTIVE MATERIALS

All materials which do not conform to the requirements of the Contract will be rejected whether in place or not. They shall be removed immediately or taken away from the site immediately thereafter. No rejected material, the defects of which have been subsequently corrected, shall be used in the work unless approval in writing has been given by the Employer/ Engineer. Upon failure of the Contractor to comply promptly with any order of the Employer/ Engineer given under this Clause, the Employer/ Engineer shall have authority to cause the removal and replacement of rejected material and to deduct the cost thereof from any monies due to the Contractor.

3.6 TRADE NAMES AND ALTERNATIVES

For convenience in designation in the Contract, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and his catalogue information. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

- a) The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor and he shall furnish all information as required by the Employer/ Engineer. The Employer/ Engineer shall be the sole judge as to the quality and suitability of all alternative articles or materials and his decision shall be final.
- b) Whenever the specifications permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the quality of the material or article proposed. Such request shall be made in ample time to permit approval without delaying the work.

3.7 FOREIGN MATERIALS

Materials which are manufactured, produced or fabricated outside Nepal shall be delivered to a distribution point in Nepal, unless otherwise required in these specifications or the special provisions, where they shall be retained for a sufficient period of time to permit inspection, sampling, and testing. The Contractor shall not be entitled to an extension of time for acts or events occurring outside Nepal and it shall be the Contractor's responsibility to deliver materials obtained from outside Nepal to the point of entry into Nepal in sufficient time to permit timely delivery to the job site. The Contractor shall provide the facilities and arrange for any testing required at his own cost. All testing by the Contractor shall be subject to witnessing by the Employer/ Engineer. The manufacturer, producer or fabricator of foreign material shall furnish to the Employer/Engineer a "Certificate of Compliance" with the specifications where required. In addition, certified mill test reports clearly identifiable to the lot of material shall be furnished where required in these specifications or otherwise requested by the Employer/ Engineer. Where structural materials requiring mill test reports are obtained from foreign manufacturers, such materials shall be furnished only from those foreign manufacturers who have previously established, to the satisfaction of the Employer/ Engineer, the sufficiency of their in-plant quality control, as deemed necessary by the Employer/ Engineer, to give satisfactory assurance of their ability to furnish material uniformly and consistently in conformance with these specifications. At the option of the Employer/Engineer, such sufficiency shall be established whether by submission of detailed written proof thereof or through in-plant inspection by the Employer/ Engineer.

3.8 CONTRACT DOCUMENTS

The Contractor is bound to execute and realize the Project works covered under these contract documents.

These contract documents to cover the said work shall along with that is normally understood therein comprise of

- a) These Tender Documents.
- b) All Tender and Working Drawings issued by the owner prepared by this Employer/ Engineer.
- c) All site instructions made in the site order book or log book by the Employer/ Engineer.

- d) All instructions given to the contractor by the Employer/ Engineer be in the form of sketches, directions along with requests for additional data, shop drawings, measurements details etc. from the contractor related of this work.
- e) All shop drawings and samples approved by the Employer/ Engineer.
- f) All manufacturer's specifications, data brochures information etc. approved by the Employer/ Engineer.
- g) All aspects of work checked and approved by the Employer/ Engineer either on, or off, the project site.
- h) All samples and guidelines that the Employer/ Engineer shall instruct the Contractor to follow. In particular covering all works where the contractor shall follow the existing designs, decoration, methods of construction, finishes proportions, elevations etc. of the existing building.

4. EXCAVATION OF EARTH FOR FOUNDATION AND OTHERS

4.1 LAYOUT AND SITE CLEARANCE

The Contractor is required to accurately lay out the boundary wall and other facilities as per the instructions and guidance of the Employer/Engineer and his representative at site. For this the Contractor has to establish points for foundations of the structures as shown in the drawings by establishing reference points fairly permanent to enable regular confirmations by the Employer/Engineer for their accuracy. Ground levels have to be established near to each structure as well for common height control of the structures as per the specific instructions of the Employer/ Engineer.

The site described in plan shall be cleared of all grass, shrubs etc. The maximum depth of excavation or filling shall be 0.3 m. The surplus excavated material shall be disposed within a lead of 200 m as directed.

No payment shall be made separately for site clearance. The unit price of layout and site clearance shall be incorporated in the unit bid price of earthwork in excavation and filling.

4.2 EARTH WORK

Earthwork in excavation in trenches, raft foundation etc. in soil including dressing of sides, ramming of bottom, lift up to 2.0m. stacking of excavated materials at least 2 m or the depth of foundation/trenches clear from the edge of excavation and then returning the stacked soil in 0.15m layer when required in plinth, under floors, sides of foundations, laying and depositing the layer by watering and ramming and then disposing of all surplus excavated soil as directed within a lead of 200 m.

4.2.1 EXCAVATIONS

The foundation shall be excavated to the dimensions shown on the drawings and to depth, at which in the opinion of the Employer/ Engineer stratum of good hard soil is observed.

The excavation shall be carefully carried out to the levels, shapes and dimensions as shown in the drawings or as directed by the Employer/ Engineer to receive the concrete work. Should any of the excavation be taken down below the specified levels, the Contractor shall fill in such excavation at his own expense with concrete well rammed in position until it is brought up to the proper levels. Filling in with excavated materials will not be allowed for this purpose. No extra charge will be given for the lift of the excavated materials up to 2.0m. The excavated earth shall be stacked at least 4m from the edge of foundation. The Contractor, at his own cost, shall dispose off all surplus excavated soil as directed by the Employer/ Engineer within a lead of 200m.

If foundations are made broader or longer than directed, the extra length and breadth shall be filled in after the foundations are built with earth rammed hard, by the Contractor at his own cost. The Contractor shall at his own expense and without extra charge, make provision for all extra excavation in slope, pumping, dredging or bailing out water and these trenches shall be kept free from water while the foundation work is in progress. The Contractor shall also at his own cost remove such portions of boulders or rocks, as are required to make the bottom of the trench horizontal and level. Nothing extra shall be admissible for pumping and/or bailing out water unless otherwise taken separately in the Bill of Quantities.

The trenches, rafts shall be inspected by the Employer/ Engineer before the concrete is laid therein, when the trench level shall be recorded. The filling in of side of trench excavations can be done in not more than 0.15m layers. Each layer shall be well watered and rammed hard before adding the next layer. Such fillings shall be brought up to the ground level without extra charge and shall form part of the item of excavation.

4.2.2 TIMBERING OF TRENCHES FOR FOUNDATION AND OTHER WORK

When foundations are to be taken deep, the sides of the trenches shall be protected by erecting timber shoring and strutting. Timbering shall be close or open depending on the nature of the soil and work. The arrangement of timbering, sizes and spacing of members shall be as directed by the Employer/ Engineer. Nothing extra on this account shall be admissible unless otherwise taken separately in the Bill of Quantities.

4.2.3 TRIMMING AND LEVELING

The bottom of all foundation should be trimmed and leveled in accordance with the drawings.

4.2.4 DISPOSAL

Disposal of the surplus earth shall be done within the site as directed by the Employer/ Engineer. Nothing extra shall be paid for such disposal within the lead of 200m. The earth excavated shall be used for filling and terracing.

4.2.5 MEASUREMENT

Measurement of all works will be made in m³. Measurement for payment under the contract will be limited to the lines, grades, slopes and dimensions shown on the Drawings or as determined by the Engineer as the work proceeds on the basis of his evaluation of the soil/rock characteristics and site conditions set forth in the clause. All required and accepted excavation shall be measured from its original position. The volume shall be determined in cubic meters by average area method to be computed

from the original and final cross-sections of the completed works as per the drawings or as directed by the Engineer. Where it is not practicable to use the above method of measurement, the Engineer may use volumetric method or any other method that in his opinion is best suited for accurate assessment. Any over-excavation shall be reinstated at the risk and cost of the Contractor as directed by the Engineer. After the wall has been raised, the gaps shall be filled with earth and well compacted. No extra payment shall be made for this, Rates shall be deemed to be included in Unit price indicated in BoQ for Earthwork in Excavation.

Payment for work under these clauses will be made on the basis of contract unit price indicated in the BoQ.

5. CONCRETE WORK

5.1 Plain Cement Concrete (P.C.C.) WORKS

Providing and laying plain cement concrete excluding cost of form work complete as required

- i) PCC 1:3:6 (1cement: 3 sand: 6 stone aggregate)
- ii) PCC 1:2:4 (1cement: 2 sand: 4 stone aggregate)

5.1.1 MATERIALS

Cement, sand and stone aggregate shall conform to the specifications as under plain Cement Concrete work for RCC works.

5.1.2 MIXING

Before any batching, mixing, transporting, placing, compacting and finishing and curing the concrete ordered or delivered to site, the Contractor shall submit to the Engineer full details including Drawing of all the plant which he proposes to use and the arrangements he proposes to make.

All proportions shall be by volume. Mixing shall be done in a mechanical mixer as per specifications of reinforced cement concrete work. However, in special cases, hand mixing may be allowed by the Employer/ Engineer when the following procedure shall be adopted. The several materials shall be accurately gauged in boxes and thoroughly mixed on a water tight platform of adequate size, being turned over at least thrice till the color is uniform and then twice wet. Water shall be added gradually and not more than necessary or specified by Employer/ Engineer that much concrete shall be mixed which can be used within half an hour. Each stack shall however be not larger than consuming one bag of cement. All such stacks shall be placed distinct from each other.

5.1.3 LAYING

Concrete shall be laid in horizontal layers of not more than 0.15 m thick and gently rammed. When placing on a nearly horizontal surface, placing shall start at the lower end of the surface to avoid de-compaction of concrete. Layers shall not be placed so that they form feather edges nor shall they be placed on a previous layer which has taken its initial set. In order to comply with this requirement, another layer may be

started before initial set of the preceding layer. All the concrete in a single bay or pour shall be placed as a continuous operation. It shall be carefully worked round all obstructions, irregularities in the foundations and the like so that all parts are completely full of compacted concrete with no segregation or honey combing. All work shall be completed on each batch of concrete before its initial set commences and thereafter the concrete shall not be disturbed before it has set hard. No concrete that has partially hardened during transit shall be used in the works and the transport of concrete from the mixer to the point of placing shall be such that this requirement can be complied with.

5.1.4 INTERRUPTIONS TO PLACING

If the concrete placing is interrupted for any reason and the duration of the interruption cannot be forecast or is likely to be prolonged, the Contractor shall immediately take the necessary action to form a construction joint so as to eliminate as far as possible feather edges and sloping top surfaces and shall thoroughly compact the concrete. All work on the concrete shall be completed before elapse of initial setting time and it shall not thereafter be disturbed until it is hard enough to resist damage. Plant and materials to comply with this requirement shall be readily available at all time during concrete placing. Before concreting is resumed after such an interruption the Contractor shall cut out and remedy all damaged or un-compacted concrete, feather edges or any undesirable features and shall leave a clean sound surface against which the fresh concrete may be placed.

If it becomes possible to resume concrete placing without contravening the Specification and the Engineer consents to resumption, the new concrete shall be thoroughly worked in and compacted against the existing concrete so as to eliminate any cold joints. In case of long interruption concrete shall be resumed as directed by Engineer.

5.1.5 COMPACTION OF CONCRETE

Concrete shall be fully compacted throughout the full extent of the placed layer. It shall be thoroughly worked against the formwork and around any reinforcement and other embedded item, without displacing them. Care shall be taken at arises or other confined spaces. Successive layers of the same pour shall be thoroughly worked together. Concrete shall be compacted with the assistance of needle vibrators for Beams, Slab and Columns and Needle vibrator or Surface vibrator for slabs, unless the Engineer agrees another method.

Vibration shall be continued at each point until the concrete ceases to contract, air bubbles have ceased to appear, and a thin layer of mortar has appeared on the surface. Vibrators shall not be used to move concrete laterally and shall be withdrawn slowly to prevent the formation of voids.

The vibrators shall be inserted vertically into the concrete to penetrate the layer underneath at regular spacing which shall not exceed the distance from the vibrator

over which vibration is visibly effective and some extent of vibration is overlapped. Vibration shall not be applied by way of reinforcement nor shall the vibrators be allowed to touch reinforcement, sheathing ducts or other embedded items.

5.1.6 CURING

After laying, the concrete shall be kept wet for seven days constantly by ponding. If cast in hot weather, it shall be covered with gunny bags which shall be kept constantly wet. Other work on concrete shall not start until 3 days after laying of concrete. Concrete curing shall be done strictly for seven days. Any failure of keeping the concrete work in constant wet condition, the work will be done by Employer/ Engineer and cost of above work shall be deducted from Contractor's bill.

5.1.7 MEASUREMENT

Measurement shall be in cubic metre of exact length, breadth and depth. This shall be exclusive of any form work required to complete the item. Rate shall include all materials and labour.

6. REINFORCED CEMENT CONCRETE (RCC) GENERAL

Providing and laying PCC for RCC work with stone aggregate 20 mm and down gauge well graded excluding the cost of formwork and the cost of the reinforcement

- i) M 20

6.1 MATERIALS

The materials used in the works shall be of the qualities and kinds specified. Materials delivered to the works shall be equal to the approved samples which shall be deposited with the Employer/ Engineer at least 30 days before it is required for use in work. The quantity of all necessary materials should be checked by the Employer/ Engineer for any casting. Delivery shall be made sufficiently in advance of constructional requirements to enable further samples to be selected and tested if so desired by the Employer/ Engineer. No material shall be used in the works until approved. Materials failing to comply with the approved samples and specification shall be immediately removed from the works at the Contractor's Cost.

6.1.1 WATER

Water used in mixing concrete shall be free from injurious amounts of oils, acids, alkalis, organic materials or other deleterious substances. It should be clean as drinking water.

6.1.2 CEMENT

The cement shall be ordinary Portland cement of approved brand and manufacture and shall comply in all respects with the I.S. 269-1967 for ordinary Portland Cement. It shall be delivered on the site in packages with an unbroken seal fixed by the manufacturer and

plainly marked with the name of brand and the manufacture. It shall be stored in a dry place, in regular piles not exceeding six bags high and in such a manner that it will be efficiently protected from moisture and contamination, and that the consignments can be used up in the order in which they are received. Set cement shall be immediately removed from the work and replaced by the Contractor at his own expense. If desired, tests shall be made by taking samples of cement from stores or elsewhere from the works. The selection of samples and procedure for testing shall comply with appropriate I.S. specification.

6.1.3 AGGREGATE

All aggregates shall conform to I.S. 383 - 1970. Aggregate shall, where possible, be derived from a source that normally produces aggregate satisfactory for concrete, and if requested by the Employer/ Engineer, the Contractor shall supply evidence to this effect. If instructed to do so, the contractor shall supply samples of the aggregate for the purpose of making preliminary concrete test cubes as herein-after specified.

Aggregate shall consist of naturally occurring sand and gravel or stone crushed or uncrushed, or a combination thereof. They shall be hard, strong, dense, durable, clean and free from veins and adherent coating. As far as possible, flaky and elongated pieces should be avoided.

Aggregate shall not contain any harmful materials, such as iron pyrites, coal, mica, shale or similar laminated materials, clay, alkali, soft fragments, organic impurities etc. in such quantity as to affect the strength or durability of the concrete or in addition to the above for reinforced concrete, any material which attack the reinforcement. Aggregate which are chemically reactive with the alkalis of cement are harmful, as cracking of concrete may take place. These aggregate shall be protected from spilling oils, mobiles, diesels over it on site.

6.1.4 FINE AGGREGATES (SAND)

The fine aggregate shall be natural sand or sand derived by crushing suitable gravel or stone and shall be free from coagulated lumps. Sand derived from a stone unsuitable for coarse aggregate shall not be used as the fine aggregate.

The fine aggregate shall conform to the requirements of I.S. 383 - 1970. Fine aggregate shall not contain more than 3% of material removable by decantation test, nor more than 1% dry lumps. The total of coal, clay lumps, shale, soft fragments and other deleterious substance shall not be more than 5%.

The percentage of clay lumps shall be determined by examining the various fractions that remain after the material has been tested for grading. Any particles that can be broken with fingers shall be classified as clay lumps and the total percentage of clay lumps shall be determined on the basis of the total original weight of the sample. The fine aggregate shall be well graded from fine to coarse and shall meet the following gradation requirements:

Table - 1 GRADATION FOR FINE AGGREGATE

Sieve designation Percentage by weight passing

Sieve Designation	10mm	No.4	No.16	No.30	No.50	No.100
Fine Aggregate	100	95-100	45-80	25-55	10-30	2-10

Blending will be permitted in order to meet the gradation requirements for the fine aggregate.

6.1.5 COARSE AGGREGATE

The coarse aggregate shall be crushed stone aggregate. The pieces of aggregates shall be angular. Friable, flaky and laminated pieces, mica, shale shall only be present in such quantities as not to affect adversely the strength and durability of the concrete as ascertained by tests on concrete cubes. After twenty four hours immersion in water, a previous dried sample shall not have gained in weight more than 5% and not more than 10% if it is to be used in plain concrete or elsewhere as described. The coarse aggregate shall conform to the requirements of I.S. 383 - 1970. The percentage of wear at 500 revolutions of Los Angeles Rattler Test shall not be more than 50%. The coarse aggregate shall meet the gradation of Table-2. Moreover it should conform previous specification on coarse aggregate.

