NEPAL ELECTRICITY AUTHORITY

(An Undertaking of Government of Nepal)
Distribution and Consumer Services Directorate
Planning and Technical Services Department
Madankudari-Makaibari-Singati 33 kV Transmission Line Project
Durbarmarg, Kathmandu

National Competitive Bidding (NCB)

(Single-Stage: Two-Envelope Bidding Procedure)

BIDDING DOCUMENTS

FOR

SUPPLY, DELIVERY, INSTALLATION / ERECTION, TESTING AND COMMISSIONING OF MAJHIFEDA-MUDE 33 KV TRANSMISSION LINE

Invitation for Bids No.: Re-NEA/DCSD/PTSD/MMTL/074/75-01

NCB No.: Re-NEA/DCSD/PTSD/ MMTL/074/75-01

Employer: Nepal Electricity Authority

June, 2018

Nepal Electricity Authority
Distribution and Consumer Services Directorate
Planning and Technical services Department
Madankudari-Makaibari-Singati 33 kV Transmission Line Project
Durbar Marg, Kathmandu
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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

Amendment No. 1

This refers to the Contract Identification No.: Re-NEA/DCSD/PTSD/MMTL/074/75-01 & NEA/DCSD/PTSD/MMSS/074/75-02 "Madankudari-Makaibari-Singati 33 kV Transmission Line Project" published on June 20, 2018 in Gorkhapatra.

The Clause no 4. of the **Invitation for Bids** has been amended as follow:

" Payment of non-refundable fee to purchase the Bidding document is to be made in NEA Account number : **04400105200628 at Everest Bank Limited, Bagbazaar, Kathmandu**, Nepal."

All other terms and conditions of the **Invitation for Bids** shall remain the same.

Nepal Electricity Authority
Distribution and Consumer Services Directorate
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website: www.eproc.nea.org.np

Invitation for Bids
for

Contract Identification Nos: Re- **NEA/DCSD/PTSD/MMTL/074/75-01 & NEA/DCSD/PTSD/MMSS/074/75-02**

First date of publication: June 20, 2018

1. **Nepal Electricity Authority (NEA)** invites sealed Bids or electronic bids from all eligible Nepalese bidders under National Competitive Bidding- Single Stage Two Envelope Bidding Procedures for the following contracts:
   Re-NEA/DCSD/PTSD/MMTL/074/75-01: Supply, Delivery, Installation / Erection, Testing and Commissioning of Majhifeda-Mude 33 kV Transmission Line;
   NEA/DCSD/PTSD/MMSS/074/75-02: Design, Supply, Delivery, Installation / Erection, Testing and Commissioning of 33/11 Kv, 6/8 MVA Substation at Majhifeda, Kavre.
2. Only eligible bidders with the following key qualifications should participate in this bidding:

   For Contract No: Re-NEA/DCSD/PTSD/MMTL/074/75-01

   Minimum Average Annual Turnover over the last consecutive 3 years: **NRs** 46**,000,000.00**

   Minimum Work experience of similar size and nature: **At least 1 Contract within the last 5 years with a value of at least NRs. 44,000,000.00 that have been successfully completed**.

   For Contract No: NEA/DCSD/PTSD/MMSS/074/75-02

   Minimum Average Annual Turnover over the last consecutive 3 years: **NRs** 9**0,000,000.00**

   Minimum Work experience of similar size and nature: **At least 1 Contract within the last 5 years with a value of at least NRs.** 9**0,000,000.00that have been successfully completed**.
3. Under the Single Stage, Two Envelope Procedure, Bidders are required to submit simultaneously two separate sealed envelopes for each contract No., one containing (i) the Technical Bid and the other (ii) the Price Bid, both in turn enclosed in one sealed envelope as per the provision of ITB 21 of the Bidding Document.
4. The Bidding Document, may be purchased by interested eligible Bidders from the first date of publication of bid upon submission of a written application along with the copy of Company/Firm registration certificates, VAT/PAN registration, Tax clearance up to F/Y 073/74 to the address given below accompanied by a non-refundable fee of NRs. 5,000.00 (Nepalese Rupees Five Thousand only) for *Contract No: Re-NEA/DCSD/PTSD/MMTL/074/75-01 and* a non-refundable fee of NRs. 10,000.00 (Nepalese Rupees Ten Thousand only) for *Contract No: NEA/DCSD/PTSD/MMSS/074/75-02* by bank voucher to the NEA Current Account No. 1206101/001-001-524 at Nepal Rastra Bank, Thapathali, Kathmandu, Nepal toward the cost of bidding document. The Bid documents shall be available for sale up to one day before the last date of Bid submission as specified in Clause 5 hereunder. Or,

   For the purpose of the Bidder who chooses to submit their bid electronically through e-procurement section of NEA's website http://www.eproc.nea.org.np the bidder may either purchase the hardcopy of bidding documents or may chose to download the necessary part of the Bidding Documents prepare their bid and submit their electronic bids as specified in the Instruction to the Bidders (ITB)/ Bid data Sheet (BDS).
5. Bids must be delivered to the address given below at or before 12:00 hours (Local Time) on **July20, 2018**. All Bids must be valid for a period of 90 days for *Contract No: Re-NEA/DCSD/PTSD/MMTL/074/75-01*and 120 days for *Contract No: NEA/DCSD/PTSD/MMSS/074/75-02* counting from the day of bid opening accompanied by a Bid Security or scanned copy of the bid security in pdf format in case of e-bid, in the amount of NRs. 11,00000.00 and NRs. 3,200,000.00 respectively for above contracts, in the form of bank guarantee having validity period 30 days beyond the bid validity period. Late Bids shall be rejected. Bids of technical proposal will be opened in the presence of the Bidder's representatives who choose to attend at the address below on **July20, 2018 at 14:00 hours**.
6. 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 day. In such a case the Bid Validity and Bid Security Validity shall be recognized with effect from the original bid submission deadline.
7. NEA reserves the right to accept or reject, wholly or partly any or all the bids without assigning reason, whatsoever.
8. To obtain further information and inspect the bidding documents, bidders should contact:

   Nepal Electricity Authority
   Distribution and Consumer Services Directorate
   Planning and Technical Services Department
   Madankudari-Makaibari-Singati 33 kV Transmission Line Project
   Durbarmarg, Kathmandu
   ***Tel.:* +977-1-4153153/179/187; *Fax.:* +977-1-4153159**

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Durbarmarg, Kathmandu

National Competitive Bidding (NCB)

(Two-Envelope Bidding Procedure)

BIDDING DOCUMENT

Technical Bid

FOR

SUPPLY, DELIVERY, INSTALLATION / ERECTION, TESTING AND COMMISSIONING OF MAJHIFEDA-MUDE 33 KV TRANSMISSION LINE

Invitation for Bids No.: Re-NEA/DCSD/PTSD/ MMTL/074/75-01

NCB No.: Re-NEA/DCSD/PTSD/ MMTL/074/75-01

Employer: Nepal Electricity Authority

June, 2018

Nepal Electricity Authority
Distribution and Consumer Services Directorate
Planning and Technical services Department
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Part - I

BIDDING PROCEDURES

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SECTION - I

Instructions to Bidders

A. General	
1. Scope of Bid	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 **providedin the BDS.**
	1.2 Throughout this Bidding Document: (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	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. Or 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. Or 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.
	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.
3. Fraud and Corruption	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:

(a) the Employer adopts, for the purposes of this provision, the terms as defined below:

(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;

(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;

(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;

(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.

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

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.

(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;

(c) DPwill 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.

(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, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and (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.
	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 : (a) give or propose improper inducement directly or indirectly, (b) distortion or misrepresentation of facts, (c) engaging in corrupt or fraudulent practice or involving in such act, (d) interference in participation of other competing bidders, (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, (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, (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.
	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: (a) if convicted by a court of law in a criminal offence which disqualifies the Bidder from participating in the contract, (b) if it is established that the contract agreement signed by the Bidder was based on false or misrepresentation of Bidder's qualification information, (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. (d) if the Successful Bidder fails to sign the Contract.

	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.
	3.5Furthermore, Bidders shall be aware of the provisions of GCC (GCC 28.3 and 72.3(j).
4. Eligible Bidders	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: (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 (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.
	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.
	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: (a) they have controlling shareholders in common; or (b) they receive or have received any direct or indirect subsidy from any of them; or (c) they have the same legal representative for purposes of this bid; or (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 (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 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 (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 (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.
	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.
	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.
	4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.
	4.7 Firms shall be excluded in any of the cases, if (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; (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; (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.
	4.8 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.
5. Eligible Materials, Equipment and Services	5.1 The materials, equipment and services to be supplied under the Contract shall have their origin in any source countries as defined in 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.
	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.
B. Contents of Bidding Documents	
6. Sections of Bidding Document	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. PART I Bidding Procedures Section I Instructions to Bidders (ITB) Section II Bid Data Sheet (BDS) Section III Evaluation and Qualification Criteria (EQC) Section IV Bidding Forms (BDF) Section V Eligible Countries PART II Requirements Section VI Works Requirements (WRQ) Section VII Bill of Quantities (BOQ) PART III Conditions of Contract and Contract Forms Section VIII General Conditions of Contract (GCC) Section IX Special Conditions of Contract (SCC) Section X Contract Forms (COF)
	6.2 The Invitation for Bids issued by the Employer is not part of the Bidding Document.
	6.3 The Employer is not responsible for the completeness of the Bidding Document and theirAddenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.
	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.
7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting	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 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	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. 11.2 The Technical Bid shall comprise the following: (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 document required in the **BDS**. 11.3 The Price Bid shall comprise the following: (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 theBDS** 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.
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 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.
	19.2 The bid security shall be, at the Bidder's option, in any of the following forms: (a) an unconditional bank guarantee from "A" class commercial bank or; (b) a cash deposit voucher in the Employer's Account as **specified in BDS**. 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.
	19.3 The bid security issued by any foreign Bank outside Nepal must be counter guaranteed by an "A" class commercial Bank in Nepal.
	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.
	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
	19.6 The bid security shall be forfeited if: GoN funded : (a) a Bidder requests for withdrawal or modification of its bid, except as provided in ITB 18.2: (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: (i) furnish a performance security in accordance with ITB 40.1; (ii) sign the Contract in accordance with ITB 41.1; or (iii) accept the correction of arithmetical errors pursuant to clause 33.1 DP funded: The bid security shall be forfeited (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 (b) if the successful Bidder fails to (i) furnish a performance security in accordance with ITB 40.1; or (ii) sign the Contract in accordance with ITB 41.1; (iii) accept arithmetical corrections in accordance with ITB 33.1;
	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.
20. Format and Signing of Bid	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. 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).
	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.