Table - 2 GRADATION FOR COARSE AGGREGATE.

Percentage by weight passing

Sieve Designation	50mm	40mm	25mm	20mm	10mm	No.4	No.8
40mm & down	100	90-100	20-25	0-15	0-5		
20mm & down			100	90-100	20-25	0-10	0-5

All R.C.C. work shall be carried out in strict accordance with this specification, I.S. Specifications and the working drawings. Any discrepancies in the dimensions on the drawings or any points not clear to the Contractor shall be brought to the notice of the Employer/ Engineer or clarified in advance before proceeding with the work.

The Contractor shall allow for all wastage in all materials. He shall also allow for all tests of concrete materials and if required produce manufacturer's certificate for cement and steel unless issued by the Owner.

- 1) All form work should be get checked for leveling and dimensions as well as all necessary supporting spouts from the Employer/ Engineer.
- 2) Only after getting the formwork checked, reinforcement should be placed properly as according to the drawing and detailing.
- 3) The date and time of any casting of concrete should be informed to the Engineer/Employer's 2 days in advance.

No concrete work shall be cast in the absence of the Employer/ Engineer. The Contractor shall personally check that both the formwork and reinforcement have been correctly

placed and fixed and satisfy himself that all work preparatory to casting is completely ready, before requesting the Employer/ Engineer for final inspection and approval.

6.1.6 ADMIXTURES

The use of admixtures to improve the workability is allowed only if there is proved evidence that neither the strength nor the other requisite qualities of concrete and/or steel accessories grout, etc. are impaired by their use. The use of admixtures containing calcium chloride, fluorides, nitrates and sulphates is prohibited. The decision of the Employer/ Engineer on all matters relating to the use of admixtures shall be final.

Admixtures shall be stored in suitable waterproof building. Any material which has deteriorated or which has been contaminated whether during transit to the site, at the site or otherwise, shall not be used in the work and shall be immediately removed from the site and replaced at the expense of the contractor.

6.1.7 MIX DESIGN

Concrete mixes for various specified design strengths shall be worked out by the Contractor. The mix proportions shall be selected to ensure that the workability of the fresh concrete is suitable for the conditions of handling and placing, so that after compaction it surrounds all reinforcement or tendons and ducts and completely fills the formwork. When the concrete is hardened its quality shall be such as to comply with the strength, durability and other requirements taking into account the conditions to which it will be exposed.

Any standard method of mix design may be used. For determining the "required average strength" the specified minimum shall be taken as one in ten. Unless the Contractor can prove from his past experience that he is capable of achieving a high degree of control a "FAIR" control should be assumed in the initial mix design. Before arriving at the average strength values due regard shall be given to the criteria acceptance of site concrete.

The mixes designed by the Contractor shall be used on works only after obtaining a written approval of the Employer/ Engineer. It is to be understood that the mix design shall be entirely the responsibility of the Contractor and such approval by the Employer/ Engineer shall not relieve him of his responsibility in respect thereof. Sand shall be of an approved quality, clean, sharp and free from injurious amount of dust, mica, shells, soft and flaky particles, shale, alkali, organic matter, loam or other deleterious substances. The sand shall be taken from a source approved by the Employer/Engineer and if required by him it shall be thoroughly washed, screened and graded by the contractor at no extra cost and to the satisfaction of the Employer/ Engineer.

The whole of the ingredients of the coarse aggregate shall consist of hard stones and shall contain no soft or elongated pieces. If it is considered necessary, the Employer/ Engineer may instruct it to be washed, screened and graded at no extra cost.

6.1.8 MEASUREMENT AND PROPORTIONING OF CONCRETE MATERIALS

The aggregate shall be measured by volume in a gauge box of correct and approved size based on the weight of the material or by other approved accurate means. The gauge box or other container shall be filled with the aggregate without compacting to a predetermined uniform depth, accurate allowance being made for bulking due to moisture content of the fine aggregate, if required on site.

The cement shall be measured by weight, one or more complete bags containing 50 kgs. being used for a single batch of concrete and as the size of the mixer shall permit this to be done. One weighing machine shall be placed in standby condition on casting day and if the Employer/ Engineer feel that any concrete bag contains less than 50 kg, he can measure the weight of it and will direct the Contractor to fulfil necessary weight of cement from contractor's side.

The normal proportions of cement and aggregate shall comply with the quantities specified below for the concrete described for each part of the work. The specified quantities shall be altered if instructed after examination of the aggregate materials in samples or in bulk in order to obtain the dense concrete with approved materials. Any such alterations within the range of 1 part of fine aggregate to $1\frac{1}{2}$ parts of coarse aggregate and 1 part of fine aggregate to $2\frac{1}{2}$ parts of coarse aggregate shall be made without any alteration in the charge made by the Contractor.

6.2 PROPERTIES OF CONCRETE

The minimum cement content of the mixture shall be as below in specified in clause no 6.2.1

6.2.1 CONCRETE PROPORTIONS

The minimum cement content of mixture shall be as below:

Grade	Minimum cement content in Kg/cu.m.
M 15	300
M 20	400
M 25	550

6.2.2 WATER CEMENT (W/C) RATIO

In general, w/c ratio of the concrete mix shall be kept minimum during casting. Generally one bag of cement concrete mix shall use 35.6 litres of water or as necessary. As moisture content of fine and coarse aggregate varies, for workability of concrete mix, the Employer/ Engineer may vary the water quantity and once the water quantity to be placed for one bag of cement concrete mix, is fixed by the Employer/ Engineer, the Contractor shall follow it strictly. As information to the Contractor, the Employer/ Engineer will depute one checking supervisor to the mixing batch, the quantity of water used shall be varied

to suit the moisture content of the aggregate, and shall be just sufficient to produce a dense concrete, consistent with practical workability.

6.2.3 CONCRETE GRADE AND STRENGTH

The compressive strength (cube strength) for Portland cement concrete shall be in accordance with I.S. 456-2000.

Grade	Preliminary Test at 7 days	Work Test at 28 days
M15	110 Kg/cm ²	170 Kg/cm ²
M20	135 Kg/cm ²	210 Kg/cm ²
M25	185 Kg/cm ²	285 Kg/cm ²

6.2.4 CONTROL OF CONCRETE

(i) Preliminary Tests

The Contractor shall be called upon to submit representative samples of materials to be used for concrete in order that they may be tested at a laboratory and the suitability of materials established. All expenses in connection with the above materials, tests shall be done by the Contractor.

(ii) Works Cube Tests

During the progress of the work, 15 cm cubes shall be made as per I.S. 456-2000 as necessary and tested in accordance with I.S. 516-1959.

6.2.5 MEASUREMENT OF CONSISTENCY

The consistency shall be determined by making trial mixtures with dried aggregate. The consistency of the trial mixture of approved consistency shall be measured as instructed.

The slump of approved trial mixture shall be measured and this slump shall not be exceeded throughout all batches of concrete made from the same materials mixed in the same proportions as the trial mixtures and used in these parts of the works as instructed. In no case, the slump shall exceed 50mm. for concrete in slabs, or exceed 25 mm. for consolidated by mechanical vibration. The slump test shall be made on concrete actually being placed in the works at the commencement of each grade of concrete placing and such other times as instructed.

The apparatus used for the slump test shall be standard cone. When cone is filled, it shall be raised vertically clear of the concrete and the measurement of the slump shall be measured. Care shall be taken to prevent vibration of the sample being tested. If the Employer/ Engineer requires the use of other means for testing the consistency of the concrete it shall be done as instructed without any extra charge. For this standard I.S. Method shall be followed.

6.2.6 CONCRETE MIXING

The cement and aggregates shall be thoroughly mixed together in the specified proportions by volume or weight in a batch type mechanical mixer, unless another type of mixer is approved. The water shall be admitted to drum of the mixer only when all the cement and aggregates constituting one batch be in the drum. The concrete shall be mixed until the mixer is of uniform color and in no case for less than one minute. If the drum rotates at lower speeds, the minimum period shall be increased inversely proportional to that speed. The period of mixing shall be measured from time when all the materials and water are in the drum. The entire contents of the drum shall be discharged before materials for the succeeding batch are fed into the drum. Materials spilled from the skip or other container shall not be used. No partly set or frozen concrete shall be used in the work. Partly set concrete shall not be remixed with the cement or aggregate of the next batch.

6.2.7 DISTRIBUTION OF CONCRETE

The concrete shall be distributed from the mixers to the position of placing in the works by approved means that do not cause segregation or otherwise impair the quality of the concrete. While transporting concrete over slabs and over beams by any suitable means, the contractor shall conform that the tied bar i.e. upper bar and lower bar shall not get distorted or displaced from its original place.

6.2.8 PREPARATIONS FOR PLACING CONCRETE

Before the concrete is placed, the shuttering shall be tied - up and any water accumulated therein shall be removed. All saw dust, chips, nails, and other debris shall be washed out or otherwise removed from within the formwork. The reinforcement shall then be inspected for accuracy of fixing. Immediately before placing the concrete, the formwork shall, except in frosty weather, be well wetted and inspection opening closed.

6.2.9 PLACING CONCRETE

The interval between adding the water to the dry mix and completion of the concrete placing operation shall not exceed 20 minutes nor, when an approved admixture that accelerates the initial setting of the cement be used, exceed ten minutes or as directed by the Employer/ Engineer.

Concrete shall not be dropped from height more than 1.5 m nor handled in a manner to cause segregation. Accumulations of hardened concrete dropping on the reinforcement shall be avoided. Concrete shall be sorted along the formwork to that position.

Each layer of concrete while being placed shall be compacted by approved methods of ramming or mechanical vibrations to form a dense surface free from honey combing and tolerably free from water marks and air holes or other blemishes. The concrete shall be tamped against the face of the formwork so as to produce dense fair surface. The number and type of mechanical vibrations shall be approved before compacting by vibration. Placing and compaction of concrete shall be done in such a manner as not to disturb concrete already placed, and reinforcement projecting from concrete already placed shall not be vibrated or jarred. For concreting reinforced concrete walls and other structures

having least lateral dimensions of 13mm. or under, each layer of concrete while being placed shall be properly compacted by approved methods of mechanical vibrations produced by internal or external mechanical vibration.

Any water accumulating on the surface of the newly placed concrete shall be removed by approved means and no further concrete shall be placed thereon until such water is removed. No fresh concrete shall be brought into contact with the concrete containing cement of different type. Unless otherwise approved or instructed, concrete shall be placed in a single operation to the full depth of slabs, beams, and members similar thereto and shall be placed in horizontal layers not exceeding 0.50m deep in walls, columns until completion of the part of the work between construction joints as specified hereafter or of a part of approved extent. At the completion of a specified or approved part of a construction, joints of the form and in the position herein after specified shall be made. If a temporary cessation of concrete placing be unavoidable elsewhere, a construction joint shall likewise be made.

6.3 PLACING CONCRETE IN EXTREME WEATHER

Work shall be done according to clause 20.1.6 of I.S. 456- 2000.

6.4 VIBRATION

6.4.1 APPEARANCE

The concrete that is to be compacted by vibration should appear anything from earth dry to slightly glistening. The mix should have the appearance of lacking in fines.

6.4.2 VIBRATORS

The contractor must use vibrator on beams and slabs to compact the newly laid concrete. Generally two types of vibrator shall be used.

a) NEEDLE OR IMMERSION TYPE OF VIBRATOR

Casting fall beams and columns shall be compacted by means of needle type of vibrator. 4" dia needle type vibrator shall be used over beam section more than 350mm x 400mm and rest of section need only 2" dia needle type vibrator.

6.4.3 PLACING

Segregation is likely to take place when the concrete is tipped into the form work and this should be avoided. The concrete mix should not contain surplus water and sand which will develop segregation under influence of vibratory compaction. The distribution of new concrete should be uniform over the whole section and the surface kept horizontal all the time thus ensuring the movement of concrete is downward only. Vibrators shall not be used as a spreading or distributing agent.

The vibrators shall be of rotary out of balance immersion type or the electro-magnetic type and operate at a frequency of not less than 4,000 cycles per minute. The vibration shall be of such a power - input as to produce an acceleration of 1 to 3 m/sec in the mass of the compacted concrete. The vibrators shall be provided for continuous operation.

6.4.4 DISPOSITION OF VIBRATORS

Internal vibrators shall be disposed within the mix, when placed, so as to maintain the whole of the concrete under treatment in an adequate state of agitation such that de-aeration and effective compaction may be attained at a rate commensurate with the supply of concrete from the mixers. Insertion of vibrators at about 450 mm centre to centre is considered sufficient.

6.4.5 PERIOD OF VIBRATION

Vibration shall continue during the whole period occupied by placing the concrete, the vibration being adjusted so that the centre of vibration approximates to centre of the mass being compacted at the time of placing. The concrete should not be over vibrated and the period of insertion of internal vibrator should be about 15 seconds at any point.

6.4.6 COMPACTNESS

The concrete shall be judged to be compacted when the mortar fills the spaces between the coarse aggregate so as to form a glistening and even surface except for slight irregularities where the coarse aggregate breaks this smooth surface. When this condition has been attained, the vibrators shall be withdrawn slowly.

The vibrator must not be placed against the steel or the formwork, the minimum distance being 8 mm. It must be placed in such a position that formwork, reinforcement and recently laid concrete are subjected to the minimum amount of vibration.

6.4.7 CONSTRUCTION JOINTS

Construction joints shall be made in the positions hereinafter specified or elsewhere as approved. Such joints shall be truly vertical or horizontal as the case may be, except that in an inclined or curved members the joint shall be strictly at right angles to the axis of the member.

Construction joints shall be made horizontally at the top of the foundations and horizontally 8 mm. below the lowest beam soffit at the head of columns. Concrete in the ribs and slabs of small tee, all beams shall be placed in one operation, but, for large beams concrete in the rib upto a level 2.5 mm. below the slab soffit shall be placed first. Concrete in haunches or splays on the beams or braces and concrete in the head of adjoining portion of the columns shall be placed at the same time as that in the beams or braces. Concrete in splays at the junction of walls and slabs shall be placed at the same time as that in the slab. Construction joints in the length of a beam shall be avoided where practicable, but where joints are unavoidable they shall be made as previously approved

by the Employer/ Engineer. Construction joints in slabs shall be made parallel to the main reinforcement, and where required at right angles to the main reinforcement, they shall be made at a place previously approved by the Employer/ Engineer.

Before placing new concrete against concrete already set, the face of the old concrete shall be cleaned and scum removed. The face shall be roughened and any loose aggregate removed there from. Immediately before placing the new concrete the face of the old concrete shall be thoroughly wetted and a coating of neat cement grout applied. The new concrete shall be well rammed against the prepared face before the grout sets. Construction joints will not be paid separately.

6.4.8 PROTECTION AND CURING OF CONCRETE

Immediately after placing or finishing, concrete surface not covered by forms shall be protected from loss of surface moisture for at least seven days when the average daily temperature is at least 21°C, where Portland cement has been used. Protection from loss of surface water shall be done by any of the following methods where applicable to the type of work involved:

- i) By water covering.
- ii) By covering of surfaces with water impervious paper.
- iii) By application of approved impervious membrane.

Surfaces from which forms have been removed before the curing period has elapsed shall be protected as specified for surfaces not covered by forms. Membrane curing shall not be used on surfaces required to receive additional concrete or concrete fill, or on cement finish coats that are to receive dust proofing or hardening treatments, or during hot weather.

Water curing shall be performed by keeping the concrete surface wet by ponding, by continuous spraying or by covering the surface with an approved water-saturated covering such as 2.5 mm. of sand or sawdust, or by one or more layers of burlap. The exposed concrete surfaces shall be saturated with water throughout the full stipulated curing period. Where forms remain in place during the curing period, they shall be kept sufficiently wetted with clean water to reduce cracks and to prevent joints from opening in the forms.

The impervious membrane curing Boundary shall be an approved non-bituminous, colourless, liquid sealing Boundary in atomized form so as to preserve the natural color of the concrete. The curing Boundary shall be applied as soon as surface water has disappeared from concrete surfaces with approved pressure spraying equipment in accordance with the manufacturer's directions and in sufficient thickness to form an effective water seal. No compounds shall be used which will adversely affect the subsequent installation of finished flooring.

Joints of sheet membrane used for curing shall be lapped at least 150mm and sealed with water proof tape as recommended by the manufacturer. Polyethylene sheet shall be considered the water-impervious paper for purposes of interpretation of this item. No liquid curing compound may be used without specific written approval of the Employer/ Engineer regarding type, manufacturer, location and extent of use and application procedures.

6.4.9 FINISHES

The concrete surface shall in general be smooth finish. However, immediately after stripping form work, minor defects and honey combed areas shall be patched and holes filled before the concrete is thoroughly dry, patch areas shall be chipped away to 2.5 mm depth, with regular edges perpendicular to the surface. Area to be patched shall be thoroughly wet including the areas at least 150 mm. wide entirely surrounding them, just prior to placing the patching mortar. Mortar shall be of the same material and proportions as used for the concrete, without coarse aggregate. A sufficient quantity of white cement shall be substituted for part of the ordinary cement so that the patching mortar, when dry, will match the surrounding concrete. Water in the mix shall be kept to a minimum and mortar shall be retempered without adding water and shall be allowed to stand for one hour prior to use during which time it shall be mixed to prevent setting. The mortar shall be thoroughly compacted into place, screeded so as to leave the patch slightly higher than surrounding surfaces, left undisturbed for one to two hours to permit initial shrinkage and finished to match the adjoining work. Where patches exceed 2.5 mm. deep, they shall be trimmed and wet as specified, after which the opening shall be filled to within 2.5 mm. of the surface. After sufficient shrinkage time has elapsed, the patching shall proceed as described above.