	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.
D. Submission and Opening of Bids	
21. Sealing and Marking of Bids	21.1 Bidders may always submit their bids by mail or by hand or by courier. When so **specified in the BDS**, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows: (a) Bidders submitting bids by mail, by hand or by courier 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	Mandatory	PDF
4.	VAT registration	Mandatory for domestic bidders	PDF
5.	Business Registration Certificate	Mandatory	PDF
6.	Tax clearances certificate or evidence of tax return submission	Mandatory for domestic bidders	PDF
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: The documents specified as "Mandatory" should be included in e-submission and non-submission of the documents shall be considered as non-responsive bid. .

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. 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. 21.2. The inner and outer envelopes shall: (aa) bear the name and address of the Bidder; (bb) be addressed to the Employer as provided in BDS 22.1; (cc) bear the specific identification of this bidding process indicated in BDS 1.1; and 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. 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 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.
22. Deadline for Submission of Bids	22.1 Bids must be received by the Employer at the address and no later than the date and time indicated **in the BDS**. 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.
	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.
23. Late Bids	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.
24. Withdrawal, and Modification of Bids	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: (i) Bids submitted in Hard Copy GoN Funded: 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 writtennotice. All notices must be: (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 (bb) received by the Employer twenty four hour prior to the deadline prescribed for submission of bids, in accordance with ITB 22. DP Funded: 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 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. ii) E-submitted bids. 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.
	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.
	24.3 The following provisions apply for withdrawal or modification of the Bids: GoN Funded: (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. DP Funded: 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.
	24.4 Bidder may submit request for withdrawal or modification only one time except electronically submitted bid.
	24.5 In case of hard copy bid, no bid may be withdrawn if the bid has already been modified.
	24.6 Request for withdrawal or modification must be made through the same 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.
	25.6The 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: (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: (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. (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 ITB11.2.
	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, (a) if accepted, would: (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or (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 (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.
	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.
	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.
	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.
31. Nonconformities Errors, and Omissions	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.
	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.
	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 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 Biddersmeet 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	33.1 During the evaluation of Price Bids, the Employer shall correct arithmetical errors on the following basis: (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. 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. 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. Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as **specified in the BDS.**
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.
	35.2 To evaluate a Price Bid, the Employer shall consider the following: (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 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.
	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.
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.
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 accordance with the Conditions of Contract, subject to ITB 35.5, as specified below from A class Commercial Bank 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 an "A" class commercial Bank in Nepal. 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. 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: **Performance Security Amount = [(0.85 x Cost Estimate –Bid Price) x 0.5] + 5% of Bid Price.** The Bid Price and Cost Estimate shall be inclusive of Value Added Tax.
	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.
41 Signing of Contract	41.1 The Employer and the successful Bidder shall sign the Contract Agreement within the period as stated ITB 40.1.
	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 Development Committee, District Administration 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
	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.
	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.
42. Complaint and Review	42.1 If a Bidder is dissatisfied with the Procurement proceedings or thedecision 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 is 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 "A" class commercial bank equivalent to zero point one five percent (0.15%) 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 - I

Instructions to Bidders

A. General	
1. Scope of Bid	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 **providedin the BDS.**
	1.2 Throughout this Bidding Document: (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	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. Or 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. Or 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.
	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.
3. Fraud and Corruption	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:

(a) the Employer adopts, for the purposes of this provision, the terms as defined below:

(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;

(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;

(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;

(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.

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

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.

(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;

(c) DPwill 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.

(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, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and (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.
	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 : (a) give or propose improper inducement directly or indirectly, (b) distortion or misrepresentation of facts, (c) engaging in corrupt or fraudulent practice or involving in such act, (d) interference in participation of other competing bidders, (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, (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, (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.
	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: (a) if convicted by a court of law in a criminal offence which disqualifies the Bidder from participating in the contract, (b) if it is established that the contract agreement signed by the Bidder was based on false or misrepresentation of Bidder's qualification information, (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. (d) if the Successful Bidder fails to sign the Contract.

	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.
	3.5Furthermore, Bidders shall be aware of the provisions of GCC (GCC 28.3 and 72.3(j).
4. Eligible Bidders	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: (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 (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.
	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.
	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: (a) they have controlling shareholders in common; or (b) they receive or have received any direct or indirect subsidy from any of them; or (c) they have the same legal representative for purposes of this bid; or (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 (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 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 (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 (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.
	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.
	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.
	4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.
	4.7 Firms shall be excluded in any of the cases, if (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; (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; (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.
	4.8 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.
5. Eligible Materials, Equipment and Services	5.1 The materials, equipment and services to be supplied under the Contract shall have their origin in any source countries as defined in 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.
	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.
B. Contents of Bidding Documents	
6. Sections of Bidding Document	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. PART I Bidding Procedures Section I Instructions to Bidders (ITB) Section II Bid Data Sheet (BDS) Section III Evaluation and Qualification Criteria (EQC) Section IV Bidding Forms (BDF) Section V Eligible Countries PART II Requirements Section VI Works Requirements (WRQ) Section VII Bill of Quantities (BOQ) PART III Conditions of Contract and Contract Forms Section VIII General Conditions of Contract (GCC) Section IX Special Conditions of Contract (SCC) Section X Contract Forms (COF)
	6.2 The Invitation for Bids issued by the Employer is not part of the Bidding Document.
	6.3 The Employer is not responsible for the completeness of the Bidding Document and theirAddenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.
	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.
7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting	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 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	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. 11.2 The Technical Bid shall comprise the following: (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 document required in the **BDS**. 11.3 The Price Bid shall comprise the following: (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 theBDS** 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.
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 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.
	19.2 The bid security shall be, at the Bidder's option, in any of the following forms: (a) an unconditional bank guarantee from "A" class commercial bank or; (b) a cash deposit voucher in the Employer's Account as **specified in BDS**. 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.
	19.3 The bid security issued by any foreign Bank outside Nepal must be counter guaranteed by an "A" class commercial Bank in Nepal.
	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.
	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
	19.6 The bid security shall be forfeited if: GoN funded : (a) a Bidder requests for withdrawal or modification of its bid, except as provided in ITB 18.2: (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: (i) furnish a performance security in accordance with ITB 40.1; (ii) sign the Contract in accordance with ITB 41.1; or (iii) accept the correction of arithmetical errors pursuant to clause 33.1 DP funded: The bid security shall be forfeited (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 (b) if the successful Bidder fails to (i) furnish a performance security in accordance with ITB 40.1; or (ii) sign the Contract in accordance with ITB 41.1; (iii) accept arithmetical corrections in accordance with ITB 33.1;
	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.
20. Format and Signing of Bid	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. 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).
	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.

	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.
D. Submission and Opening of Bids	
21. Sealing and Marking of Bids	21.1 Bidders may always submit their bids by mail or by hand or by courier. When so **specified in the BDS**, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows: (a) Bidders submitting bids by mail, by hand or by courier 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	Mandatory	PDF
4.	VAT registration	Mandatory for domestic bidders	PDF
5.	Business Registration Certificate	Mandatory	PDF
6.	Tax clearances certificate or evidence of tax return submission	Mandatory for domestic bidders	PDF
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: The documents specified as "Mandatory" should be included in e-submission and non-submission of the documents shall be considered as non-responsive bid. .

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. 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. 21.2. The inner and outer envelopes shall: (aa) bear the name and address of the Bidder; (bb) be addressed to the Employer as provided in BDS 22.1; (cc) bear the specific identification of this bidding process indicated in BDS 1.1; and 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. 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 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.
22. Deadline for Submission of Bids	22.1 Bids must be received by the Employer at the address and no later than the date and time indicated **in the BDS**. 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.
	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.
23. Late Bids	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.
24. Withdrawal, and Modification of Bids	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: (i) Bids submitted in Hard Copy GoN Funded: 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 writtennotice. All notices must be: (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 (bb) received by the Employer twenty four hour prior to the deadline prescribed for submission of bids, in accordance with ITB 22. DP Funded: 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 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. ii) E-submitted bids. 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.
	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.
	24.3 The following provisions apply for withdrawal or modification of the Bids: GoN Funded: (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. DP Funded: 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.
	24.4 Bidder may submit request for withdrawal or modification only one time except electronically submitted bid.
	24.5 In case of hard copy bid, no bid may be withdrawn if the bid has already been modified.
	24.6 Request for withdrawal or modification must be made through the same 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.
	25.6The 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: (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: (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. (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 ITB11.2.
	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, (a) if accepted, would: (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or (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 (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.
	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.
	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.
	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.
31. Nonconformities Errors, and Omissions	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.
	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.
	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 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 Biddersmeet 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	33.1 During the evaluation of Price Bids, the Employer shall correct arithmetical errors on the following basis: (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. 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. 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. Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as **specified in the BDS.**
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.
	35.2 To evaluate a Price Bid, the Employer shall consider the following: (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 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.
	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.
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.
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 accordance with the Conditions of Contract, subject to ITB 35.5, as specified below from A class Commercial Bank 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 an "A" class commercial Bank in Nepal. 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. 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: **Performance Security Amount = [(0.85 x Cost Estimate –Bid Price) x 0.5] + 5% of Bid Price.** The Bid Price and Cost Estimate shall be inclusive of Value Added Tax.
	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.
41 Signing of Contract	41.1 The Employer and the successful Bidder shall sign the Contract Agreement within the period as stated ITB 40.1.
	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 Development Committee, District Administration 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
	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.
	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.
42. Complaint and Review	42.1 If a Bidder is dissatisfied with the Procurement proceedings or thedecision 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 is 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 "A" class commercial bank equivalent to zero point one five percent (0.15%) 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.

SECTION - II
Bid Data Sheet

Bid Data Sheet

A. General II-2

B. Bidding Document II-2

C. Preparation of Bids II-2

D. Submission and Opening of Bids II-3

E. Evaluation and Comparison of Bids II-10

A. General	
ITB 1.1	The number of the Invitation for Bids is: *Re-**NEA/DCSD/PTSD/MMTL/074/75-01***
ITB 1.1	The Employer is***:*** **Nepal Electricity Authority**
ITB 1.1	The number and identification of lots comprising this bidding process is: *Re-**NEA/DCSD/PTSD/MMTL/074/75-01***
ITB 2.1	The name of the Project is *Madankudari-Makaibari-Singati 33 kV Transmission Line Project* The DP is**None** The implementing agency is **Nepal Electricity Authority** GoN Funded or DP Funded: **GoN Funded**
ITB 4.1 (a)	For GoN Funded: Maximum number of partner in a joint venture shall be : **3 (three)**
B. Bidding Document	
ITB 7.1	For clarification purposes only, the Employer's address is: Attention: Er. Nand Kishor Mandal Address: *Madankudari-Makaibari-Singati 33 kV Transmission Line Project* **,** **Planning and Technical Services Department,** **Distribution and Consumer Services Directorate, Nepal Electricity Authority,** **Durbar Marg, Kathmandu** Telephone: **01-4153187/179/180** Facsimile number: **01-4153159** Electronic mail address: **neatscd@gmail.com**
ITB 7.4	A Pre-Bid meeting **Shall not** be held. A site visit **Shall not be** organized by the Employer. However, it is advised to visit the site before bidding.
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 / Nepali**
ITB 11.2 (h)	The Bidder shall submit with its Technical Bid the following additional documents: As specified in Evaluation & Qualification Criteria
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: N/A

11.3 (d)	The Bidder shall submit with its Price Bid the following additional documents: ***N/A***
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)** *If alternative technical solutions are permitted, the evaluation method will be as specified in Section III (Evaluation and Qualification Criteria).*
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 "A" class commercial bank with a minimum of **NRs. 11, 00,000.00** which shall be valid for 30 days beyond the validity period of the bid.
ITB 20.1	In addition to the original of the bid, the number of copy/ies is/are: 1**(One)**
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall indicate: (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 (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.
D. Submission and Opening of Bids	
ITB 21.1	Bidders**Shall have** the option of submitting their bids electronically.
ITB 21.1 (b)	Replace the Sub-clause by following **Bid submission procedures through electronically (e-submission) only:** **<u>Bid preparation</u>** A Bidder who wish to submit the bid electronically may purchase the Bid Document directly from the Employer office or may download the bid document from the website and deposit the equivalent amount in the Revenue account of the employer as specified in the notice or/and Bid Document. **<u>Description of bid submission procedure through electronically (e-submission) only:</u>** Interested eligible bidders shall,either purchase the Bid Document directly from the Employer office or may download the bid document from the website and deposit the equivalent amount in the Revenue account of the employer as specified in the notice or/ and Bid Document.

i. The Bidder shall fill the following documents and forms (in hard copy of issued bid documents), signed by the authorized representative with seal of the company.

a) Bill of Quantity (BOQ) with rate, amount,

b) Forms of Bid, Qualification Information

ii. The Bidder shall then scan the completed original documents, forms in PDF files with appropriate filename shown in the table below.

Technical Bid

S. No.	Document	PDF File name	Mandatory	Remarks
1	Letter of Technical Bid	Letter Techbid -1	1	Technical Documents
2	Bid Security (Bank Guarantee)	Bid security-2	1	Technical Documents
3	Company registration	Company reg-3	1	Technical Documents
4	VAT registration	VAT reg-4	1	Technical Documents, Mandatory for National Firms
5	Tax clearances certificate or evidence of TAX return submission	Tax-5	1	Technical Documents, Mandatory for National Fi
6	Power of Attorney of Bid signatory	Power of att-6	1	Technical Documents
7	Business registration(License) certificate	Licence-7	1	Technical Documents
8	Bank Voucher for cost of Bid document	Voucher-8	1	Technical Documents
9	Joint venture agreement	JV doc-9	1	Technical Documents, Mandatory in case of JV bids only
10	Qualification Information	Qualifications -10	1	Technical Documents

11	Manufacturers Authorization	Authorization -11	Not Mandatory	Technical Documents
12	Technical Data Sheet	TDS-12	Not Mandatory	Technical Documents
13	Technical Data Sheet for Power Transformer	TDS-13	1	Technical Documents
14	Certification Documents	Certifications -14	Not Mandatory	Technical Documents
15	Declaration Form	Declaration-15	1	Technical Documents

Price Bid;

S. No.	Document	PDF File name	Mandatory	Remarks
1	Letter of Price Bid	Letter Pricebid -1	1	Financial Documents
2	Applicable Price Adjustment Table	Priceadjust-2	N/A	Financial Documents
3	Completed BOQ or Price Schedule	BOQ-3	1	Financial Documents

Note: **Mandatory***means the mentioned files shall be included in e-submission and non-submission of such file shall be considered as non-responsive bid.*

iii. **For e-submission** purpose the Bidder shall, at first, register in the e-procurement section NEA's web site http://www.eproc.nea.org.np

iv. After preparing all the required bidding documents in PDF, scan the files as specified in (ii) and (iii), the Bidder shall upload the PDF bid files and submit the complete bid online through e-procurement section of NEA's website http://www.eproc.nea.org.np within the specified date and time.

The Employers address for the purpose of e-submission of bid;
The Employers address for the purpose of electronic Bid submission is e-procurement section of http://www.eproc.nea.org.np .

In case of e-submission of bid, the bidder shall submit his bid electronically in PDF files in the manner as specified above and additional submission of hard copy of "Original plus one copy of bid" is not mandatory.

In case both the electronic bid and original bid in hard copy are submitted to the Employer within the specified time period, the Bidder's electronic bid and original bid in hard copy will be accepted for evaluation provided the Bid price in Bill of Quantity Sheet is same. If there is any discrepancy in Bid price in Bill of Quantity between the electronic and original bid in hard copy it will be treated as two separate bids from one Bidder and hence, both the electronic bid

	and original bid in hard copy shall be disqualified, as per ITB Clause. However, for electronically submitted bid in PDF files, the bidder shall be required to submit documents/clarifications as specified in ITB Clause. **The deadline for e-submission of bids shall be;** i) Bidders shall be also explained about the details of e-submission procedures in the pre-bid meeting. ii) The e-procurement system will accept the e-submission of bid during office hours from the date after publishing the notice and will automatically not allow the e-submission of bid after the deadline for submission of bid, as specified above. iii) The standard time for e-submission is Nepalese standard time as set out in the server of Department of Roads. iv) In case of e-submission of bid, the Bidder shall submit his bid electronically in PDF files in the manner as specified in ITB Clause only, and submission of "original plus one copy" shall not be required before deadline for submission time as per ITB Clause. **Provision for Substitution or Modification or Withdrawal of Bid** When a bidder submits his bid in hard copy the e-procurement section does not allow the Bidder to submit his Substitution, or Modification, or Withdrawal through e-procurement section of NEA's Web site. **In case of e-submitted bid;** i) Bidders may submit his Substitution or Modification or Withdrawal either in hard copy or through e-submission. ii) For Substitution of Bid the Bidder shall follow similar steps as specified in ITB Clause with a Substitution letter in PDF file. iii) For Modification or Withdrawal of bid the Bidder is required to submit PDF scan copy of their Modification or Withdrawal letter and a written Power of Attorney of the signatory for Modification/ Withdrawal, duly signed by Authorized Representative/s of the Firm / all authorized Joint Venture partners. **Bid opening for e-submitted bid;** i) Electronically submitted bid shall be opened first at the same time and date as specified in the ITB and IFB notice. ii) The e-procurement system allows the Employer to download and open the e-submitted bid files from bidders only after the time for opening the bids. iii) The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying the ITB Clauses) shall be considered incomplete and rejected for further bid evaluation. iv) After opening of e-submitted bids files, all files shall be printed and recorded at the time of bid opening. In case of ”WITHDRAWAL" or "MODIFICATION" or "SUBSTITUTION" by the Bidder through e-submission, the e-submitted PDF files under "WITHDRAWAL" or "MODIFICATION" or "SUBSTITUTION" shall be opened and read out first. Bids for

which acceptable notice of "WITHDRAWAL" or "SUBSTITUTION" has been submitted pursuant to ITB Clause shall not be opened.