Patches shall be kept wet for five days. Tie holes left by the withdrawal of rods, or holes left by removal of ends of ties shall be filled solidly with mortar. For holes passing entirely through the wall, plunger-type grease gun or other device to force mortar through the wall, starting at the back face, shall be used. When a hole is completely filled, excess mortar shall be struck off with a cloth flush with the surface. Holes not passing entirely through walls shall be filled solidly with mortar. Any excess mortar shall be struck off with a cloth on the wall surface. The surface of non-shuttered faces concrete work other than slabs shall be smoothed with a wooden float (or if approved with a steel trowel) to give a finish equal to that of the rubbed down shuttered faces. Concealed concrete faces shall be left as it is except that honeycombed surfaces shall be made good.

6.5 TESTS ON STRUCTURE

The Employer/ Engineer shall instruct that a loading test be made on the works or any part thereof if in his opinion such a test be deemed necessary for one or more of the following reasons:

- a) The site - made concrete test cubes failing to attain the specified strength.
- b) Over - loading during construction of the works or part thereof.
- c) The shuttering being prematurely removed.
- d) Concrete improperly cured.
- e) Any other circumstances attributable to alleged negligence on the part of the Contractor which in the opinion of the Employer/ Engineer may result in the works or part thereof being less than the expected strength.
- f) Any reason other than the foregoing.

The test shall be made at the contractor's own cost. If the test be instructed to be made for one or more of the reasons from (a) to (e) inclusive, and If the test be instructed to be made for the reason (f), the contractor shall make the test and shall be reimbursed for all cost relating thereof irrespective of the result of the test.

For the purpose of the load test on floors, roofs and similar structures and their supports, the test load shall be equivalent to 1 and 2/3 times the superimposed load for which the works or part thereof to be tested have been designed. The test load shall not be applied within 90 days (or 28 days if rapid hardening Portland cement be used) of the completing of placing of the concrete in the part of the works to be tested, and the latter shall not be supported during the test by shuttering or other nonpermanent support. Means shall be taken to ensure that in the event of a failure under the test temporary support of the loaded member shall be immediately available. The test shall proceed strictly as instructed. For the loading test on floors, roofs or similar structures the result shall be deemed satisfactory if upon removal of the test load the residual deflection does not exceed one - quarter of the maximum deflection after 24 hours loading. If the residual deflection exceeds this amount the test loading shall be repeated, and the result shall be deemed to be satisfactory if the residual deflection after removal of the second test load does not exceed one-quarter of the maximum deflection occurring during the second test.

If the result of the loading test be not satisfactory, the Employer/ Engineer shall instruct that part of the works concerned shall be taken down or removed and reconstructed to comply with this specification, or that such other remedial measures shall be taken as to make the works secure. If the test be instructed to be made for one or more of the reasons (a) to (e) inclusive as herein before specified, the Contractor shall take down or remove and reconstruct the defective work or shall take the remedial measures instructed at his own cost.

6.5.1 MEASUREMENT

In calculating the contents of any R.C.C. member, for measurement proposes the dimensions adopted shall be structural concrete members exclusive of any finish,

6.5.1.1 FOOTINGS

It shall be measured in cu.m. of work done as per drawing. Measurement shall be done for the raft concrete below the column junction to the raft slab/beam. Nothing extra shall be paid for any odd size or shapes.

6.5.1.2 BEAMS

Measurement shall be between R.C.C. columns or resting on walls cubic metre of the work done as shown on the drawing. The depth shall be taken from the bottom of the stem to the top of the slab or projections if any. Lintels when connected to main RCC structure shall be measured as beams.

6.5.1.3 COLUMNS

These shall be measured in cu.m. of work done according to the drawings from top of the footing or raft slab to the top of slab in case of ground floor and from top of slab to the top of slab for all other floors. Unless specified otherwise nothing extra shall be admissible for any odd size and for any special section and shape of column i.e. square, rectangular, round, elliptical etc. and laid at any angle as may be shown on drawings.

7. REINFORCEMENT

7.1 INSTALLMENT OF REINFORCEMENT STEEL

Supplying and fixing for steel reinforcement in RCC work including bending, binding with GI wire, placing in position including the cost of binding wire, as per drawing

Reinforcement shall be free from pitting due to corrosion, loose rust, mill scale, paint, oil, grease, adhering earth, or other materials that may impair the bond between the concrete and the reinforcement or that may in the opinion of the Employer/ Engineer cause corrosion of the reinforcement or disintegration of the concrete.

7.2 BAR REINFORCEMENT

Bar reinforcement described as "TOR steel/TMT bars" shall be hot rolled deformed bars or cold twisted steel bars. With respect to manufacture, quality, physical properties and related requirements, reinforcement of the fore-going descriptions shall comply with appropriate parts of IS Standards Nos. 432-1966, 1139-1966 and IS 1786-1966 for mild steel and tor steel respectively.

7.3 CERTIFICATES AND TESTS FOR REINFORCEMENT

For each consignment of bar reinforcement used in the works, the Contractor shall, if required, supply a certificate giving the ultimate strength, yield stress and elongation and the result of the cold bend test for each type and each size of bar. Tests for the purpose of obtaining the information shall conform to relevant I.S. specification.

The reinforcements supplied for which the Manufacturer's test sheets or other records are not available, or where in the opinion of the Employer/ Engineer has been subject to corrosion or other bad effects, the Employer/ Engineer shall select as many test pieces as he deems necessary, and the Contractor shall supply and deliver the test pieces free of cost without reimbursement and pay the cost of preparing and testing them as well. This test shall be performed in presence of the Employer/ Engineer.

7.4 DIMENSIONS OF REINFORCEMENT

The size of reinforcement bar described in the working drawings or elsewhere shall be the minimum and the rolling margin and other tolerances shall be wholly above this size. The length of a reinforcement bar shall not be less than the length on the drawing or elsewhere and shall not be more than 50 mm in excess of that length. Bar bending schedule shall be prepared by the Contractor and submitted for approval of the Employer/

Engineer. Such schedules shall be prepared based on reinforcement details, prior to the execution of the work. Nothing extra shall be paid for this.

7.5 BENDING REINFORCEMENT

Reinforcement bars shall be bent by approved means producing a gradual and even motion. Bars shall comply with the dimensions described in the drawings. Overall dimensions of bent or internal dimensions of bending or the like shall be within a tolerance of 30 mm. Any discrepancies or inaccuracies found by the Contractor in the drawings or other documents shall be immediately reported to the Employer/ Engineer whose interpretation and requirements relating there to shall be accepted. The internal radius of bends shall be not less than twice the size of the bars unless described to the contrary on the bending lists or elsewhere in the drawing. Hooks and other anchorage bends for steel shall be bent to an internal radius of the twice diameter of the bar. This internal radius of the bends of corners of binders or stirrups or links shall be half.

7.6 FIXING REINFORCEMENT

Reinforcement shall be accurately fixed and by approved means maintained in the position described in the drawings. Bars intended to be in contact shall be securely wired together at all such points with 16 gauge soft iron tying wire. Binders, stirrups and links shall tightly embrace the bars with which they are intended to be in contact and shall be securely wired or, if approved, spot welded thereof.

Reinforcement shall be lapped, joined or spliced only at the positions described. Splices and the like found to be necessary elsewhere shall be formed only if and as instructed. Lapping shall be provided as shown in the drawing and as permitted. Where practicable bars in each member shall be assembled and fixed in the form of a rigid cage or skeleton before placing in the moulds or formwork. For this, all lapping bar on beams and slabs shall be staggered i.e. as far as possible minimum number of laps shall be permitted in one section of slab and only one lap will be permitted at one section in case of beams. In case of columns the lapping of bar shall be permitted only at the centre zone of column.

7.7 LAPPING LENGTH

- a) In case of beams and slabs, lapping length shall be 57 dia. of designed bar.
- b) In case of columns the lapping length shall be 45 dia. of the designed bar.

Immediately before concreting, the reinforcement shall be checked for position, cleanliness, freedom from rust or retarding liquid. Means shall be taken to ensure that reinforcement remains correctly in position with required cover during the placing and compacting of the concrete.

Reinforcement projecting from work being concreted or already concreted shall not be bent out or its correct position for any reason unless approved and shall be protected from deformation or other damage. Reinforcement left projecting for bending with future extensions shall be thoroughly coated with cement grout wash or encased in concrete or other-wise protected from corrosion as instructed.

7.8 COVER OF CONCRETE AND SPACING OF BARS

Unless otherwise described, the clear cover of concrete to the reinforcement shall be as follows:

7.8.1 Beams

25 mm or the size of the main bars whichever is greater. Binders and the like 15 mm. minimum.

7.8.2 Columns

Cover for main bars for columns not exceeding 20 mm diameter shall be 25 mm and the main bars in columns exceeding 20 mm diameter shall be 40 mm or the size of the main bars whichever is greater, 15mm minimum for rectangular binders or links or helical binding.

7.9 CHAIRS AND SUPPORTS FOR REINFORCING BARS

Chairs of appropriate depth in suitable form shall be installed on all top bars in case of slab. The shape of chair shall be checked by the Employer/ Engineer. The spacing for slab top bar chairs will be such that during casting time, the reinforcement shall not get disturbed.

7.10 CONCRETE CHAIR BLOCK FOR BOTTOM BARS

All bottom bar in slabs shall be raised as accordance with cover for concrete by means of small concrete blocks tied with binding wires. These blocks shall be placed at sufficient intervals during casting time, to maintain the cover for reinforcement.

In case of beams, the bottom blocks as well as side reinforcement shall be provided with concrete chair blocks so that the reinforcement shall not get disturbed during casting.

7.11 MEASUREMENT

For the purpose of ascertaining payments due to the Contractor the basis of measurements of bar or wire reinforcement used in the works shall be the calculated weight in kg which shall be computed from the sizes and lengths of the bars or wires described on the working drawings or elsewhere. No allowance in the weight shall be made for cutting to waste, rolling margin, extra length, lapping of bars or other tolerances. Nothing extra, whatsoever shall be admissible on bars 12 mm and below, rolled by the Contractor directly from the market on actual weight basis. The Contractor is deemed to have taken this factor into consideration and quoted his rate accordingly in the tender. The Contractor's rate for unit weight of bar reinforcement shall be deemed to include all allowances omitted in calculating the weight and for any other tolerances, and for providing tying wire, spacer bars, chairs and cover blocks as specified hereinafter for carriage and handling, for bending hooking, cranking, and for fixing and maintaining in the correct position in the works. Standard laps of the lengths as shown in the drawing or as instructed at site shall be admissible. Standard hooks (9 times the dia. for each hook for tor steel) shall be added to the finished length to arrive at the length of the bar for cutting and measurement. No hooks are required for ribbed or tor steel.

8. FORMWORK

8.1 CENTERING AND SHUTTERING

Centering and shuttering of plywood and steel formwork in slabs, walls, beams etc. including propping, strutting etc. and removal of forms including applying form oil to shuttering.

8.2 DESIGN

Formwork shall be designed and constructed for removal so that the concrete can be properly placed and thoroughly compacted. Formwork shall be firmly supported and adequately strutted, braced, or tied. It shall be capable of adjustment to the lines and dimensions of the finished concrete and it shall be sufficiently strong to resist without distortion, the pressure of concrete during its placing and compaction, and other loads to which it may be subjected. It shall not be liable to suffer distortion under the influence of the weather. When concrete is to be vibrated, special care shall be taken to ensure that the formwork will remain stable and the joints tight. The safety and adequacy of centering and shuttering shall be the sole responsibility of the Contractor. The Contractor shall if required supply to the Employer/ Engineer drawings and calculations for the formwork he proposes to use, for the concrete work.

8.3 MATERIAL FOR FORMWORK

All surface of the formwork shall be of waterproof plywood or steel plate which shall give uniform concrete surface after removal. No wooden planks or other means of form work shall be acceptable. For struts and props the Contractor shall use Iron lifting type strut over form base i.e. it shall not get depressed at the time of loading or casting. Any strut, if found defective shall be replaced as directed by Employer/ Engineer.

8.4 DEFLECTION AND CAMBER

The Contractor shall make allowance for any settlement or deflection of the formwork that is likely to arise during Construction, so that the hardened concrete conforms accurately to the specified line and level. The Contractor shall also make allowance in the formwork for any camber specified by the Employer/ Engineer to allow for the elastic deflection of structural members and deflection due to creep of the concrete

8.5 SUPPORTS

Formwork shall be constructed so that the formwork to the sides of members can be removed without disturbing the soffit formwork or its supports. Props and supports shall be designed to allow the formwork to be adjusted accurately to line and level and to be erected and removed in an approved sequence without damage to the concrete. Supports shall be carried out which is sufficiently strong to afford the necessary support without

damage to any portion of the structure. This may mean in some cases that it be carried down to the foundations or other suitable base. Props and bracing shall be provided for the temporary support of composite construction where separately specified.

8.6 JOINTS AND EDGES

All joints in the formwork shall be close-fitting to prevent leakage of cement slurry from the concrete. At construction joints, formwork shall be tightly secured against previously cast or hardened concrete to prevent the formation of stepping or ridges in the concrete. Formwork shall be constructed to provide straight and true angles, arises or edges. Where cambers are shown on the Drawings, the fillets shall be accurately cut to size to provide a smooth and continuous chamfer. Formwork panels shall have true edges to permit accurate alignment at sides and provide a clean line at construction joints in the concrete which shall be fixed with their joints either vertical or horizontal, unless otherwise specified.

8.7 CLEANING AND TREATMENT OF FORMWORK

Spaces to be occupied by concrete shall be free from all rubbish, chipping, shavings, sawdust, dirt and tying wire etc., before concrete is placed. The formwork to be in contact with the concrete shall be cleaned and treated with a suitable non-staining form oil or other approved material. Care shall be taken that oil or composition is kept away from contact with the reinforcement or with concrete at any construction joints. Surface retarding agents shall not be used except with the permission of the Employer/ Engineer. Formwork shall be thoroughly cleaned after each use. Damaged or distorted formwork shall not be used.

8.8 PAINTING ON FORMWORK

The concrete repellent painting on all contact surface of the formwork shall be of approved non bituminous colourless form oil so as to preserve the natural color of the concrete. The repellent compound shall be applied so as to effect quick removal of form work. It shall be applied as per the manufacture's direction. No compound shall be used which will adversely affect the concrete work or surface. No form repellent compound may be used without specific written approval of the Employer/ Engineer regarding type, manufactures, location and extent of use and application procedures.

8.10 REMOVAL OF FORMWORK

All formwork shall be removed without shock or vibration that might damage the concrete. Before the soffit and props are removed the surface of the concrete shall be exposed where necessary in order to ensure that the concrete has hardened sufficiently. In no circumstances shall formwork be struck of until the concrete reaches cube strength of at least three times the stress to which the concrete may be subjected at the time of striking. The formwork to vertical surfaces such as walls, columns and sides of beams may be removed after 24 hours in normal weather conditions although care must be taken to avoid damage to the concrete, especially to arises and features. In cold weather a longer

period may be necessary before striking. Suitable curing methods should immediately follow the removal of the formwork. The following minimum times shall elapse before removal of formwork:

The times given for the removal of props are based on the assumption that the total live load plus dead weight to be supported at the time of removal is not more than one half the total design load. For horizontal members where the loading is a higher proportion of the total design load these times may need to be increased.

8.11 MEASUREMENT

Measurement for payment shall be done of the area on which centering shuttering has been done. It shall include the application of the form oil and removal of the formwork as well.

9.1 STONE MASONRY WORK

9.1.1 STONE WORK IN FOUNDATION AND IN SUPERSTRUCTURE

All stone masonry work shall be made with random rubble stone from the best quarry and built in 1:4 cement mortar (1 cement: 4 sand). The stones must be approved by the Employer/Engineer before using in the construction work.

The stone shall be hard, tough sound and durable. No stone shall be less than 6" and more than 18". Face stone should be comparatively larger and uniform in size and colour to with a good appearance. Breadth of face stone should be greater than height. All the stones shall be wetted thoroughly before laying.

The joints should not be thicker than 3/4". Face joint should be thinner. No pointing shall be allowed afterwards. In the corners, the stones should be chiselled at both sides and also on the top of the stone walls where the wall is ending and such surfaces being built up. Not more than 2 feet height of masonry shall be constructed at one time.

9.1.2 MEASUREMENT

The measurement of work shall be the product of length, height and thickness. All the thickness of stone shall be measured and will be as per drawing.

10.1 STONE SOLING WORK

The stone soling shall be made in foundation. The stone soling shall be done over the 5cm sand filling in line and level. Each stone shall be laid separately and tamped firmly in place in the sand bed. Joints between stones shall be filled with dry sand. On completion the surface shall be true to line and level with no part deviating from true line and level by more than 20mm. No mud on sand filling shall be allowed when level is not maintained in excavation.

10.2 MEASUREMENT

The measurement of work shall be the product of length, height and thickness. All the thickness of stone shall be measured and will be as per drawing.