Clarification of Bid

In case of e-submission of bid, the Bidder shall be required to submit the original completed Bid consisting of Forms of Bid, Qualification Information, Special Conditions of Contract, Bill of Quantities, Supplementary Information and other clarifications for verification purpose upon notification to do so from the Employer.

Examination of e-submitted Bids and Determination of Responsiveness

For a e-submitted bid to be substantially responsive the requirement as specified in the ITB Clauses shall be fulfilled.

Evaluation and Comparison of e-submitted Bids

1. In case of e-submitted bids, the Employer evaluates the bid based on the information as per electronically submitted bid files. For clarification/ verification purpose, the Employer may request the Bidder to submit documents/ clarifications as specified in ITB Clause.
2. In case, the Bidder could not substantiate or provide evidence to prove the information provided in e-submitted bid through documents/ clarifications as per ITB Clause, the bid shall not be considered for further evaluation and respective ITB Clause for forfeiture of bid security shall be applicable.

Steps to be followed by a Bidder to submit the electronic bid submission

1. Prepare the paper bid document

- Either purchase the Bid Document directly from the Employer office or may download the bid document from the website and deposit the equivalent amount in the Revenue account of the employer as specified in the notice or/and Bid Document.
- Fill the rates and amount in BOQ,
- Fill the Bid Form,
- Prepare the necessary copy of Company registration, VAT/PAN registration , Tax clearance certificate,
- Prepare the necessary specific papers like Power of Attorney for bid signatory, Joint Venture agreement, if bidding in JV,
- Prepare summary of qualification information sheet (Financial turnover, Experience, Manpower, Equipment, Credit line, Litigation etc) in the specified format,
- Prepare the bid guarantee letter for the specified bid security amount and in the specified format,

2. Prepare the Electronic bid files in pdf format

- Once prepared the above paper documents the bidder shall prepare the electronic bid files in pdf format as follows;
- Scan the above documents in pdf format, give the specific file name for each document,
- Prepare all scanned bid files in pdf format and save them in a separate folder in own computer to ease bid uploading process,

	3. Electronic bid submission • Once the electronic bid files are ready the Bidder shall connect to internet, • Open the NEAs website http://www.eproc.nea.org.np and open E-procurement section, • Register in the Bidders name and get User name and Password for Login, • Confirm the registration by clicking the specified link in auto generated e-mail from NEAs web site, • After confirmation for bidders registration click Bidder, fill User name, Password and Login, • Choose and click the specific tender notice for which the electronic bid files has been prepared, • Click the Bid now button to submit the electronic bid files, • Upload each specified electronic bid files by clicking the Upload button and select the respective bid files by Browsing, • Once all the electronic bid files are uploaded, click the Submit the Bid button for final e-submission of electronic Bid, • Once the e-submission is successfully completed the Bidder shall receive a auto generated confirmation e-mail from the NEAs website, • Bidder to keep the conventional paper bid document , qualification information, and other related documents safe as the Buyer may seek the supporting bid documents and clarifications, as necessary during bid evaluation process. • The Bidder shall submit the necessary supporting documents and clarifications (conventional bid document)
ITB 22.1	For **bid submission purposes**only, the Employer's address is: Attention: **Madankudari-Makaibari-Singati 33 kV Transmission Line Project ,** **Planning and Technical Services Department, NEA** Street Address: **Durbar Marg** City: **Kathmandu** Country: **Nepal** The deadline for bid submission is: Date: **July 20, 2018** Time:**12:00**
ITB 24.1 (i) (bb)	Replace Sub clause 24.1 (i) (bb) by following (bb) received by the Employer 24 hrs prior to the deadline prescribed for submission of bids, in accordance with ITB 22 except for E-submitted bids.
ITB 24.1 (ii)	Replace Sub clause 24.1 (ii) by following **Requirements and Conditions for e-submission of bid:** i. The Bidder shall submit his bid electronically in PDF files in the manner as specified above, and additional submission of hard copy of "original plus one copy of bid" is not mandatory. ii. In case, if both the electronic bid and original bid in hard copy are submitted to the

	Employer within the bid submission deadline, the Bidder's electronic bid and original bid in hard copy will be accepted for evaluation provided the facts and figures in hard copy confirm to the PDF files in electronic bid. If there is any discrepancy in fact and figures between the electronic bid and original bid in hard copy, it will be treated as two separate bids from one Bidder and hence, both the electronic bid and original bid in hard copy shall be disqualified. iii. However, for electronically submitted bid in PDF files, the Bidder shall be required to submit documents/clarifications for verification purpose upon notification to do so from the Employer within 3 days. iv. The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying with the ITB Clauses) shall be considered incomplete and rejected for further bid evaluation. v. In addition to electronically submitted PDF files, the Bidder shall be required to submit documents and clarifications as required by the Employer. Non-submission of such documents and or clarifications by the Bidder within specified time may cause forfeiture of Bid Security. vi. In case of major discrepancy found between electronically submitted PDF bid files and documents/ clarifications provided by the Bidder, the bid shall not be considered for further evaluation. vii. The Bidder shall attach the Bid Security Guarantee in the format attached in the Bid Document. The Bid Security may be forfeited a. if the Bidder does not respond to and/or submit the documents and or clarifications when requested by the Employer. b. if major discrepancy is found between e-submitted bid information and documents/clarifications provided by the Bidder during verification process as requested by the Employer.
ITB 25.1	The bid opening shall take place at : **Madankudari-Makaibari-Singati 33 kV Transmission Line Project ,** **Planning and Technical Services Department,** **Distribution and Consumer Services Directorate,** **Nepal Electricity Authority** Address : **Durbar Marg, Kathmandu, Nepal** Date: **July 20, 2018** Time:**14:00**
ITB 25.2	**Bid Opening process for e-submitted bid** i. Electronically submitted bid shall be opened first at the Bid opening time. ii. The e-procurement system allows the Employer to download and open the e-submitted bid files from the bidders only after the time for opening the bids. iii. The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying with the ITB Clauses) shall be

	considered incomplete and rejected for further bid evaluation. iv. After opening of e-submitted bids files, all files shall be printed and recorded at the time of bid opening. In case of "WITHDRAWAL" or "MODIFICATION" or "SUBSTITUTION" by the Bidder through e-submission, the e-submitted PDF files under "WITDRAWAL" or "MODIFICATION" or "SUBSTITUTION" shall be opened and read out first. Bids for which acceptable notice of "WITDRAWAL" or "SUBSTITUTION" has been submitted pursuant to ITB Clause shall not be opened.

E. Evaluation and Comparison of Bids

ITB 27.1	**Bid Evaluation and Comparison process for e-submitted bid** i. In case of e-submitted bids, the Employer evaluates the bid based on the information as per electronically submitted bid files. For clarification/ verification purpose, the Employer may request the Bidder to submit documents/ clarifications. ii. In case, the Bidder could not substantiate or provide evidence to prove the information provided in e-submitted bid through documents/clarifications, the bid shall not be considered for further evaluation and respective ITB Clause for forfeiture of bid security shall be applicable. iii. The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files (not complying with the ITB Clauses) shall be considered incomplete and rejected for further bid evaluation. **A) Qualification Information** In case of e-Bidding, the Bidder is required to submit the documents to prove minimum qualification requirements only and not the detail documents. **B) Bid Security Format** Form of Bid security shall include the provision as 'This Bank Guarantee shall not be withdrawn or released merely upon return of the original Guarantee by the Bidder unless notified by the Employer for the release of the Guarantee'.
ITB 34.1	N/A
ITB 35.5	The amount of the performance security be increased by **Eight (8)** percent of the quoted bid price.
ITB 39.1	The Standard Form of Performance Security acceptable to the Employer shall be a Bank guarantee using the form **provided in Section IX**. The Performance Security shall be valid until a date 30 days from the date of issue of the Defect Liability Certificate.

SECTION – III

Evaluation and Qualification Criteria

Evaluation and Qualification Criteria

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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:

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

Pursuant to Sub-Clause 35.4 of the Instructions to Bidders, if Works are grouped in multiple contracts, evaluation will be as follows:

Works are grouped in multiple contracts and pursuant to Sub-Clause 35.4 of the Instructions to Bidders, the Employer will evaluate and compare Bids on the basis of a contract, or a combination of contracts, or as a total of contracts in order to arrive at the least cost combination for the Employer by taking into account discounts offered by Bidders in case of award of multiple contracts.

If a bidder submits several successful (lowest evaluated substantially responsive) bids, the evaluation will also include an assessment of the Bidder's capacity to meet the aggregated requirements regarding:

a. Specific Construction Experience
b. Average Annual Construction Turnover
c. Financial Resources, Equipment to be allocated, and
d. Personnel to be fielded.

1.3 Completion Time

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

1.4 Alternative Technical Solutions

Alternative technical solutions, if permitted under ITB 13.4, will be evaluated as follows:
N/A

1.5 Quantifiable Nonconformities and Omissions

The evaluated amount of quantifiable nonconformities, errors and/or omissions shall be determined by ascertaining the price of such effect on an equal basis by adjusting the same to the quoted price of the bid. A bid having minor deviations and having no material deviation to cause any serious effect upon the scope, quality, characteristics, terms and conditions, performance or any other requirements stated in the bidding documents and acceptable to the Employer can be considered to be substantially responsive.

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 ***(only for domestic bidders)***	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 : 2073/074 ***(Only for domestic bidders)***	must meet requirement	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 **60 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 **Three** consecutive 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** 4**,60,00,000.00** calculated as total certified payments received for construction contracts in progress or completed, within best three years out of last ten years.	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN -2

2.3.3 Financial Resources					
Using Forms FIN - 3 and FIN - 4 in Section IV (Bidding Forms) the Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet its current Contract Commitments, plus: ❑ The following cash-flow requirement **NRs. 1,00,00,000.00**	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 3 and Form FIN - 4

2.4 Experience

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 1 (One) contract within the last Five(5) years, with a value of at least **NRs.4,40,00000.00** that have been successfully completed and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, methods, technology or other characteristics as described in Section VI, Works Requirements. Only the net amount worked out after deducting the amount for VAT shall be computed and such amount shall be adjusted to the present value by applying wholesale price index of Nepal Rastra Bank.	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 :	must meet all requirements	must meet all requirements	not applicable	not applicable	Form EXP - 2(b)
Must have executed construction, Installation and commissioning of at least one contract of similar size and nature or number of contract of similar nature whose aggregate size is not less than the size of this bid.					
For the major items like Poles, ACSR Conductor, Insulators &					

Hardware of supply or services must meet the following minimum criteria, listed herein. (a) In case the Bidder is not a manufacturer of the Goods offered, the Bidder shall submit manufacturer's certificate authorizing the Bidder to supply the manufacturer's Goods. This certificate shall bear details of the Goods that the manufacturer will be supplying under the authorization. The authorization shall be on the manufacturer's original letterhead with seal/stamp of the manufacturer. (b) The manufacturer of Goods to be supplied under this Bid shall hold valid ISO certificates as required by the specifications and a copy of ISO certificate shall be included in the Bid. © Type test certificate, if applicable, shall be included in the Bid and shall bear a date that is not earlier than five years from the date of Bid submission, unless otherwise stated in the Technical Specifications. The type test certificate shall have been issued by a reputed independent laboratory accredited by International Laboratory Accreditation Corporation (ILAC) or International Accreditation Forum (IAF) or other reputed accreditation agencies. In case of the Type test					

certificate is not as per the requirement, the bidder shall, upon award of the contract, undertake to carry out the required Type test from an independent laboratory qualified as above or in a laboratory owned or nominated by the Clients/Employer before delivery of the corresponding equipment at no extra cost to the Client/Employer. (d) The bidder shall submit at least two numbers of end user certificates showing that the Bidder or manufacturer has successfully completed the supply of major items at least twice the bid quantity of offered items as a main supplier over last five (5) years period ending on the last date of bid submission. Out of supplied quantity, a minimum of half the bid quantity for each item offered shall have been in operation satisfactorily to the end user for at least One (1) year. The end user certificates shall be on the letterhead of the end user with valid address for correspondence and signed by or on behalf of the end user. (e) The manufacturer shall be a legally registered for at least Five (5) years for conducting business similar to the one of which the bid is invited. A notarized copy of Legal registration certificate shall be submitted along with the Bid.					

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 Manager	1	Minimum Bachelor Degree	5	3
2.	Project Engineer	1	Engineer	5	2

2.6 Equipment

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

No.	Equipment Type and Characteristics	Min. Number Requirement
1.		
2.		
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)

SECTION - IV

Bidding Forms

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

Bidding Forms

Letter of Technical Bid IV-2
Letter of Price Bid IV-4
Table of Price Adjustment Data as per **GCC 53.1** IV-6
Table of Price Adjustment Data as per **GCC 53.6** IV-6
Bid Security IV-7
Technical Proposal Format IV-8
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Form PER-2: Resume of Proposed Personnel IV-10
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Bidder's Information and Qualification Format IV-13
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Form ELI - 1: Bidder's Information Sheet IV-14
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Form FIN - 3: Financial Resources IV-19
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Form EXP - 1: General Construction Experience IV-21
Form EXP - 2(a): Specific Construction Experience IV-22
Form EXP - 2(b): Specific Construction Experience in Key Activities IV-23

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.: .....

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 of ***[insert validity period as specified in ITB 18.1 of the BDS]*** 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.

(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.

(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

Please Include in 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.: .....

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[1].

(d) The discounts offered and the methodology for their application are:……..

(e) Our bid shall be valid for a period of ***[insert validity period as specified in ITB 18.1]*** 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:[2]

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

[1] Absence of the total price in the Letter of Price Bid or in the Bill of Quantities shall result in rejection of the Bid.

[2] If none has been paid or is to be paid, indicate "None".

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

(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 (N/A)

[To be used if Price Adjustment is applicable as per GCC 53.1]

Code	Index Description	Source of Index*	Base Value and Date	Employer's Proposed Weighting Range (coefficient)	Bidder's Proposed Weighting (coefficient)**
1	2	3	4	5	6
	Non - Adjustable (A)			0.15	0.15
	Labor (b)				
	Materials (c)				
	Equipment usage (d)				
		Total			1.00

Table of Price Adjustment Data (N/A)

[To be used if Price Adjustment is applicable as per GCC 53.6]

Code	Construction Material*	Unit	Base Price (NRs/Unit) (Ex-factory)	Source (Factory)**
1	**2**	**3**	**4**	**5**

Bid Security

Bank Guarantee

Bank's Name, and Address of Issuing Branch or Office
(On Letter head of the 'A' class Commercial Bank)

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 letter 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).

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***

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 ☐ Owned ☐ Rented ☐ Leased ☐ 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.

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.	
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.	
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			
🗀 No pending litigation in accordance with Criteria 2.2 of Section III (Evaluation and Qualification Criteria) 🗀 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.

Annual Turnover Data for the Last Three Years	
Year	Amount Currency
2071/072	
2072/072	
2073/074	

- **Average Annual Construction Turnover** | |

Form FIN - 3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, 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 unconditional.

Form FIN- 4: 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									
No.	**Name of Contract**	**Name of the Contractor/s**	**Employer's Contact Address, Tel, Fax**	**Contract Amount**	**Contract Date**	**Contract Duration**	**Value of outstanding works [NRS]**	**Estimated Completion Date**	**Average Monthly Invoicing [NRS/month]**
1									
2									
3									
4									
5									
6									

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	☐ **Contractor**	☐ **Management Contractor**	☐ **Subcontractor**
Total Contract Amount	☐ **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 : ***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.***			

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	🗀 **Contractor**	🗀 **Management Contractor**	🗀 **Subcontractor**
Total Contract Amount	🗀 **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 : *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.*			

SECTION - V

Eligible Countries

For GoN funded:

For the purpose of ITB 4.2: "**Nepal"**;

NEPAL ELECTRICITY AUTHORITY

(An Undertaking of Government of Nepal)

Distribution and Consumer Services Directorate

Planning and Technical Services Department

Madankudari-Makaibari-Singati 33 kV Transmission Line Project

Durbarmarg, Kathmandu

National Competitive Bidding (NCB)

(Two Envelope Bidding Procedure)

Tender No: Re-NEA/DCSD/PTSD/MMTL/074/75-01

BIDDING DOCUMENTS

FOR

SUPPLY, DELIVERY, INSTALLATION / ERECTION, TESTING AND COMMISSIONING

OF MAJHIFEDA-MUDE 33 KV TRANSMISSION LINE

Technical Bid

Works Requirement, Technical Specifications, Technical Data Sheet & Drawings

June, 2018

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Part - II

REQUIREMENTS

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SECTION - VI

Works Requirements

This Section contains the Scope of works, Technical Specification, Technical Data Sheets, Inspection, Testing & Commissioning and other information that describe the Works to be procured.

Scope of Work

1. Description of the Work/Project:

1.1 General:

The main components of the *Madankudari-Makaibari-Singati 33 kV Transmission Line Project* include: "Design, Supply, Delivery, Installation/Erection, Testing and Commissioning of Majhifeda-Mude 33 kV Transmission Line" on turnkey basis. The scope of supply of material and related services under this Project, but not limited to, are given below:

1.2 The scope of works includes Construction of new 33 kV Line from *Majhifeda, Chauri Deurali VDC of Kavre District to Mude of Sindhupalchok District.* The Contractor shall carry out pre construction survey, prepare list of line materials & equipment required, supply and delivery of all the required line materials and construct the new 33 kV using 150 sq.mm ACSR "WOLF" Conductor. After construction of line, the contractor shall perform testing, commissioning, Charging and handover to NEA Distribution Center with complete as built drawing/report.

1.3 If any discrepancies in the specifications and drawing found, it shall be discussed and rectified before or at the time of final approval of drawings.

1.4 The bidders are requested to visit the site(s) at its own to get the general idea about 33 kV Transmission System network location and quote the price accordingly.

1.5 The Contractor shall have adequate manpower to execute the works at site(s) to complete the work within the scheduled time.

1.7 Equipment and Materials:

The Contractor to his designated store area shall deliver all equipment and materials. Such materials shall be delivered, unloaded and placed in stores in an acceptable manner and approved by the Employer or his authorized representative.