11 FINISHING:

11.1 PLASTERING WORKS

11.1.1 CEMENT SAND PLASTERING ON WALLS IN CEMENT SAND (C/S) MORTAR (1:4)

11.1.1.1 SCAFFOLDING

For plastering work on walls, unless otherwise specified, double scaffolding having two sets of vertical supports shall be provided. The Contractor shall be responsible for providing and maintaining sufficiently strong scaffolding so as to withstand all loads likely to come upon it.

11.1.1.2 MORTAR

The type of mortar mix to be used shall be as specified in the description of the item.

11.1.1.3 WORKMANSHIP

All joints in the masonry shall be raked out properly to a minimum depth of 1/2". Dust and mortar shall be brushed out. The surface shall then be thoroughly washed with water, cleaned and kept wet before plastering is commenced. The thickness of the plaster shall be as specified. The plaster may be applied in 1, 2 or 3 coats as specified or as directed by the Employer/ Engineer, but no single coat shall exceed 1/2" thickness.

Ceiling plaster shall be completed before the commencement of wall plaster. All wall plaster shall be started from the top and work down towards floor.

Gauges of plaster 6" x 6" shall be first applied horizontally and vertically, at not more than 6 ft. intervals over the entire surface to serve as guides for plastering and to ensure even thickness and a true surface. The surfaces of these gauged areas shall be truly in the plane of the finished plaster surface. The surface shall be finally given the type of finish as specified in the description of the item or as directed by the Employer/ Engineer. All corners, arises, angles and junctions shall be truly vertical or horizontal as the case may be and shall be carefully finished. Rounding or chamfering corners, arises, junctions etc. where required shall be done without any extra payment.

In suspending work at the end of the day, the plaster shall be left, cut clean to line both horizontally and vertically. The work shall be closed on the body of wall and not nearer than 6" to any corners on arises. When recommencing, the edge of the old work shall be scraped clean and wetted before plaster is applied to the adjacent areas.

Curing shall be started 24 hours after finishing the plaster. The plaster shall be kept wet for a minimum period of 7 days. The dates of plaster shall be legibly marked on the various sections of the wall so that curing for the specified period thereafter can be watched. Any

cracks which appear in the surface and all portions, which sound hollow when tapped or are found to be soft or otherwise defective, shall be cut out in rectangular shape and redone as directed by the Employer/Engineer.

11.1.1.4 MEASUREMENT

It shall be done in square metre of the surface over which the plaster has been done. The thickness of the plaster shall not be taken into account except for independent columns where the measurement shall be of finished surface allowing 12mm over the designed dimensions. Opening greater than 6 sqm shall be deducted in full, and jambs and soffits shall be allowed. Openings less than 1 sq.m shall not be deducted and nothing extra shall be paid for finishing jambs, soffits and the sides of such openings. Openings exceeding 1 sqm and less than 6 sqm shall be deducted for one side plaster only and no extra payment for finishing jambs, soffits and sides of such opening shall be paid. Unless otherwise specified, nothing extra shall be allowed for plaster on independent columns and beams, short with or on curved surface.

11.2 PAINTING

11.2.1 GENERAL

All paints shall be approved by the Employer/ Engineer, ready mixed paints as received from the manufacturer without any admixture shall be used. If thinner is necessary in the case of ready mixed paints, the same shall be recommended by the manufacturers.

The Contractor shall bring all the approved paints to the site of work in their original containers in sealed condition. Paints which will be sufficient for the entire work or at least for a fortnight's work shall be brought in at a time. The empties shall be removed from the site only when the item of work has been completed and permission obtained from the Employer/ Engineer. Painting shall be started only when the Employer/ Engineer has inspected the items of work to be painted, satisfied himself about their proper quality and given his approval to commence the painting work. Painting, except the priming coat, shall be taken in hand only after all other builder's work is practically completed. The rooms shall be thoroughly swiped out and the entire building cleaned up at least one day in advance of the paint work being started.

The surface to be painted shall be thoroughly cleaned and dusted. All rust, dirt, scales, grease etc. shall be removed before painting is started. The prepared surface shall be approved by the Employer/ Engineer before painting work can commence.

The painting shall be thoroughly stirred in their original containers before pouring them into smaller tins for use. While applying also, the paint shall be continuously stirred in the smaller tins so that the consistency is kept uniform. If required, a thinner shall be used to bring the paint to the required consistency. Two or more coats of painting shall be done either with brushes or by spraying as stipulated in the item of work.

Each coat shall be allowed to dry out thoroughly before the next coat is applied. Each coat except the last coat, shall be thoroughly rubbed down with sand paper or fine pumic stone and cleaned of dust before the next coat is applied. The finished surface shall present a smooth and even surface without any hair marks from the brush or clogging of paint puddles. While painting doors and windows, the putty round the glass panes shall also be painted and care being taken to see that no paint stains etc. are left on the glass. Tops of shutters and other similar hidden locations shall not be left out in painting.

All painting work shall be measured in sq.m unless otherwise specified. In measuring painting of joinery and steel work, etc. the co-efficients as given in IS:1200-1964 shall be used to obtain the areas payable. Unless otherwise specified in the description of the item. All furniture, fixtures, glazing, floors etc. shall be protected by covering and stains, smears, splashing if any shall be removed and any damage done shall be made good by the Contractor at his own cost. The rate shall include the cost of all labour and materials involved in all the operations described above and any other specifications given under the relevant it.

11.2.2 PRIMING COAT

11.2.2.1 IRON AND STEEL WORK

All rust and scales be removed by scraping or by brushing with steel wire brushes. All dust and dirt shall be wiped away from the surface. If the surface is wet, it shall be dried before the priming coat is applied.

11.2.2.2 PLASTERED SURFACE

Ordinarily, the surface shall not be painted until it has dried completely. Trial patches or primer shall be laid at intervals and when drying is satisfactory painting shall be taken in hand. Before primer is applied, all holes and undulations shall be filled up with plaster of Paris and rubbed smooth. When the surface to be primed is finally Okayed, the primer shall be applied with brushes, worked well into the surface and spread even and smooth.

11.2.3 CEMENT PAINT

Painting two coats with Weather Coat paint on plastered surface including primer coat.

11.2.3.1 MATERIAL

The weather coat paint shall be of approved quality and make and it shall be of approved quality and make and it shall be of approved colour and shade. The contractor shall bring them to the site in original air tight containers with seals intact.

11.2.3.2 WORKMANSHIP

The dry cement paint shall be thoroughly mixed with clean fresh water so as to produce paint of required consistency which for normal work shall be that of ordinary paint. In mixing and application, the Contractor shall follow the manufacturer's instructions. Paint for

application by brush shall be strained through paint strainer. The paint shall be kept stirred and used within the specified time of the manufacturer. Hardened or damaged paint shall not be used.

The paint shall be applied by means of brushes and in the manner specified by the manufacturer. The number of coats shall be as mentioned in the item. The subsequent coats shall be applied after the preceding coat is properly cured and has thoroughly hardened, inspected and approved and as per manufacturer's specification. Absorbent surface shall be evenly damped so as to give even suction. In dry weather, freshly painted surfaces shall be kept damp for at least two days and protected from direct sun.

11.2.3.3 MEASUREMENT

The work shall be measured in sq.m of the finished area and shall be in accordance with IS:1200-1964. The rate shall include the cost of all labour and materials involved in all the operations described above.

Measurement shall be as follows:

Description of works	Measurement
Multiplying coefficient Railing with balusters, guard bars all over-	1.0 for painting Flat overall

11.2.4 WEATHER COAT PAINT

Weather Coat Paint of the make and shade approved by the Employer/ Engineer shall be used. The paint shall generally be used only on plastered surface and on priming coat if needed. The surface shall be thoroughly cleaned of dust, etc. by washing and scrubbing and shall then be allowed to dry for at least 48 hours. It shall then be prepared to give a smooth and even surface. Any unevenness shall be made good by applying putty made of plaster of paris mixed with water on the entire surface including filling up the undulations and then sand papering the same after it is dry.

Two or more coats of weather coat paint as stipulated in the item shall be applied in the usual manner with brushes and with the interval of minimum three hours between consecutive coats. The thinner of the paint shall be done with water as per manufacturer's instructions. The finished surface shall present a wet velvety smooth finish. If necessary, more coats shall be applied till the entire surface presents a uniform appearance.

11.2.4.1 MEASUREMENT

Measurement shall be in accordance with clause 11.2.3.3.

The rate shall include the cost of all labour and materials involved in all the operations described above.

11.2.5 SYNTHETIC ENAMEL PAINT

Approved make synthetic enamel paint with the required shade shall be used for the top coat and an under coat of shade to match the top coat as recommended by the manufacturer shall be used. The number of coats including the under coat shall be as stipulated in the description of the item.

For under coat, one coat of specified paint of shade suited to the shade of the top coat shall be applied on the prepared surface and allowed to dry overnight. It shall be rubbed next day with the finest grade of wet abrasive paper to ensure a smooth and even surface and all loose particles dusted off. Top coats of specified paint with desired shade shall be applied after the under coat is completely dry. Additional finishing coats shall be applied if found necessary to ensure a uniform glossy surface.

11.2.5.1 MEASUREMENT

Measurement shall be in accordance with clause 11.2.3.3

The rate shall include the cost of all labour and materials involved in all the operations described above.

12 GABION WALL

12.1 Materials

- 12.1.1 The flexible wire mesh shall be hexagonal woven mesh with the joints formed by triple twist which does not unravel if cut. And gabion wire shall be 10swg gauge.
- 12.1.2 All wires used in the manufacturing of the gabion units shall conform to BS 1052:1980 in mild steel wire, annealed, having a tensile strength of 38-50kgf/mm² before fabrication of the netting
- 12.1.3 All wires shall be medium galvanized to BS 443:1982 and conforming to its minimum weight zinc coating weight and zinc coating adhesion requirement which is checked by rigorous wrapping test
- 12.1.4 All edges of the gabion units shall be mechanically seamed to prevent raveling of the mesh and to develop the full strength of the woven mesh
- 12.1.5 Each gabion unit shall have diaphragms at every 1000mm intervals

12.2 Mesh Size

The average mesh width D, measured at right angles between twisted sides over 10 meshes shall conform to the tolerance limits specified in BS EN 10223:1997 Part 3: Hexagonal steel wire netting for engineering purposes. The mesh size D shall not exceed 80mm, the tolerance limit shall be 80mm + 16%, -4%.

12.3 Stone

- 12.3.1 Stone fill for gabion units shall be clean rough quarry stone or pit or river cobbles or a mixture of any of these materials, and shall be

essentially free from dust, clay, vegetative matter and other deleterious materials.

12.3.2 Individual pieces of stone shall have least dimensions not less than 20mm larger than gabion mesh opening and greatest dimension not more than 2/3 of the thickness for gabion

12.3.3 The stone shall be hard, tough, durable and dense, resistant to the action of air and water, and suitable in all aspects for the purpose intended. The material shall be approved by the Employer.

12.4 Construction Method

12.4.1 Prior to placing gabions, the surface on and against which they are to be constructed shall have been prepared and finished in accordance with the relevant provisions of the appropriate sections of this specification.

12.4.2 Notwithstanding any earlier approval of these finished surfaces, any damage to or deterioration of them shall be made good to satisfaction of Employer before gabions are placed.

12.4.3 Each gabion baskets shall be put in place in its turn, completely fabricated except for the fastening down the lid, stretched to the correct shape and dimensions, and fastened securely to all contiguous baskets along each edge with tying wire

12.4.4 The basket shall be tightly packed with approved stone by hand in such a manner that voids are kept to a practicable minimum and are uniformly distributed in the stone mass.

12.4.5 The lid of the basket shall be securely fastened down with tying wire of 8 swg along with unfastened edges, all to the satisfaction of Employer.

12.5 Measurement

Measurement of the gabion work shall be measured in m³ measured, counting the no. of gabions installed and its size. No additional payments shall be made for site clearance and base made for placing the gabions.

13 CHAIN LINKED FENCE

13.1 Materials

The minimum requirements are as follows:

(a) Chain Link fence fabric shall be in accordance with IS: 2721 with specification in table below

1.	Size of Mesh	75 mm
2.	Size of coated wire	3.15 mm
3.	Class of Zinc Coating	Medium

- (b) Posts: The size of Intermediate, straining and stay posts shall not be less than the sizes given in table below

Angle Section	Size in mm
Intermediate Posts	L 50 x 50 x 6
Straining posts	L 50 x 50 x 6
Stay Posts	L 45 x 45 x 5

All structural steel sections, plates, flats etc. shall conform to IS: 2062.

- (c) Barbed Wire

The barbed wire shall consist of two splices per reel. The barbed wire shall be formed by twisting two line wires, one containing the barbs. The barbed wire shall be 12 SWG galvanized steel barbed wire with its weight 155-136gm/m length. The barbed wire shall be provided as shown in drawing supplemented in bid document.

13.2 Installation

Fence shall be installed along lines shown on approved drawings. Holes in ground for posts shall be excavated by approved methods. Straining posts shall be installed at equal intervals not exceeding 30.0m. Straining posts shall be installed at sharp changes in grade, at corners, at change of direction and where directed by the Employer. All corner posts shall have two stay posts and every tenth post shall have a transverse stay post. Post shall be set in concrete of nominal mix 1:3:6 (1 Cement : 3 Fine Aggregates : 6 coarse Aggregates of 20 mm nominal mix) and work shall conform to relevant Indian Standard. Posts shall be braced and held in plumb position and true alignment and elevation until concrete has set. Fence fabric shall not be installed until concrete has cured for a minimum period of 21 days. The chain linked fence shall be installed as per as shown in drawing supplemented in bid document.

13.3 Measurement and mode of Payment

Measurement of chain linked fence shall be measured in square meter measured to the precision of nearest cm. The work shall include chain linked fence and the supporting wire but excludes angle post which shall be claimed under metal works for jail and Installation of barbed wire, excavation and PCC under respective units in respective heading of BOQ.

TECHNICAL DATA SHEET

DATA SHEET

(To be filled in by the Bidder/ Manufacturer)

The Bidders/manufacturers are required to furnish the following information in the Data Sheet. Separate sheets can be used if additional space is required. The information furnished shall be supported by the catalogue and/or test reports. The information not supported by the catalogues, test reports etc. shall be deemed to have been "Not Provided". Any deviation from NEA's requirements shall be clearly mentioned giving the reasons thereof.

ACCEPTANCE CRITERIA AND PERMISSIBLE LIMITS FOR CEMENT

ORDINARY PORTLAND CEMENT

S. No.	DESCRIPTION	NEA REQUIREMENT	TO BE FILLED BY THE BIDDER
a)	STANDARD	53 grade as per IS 12269	
b)	Physical Tests To be conducted in approved. Lab		
	(i) Fitness	Specific surface area shall not be less 225 m ² per Kg. or 2250 Cm ² /gm. (Blaine's air permeability method)	
	(ii) Compressive Strength	72+/- 1 hour: Not less than 27 Mpa (27n/mm ²) 168+/- 1 hour: Not less than 37 Mpa (37 N/mm ²) 672+/- 1 hour: Not less than 53 Mpa (53 N/mm ²)	
	(iii) Initial & Final setting Time	Initial setting time: Not less than 30 minutes Final setting time: Not less than 600 minutes	
	(iv) Soundness	Un-aerated cement shall not have an expansion of more than 10mm when tested by Le chatlier and 0.8% Autoclave test.	
c)	Chemical composition tests		
		a) Ratio of percentage of lime to percentage of silica, alumina % iron oxide 0.66 to 1.02%.	
		b) Ratio of percentage of alumina to that of iron oxide Minimum 0.66%.	
		c) Insoluble residue, percentage by mass Max. 4.00%	
		d) Magnesia percentage by mass Max. 6%	

		e) Total sulphur content calculated as sulphate anhydride (SO ₃), percentage by mass not more than 2.5 and 3.0 when tri-calcium aluminate percent by mass is 5 or less and greater than 5 respectively.	
	Total loss on Ignition	≤ 5 percent	

POZZOLANA PORTLAND CEMENT

S.N o.	Name of the test	NEA REQUIREMENT	TO BE FILLED BY THE BIDDER
a)	Physical test		
	(i) Fitness	Specific surface area shall not be less than 300 m ² / kg. or 3000cm ² /gm	
	(ii) Compressive strength	168+/- 2hour: Not less than 22 Mpa (22 n/mm ²) 672+/- 2 hour: not less than 33 Mpa (33 N/mm ²)	
	(iii) Initial & Final setting time	Initial setting time: Not less than 30 minutes Final setting time: Not less than 600 minutes	
	(iv) Soundness	Un-aerated cement shall not have an expansion of more than 10mm (Le Charlier and Autoclave test)	
b)	Chemical composition tests		
		a) Magnesia percentage by mass Max. 6%	
		b) Insoluble material, percentage by mass $x+2(100-x)/100$ where x is the declared % of Pozzolana in the PPC	
		c) Total sulphur content calculated as sulphuric anhydride (SO ₃), percentage by mass: Not more than 2.75 and 3.0 when tri- calcium aluminate percent by mass is 7 or less and greater than 7 respectively.	
c)	Total loss on Ignition	≤ 5 percent	

REINFORCEMENT STEEL

ACCEPTANCE CRITERIA AND PERMISSIBLE LIMITS FOR REINFORCEMENT STEEL

Mild and medium tensile steel

S. No	Name of the test	NEA REQUIREMENT	TO BE FILLED BY THE BIDDER
	Chemical analysis test	Carbon (For 20mm dia. and below) 0.23% Max. Carbon (For over 20 mm dia) 0.25%	

		Sulphur 0.055%	
		Phosphorus 0.055%	
	Physical tests	a) Ultimate Tensile stress: For all dia bars 410 N/Sq.mm. (min.)	
		b) Yield stress (N/Sq.mm.) min: For bars upto 20mm dia -250 For bars above 20 mm dia.-240 c) Percentage of elongation-23%	
	Bend & Rebend tests	Pass	

REINFORCEMENT STEEL

ACCEPTANCE CRITERIA AND PERMISSIBLE LIMITS FOR REINFORCEMENT STEEL **Cold twisted Deformed bars Fe 415**

S.N o.	Name of the test	NEA REQUIREMENT	TO BE FILLED BY THE BIDDER
	Chemical analysis test	Carbon-0.30% Max	
		Sulphur 0.060%	
		Phosphorus 0.060%	
		Sulphur & Phosphorus 0.11%	
	Physical tests	a) Ultimate Tensile stress: 10% more than actual 0.2% proof stress but not less than 485 N/Sq.mm. (Testing in approved Lab)	
		b) 0.2% of proof stress/ Yield stress (N/Sq.mm) min: For bars upto 20 mm dia – 415 c) Percentage of elongation 14.5% min.	
	Bend & Rebend tests Pass (Testing in approved Lab)	YES	

COARSE AGGREGATES

ACCEPTANCE CRITERIA AND PERMISSIBLE LIMITS FOR COARSE AGGREGATES

S.N o.	Name of the test	NEA REQUIREMENT	TO BE FILLED BY THE BIDDER
1)	al Tests		
	a) Determination of particles size IS Sieve Designation (Percentage passing for Single-Sized	YES	

	Aggregate of nominal size)		
	b) Flakiness index	Not to exceed 25%	
	c) Crushing Value	Not to exceed 45% for building work Not to exceed 30% for Road	
	d) Presence of deleterious material	Total presence of deleterious materials not to exceed 5%	
	e) Soundness test (for concrete work subject to frost action)	12% when tested with sodium sulphate and 18% when tested with magnesium sulphate	

FINE AGGREGATES

ACCEPTANCE CRITERIA AND PERMISSIBLE LIMITS FOR FINE AGGREGATES

S. No.	Name of the test	NEA REQUIREMENT	TO BE FILLED BY THE BIDDER
	Physical Tests		
	a) Determination of particles size IS Sieve Designation (Percentage passing for Single-Sized Aggregate of nominal size) F.A. Zone I,II,III	YES	
	b) Silk content	Not to exceed 8%,8%,8%	
	c) Presence of deleterious material	Total presence of deleterious materials shall not be exceed 5%	
	d) Soundness: Applicable to concrete work subject to frost action.	12% when tested with sodium sulphate and 15% when tested with magnesium sulphate.	

Deviations from technical requirements and reasons for such deviations :

Signed _____

As representative for _____

Address _____

Date _____

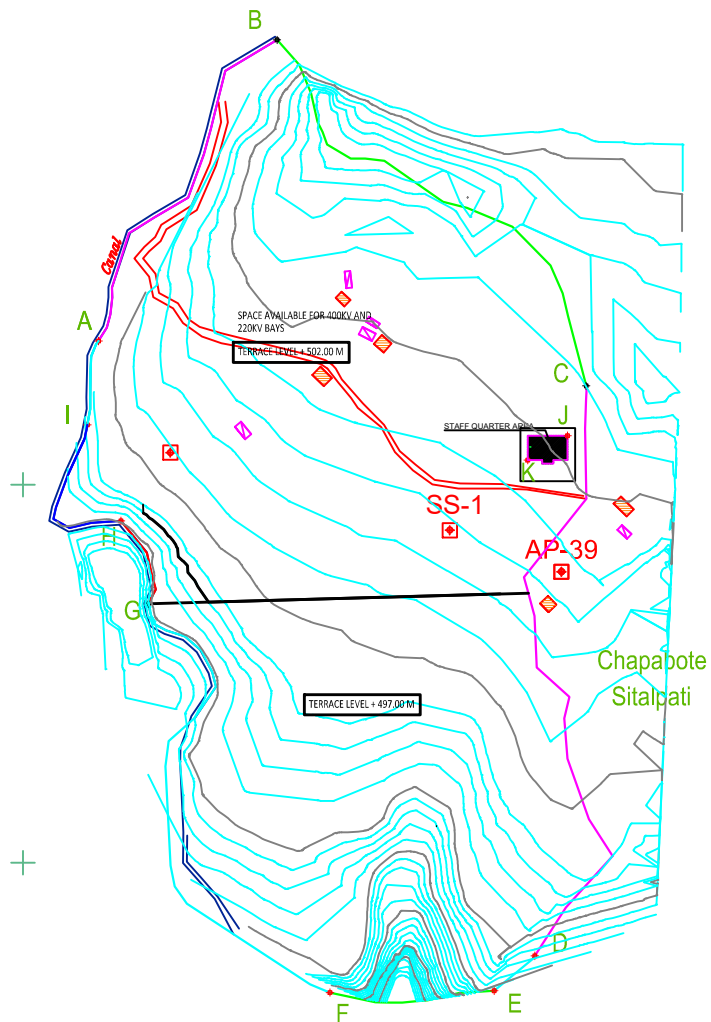
Drawings

Note:

1. It is customary to bind the drawings in a separate volume, which is often larger than other volumes of the contract documents. The size will be dictated by the scale of the drawings, which must not be reduced to the extent that details are reduced illegible.
2. A simplified map showing the location of the Site in relation to the local geography, indicating major roads, posts, airports, and railroads, is helpful.
3. The construction drawings, even if not fully developed, must show sufficient details to enable bidders to understand the type and complexity of the work involved and the price the Bill of Quantities.

[Insert Drawings]

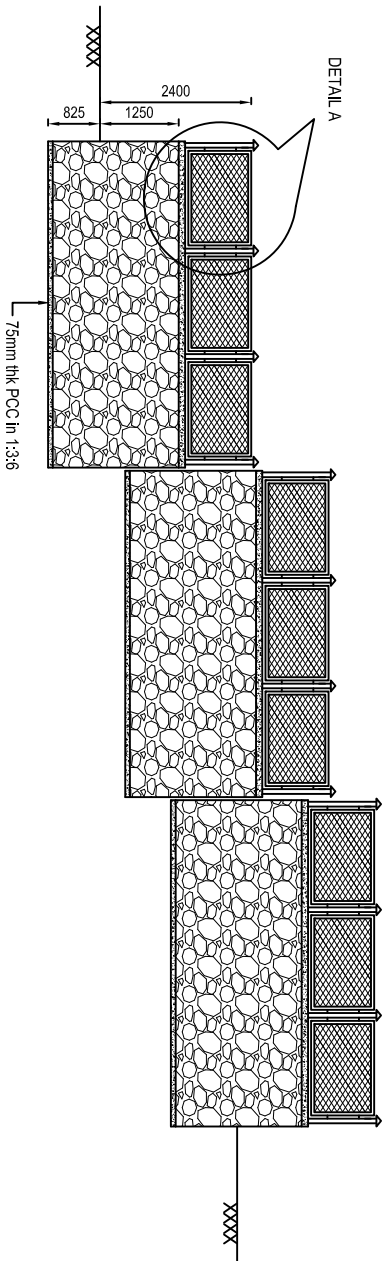




A	513339.94	3031676.080
B	513434.374	3031835.344
C	513597.88	3031652.286
D	513570.72	3031350.79
E	513549.22	3031332.27
F	513462.395	3031331.36
G	513366.162	3031537.038
H	513351.847	3031580.938
I	513334.044	3031631.679
J	513588.051	3031625.99
K	513567.00	3031613.09
SS-1	513339.94	3031676.08
AP-39	513339.94	3031676.08

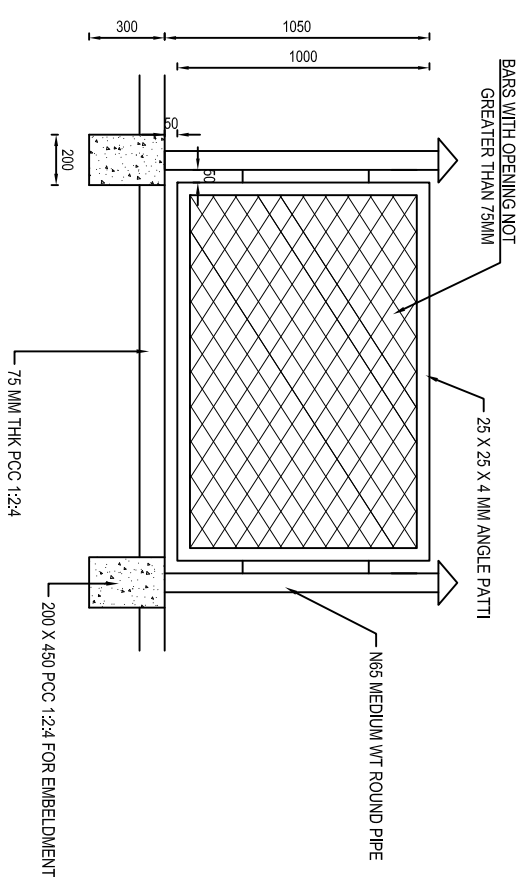
SECTION	LENGTH	RT WALL HEIGHT
AB	198.41 M	RRM OF 2 M HIGH
BC	267.92 M	JALI WITH ANGLE
CD	341.08 M	RRM OF 2 M HIGH
DE	28.47 M	RRM OF 3 M HIGH
EF	87.93 M	JALI WITH ANGLE
FG	277.30 M	RRM OF 3 M HIGH
GH	50.40 M	RRM OF 6 M HIGH
HI	94.41 M	RRM OF 4 M HIGH
IJ	45.451 M	RRM OF 3 M HIGH

DRAWING TITLE: BOUNDARY WALL	LOCATION : CHARBOTE, KHADBARI M.P	DESIGNED BY: BHUPESH SHRESTHA	DATE:	PROJECT: NEPAL ELECTRICITY AUTHORITY SHEETALPATI - TUMLINGTAR 220KV TRANSMISSION LINE PROJECT	SHEET NO 1 OF 4
SHEET TITLE: SOUTH ELEVATION	PLOT NO : AREA :	CHECKED BY: RAJAN DHAKAL	SCALE: 1:96		

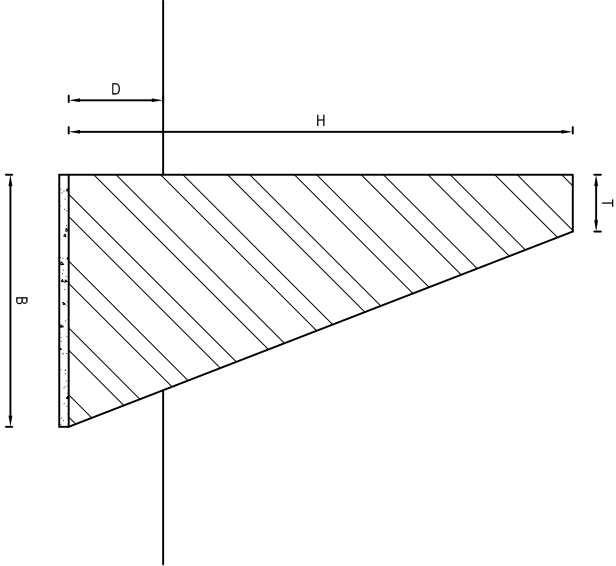


TYP. LONGITUDINAL SECTION OF BOUNDARY WALL

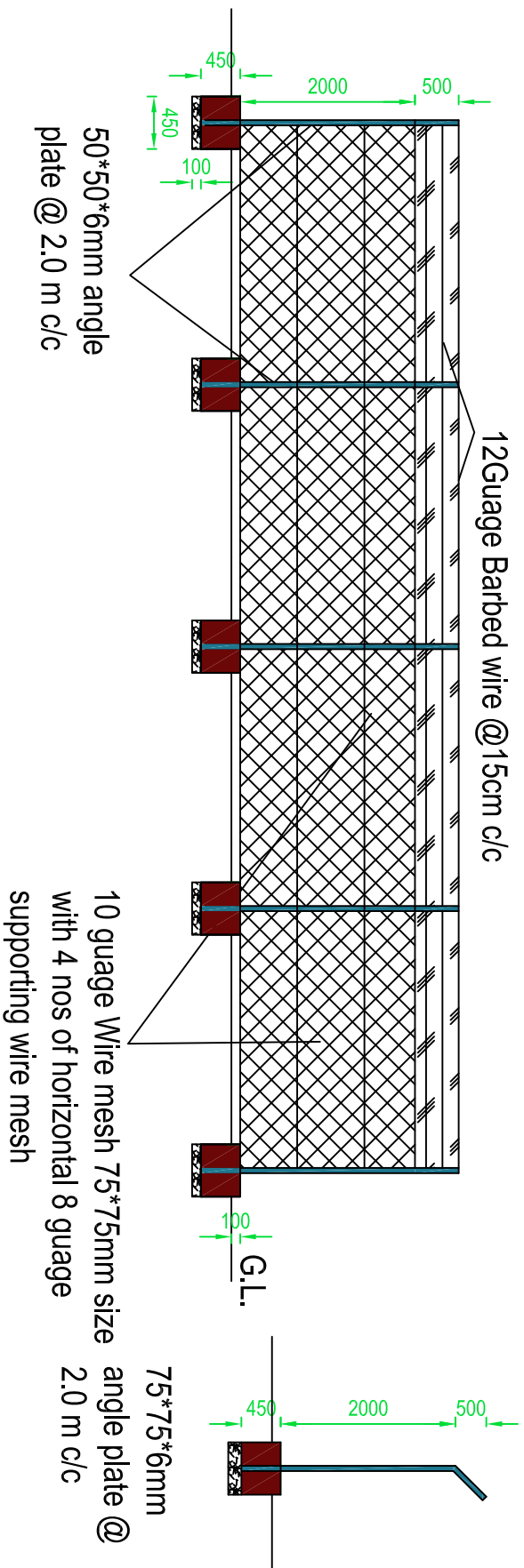
WALL DETAILS				
WALL TYPE	TOP WIDTH (T) IN mm	HEIGHT (H) IN mm	DEPTH (D) IN mm	BOT WIDTH (B) IN mm
2 M HIGH WALL	300	2000	750	600
3 M HIGH WALL	300	3000	750	1500
4 M HIGH WALL	300	4000	750	2000
6 M HIGH WALL	450	6000	850	3000



DETAIL - A



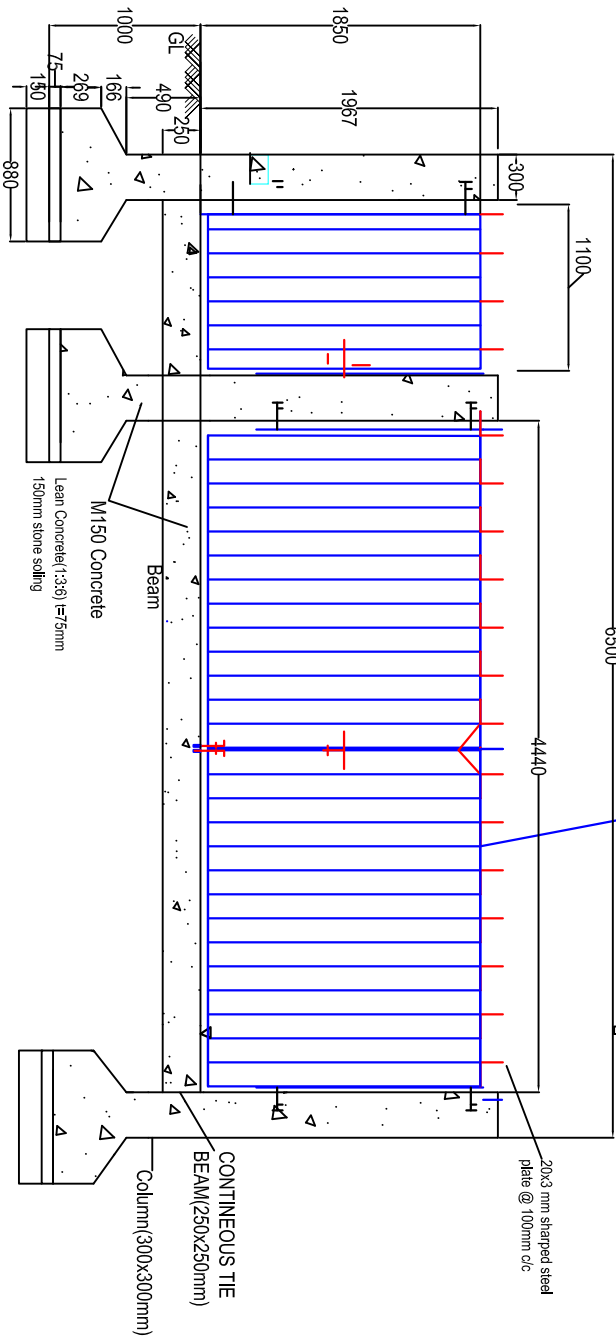
DRAWING TITLE: BOUNDARY WALL	LOCATION: CHARBOTE, KHADEBARI M.P	DESIGNED BY: BHUPESH SHRESTHA	DATE: 2076/2/6	PROJECT: NEPAL ELECTRICITY AUTHORITY SHEETALPATI - TUMLINGTAR 220KV TRANSMISSION LINE PROJECT	SHEET NO. 4 OF 4
SHEET TITLE: BOUNDARY WALL DETAILS	PLOT NO.: AREA:	CHECKED BY: RAJAN DHAKAL	SCALE: 1:96		