1.8 Erection:

When construction of 33kV line has been completed and accepted by the Employer, the Contractor will make an inventory list (SDS) of the assemblies erected, and submit it to the Employer for approval and final payment.

Before the Taking-Over of the works, the Contractor shall clean up all areas in which he has worked, place all unused materials in the designated stores and settle any claims, which may have resulted from his work and occupancy of the area. He shall then remove all equipments, vehicles, manpower and facilities, which, he has brought in except those which may be specifically exempt by the Employer.

1.9 Testing & Commissioning

Testing and Commissioning of the Complete of whole work as per the Specification should be performed to the satisfaction of the Owner.

1.10 Variation in Quantities of Work:

The Quantities listed in the Schedule of Rates and Prices represent the estimated quantities for tender purpose only. The Contractor shall carryout pre-construction survey (PCS) and detail

design including Geographical Mapping, Drawing, Staking Preparation of Structure Data Sheet, Single Line Diagram and must submit final bill of quantity. The actually required quantity may vary from the quantity as listed in Schedules of Rates and Prices. The Contractor agrees to make no claim for anticipated profits or for alleged losses because of any difference between the quantities actually furnished and installed and the estimated quantities as indicated in these Bidding Documents.

All Construction materials required to carry out these works shall be provided by the Contractor.

All works described herein and other works necessary to complete the job for proper coordination and operation, even if not stated, shall be within the scope of the Contractor's work and the cost of such works shall be considered to be included in the bid price.

The Contractor shall have adequate manpower to execute the works at the main site to complete the work within the scheduled time.

1.11 Specific construction materials selected for the Project Works:

1.11.1 Steel Telescopic Tubular Poles (STTP 11 m) have been selected to use as pole structures.

1.11.2 Aluminum Conductor Steel Reinforced (ACSR) conductor of 150 sq.mm (WOLF) shall be used for 33 kV Line construction.

1.11.3 The 33 KV Line materials such as Disc Insulator, Pin Insulator, conductor Hardware and fittings, Insulators Hardware and fittings, Stay set, Stay wire etc shall be in accordance with the technical specification.

1.11.3 Fully Galvanized steel materials shall be used for fabrication of cross arms, channels, bracing, stay sets, stay wires, nut bolts, insulator spindles and earth electrodes.

TECHNICAL PREAMBLES TO PRICE SCHEDULES

1 General Information

This describes the requirements of those items which have not been included in the Construction Standard and which are of general nature.

(a) All the Construction Units shall include the cost of preparation, revision and reproduction of supporting Structure Data Sheets (SDS) and drawings.

(b) All Construction Units shall include the cost of cutting and painting bolt ends extending more than 30 mm beyond the nut if necessary.

(c) All Construction Units shall include necessary cost for trimming and cutting of trees to clear route for new or existing works. Trimming and Cutting of trees shall be the responsibility of the Contractor but the Employer shall assist to obtain necessary permit for the same.

2. Construction Unit 1: Pre Construction Survey & Engineering

Pre-Construction Survey, Mappings, Preparation of SDS, Single line diagram and Final Preparation of BOQ

This Construction Unit is for carrying out pre-construction survey, preparation of drawings/mappings, single line diagram and SDS; and preparation of final SDS and As Built Drawings etc.

Unit: This construction unit is per km of line length.

2.1 Structure Data Sheet (SDS)

SDS shall be prepared to provide the details of specific construction information necessary for erection of pole structures with hardware and accessories, conductor stringing and Disconnecting Switch installation. The SDS shall be used in conjunction with the area plan drawing to document the works to be performed. A copy of the SDS format shall be provided in the event the bidder awarded the contract

Abbreviations used in the preparation of SDS shall be defined as follows:

S. No.	Nomenclatures	Meaning
1	Pole Construction No.	Number assigned by the Contractor to identify pole on plan drawing.
2	Span	Length of conductor span between poles
3	BK	Angle of line deflection in degrees
4	Pole	Pole quantity
5	Frame	The Construction Standard for 33 kV system for which the pole is to be framed.
6	Stay	The Construction Standard for stay to be installed.
7	DS	The Construction Standard for which the DS / installation is to be framed.

8	Conductor	The number and size of ACSR conductors in mm^2 for 33 kV
9	Conductor (km.)	Running km length of conductor.
10	SA	Single Arm Structure
11	DE	Dead End Structure
12	DDE	Double Dead End Structure
13	HS	H- Pole Structure
14	A	Single wire type stay
15	B	Double wire type Stay
16	C	Flying type stay
17	D	Flying type with shorter stay lead or bow type stay

Note:

Information for a single pole location need not be confined to a single row.
All works, whether new or on existing systems, shall be documented on the SDS.

Each SDS shall include the applicable "As Built" Plan Drawing number(s).

Similarly each "As Built" Plan Drawing shall include the applicable SDS number(s).

2.2 Pre-Construction Survey

Standard check survey and drafting procedure shall be used to carry out the survey works and preparation of drawings. This is the responsibility of the contractor to conduct the survey and submit the survey report by their own cost and responsibilities.

Following points should be considered while preparing the drawing.

1. As far as possible, the proposed electric line shall follow the existing Line root to avoid the right of way problem during construction period.
2. The schematic diagram of 33 kV line shall show the tapping point, conductor size and line length, load centers.

Staking drawings shall include but shall not be limited to:

1 Location, description and coverage of NEA existing HV line and communication line in the area of proposed 33 kV Transmission line routes;

2 Identification and fixing of HT Tapping point, load centers, beneficiary households and HT route alignment

3 Identification and fixing of pole structure during the road crossing, river crossing and in the crossing of any other facilities like Bridges, Pipelines etc if any existed in the area of proposed Electrification.

4 Details of Feeder line and Households details of every identified load center

5 Slide, slopes/cross slopes etc in the proposed route of HT line.

6 Wild Reserve area/ Forest if any in the proposed route of HT line.

7 Notations regarding areas unsuitable for pole line structures e.g. swamp, solid rock etc;

8 All features within 60 meters of the proposed route which are significant in construction and maintenance of the line;

9 Details of Construction units if differs from the Contract agreement Units.

2.3 Contractor's Drawing/mapping and Data

The Contractor shall provide **GIS mapping** of the proposed line route of HT line in the forms of Mylar tracings or computer printed drawing showing the chain edge of each pole location/angle point in **1:5000 scale** with **electronic copy in compact disc (CD**) required for construction and record purposes. The required number of construction plan drawings and associated SDSs shall be at least **Five (5) copies** and shall be duly **recommended** from the Employer.

Checking and revising the Drawings and Structure Data Sheets if necessary, is a part of the Scope of Work of the Contractor. The contractor shall produce the revised or final drawings in accordance with the General Specifications.

Revised Line Staking Drawings shall be provided by the Contractor for the approval of the Employer for the execution of construction works.

The Contractor shall submit the drawings and data to the concerned office of the Employer for approval in the following manner:

The title of Contractor's drawing shall also include the followings:

(a) NEPAL ELECTRICITY AUTHORITY (Nepal Government's UNDERTAKING)

(b) Name of the Employer's Office

(c) Contract No.

(d) Ratings of the line

The size of the drawings except otherwise specified in the Specification shall be any one of the following sizes.

A1	594mm × 841mm	(23.39" × 33.11")
A2	420mm × 594mm	(16.54" × 23.39")
A3	297mm × 420mm	(11.69" × 16.54")
A4	210mm × 297mm	(8.27" × 11.69")

Reproducible of all final approved drawings shall be made on Mylar films or computer printed drawings with computer electronic files in CD.

All drawings for approval and final as built drawings shall be produced in A1 and shall be bound neatly.

Micro Films/ Computer Electronic File (CEF)

The Contractor shall prepare and submit the Microfilms or computer printed drawing with Computerized Electronic File (CEF) for all final Approved as Built Drawings within one **(1) months** after the completion of the Works.

Structural Data Sheet

Structural Data Sheet shall be checked and prepared in such a manner that it shall show each and every items installed in each pole and the actual length of each and every span.

3. Construction Unit 2 : Polling

33kV Supports, Insulators and Hardware

This Construction unit is for the supply and installation of single & double structures fitted with cross-arm, insulators and other hardware.

This covers the work such as Supply and delivery of all the necessary materials from respective factory warehouse, excavate pole hole, set pole, if necessary, back fill and tamp poles, compact the back filling adequately, realign, if necessary, install framing including insulators and hardware all complete.

Support Type	Description	Reference Specification/Standard	
		Equipment	Construction
A12	33 kV, Single Arm Structure		
A22	33 kV, Single Pole Dead end type Structure		
B	Single Arm Tapping Accessories		
C1	33 kV Double Pole Structure-Intermediate Support		
C2	33 kV Double Pole Dead End Assembly		
D	Already Erected Single Pole		
E	33 kV Three Pole Structure-Parallel Type		
F	33 kV Four Pole Structure		
G	33 kV suspension tower		

4. Construction Unit 3 : ACSR Conductor Stringing

33 kV ACSR Conductor and Accessories

This construction unit is for the supply, delivery, stringing of 33kV ACSR Conductor and accessories.

This unit covers the Supply and delivery of all the necessary materials from respective factory warehouse to the site, set up wire stringing reels, pulling lines, stringing blocks on poles/cross-arms, install and remove temporary guard structures, if necessary, install and remove temporary structures to keep conductor from dragging on earth, if necessary. Pull conductors, sag and dead-end, remove conductor from stringing blocks, tie to insulators, make necessary compression joints, and connect jumpers and complete installation.