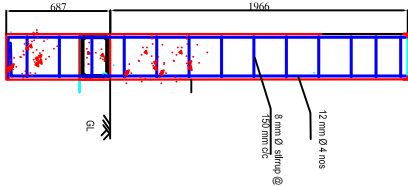
DRAWING TITLE:	LOCATION:	DESIGNED BY:	DATE:	PROJECT:	SHEET NO.
BOUNDARY WALL	CHARBOTE, KHADEBARI M.P	BHUPESH SHRESTHA	2076/2/6	NEPAL ELECTRICITY AUTHORITY	4 OF 4
SHEET TITLE:	PLOT NO:	CHECKED BY:	SCALE:	SHEETALPATI - TUMLINGTAR 220KV	
BOUNDARY WALL DETAILS	AREA:	RAJAN DHAKAL	1:96	TRANSMISSION LINE PROJECT	



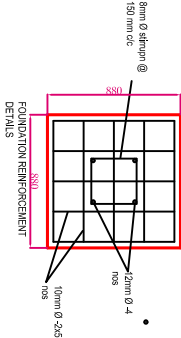
Fabricated in striped pattern withsquare ipe frame
Main Gate made of 14Gauge MS Plate



ENTRANCE GATE 1 DETAILS



REINFORCEMENT DETAILS IN COLUMN OF
ENTRANCE GATE



DRAWING TITLE:	LOCATION:	DESIGNED BY:	DATE:	PROJECT:	SHEET NO.
BOUNDARY WALL	CHARBOTE, KHADEBARI M.P	BHUPESH SHRESTHA	2076/2/6	NEPAL ELECTRICITY AUTHORITY	3 OF 4
SHEET TITLE:	PLOT NO:	CHECKED BY:	SCALE:	SHEETALPATI - TUMLINGTAR 220KV	
MAIN GATE DETAILS	AREA:	RAJAN DHAKAL	1:96	TRANSMISSION LINE PROJECT	

Supplementary Information

[insert supplementary information if any]



Section VI: Bill of Quantities²

Notes for Unit Rate Contracts:

Objectives

The objectives of the Bill of Quantities are

- (a) to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and*
- (b) when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.*

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Content

The Bill of Quantities should be divided generally into the following sections:

- (a) Preamble;*
- (b) Work Items (grouped into parts);*
- (c) Day works Schedule;*
- d) Provisional Sums; and*
- (d) Summary.*

Preamble

The Preamble should indicate the inclusiveness of the unit prices, and should state the methods of measurement which have been adopted in the preparation of the Bill of Quantities and which are to be used for the measurement of any part of the works.

Work Items

The items in the Bill of Quantities should be grouped into sections to distinguish between those parts of the Works which by nature, location, access, timing, or any other special characteristics may give rise to different methods of construction, or phasing of the Works, or considerations of cost. General items common to all parts of the works may be grouped as a separate section in the Bill of Quantities.

Day work Schedule

A Day work Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Employer of the realism of rates quoted by the Bidders, the Day work Schedule should normally comprise the following:

²In lump sum contracts, delete “Bill of Quantities” and replace with “Schedule of Activities” throughout this section.



- (a) *A list of the various classes of labor, materials, and Constructional Plant for which basic day work rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a day work basis.*
- (b) *Nominal quantities for each item of Day work, to be priced by each Bidder at Day work rates as bid. The rate to be entered by the Bidder against each basic Day work item should include the Contractor's profit, overheads, supervision, and other charges.*

Provisional Sums

Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Project Manager in accordance with the Conditions of Contract.

Summary

The Summary should contain a tabulation of the separate parts of the Bill of Quantities carried forward, with provisional sums for Day work, for physical (quantity) contingencies, and for price contingencies (upward price adjustment) where applicable.



Preamble of Bill of Quantities

A. General

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Project Manager and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Project Manager may fix within the terms of the Contract.
3. For any item for which measurement is based on records made before or during construction the records shall be prepared and agreed between the Engineer and the Contractor. Should the Contractor carry out such work without the prior agreement of the Engineer, the Engineer may request the Contractor to carry out investigations to confirm the extent of the work and the quantity of work certified for payment shall be solely at the Engineer's discretion. The cost of any such investigation shall be borne by the Contractor.
4. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
5. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
6. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
7. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities. The Specification Clause references where given in the item description of the Bills of Quantities are for the convenience of bidders and generally refer to the principal relevant-specification clause but do not necessarily represent the whole of the specification requirements for the work required within the item. The presence of a Specification clause reference shall not in any way reduce the Bidders obligation to complete work in accordance with all the requirements of the Specification.
8. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Project Manager in accordance with the Conditions of Contract.
9. The method of measurement of completed work for payment shall be in accordance with the Specifications.
10. The abbreviations and symbols used in this Bill of Quantities are: **[Insert as applicable]**



B. Day work Schedule

a) General

1. Work shall not be executed on a day work basis except by written order of the Project Manager. Bidders shall enter basic rates for day work items in the Schedules. These rates shall apply to any quantity of day work ordered by the Project Manager. Nominal quantities have been indicated against each item of day work, and the extended total for day work shall, be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for day work shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

b) Day work Labor

1. In calculating payments due to the Contractor for the execution of day works, the hours for labor will be reckoned from the time of arrival of the labor at the job site to execute the particular item of day work to the time of departure from the job site, but excluding meal breaks and rest periods. Only the time of classes of labor directly doing work ordered by the Project Manager and are competent to perform such work will be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.
2. The Contractor shall be entitled to payment in respect of the total time that labor is employed on day work, calculated at the basis rates entered by it in the " SCHEDULE OF DAY WORK RATES: 1. LABOR". The rates for labor shall be deemed to cover all costs to the Contractor including (but not limited to) i) the amount of wages paid to such labor, transportation time, overtime, subsistence allowances, ii) any sums paid to or on behalf of such labor for social benefits in accordance with Nepal law, iii) Contractor's profit, overheads, superintendence, liabilities and insurance and iv) charges incidental to the foregoing.

c) Day work Equipment

1. The Contractor shall be entitled to payments in respect of Constructional Plant already on site and employed on day work at the basis rental rates entered by him in the "SCHEDULE OF DAY WORK RATES:2 EQUIPMENT ". The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricant, and other consumables and all overhead, profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants also shall be included in the rate of the equipment and no separately payment shall be made for it.
2. In calculating the payment due to the Contractor for Constructional Plant employed on day work, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Project Manager, the travelling time from the part of the Site where the Construction Plant was located when ordered by the Project Manager to be employed on day work and the time for return journey there to shall be included for payment.

d) Day work Materials

1. The Contractor shall be entitled to payment in respect of materials used for day work (except for materials for which the cost is included in the percentage addition to labor costs as detailed heretofore), at the rates entered by him in the "SCHEDULE OF DAY WORK RATES: 3 MATERIALS" and shall be deemed to include overhead charges and profit as follows;
 - (i) the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc. and shall provide for delivery to store for stockpiling at the Site.
 - (ii) the cost of hauling materials for use on work ordered to be carried out as day work, from the store or stockpile on the Site to the place where it is to be used also shall be include in the same rate.



Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Project Manager's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Employer to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

Bill of Quantities

[Insert Bill of Quantities]



Nepal Electricity Authority
Transmission Directorate
SHITALPATI TUMLINGTAR 220 KV TRANSMISSION LINE PROJECT
Construction of Boundary Wall at Shitalpati, Sankhuwasabha
IFB NO: SHITALPATI/CW/76/77/ -1

Bill of Quantities

S.N.	Discription of item	Unit	Quantity	Rate	Amount	Amount in Word	Remarks
1	Earthwork in Excavation	Cum	1241.07				
2	15cm Stone soling works	Cum	0.53				
3	Levelling course (1:3:6)	Cum	83.90				
4	Stone Masonry wall in 1:4 C/s mortar	Cum	2277.00				
5	7.5 cm thk PCC in 1:2:4 ratio	Cum	51.76				
6	N65 medium Round Pipe including installation	kg	7743.15				
7	Metal grill of Size 1.5m x 1 m as per drawing with 75mm size opening including installation (@ 18 kg/m ²)	kg	17939.70				
8	PCC for RCC in 1:1.5:3 for Gate	m ³	1.53				
9	Reinforcement (suplying, cutting bending, placing and binding of reinforcement)	Kg	208.63				
10	Metal Gate	Kg	508.75				
11	Formwork	Sqm	14.53				
12	Plastering in 1:4 C/S mortar	Sqm	9.36				
13	Hume Pipe (600 mm dia NP3), 2.5m length	nos	2.00				
14	Painting in grill and Gate including prime coat	Sqm	2103.90				
15	Painting in Gate Columns including prime coat	Sqm	7.08				
16	Gabion wall using GI wire of 10swg	Cum	108.00				
17	Metal works for Jali	kg	2030.63				
18	10 guage wire mesh with opening 75 x 75 opening and 4 nos of horizontal 8 guage suporting wire	Sqm	718.00				
19	Installation of 10 swg barbed wire over the angle section	m	1077.00				
				Total			
				Vat @ 13%			
				Total			

Total Amount in Word:



Part III: CONDITIONS OF CONTRACT AND CONTRACT FORMS



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Section VIII: General Conditions of Contract

Tumlingtar Shitalpati 220kV Transmission Line Project
Transmission Directorate
Nepal Electricity Authority

[Name of Contract]



General Conditions of Contract

A. General	
1. Definitions	<p>1.1 Boldface type is used to identify defined terms.</p> <p>(a) The Accepted Contract Amount means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.</p> <p>(b) The Activity Schedule is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.</p> <p>(c) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.2 hereunder.</p> <p>(d) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.</p> <p>(e) Compensation Events are those defined in GCC 50 hereunder.</p> <p>(f) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 68.1.</p> <p>(g) The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 below.</p> <p>(h) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer.</p> <p>(i) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.</p> <p>(j) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.</p> <p>(k) Days are calendar days; months are calendar-months.</p> <p>(l) Dayworks are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.</p> <p>(m) A Defect is any part of the Works not completed in accordance with the Contract.</p> <p>(n) The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.</p> <p>(o) The Defects Liability Period is the period calculated from the Completion Date where the Contractor remains responsible for remedying defects.</p> <p>(p) Drawings include calculations and other information provided or approved by the Project Manager for the execution of the Contract.</p> <p>(q) The Employer is the party who employs the Contractor to carry out the Works, as specified in the SCC.</p> <p>(r) Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.</p> <p>(s) Force Majeure means an exceptional event or circumstance: which is</p>



	<p>beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.</p> <p>(t) The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.</p> <p>(u) In writing or written means hand written, type written, printed or electronically made, and resulting in permanent record.</p> <p>(v) The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the SCC. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.</p> <p>(w) Letter of Acceptance means the formal acceptance by the Employer of the Bid and denotes the formation of the contract at the date of acceptance.</p> <p>(x) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.</p> <p>(y) Party means the Employer or the Contractor, as the context requires.</p> <p>(z) SCC means Special Conditions of Contract</p> <p>(aa) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.</p> <p>(bb) The Project Manager is the person named in the SCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.</p> <p>(cc) Retention Money means the aggregate of all monies retained by the Employer pursuant to GCC 54.1.</p> <p>(dd) Schedules means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Bids, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.</p> <p>(ee) The Site is the area defined as such in the SCC</p> <p>(ff) Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.</p> <p>(gg) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.</p> <p>(hh) The Start Date is given in the SCC. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.</p> <p>(ii) A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.</p> <p>(jj) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.</p>
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	<p>(kk) A Variation is an instruction given by the Project Manager which varies the Works</p> <p>(ll) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the SCC.</p>
2. Interpretation	<p>2.1 In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.</p> <p>2.2 If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).</p> <p>2.3 The documents forming the Contract shall be interpreted in the following order of priority:</p> <ul style="list-style-type: none"> (a) Contract Agreement, (b) Letter of Acceptance, (c) Letters of Technical Bid and Price Bid, (d) Special Conditions of Contract, (e) General Conditions of Contract, (f) Specifications, (g) Drawings, (h) Bill of Quantities (or Schedules of Prices for lump sum contracts), and (i) Any other document listed in the SCC as forming part of the Contract.
3. Language and Law	<p>3.1 The language of the Contract and the law governing the Contract are stated in the SCC.</p> <p>3.2. Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when</p> <ul style="list-style-type: none"> (a) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from, or any payments to, a particular country, person, or entity. Where the borrower's country prohibits payments to a particular firm or for particular goods by such an act of compliance, that firm may be excluded.

4. Contract Agreement	4.1 The Parties shall enter into a Contract Agreement within 15 days after the Contractor receives the Letter of Acceptance, unless the Special Conditions establish otherwise. The Contract Agreement shall be based upon the attached Contract forms in Section X.
5. Assignment	<p>5.1 Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party</p> <p>(a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party; and</p> <p>(b) may, as security in favor of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.</p>
6. Care and Supply of Documents	<p>6.1 The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, one copy of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.</p> <p>6.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents.</p> <p>6.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times.</p> <p>6.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.</p>
7. Confidential Details	<p>7.1 The Contractor's and the Employer's Personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow its proper implementation.</p> <p>7.2 Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.</p> <p>7.3 Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event</p>

	the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this Clause.
8. Compliance with Laws	8.1 The Contractor shall, in performing the Contract, comply with applicable Laws.
9. Joint and Several Liability	9.1 If the Contractor is a joint venture of two or more entities , all such entities shall be jointly and severally liable to the Employer for the fulfillment of the provisions of the Contract, and shall designate one of such persons to act as a leader with authority to bind the joint venture. The contractor shall not handover the responsibility of the contract to any one member or some members of Joint Venture or any other parties, not involved in the contract. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.
10. Project Manager's Decisions	10.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
11. Delegation	11.1 The Project Manager may delegate any of his duties and responsibilities to other people after notifying the Contractor, and may cancel any delegation after notifying the Contractor.
12. Communications	12.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
13. Subcontracting	13.1 For GoN Funded: A list of approved Subcontractors including its value/works is included as Article 2 (k) of contract Agreement. Approval by the Employer for any of the Subcontractors shall not relieve the Contractor from any of its obligations, duties, or responsibilities under the contract. For DP Funded : The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations. Bidders may propose subcontracting up to the percentage of total value of contracts as specified in the SCC . The Sub contractor shall meet the qualification requirement as specified in SCC.
14. Other Contractors	14.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the SCC . The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification
15 Personnel and Equipment	15.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid to carry out the Works, or other

	<p>personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.</p> <p>15.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.</p> <p>15.3 If the Employer, Project Manager, or Contractor determines, that any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or other prohibited practices during the execution of the Works, then that employee shall be removed in accordance with Clause 15.2 above.</p>
16. Employer's and Contractor's Risk	<p>16.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.</p>
17. Employer's Risks	<p>17.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:</p> <p>(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to</p> <p>(i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or</p> <p>(ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.</p> <p>(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.</p> <p>17.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to</p> <p>(a) a Defect which existed on the Completion Date,</p> <p>(b) an event occurring before the Completion Date, which was not itself an Employer's risk, or</p> <p>(c) the activities of the Contractor on the Site after the Completion Date.</p>
18. Contractor's Risks	<p>18.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.</p>
	<p>19.1 The Contractor shall provide insurance in the joint names of the</p>

19. Insurance	<p>Employer and the Contractor from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the SCC for the following events which are due to the Contractor's risks:</p> <ul style="list-style-type: none"> (a) loss of or damage to the Works, Plant, and Materials; (b) loss of or damage to Equipment; (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and (d) Personal injury or death. <p>19.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the proportions of Nepalese Rupees required to rectify the loss or damage incurred.</p> <p>19.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.</p> <p>19.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.</p> <p>19.5 Both parties shall comply with any conditions of the insurance policies.</p>
20. Site Investigation Reports	<p>20.1 The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the SCC, supplemented by any information available to the Contractor.</p>
21. Contractor to Construct the Works	<p>21.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.</p>
22. The Works to Be Completed within intended Completion Date	<p>22.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them within the intended Completion Date.</p>
23. Design by contractor and Approval by the Project Manager	<p>23.1 The contractor shall be responsible for the design of permanent works as specified in SCC.</p> <p>23.2 Contractor shall be responsible for design of the Temporary Works. The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.</p> <p>23.3 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, shall be subject to prior approval by the Project Manager before their use.</p> <p>23.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of temporary works.</p>

<p>24. Safety, Security and Protection of the Environment</p>	<p>24.1 The Contractor shall, throughout the execution, and completion of the works and remedying of any defects therein:</p> <ul style="list-style-type: none"> a. Have full regard for the safety of all persons entitled to be upon the site and keep the site (so as the same is under his control) and the works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons. b. Provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when necessary or required by the Project Manager or by any duly constituted authority, for the protection of the Works of for the safety and convenience of the public or others. c. Take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation. d. Ensure that any cut or fill slopes are planted in grass or other plant cover as soon as possible to protect them from erosion. e. Any spoil or material removed from drains shall be disposed of to designated stable tipping areas as directed by the Project Manager. f. Shall not use fuel wood as a means of heating during the processing or preparation of any materials forming part of the works. g. The Project Manager shall have the power to disallow any working practice or activity of the Contractor or direct that such practices or activities be modified should the Project Manager consider, on the advice of the relevant Government Departments, that the practices or activities will be harmful to wildlife. h. Provide on the Site such lifesaving apparatus as may be appropriate and an adequate and easily accessible first aid outfit or such outfits as may be required by any government ordinance, factory act, etc., subsequently published and amended from time to time.
<p>25. Discoveries</p>	<p>25.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.</p>
<p>26. Possession of the Site</p>	<p>26.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the SCC, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.</p>
<p>27. Access to the Site</p>	<p>27.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is</p>

	intended to be carried out.
28. Instructions, Inspections and Audits	<p>28.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.</p> <p>28.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub consultants to keep accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.</p> <p>28.3 The Contractor shall permit the GoN/DP and/or persons appointed by the GoN/DP to inspect the Site and/or the accounts and records of the Contractor and its sub-contractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the GoN/DP if required by the GoN/DP. The Contractor's attention is drawn to Sub-Clause 73.2 which provides, inter alia, that acts intended to materially impede the exercise of the GoN's/DP's inspection and audit rights provided for under this Sub-Clause constitute a obstructive practice subject to contract termination.</p>
29. Dispute Settlement	<p>29.1 The Employer and the Contractor shall attempt to settle amicably by direct negotiation any disagreement or dispute arising between them under or in connection with the Contract.</p> <p>29.2 Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be referred to Arbitration within 30 days after the expiration of amicable settlement period.</p>
30. Procedures for Disputes	<p>30.1 In case of arbitration, the arbitration shall be conducted in accordance with the arbitration procedures published by the Nepal Council of Arbitration (NEPCA) at the place given in the SCC.</p>
B. Staff and Labor	
31. Forced Labor	<p>31.1 The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor–contracting arrangements.</p>
32. Child Labor	<p>32.1 The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where national laws have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.</p>
33. Non-discrimination and Equal Opportunity	<p>34.1 The Contractor shall not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment relationship on the principle of equal opportunity and fair treatment, and shall not discriminate with</p>

	<p>respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. In countries where national law provides for non-discrimination in employment, the Contractor shall comply with national law. When national laws are silent on nondiscrimination in employment, the Contractor shall meet this Sub clause's requirements. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination.</p>
B. Time Control	
34. Program	<p>34.1 Within the time stated in the SCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.</p> <p>34.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.</p> <p>34.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall Provide an updated Activity Schedule within 15 days of being instructed to by the Project Manager.</p> <p>34.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.</p>
35. Extension of the Intended Completion Date	<p>35.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.</p> <p>35.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information at least 21 days prior to the intended completion date. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.</p>

36. Acceleration	<p>36.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.</p> <p>36.2 If the Contractor's priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.</p>
37. Delays Ordered by the Project Manager	<p>37.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.</p>
38. Management Meetings	<p>38.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.</p> <p>38.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.</p>
39. Early Warning	<p>39.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.</p> <p>39.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.</p>
C. Quality Control	
40. Identifying Defects	<p>40.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.</p>
41. Tests	<p>41.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.</p>

42. Correction of Defects	<p>42.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.</p> <p>42.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.</p>
43. Uncorrected Defects	<p>43.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.</p>
D. Cost Control	
44. Contract Price	<p>44.1 In the case of a Unit Rate contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.</p> <p>44.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.</p>
45. Changes in the Contract Price	<p>45.1 In the case of an Unit Rate contract:</p> <p>(a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 2 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.</p> <p>(b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 10 percent, except with the prior approval of the Employer.</p> <p>(c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.</p> <p>45.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.</p>
46. Variations	<p>46.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.</p> <p>46.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any</p>

	<p>longer period stated by the Project Manager and before the Variation is ordered.</p> <p>46.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.</p> <p>46.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.</p> <p>46.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.</p> <p>46.6 In the case of an Unit Rate contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC 45.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.</p>
47. Cash Flow Forecasts	<p>47.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast.</p>
48. Payment Certificates	<p>48.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.</p> <p>48.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor within 30 days of submission by contractor.</p> <p>48.3 The value of work executed shall be determined by the Project Manager.</p> <p>48.4 The value of work executed shall comprise:</p> <ul style="list-style-type: none"> (a) In the case of an Unit Rate contract, the value of the quantities of work in the Bill of Quantities that have been completed; or (b) In the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule. <p>48.5 The value of work executed shall include the valuation of Variations and Compensation Events.</p> <p>48.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.</p>
49. Payments	<p>49.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified</p>

	<p>by the Project Manager within 30 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest as indicated in the SCC on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made.</p> <p>49.2 If an amount certified is increased in a later certificate or as a result of an award by an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.</p> <p>49.3 Items of the Works for which no rate or price has been entered in BOQ shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.</p>
50. Compensation Events	<p>50.1 The following shall be Compensation Events:</p> <ul style="list-style-type: none"> (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC 26.1. (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract. (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time. (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects. (e) The Project Manager unreasonably does not approve a subcontract to be let. (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site. (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons. (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor. (i) The advance payment is delayed. (j) The effects on the Contractor of any of the Employer's Risks. (k) The Project Manager unreasonably delays issuing a Certificate of Completion. <p>50.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date</p>

	<p>shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.</p> <p>50.3 As soon as information demonstrating effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.</p> <p>50.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.</p>
51. Tax	<p>51.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC 53.</p>
52. Currency	<p>52.1 The currency of Contracts shall be Nepalese Rupees.</p>
53. Price Adjustment	<p>53.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the SCC. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due.</p> <p>53.2 Adjustment Formulae³: The formulae will be of the following general type:</p> $pn = A + b \frac{Ln}{Lo} + c \frac{Mn}{Mo} + d \frac{En}{Eo} + etc.$ <p>Where:</p> <p><i>pn</i> is a price adjustment factor to be applied to the amount for the payment of the work carried out in the subject month, determined in accordance with Clause 49;</p> <p>A is a constant, specified in the Bidding Forms- Table of Price Adjustment data, representing the nonadjustable portion in contractual payments;⁴b, c, d, etc., coefficients representing the estimated proportion of each cost element (labor, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums,</p>

³ For complex Works involving several types of construction work with different inputs, a family of Formulae will be necessary. The various items of Day work may also require different formulae, depending on the nature and source of the inputs

⁴ Insert a figure for factor A only where there is a part of the Contractors' expenditures which will not be subject to fluctuation in cost or to compensate for the unreliability of some indices. A should normally be 0.15. The sum of A, b, c, d, etc., should be one.



	<p>as specified in the SCC;</p> <p><i>Ln, Mn, En</i>, etc., are the current cost indices or reference prices of the cost elements for month “n,” determined pursuant to Sub-Clause 53.4, applicable to each cost element; and</p> <p><i>Lo, Mo, Eo</i>, etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in Sub-Clause 53.4</p>
	<p>53.3 Sources of Indices and Weightings: The sources of indices shall be those listed in the Bidding Forms- Table of Price Adjustment data, as approved by the Project Manager and stated in SCC. Indices shall be appropriate for their purpose and shall relate to the Contractor’s proposed source of supply of inputs on the basis of which his Contract shall have been computed. As the proposed basis for price adjustment, the Contractor shall have submitted with his bid the tabulation of Weightings and Source of Indices in the Bidding Forms, which shall be subject to approval by the Project Manager.</p> <p>53.4 Base, Current and Provisional Indices: The base cost indices or prices shall be those prevailing on the day 30 days prior to the latest date for submission of bids. Current indices or prices shall be those prevailing on the day 30 days prior to the last day of the period to which a particular Interim Payment Certificate is related. If at any time the current indices are not available, provisional indices as determined by the Project Manager will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available.</p> <p>53.5 Weightings: The weightings for each of the factors of cost given in the Bidding Forms shall be adjusted if, in the opinion of the Project Manager, they have been rendered unreasonable, unbalanced or inapplicable as a result of varied or additional work already executed or instructed under Clause 46 or for any other reason.</p>
	<p>53.6 Where, price adjustment provision is not applicable pursuant to Sub-clause 53.1 then the Contract is subject to price adjustment only for construction material in accordance with this clause. If the prices of the construction materials stated in the contract is increased or decreased in an unexpected manner in excess of ten (10%) percent in comparison to the base price construction material stated in Section –IV, Bidding Forms-Table of Price Adjustment Data, then the price adjustment for the increase or decrease of price of the construction material beyond 10% shall be made by applying the following formulas:</p> <p>For unexpected increase in price</p> $P = [R_1 - (R_0 \times 1.10)] \times Q$ <p>For unexpected decrease in price P</p> $= [R_1 - (R_0 \times 0.90)] \times Q$

	<p>Where:</p> <p>“P” is price adjustment amount</p> <p>“R₁” is the present price of the construction material (Source of indices shall be those listed in the Bidding forms)</p> <p>“R₀” is the base price of the construction material</p> <p>“Q” is quantity of the construction material consumed in construction during the period of price adjustment consideration If the Base price and source is to be proposed by the Bidder as per the provision made in Section –IV, Bidding Forms-Table of Price Adjustment Data then the Base price and source filled by Bidder for the construction material stated in the Bidding Form shall be subject to the approval of the Project manager and shall be as stated in SCC..</p> <p>53.7 The Price Adjustment amount shall be limited to a maximum of the initial Contract Amount as specified in the SCC.</p> <p>53.8 The Price Adjustment provision shall not be applicable for delayed period if the contract is not completed in time due to the delay caused by the contractor or the contract is a Lump sum Contract</p>
54. Retention	<p>54.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the SCC until Completion of the whole of the Works.</p> <p>54.2 Upon the issue of a Defects Liability Certificate by the Project Manager, in accordance with GCC 70.1, half the total amount retained shall be repaid to the Contractor and half when the Contractor has submitted the evidence of submission of tax return to the concerned Internal Revenue Office. On completion of the whole works, the Contractor may substitute retention money with an “on demand” bank guarantee.</p>
55. Liquidated Damages	<p>55.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.</p> <p>55.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC.49</p>
56. Bonus	<p>56.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day stated in the SCC for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall</p>

	certify that the Works are complete, although they may not be due to be complete.
57. Advance Payment	<p>57.1 The Employer shall make advance payment to the Contractor of the amounts stated in the SCC in two equal installments by the date stated in the SCC, against provision by the Contractor of an unconditional bank guarantee from Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal. in a form acceptable to the Employer in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.</p> <p>57.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.</p> <p>57.3 The advance payment shall be repaid by deducting proportionate amounts, as stated in SCC, from payments otherwise due Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.</p>
58. Securities	<p>58.1 The Performance Security, including any additional security required as per ITB 35.5 and ITB 40.1, shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the SCC, by a Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal. acceptable to the Employer, and denominated in Nepalese Rupees. The Performance Security shall be valid until a date 30 days from the date of issue of the Defect Liability Certificate in the case of a bank guarantee.</p> <p>Any additional performance security required as per ITB 35.5 shall be valid until a date 30 days from the date of issue of the certificate of Completion in the case of a bank guarantee.</p> <p>Any additional performance security required as per ITB 40.1 shall be valid until a date 30 days from the date of issue of the certificate of DLP</p>

	<p>in the case of a bank guarantee.</p> <p>58.2 The performance security issued by any foreign Bank outside Nepal must be counter guaranteed by Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal.</p>
59. Day works	<p>59.1 If applicable, the Day works rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.</p> <p>59.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.</p> <p>59.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.</p>
60. Cost of Repairs	<p>60.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.</p>
F. Force Majeure	
61. Definition of Force Majeure	<p>61.1 In this Clause, "Force Majeure" means an exceptional event or circumstance,</p> <ul style="list-style-type: none"> (a) which is beyond a Party's control; (b) which such Party could not reasonably have provided against before entering into the Contract; (c) which, having arisen, such Party could not reasonably have avoided or overcome; and (d) which is not substantially attributable to the other Party.
	<p>61.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:</p> <ul style="list-style-type: none"> (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies; (b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war; (c) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel; (d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to

	<p>the Contractor's use of such munitions, explosives, radiation or radio-activity; and</p> <p>(e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.</p>
62. Notice of Force Majeure	<p>62.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.</p>
	<p>62.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.</p>
	<p>62.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.</p>
63. Duty to Minimize Delay	<p>63.1 Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure.</p>
	<p>63.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.</p>
64. Consequences of Force Majeure	<p>64.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC 62, and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to GCC 30 to</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under GCC35 ; and</p> <p>(b) if the event or circumstance is of the kind described in subparagraphs (a) to (d) of GCC 61.2 and, in the case of subparagraphs (b) to (d), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC 19.</p>
	<p>64.2 After receiving this notice, the Project Manager shall proceed in accordance with GCC 10 to agree or determine these matters.</p>

65. Force Majeure Affecting Subcontractor	65.1 If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's nonperformance or entitle him to relief under this Clause.
66. Optional Termination, Payment and Release	66.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 90 days by reason of Force Majeure of which notice has been given under GCC 62, or for multiple periods which total more than 150 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with GCC 72.5.
	66.2 Upon such termination, the Project Manager shall determine the value of the work done and issue a Payment Certificate, which shall include <ul style="list-style-type: none"> (a) the amounts payable for any work carried out for which a price is stated in the Contract; (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal; (c) other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works; (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and (e) the Cost of repatriation of the Contractor's staff and labor employed wholly in connection with the Works at the date of termination.
67. Release from Performance	67.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises, which makes it impossible or unlawful for either or both Parties to fulfill its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance,

	<p>(a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract; and</p> <p>(b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under GCC 66 if the Contract had been terminated under GCC 66.</p>
G. Finishing the Contract	
68. Completion	<p>68.1 The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed.</p> <p>68.2 In addition to the other provisions, before acceptance of the completed works, Employer shall verify and assure that such works are within the set objective, quality and appropriate to operate and use.</p>
69. Taking Over	<p>69.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.</p>
70. Final Account	<p>70.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 60 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 60 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.</p>
71. Operating and Maintenance Manuals	<p>71.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.</p> <p>71.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC pursuant to GCC 71.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the SCC from payments due to the Contractor.</p>
72. Termination	<p>72.1 The Employer may terminate the Contract at any time if the contractor;</p> <ol style="list-style-type: none"> does not commence the work as per the Contract, abandons the work without completing, fails to achieve progress as per the Contract. <p>72.2 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.</p> <p>72.3 Fundamental breaches of Contract shall include, but shall not be limited to, the following :</p> <p>(a) The Contractor uses the advance payment for matters other than the</p>

	<p>contractual obligations,</p> <p>(b) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;</p> <p>(c) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;</p> <p>(d) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation.</p> <p>(e) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 90 days of the date of the Project Manager's certificate;</p> <p>(f) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;</p> <p>(g) the Project Manager gives two consecutive Notices to update the Program and accelerate the works to ensure compliance with GCC Sub clause 22.1 and the Contractor fails to update the Program and demonstrate acceleration of the works within a reasonable period of time determined by the Project Manager;</p> <p>(h) the Contractor does not maintain a Security, which is required;</p> <p>(i) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the SCC; and</p> <p>(j) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC 73.1.</p> <p>72.4 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC 72.3 above, the Project Manager shall decide whether the breach is fundamental or not.</p> <p>72.5 Notwithstanding the above, the Employer may terminate the Contract for convenience.</p> <p>72.6 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.</p>
73. Fraud and Corruption	<p>73.1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 15 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site.</p> <p>73.2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with GCC Clause 15.</p> <p>For the purposes of this GCC 73;</p>

	<p>(i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party.</p> <p>(ii) “fraudulent practice”⁵ is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;</p> <p>(iii) “collusive practice”⁶ is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;</p> <p>(iv) “coercive practice”⁷ is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;</p> <p>(v) “obstructive practice” is</p> <p>(aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or</p> <p>(bb) acts intended to materially impede the exercise of the GON's/DP's inspection and audit rights provided for under GCC28.3.</p>
74. Black Listing	<p>74.1 Without prejudice to any other rights of the Employer under this Contract, GoN, Public Procurement Monitoring Office (PPMO), on the recommendation of procuring entity, may blacklist a Bidder for its conduct for a period of one (1) to three (3) years on the following grounds and seriousness of the act committed by the bidder:</p> <p>(a) if it is established that the Contractor has committed substantial defect in implementation of the contract or has not substantially fulfilled its obligations under the contract or the completed work is not of the specified quality as per the contract.</p> <p>(b) If convicted from a court of law in a criminal offense liable to be disqualified for taking part in procurement contract,</p> <p>(c) If it is established that the Contractor has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</p>
75. Payment upon Termination	<p>75.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.</p>