Conductor Type	Description	Reference Specification/Standard	
		Equipment	Construction
A	Three wire WOLF		

5. Construction Unit 4 : Stay Installation

Stays and Anchors

This Construction unit is for the supply, Delivery and installation of complete single, double, flying or bow type stay assembly.

This Unit includes the Supply and delivery of all the required materials from factory warehouse to site, excavate hole, install anchor rod, back fill with gravel if specified, ramp till well compacted, install stay wire and stay insulator, adjust tension and further adjust tension if necessary after installation and stringing of conductor. Provide sand and stone as a local material for the installation of stay for HT line and install the stay sets as per the construction standard drawings.

Type of Stays and Anchors:

Stay Type	Description	Reference Specification/Standard	
		Equipment	Construction
A	HT Single Stay		
B	HT Double Stay		
C	HT Flying stay		

6. Construction Unit, 5

This Construction unit covers all the necessary works for the preparation of final as built drawing, Structural Data Sheet, testing, charging of 33KV Transmission line and handover with documentation to the Employer's Office of N.E.A.

7. Construction Unit, 6

Labour Rates

This construction unit is intended to use for such work, which has not been defined by a Construction standard. Contractor shall submit along with the bid, a written description of work which may have to be performed under certain situation and which was not foreseen during the design and study. This shall include location, number and classification of personnel to perform the work and estimated number of hours/day per man. This construction unit is to be charged only upon the approval of the Employer. This unit includes necessary transport of equipment to perform the assigned work.

S.N.	Designation	Rate per hour or per day
1	Engineer	
2	Supervisor	
3	Foreman	
4	Lineman/ Electrician	
5	Helper	
6	Labor/Unskilled (Jyami)	

Note: The construction unit outlined in these sections contains general information and may vary. The actual construction units will be as per BOQ of the price schedules.

CONSTRUCTION STANDARDS, TECHNICAL SPECIFICATIONS

A. CONSTRUCTION STANDARD

A.1 ELECTRICAL WORKS

1. General

1.1 These specifications together with the Construction Standards shall govern the performance of the Works and shall be the basis for inspection and acceptance of the Works by the NEA.

1.2 These specifications and the Construction Standards shall be considered as mutually inclusive, and the conditions stated in each shall supplement the other as appropriate.

1.3 All these specifications shall be followed at all times by the Contractor unless specifically accepted in writing by the NEA, or unless some aspects of the work covered by these specifications are not required by the scope of work.

2. Route of Circuits

2.1 The new 33 kV Transmission Line shall be constructed in the same existing line route.

2.2 To the greatest extent practicable, all facilities should be located on public property, and in no case shall private property be occupied unless specifically authorized by the NEA.

3. Surveys and Staking

3.1 All structures should be located at the outer limits of public property along streets or travelled ways. Structures should also be located along streets at property lines of adjacent private property. Structures and stays running parallel or perpendicular to the line route shall not block portions of streets, travelled ways, drives, passages, or gates.

3.2 All structures shall be so located as to reduce, to the greatest extent practicable, obstacles to pedestrian and vehicular traffic.

3.3 Where underground facilities are indicated by surface conditions, or where such facilities can be located, structures and stays shall be so located as to avoid conflict with such facilities during construction.

3.4 All structure and stay lead locations shall be staked. At points of intersection (PI) of tangent line sections, steel rebar stakes shall be used to locate the PI. A minimum of two (2) side sightings will be made at each PI to permit re-location of PI in the event of stake removal. All structure locations in tangent line sections shall be staked.

3.5 All distances between structures, and other necessary measurements of length, shall be measured to accuracy of 0.1 meter and all angles shall be determined by transit to an accuracy of 0.1 decimal degree. All elevations shall be measured to an accuracy of 0.1 meter by means acceptable to the NEA.

3.6 All measuring and staking activity shall be accomplished by personnel with experience in survey procedures; and standard survey equipment acceptable to the NEA, shall be used to perform the survey work. Field survey notes covering all survey work shall be produced and maintained and shall be returned to the NEA at the time of submission of final PCS report. The format of proposed survey notes shall be submitted to the NEA for approval.

3.7 Survey work shall include centerline and structure location and staking; determination of overhead and side clearings of other structures, wires, and obstacles; area surveys and plotting; and centerline profiles of terrain; as directed by the NEA.

4. Technical Documentation

4.1 All technical documentation as specified herein shall be prepared by the Contractor. The Contractor shall employ skilled drafting personnel to produce all documentation specified. All technical documentation prepared by the Contractor shall be subject to the approval of the NEA prior to acceptance by the NEA of such documentation. All technical documentation shall be prepared in the English language.

4.2 Documentation shall be prepared using the following mediums:

(a) A4 Size of paper shall be used to produce the base Structure Data Sheet (SDS) and A1 size of drawing papers for As-Built Drawings and other drawings specified by the NEA. The scale for drawing shall be 1:5000.

A1	594 mm x 841 mm	(23.39" x 33.11")
A4	210 mm x 297 mm	(8.27" x 11.69")

(b) Computerized geographical information system shall be used to produce small area plotting, profiles of line-sections and centerline plotting necessary for the development of SDS and As-Built Drawings.

(c) A set of digitized data on CD shall be submitted separately.

4.3 SDS shall be prepared as specified in , *Preamble to Price Schedules(Bill of Quantities)* by the Contractor showing his proposed construction details for erection of facilities in accordance with the Construction Standards. The SDS shall be prepared after the centerline survey and staking is completed, for any line section designated by NEA, and shall be submitted to NEA for approval prior to any construction of the facilities shown in SDS. Submission of SDS for approval shall be in A4 size paper.

NEA may require any revisions to be made, at their sole discretion, prior to approval of the SDS for construction. An approved and field checked SDS is required for all Construction Units invoiced by the Contractor. The Contractor and NEA representative shall perform Field checking of the SDS jointly. The SDS and As Built Plan are intended as permanent records for NEA. Any construction performed prior to the Contractor's receipt of approved SDS from NEA shall be completely at the Contractor's risk, and NEA shall have the right to require any correction due to the un-approved construction activities.

4.4 As-Built Drawings shall be prepared by the Contractor in the general format provided by the NEA. Drawing size shall be approximately 841 x 594 mm overall and the scale shall be 1:5000. The NEA shall provide any available environmental background data for inclusion on the various drawings and the Contractor shall record (in ink) all facilities As Built.

4.5 The Contractor shall prepare other technical drawings, in the same medium and format as the As-Built Drawings, for example As-Built Drawings index sheets, pole maps, and one line diagrams as specified and required by the NEA.

5. Material Storage

5.1 The Contractor shall be responsible for storage of all materials and equipment delivered by him for the work; and security of materials. The Contractor shall manage all labor, equipment, and vehicles to load and transport said materials and equipment to the worksites.

5.2 **Worksite**

(a) Extended storage of materials along the routes of lines will not be permitted.

(b) Conductor reels may be spotted at the worksites for a short period prior to installation provided that crating and reel lagging are intact to protect the items. Poles may be spotted at structure locations for short periods prior to setting.

(c) All poles, and conductor placed at the worksites shall be located so that the items are not subject to damage and do not impede pedestrian or vehicular traffic.

(d) Any damage caused by imprudent placement of equipment and materials by the Contractor at the worksites shall be corrected by the Contractor, in a manner acceptable to the NEA, at the Contractor's cost.

5.3 Contractor's Storage Facility

The Contractor shall be financially responsible for the secure and proper storage of materials, prior to installation of the materials and equipment, to prevent loss or damage to any materials. However Contractor may use NEA sub-stations premises subject to approval of concern NEA/Substation Authorities.

6. Poles and Cross Arms

6.1 Pole Numbering

Poles and structures shall be numbered in accordance with a numbering system provided by NEA. Each pole shall be marked permanently through template with the assigned number.

6.2 Pole Framing

Pole and structures shall generally be framed in accordance with Construction Standards and the construction SDS. Where special framing requirements are necessary, the Site Engineer or Engineer shall provide framing instructions for the specific structure.

Each cross-arm shall be attached to the pole by a pole clamp or by machined bolts of sufficient length to pass completely through the holes provided on the pole and cross-arms and receive their full complement of nuts.

Bolts of proper length shall be used. Excess nuts shall not be used to make use of a bolt, which would otherwise be too long. The end of a machined bolt projecting more than 3 centimeters beyond the nut shall be cut off to a length of 2 centimeters beyond the nut. Each bolt, when installed, shall have its full complement of nuts.

Washers shall be used where specified in these standards. For wooden pole, bolted connection through wood members should be drawn tight to allow for shrinkage of wood. Bolts should be pulled up so that the wood is compressed but not so tight to break the wood fibers. Fiber breaks on the surface of the pole increases probability of decay.

During the erection work at the field there may be necessity to modify galvanized steel hardware and may have to be drilled, reamed, filed or cut. Under such a condition the area of the steel exposed, after these modifications, shall be coated with a zinc-rich paint to protect the steel from corrosion.

6.3 Excavation

All excavations made for the installation, or demolition, of facilities shall be accomplished in a timely manner according to the scheduled installation. Required excavations shall be opened, material installed, and backfill placed, as specified, in a continuing operation to the greatest extent practicable.

Any excavation left open during discontinuous construction, which is accessible to the public or along public thoroughfare, shall be covered or barricaded, and marked by suitable visual means, to prevent a public hazard.