	75.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.
	75.3 If the Contract is terminated because of fundamental breach of Contract or for any other fault by the Contractor, the performance security shall be forfeited by the Employer. In such case, amount to complete the remaining works as per the Contract shall be recovered from the Contractor as Government dues.
76. Property	76.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.
77. Release from Performance	77.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.
78. Suspension of DP Loan/Credit/Grant	78.1 In the event that the DP suspends the loan/ credit/grant to the Employer from which part of the payments to the Contractor are being made: a. the Employer is obligated to notify the Contractor of such suspension within 7 days of having received the DP's suspension notice; and b. if the Contractor has not received sums due him within the 30 days for payment provided for in GCC 49.1, the Contractor may immediately issue a 15-day termination notice.
79. Eligibility	79.1 The Contractor shall have the nationality of an eligible country as specified in Section V of the bidding document. The Contractor shall be deemed to have the nationality of a country if the Contractor is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.
	79.2 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as specified in Section V of the bidding document and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment, and services.
	79.3 For purposes of GCC 79.2, "origin" means the place where the materials and equipment are mined, grown, produced, or

	manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.
80. Project Manager's Duties and Authorities	80.1 The Project Manager's duties and authorities are restricted to the extent as stated in the SCC .
81. Quarries and Spoil Dumps	81.1 Any quarry operated as part of this Contract shall be maintained and left in a stable condition without steep slopes and be either refilled or drained and be landscaped by appropriate planting. Rock or gravel taken from a river shall be removed over some distance so as to limit the depth of material removed at any one location, not disrupt the river flow or damage or undermine the river banks. The Contractor shall not deposit excavated material on land in Government or private ownership except as directed by the Project Manager in writing or by permission in writing of the authority responsible for such land in Government ownership, or of the owner or responsible representative of the owner of such land in private ownership, and only then in those places and under such conditions as the authority, owner or responsible representative may prescribe.
82. Local Taxation	82.1 The prices bid by the Contractor shall include all taxes that may be levied in accordance to the laws and regulations in being in Nepal on the date 30 days prior to the closing date for submissions of Bids on the Contractor's equipment, plant and materials acquired for the purpose of the Contract and on the services performed under the Contract. Nothing in the Contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in Nepal on profits made by him in respect of the Contract.
83. Value Added Tax	83.1 The Contract is not exempted from value added tax. An amount specified in the schedule of taxes shall be paid by the Contractor in the concerned VAT office within time frame specified in VAT regulation.
84. Income Taxes on Staff	84.1 The Contractor's staff, personnel and labor will be liable to pay personal income taxes in Nepal in respect of their salaries and wages, as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions as may be imposed on him by such laws and regulations. 84.2 The issue of the Final Account Certificate pursuant to clause GCC 70 shall be made only upon submittal by the Contractor of a certificate of income tax clearance from the Government of Nepal.
85. Duties, Taxes and Royalties	85.1 Any element of royalty, duty or tax in the price of any goods including fuel oil, and lubricating oil, cement, timber, iron and iron goods locally procured by the Contractor for the works shall be included in the Contract rates and prices and no reimbursement or payment in that respect shall be made to the Contractor. 85.2 The Contractor shall familiarize himself with GON the rules and regulations with regard to customs, duties, taxes, clearing of goods

	<p>and equipment, immigration and the like, and it will be necessary for him to follow the required procedures regardless of the assistance as may be provided by the Employer wherever possible.</p> <p>85.3 The Contractor shall pay and shall not be entitled to the reimbursement of cost of extracting construction materials such as sand, stone/boulder, gravel, etc. from the river beds or quarries. Such prices will be levied by the local District Development Committee (DDC) as may be in force at the time. The Contractor, sub-contractor(s) employed directly by him and for whom he is responsible, will not be exempted from payment of royalties, taxes or other kinds of surcharges on these construction materials so extracted and paid for to the DDC.</p>
86. Member of Government, etc, not Personally Liable	<p>86.1 No member or officer of GoN or the Employer or the Project Manager or any of their respective employees shall be in any way personally bound or liable for the act or obligations of the Employer under the Contract or answerable for any default or omission in the observance or performance of any of act, matter or thing which are herein contained.</p>
87. Approval of Use of Explosives	<p>87.1 No explosives of any kind shall be used by the Contractor without the prior consent of the Employer in writing and the Contractor shall provide, store and handle these and all other items of every kind whatsoever required for blasting operations, all at his own expense in a manner approved in writing by the Employer.</p>
88 Compliance with Regulations for Explosives	<p>88.1 The Contractor shall comply with all relevant ordinances, instructions and regulations which the Government, or other person or persons having due authority, may issue from time to time regarding the handling, transportation, storage and use of explosives.</p>
89. Permission for Blasting	<p>89.1 The Contractor shall at all times maintain full liaison with and inform well in advance, and obtain such permission as is required from all Government authorities, public bodies and private parties whatsoever concerned or affected, or likely to be concerned or affected by blasting operation.</p>
90. Records of Explosives	<p>90.1 Before the beginning of the Defects Liability Period, the Contractor shall account to the satisfaction of the Project Manager for all explosives brought on to the Site during the execution of the Contract and the Contractor shall remove all unused explosives from the Site on completion of works when ordered by the Project Manager.</p>
91. Traffic Diversion	<p>91.1 The Contractor shall include the necessary safety procedures regarding and pedestrian traffic diversion that is needed in execution of the works. The Contractor shall include in his costing of works, any temporary works or diversion that are needed during the construction period. All traffic diversion should be designed for the safety of both the motoring public and the men at work. It shall ensure the uninterrupted flow of traffic and minimum inconvenience to the public during the period concerned. As such, adequate warning signs, flagmen and other relevant safety precautionary measures shall be provided to warn</p>

	motorists and pedestrians well ahead of the intended diversion as directed by the Project Manager. All traffic devices used shall be designed in accordance with the instruction of Project Manager.
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Section IX: Special Conditions of Contract

The following Special Conditions of Contract shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC



Special Conditions of Contract

A. General	
GCC 1.1 (q)	The Employer is Tumlingtar Shitalpati 220kV Transmission Line Project, Transmission Directorate, NEA.
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be 24 months from the Contract Effectiveness
GCC 1.1(bb) & 10.1	The Project Manager is: Project Manager, Tumlingtar Sitalpati 220kV Transmission Line Project, Transmission Directorate, NEA The Project Manager and Engineer are synonyms.
GCC 1.1 (ee)	The Site is located at Chapabote, Khandbari M.P.- Sankhuwasabha District
GCC 1.1 (hh)	The Start Date shall be the Effective Date, upon which the period until the Time for Completion of the Facilities shall be counted from, is the date when all of the following conditions have been fulfilled: (a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor; (b) The Contractor has submitted to the Employer the performance security. (c) The Employer has paid the Contractor the advance payment. Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable. The Contractor shall not however, benefit (in reckoning the Time for Completion) on account of its delay in providing the Performance Security or the Bank Guarantee for advance payment beyond the period provided in the Contract.
GCC 1.1 (II)	The Works consist of Construction of Boundary Wall at Shitalpati Substation, Sankuwasabha as defined in the bidding data and the scope of work
GCC 2.2	Sectional Completions are: NONE
GCC 2.3(i)	The following documents also form part of the Contract: Minute of Meeting as Agreed Upon
GCC 3.1	The language of the contract is ENGLISH The law that applies to the Contract is the law of NEPAL
GCC 11.1	The Project Manager <i>may not</i> delegate any of his duties and responsibilities.
GCC 13.1	Subcontracting is not permitted



GCC 14.1	Schedule of other contractors: shall be notified by the Employer time to time
GCC 19.1	<p>The minimum insurance amounts and deductibles shall be:</p> <ol style="list-style-type: none"> 1. The minimum cover for loss of or damage to the Works, Plant and Materials is: 110% of the Contract Amount. 2. The maximum deductible for insurance of the Works and of Plant and Materials is: NIL 3. The minimum cover for loss or damage to Equipment is : 110% of Contract Value 4. The maximum deductible for insurance of Equipment is: NIL 5. The minimum for insurance of other property is: 110% of Contract value with unlimited number of occurrences 6. The maximum deductible for insurance of other property is: NIL 7. The minimum cover for personal injury or death insurance <ol style="list-style-type: none"> i. for the Contractor's employees is that specified in the Labor act of Nepal and ii. for other people is : 1 Million NRs. with an unlimited number of occurrences
GCC 20.1	Site Investigation Reports are: NONE
GCC 23.1	The following shall be designed by the Contractor: NONE
GCC 26.1	The Site Possession Date(s) shall be: as agreed during Contract Signing
GCC 30.1	The place of arbitration shall be: Kathmandu, Nepal
C. Time Control	
GCC 34.1	The Contractor shall submit for approval a Program for the Works within 30 days from the date of the Letter of Acceptance.
GCC 34.3	<p>The period between Program updates is 60 days.</p> <p>The amount to be withheld for late submission of an updated Program is All due bills</p>
D. Quality Control	
GCC 42.1	The Defects Liability Period is: 365 days.
E. Cost Control	
GCC 49.1	Not applicable
GCC 53.1	<p>The Contract is not subject to price adjustment, and the following information regarding coefficients does not apply.</p> <p>The coefficients and indices for adjustment of prices in Nepalese Rupees shall be as specified in the Table of Adjustment Data submitted by bidder together</p>

	with the Letter of Price Bid which is approved by the Project manager.
GCC 53.6	Base Price of Construction Materials applicable for price adjustment shall be as per the Table of Adjustment Data submitted by Bidder together with the Letter of Price Bid which is approved by the Project manager.
GCC 53.7	The Price Adjustment amount shall be limited to a maximum of: For GoN Funded: Not Applicable For DP Funded: Not Applicable
GCC 54.1	The proportion of payments retained is: For GoN Funded: 5 (five) percent
GCC 55.1	The liquidated damages for the whole of the Works are 0.05 Percent of the final Contract Price per day. The maximum amount of liquidated damages for the whole of the Works is 10 Percent of the final Contract Price.
GCC 56.1	The Bonus for the whole of the Works is: NONE
GCC 57.1	The Advance Payments shall be: Ten percent (10%) of the initial Contract price excluding the provisional sums, day works and VAT and shall be made to the Contractor upon submission of acceptable Bank Guarantee as attached and shall be paid to the Contractor no later than 30 days from the date of submission of Advance Payment Bank guarantee
GCC 57.3	Deductions from Payment Certificates will commence in the first certificate in which the value of works executed exceeds 30% of the Contract Price. Deduction will be at the rate of 20 % of the respective Monthly Interim Payment Certificate until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the end of 80 % of the approved contract period.
GCC 58.1	The Performance Security amount is Five Percent (5%) of the contract price and additional amount of 8% of the contract price if the Employer has increased the performance security amount pursuant to ITB 35.5 In addition, if the quoted amount by the bidder is more than 15% below the office estimate, bidder shall be required to submit an additional performance security amounting 50% of the value by which quoted price is lower than estimate below 15% The standard form(s) of Performance Security acceptable to the Employer shall be "an Unconditional Bank Guarantee" acceptable to the Employer of the type presented in Section IX of the Bidding Documents.
G. Finishing the Contract	
GCC 71.1	The date by which operating and maintenance manuals are required is Prior to the issuance of the Certificate of Completion.
GCC 71.2	The date by which "as built" drawings are required is: Prior to the issuance of the Certificate of Completion.

	The amount to be withheld for failing to produce “as built” drawings and/or Operating and maintenance manuals is: <i>Full value of last Invoice.</i>
GCC 72.3 (i)	The maximum number of days is: 200
GCC 80	<p>The Project Manager has to obtain the specific approval of the Employer for taking any of the following actions:</p> <ol style="list-style-type: none"> Certifying additional costs determined under General Conditions of Contract Clause 50; Determining the extension of the intended Completion Date under General Conditions of Contract Clause 35; Issuing a Variation under General Conditions of Contract Clause 1 and 46, except in an emergency situation, as reasonably determined by the Project Manager; emergency situation may be defined as the situation when protective measures must be taken for the safety of life or of the works or of adjoining property. Adjustment of rates under General Conditions of Contract Clause 45;

Section X: Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.



Letter of Intent

[on letterhead paper of the Employer]

Date:

To: **Name and address of the Contractor**.....

Subject: Issuance of letter of intent to award the contract.....

This is to notify you that, it is our intention to award the contract **[insert date]**for execution of the **[insert name of the contract and identification number, as given in the Contract Data/SCC]** to you as your bid price **[insert amount in figures and words in Nepalese Rupees]** as corrected and modified in accordance with the Instructions to Bidders is hereby selected as substantially responsive lowest evaluated bid.

Authorized Signature:

Name:

Title:

CC:

[Insert name and address of all other Bidders, who submitted the bid]

[Notes on Letter of Intent

The issuance of Letter of Intent is the information of the selection of the bid of the successful bidder by the Employer and for providing information to other unsuccessful bidders who participated in the bid as regards to the outcome of the procurement process. This standard form of Letter of Intent to Award should be filled in and sent to the successful Bidder only after evaluation and selection of substantially responsible lowest evaluated bid.]



Letter of Acceptance

[on letterhead paper of the Employer]

Date:

To: **Name and address of the Contractor**.....

Subject: **Notification of Award**

This is to notify that your Bid dated **date** for execution of the **name of the contract and identification number, as given in the Contract Data/SCC** for the Contract price of Nepalese Rupees **[insert amount in figures and words in Nepalese Rupees]**, as corrected in accordance with the Instructions to Bidders is hereby accepted in accordance with the Instruction to Bidders.

You are hereby instructed to contact this office to sign the formal contract agreement within 15 days with Performance Security of **NRs.** in accordance with the Conditions of Contract, using for that purpose the Performance security Form included in Section X (Contract Forms) of this Bidding Document.

Authorized Signature:

Name and Title of Signatory:



Contract Agreement

THIS AGREEMENT made theday of.....between..... name of the Employer(**hereinafter “the Employer”**), of the one part, andname of the Contractor(**hereinafter “the Contractor”**), of the other part:

WHEREAS the Employer desires that the Works known as name of the Contractshould be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects in the sum of NRs**[insert amount of contract price in words and figures including taxes]**(hereinafter “the Contract Price”).

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) the Letter of Acceptance;
 - (b) the Letters of Technical and Price Bid;
 - (c) the Addenda Nos **Insert addenda numbers if any**
 - (d) the Special Conditions of Contract;
 - (e) the List of Eligible Countries that was specified in Section V of the bidding document,
 - (f) the General Conditions of Contract;
 - (g) the Specification;
 - (h) the Drawings;
 - (i) Bill of Quantities (or Schedules of Prices for lump sum contracts), and
 - (j) Table of Price Adjustment Data
 - (k) List of Approved Subcontractors *[For GoN funded project]*
 - (l) **[Specify if there are any other document]**
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Nepal on the day, month and year indicated above.

Signed by
for and on behalf the Contractor in the presence of

Witness, Name Signature, Address, Date

Signed by.....
for and on behalf of the Employer in the presence of

Witness, Name, Signature, Address, Date



List of Approved Subcontractors

In accordance with GCC Sub-Clause 13.1, The following Subcontractors are approved for carrying out the work as specified below.

Name of Subcontractors	Description of Works	Value/Percentage of subcontract



Performance Security

(On letterhead paper of the Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal.)

..... **Bank's Name, and Address of Issuing Branch or Office**

Beneficiary: Name and Address of Employer

Date:

Performance Guarantee No.:

We have been informed that **[insert name of the Contractor]** (hereinafter called "the Contractor") has been notified by you to sign the Contract No. **[insert reference number of the Contract]** for the execution of **[insert name of contract and brief description of Works]** (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we... **[insert name of the Bank]** hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of **[insert name of the currency and amount in figures*]** (..... **insert amount in words**) such sum being payable in Nepalese Rupees, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the.....Day of **, and any demand for payment under it must be received by us at this office on or before that date.

.....

Seal of Bank and Signature(s)

Note:

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

* The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract in Nepalese Rupees.

** Insert the date thirty days after the date specified for the Defect Liability Period. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee".



Advance Payment Security

(On letterhead paper of the Commercial Bank or Financial Institution eligible to issue Bank Guarantee as per prevailing Law in Nepal.)

..... **Bank's Name, and Address of Issuing Branch or Office**.....

Beneficiary: **Name and address of employer**

Date :

Advance Payment Guarantee No.....

We have been informed thathas entered into Contract No. **Name and Address of Employer**.....**name of the Contractor**.....(hereinafter called "the Contractor")..reference number of the Contract.....dated with you, for the execution of ...contract and brief description of Works (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum..... name of the currency and amount in figures*...(**amount in words**) is to be made against an advance payment guarantee.

At the request of the Contractor, we..... **name of the Bank** hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of.....name of the currency and amount in figures*.....(**amount in words**) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty (80) percent of the Contract Price has been certified for payment, or on the day of**, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

.....

Seal of Bank and Signature(s)

Note:

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

*The Guarantor shall insert an amount representing the amount of the advance payment in Nepalese Rupees of the advance payment as specified in the Contract.

** Insert the date Thirty days after the expected completion date. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee".



SECTION-VI
Bill of Quantities

Bill of Quantities

1 Provisional Sum						
Procument Item Details						
SL. No	Item Description	Unit	Quantity	Unit Rate(NPR)	Amount(NPR)	
1	Provisional Sum	Lot	1.0	0.0	0.00	
2 Construction work						
Procument Item Details						
SL. No	Item Description	Unit	Quantity	Bidder's Rate (NPR)	Bidder's Rate (in words)	Total Amount (NPR)
1	Construction of Boundary Wall at Shitapati substation, Sankhuwasabha [Total amount extracted from Section VI: Bill of Quantities of Part II: Bidding procedure]	Lot	1.0			
Total of Procument Items						
Total Item Price						
VAT						
Grand Total						