Excavations shall be properly located and sized for the intended use. Pole and stay plate/ anchor excavations shall be correctly sized to retain undisturbed soil to the greatest extent consistent with the means of excavation. Pole holes shall be made by power-driven auger or by manual methods; power-driven shovel equipment shall not be used. Pole holes shall be excavated to the specified depth with no tolerance shallow and tolerance of ten (10) centimeters deep. The bottom of pole holes shall be undisturbed soil, gravel or rock. Stay plate holes shall be excavated by manual methods to specified depth with no disturbed soil in the direction of the anchor rod.

All excavations shall be backfilled with excavated material, or as specified for the installation. Backfill shall be free of foreign materials and shall be well tamped with excess backfill graded over the excavated area to prevent depressions resulting from eventual natural compaction. The Contractor if so directed by NEA shall remove large amounts of excess backfill from the site. If so directed by NEA, the Contractor shall provide suitable backfill materials for excavations where existing removed materials is insufficient, or inappropriate, to provide suitable grading of the excavated area.

6.4 Pole Setting

Poles shall be set in accordance with the appropriate Sections of the Construction Standards.

Each pole shall be assigned a unique construction number at the time of structure staking for preliminary identification and preparation of SDS.

Pole holes shall be dug large enough in diameter to admit a tamping bar all around the periphery of the pole and shall have a uniform dimension as per the type of pole used at the top and bottom. Poles shall be planted in the ground to the depth specified in construction. Drawings before planting a pole, the bottom of the hole made for planting the pole, shall be cleaned of free soil and firmly tamped, to prevent the hole from settling.

The stability of a pole, particularly a pole without stay, is greatly influenced by the size of the pole hole, the nature of the soil and the care exercised in back filling and tamping. Two active hand tampers and one slow shovel shall result in good compaction.
Poles shall be set to stand perpendicular except at terminals, angles and other points of excessive strain where they shall be given a rake not to exceed 10 centimeters against the

direction of strain. Poles located at the sides of banks or other locations, where washouts may occur, shall be protected by suitable cribbing, or shall be referred to the Engineer for recommended action.

After the pole is in position and the hole is back filled and tamped, soil shall be piled and packed firmly around the pole. Pole setting shall be inspected prior to acceptance and any back fills that have sunk shall be refilled.

Where it is necessary to set poles at locations where the soil has very low bearing value, or in swampy conditions, a pole may be fitted with a bog shoe in accordance with construction drawings the engineer may specify that type of construction.

Poles located in shallow riverbeds shall be protected by gabions as designated by the Site Engineer or Engineer. Gabions should be approximately 2 meters x 1 meter x 1 meter. Four such gabions are required for each pole.

Set pole and pour 860 mm diameter foundation as per construction standard construction drawing. Level areas around pole and set gabions in pattern shown in construction drawing. It is important to lace adjacent gabions together along the perimeter of all contact surfaces. Fill gabions with hard, durable, clean stone, 100 mm to 200 mm in size in three layers. Install two connecting wires at each layer. Lace gabion lids securely making certain all edges are closed. Fill void between pole and gabion with hard, durable, clean rock 200 mm minimum size.

7. Stays

7.1 Stay leads specified in construction documents are defined as the horizontal distance from the centerline of the pole at ground line to the point where the anchor rod should enter the ground assuming the ground to be level. For the correction in stay leads for uneven ground see construction drawing.

The Engineer, upon request, may designate the actual location of stay anchor rods on slope of hills. The stay stake indicates the point where the anchor rod enters the ground. The anchor hole shall be dug accordingly.

The attachment of one stay shall not overlap that of another stay when 2 or more stays are carried to a pole or anchor. Each shall be entirely independent of the other. This does not prevent the use of multiple eye rods for nuts designed for such use.

All stays to be installed on a pole line shall be placed and drawn reasonably taut before the conductors are tensioned. After the conductors are tensioned and sagged to their final position, the stays shall be carefully inspected to see that each is carrying its share of the load on the pole as intended. If multiple stays are not carrying equal strain, the slack stay shall be pulled up until it is sharing load as intended.

Stay anchors must be installed full depth and set to pull against undisturbed soil to develop full tension. An anchor not properly installed will move and allow movement of the top of the pole, thus slacking the conductors. Stay anchors installed in soft or unstable earth shall be placed at specified depth and back filled with 5 cm. maximum size crushed stone placed to a depth of 1 meter from the bottom of the hole.

7.2 Installation of Stays

Where stays are installed on a line angle structure, line of stay shall bisect the outside line angle.

The span of stay extending between poles shall not be greater than 60 meter.

Anchor and anchor rods shall be set so that the axis of the rod and line of stay shall be straight. The portion of the anchor rod above the ground shall not be bent at an angle to connect a stay wire. If this occurs, anchor and anchor rod shall be reset. The anchor rod shall not be exposed for more than 15 centimeters above the ground after the anchor is set.

If gravel back fill is required to set anchor in soft or unstable soil, as per construction drawing the Contractor will have to carry out the gravel back fill as directed by Engineer.

If a stay is installed on a pole where low voltage conductor is dead ended or double dead ended and extends past stay, a piece of plastic hose slit along the length shall be placed over the stay wire extending from the upper stay attachment to 200 mm below lowest low voltage conductor. After installation, the hose shall be wrapped with plastic tape and the hose shall be secured to the upper stay bolt with tie wire.

7.3 Stay Insulators

Stay insulators shall be installed on all stays in accordance with the construction drawings.

8. Conductor

Aluminum Conductor Steel Reinforced (ACSR) conductor of 150 sq.mm (WOLF) shall be used for 33 kV overhead lines.

8.1 Sagging

Conductors shall be sagged in accordance with the sag chart specified by these specifications.

The importance of careful sagging of conductors cannot be over emphasized. Conductors have definite characteristic that control their behavior resulting from changes of temperature, wind speed and additional load due to ice or wet snow.

Conductors must not be sagged too tightly (less than specified sag) as unspecified extra tensions may result in failure of conductor structure.

Conductors sagged too loosely (more than specified sag) may contact adjacent conductors hardware or any structure. Excess sag can reduce clearance beneath the line with the ground to the point of danger.

8.2 Sag Charts

Unless otherwise noted, all sag charts are calculated on the basis of 35 kg/m^2 wind pressure. Sag is always measured vertically, without wind, when conductors are being installed or re-sagged.

Unless otherwise specified by the Site Engineer or Engineer for a specific condition, initial or stringing sag shall be applied to the installation of all new unstressed conductors. The initial sag is always less than the final sag. The most practical method of obtaining the correct sag is

by sighting between two adjacent structures. Choose the structure, which is reasonably near the same elevation

Sags for the various temperatures shall be furnished by the Engineer in a table form for spans not covered by the sag chart.

In order to ascertain the sag for a given stringing temperature, select the point corresponding to the proper temperature on the scale on the left-hand side of the sag chart. Lay a straight edge so that it passes through this point and the point of the center scale representing the length of span to be sagged. The straight edge will then indicate the proper stringing sag on the right-hand scale. Interpolate if the temperature of span is not exactly the same as designated on the chart. The low voltage neutral conductor shall be sagged with the same sag as the low voltage phase conductor. If the low voltage conductor, as a group, has less design sag than the high voltage phase conductor installed above it, the low voltage conductor, as a group, shall be installed to the same sag as the high voltage conductors installed above. The sag of pre stressed conductors such as installed with a tensioning machine shall be specified by the Engineer for the job.

8.3 Stringing

All cable grip used for the installation of conductors shall be of the type designed to prevent injury to the conductor.

Attach targets to each structure at a distance below each point of the support of conductor equal to the required sag, sight from one target to the other. The line of sight between targets may be horizontal or inclined. Draw the conductor up to the proper sag, which will be reached when its lowest point will be in line with the target.

Where terrain and / or length of span in such that the targets would fall below the ground line, the difference in elevation between the lower conductor attachment and the lowest point of sag, sag below lowest support will be furnished by the engineer in the tabular form.

The dynamometers and similar apparatus shall be used for tensioning of conductor to obtain appropriate sagging of conductors. Dynamometer shall be used only when the sight method is not feasible. Dynamometer shall be checked for accuracy before using.

For stringing of ACSR conductors of all sizes, stringing rollers or roller shall be used to support the conductor as it is pulled out and sagged. Stringing rollers shall be used regardless of size of aluminum conductors, bare or covered.

Stringing rollers shall be suspended at each insulator support position so that the conductor shall roll smoothly over the roller-protecting conductor from any physical damage.

Stringing sheaves shall have a diameter at least 20 times the conductor diameter and so finished as to prevent damage of any kind to the conductor as it is pulled through the sheaves.

Conductor drum shall be located at a sufficient distance from the first structure to avoid excessive bending of the conductor over the sheaves and excessive downward loading on the cross-arms.

Attention shall be paid to the fact that all sag charts contained herein for ACSR conductors are calculated on the basis of non pre-stressed conductor. For this reason, at no time during

the stringing or sagging operation, shall conductors of this type be pulled to sag, which are less than those shown by the charts.

Special care shall be taken at all times to prevent the conductor from becoming kinked, twisted or abraded in any manner. Where it is necessary to drag conductors on the ground, the conductors shall be protected by covering all stones or other objects, which might damage the conductor with boughs or trees or suitable pieces of lumber. These requirements are especially important when ACSR conductor is being handled on river crossing spans. Floats with rollers shall be used to prevent the conductor from dragging along the river bottom.

In stringing conductors across highways, the conductors shall be fully protected from passing vehicles by use of temporary guard structures.

8.4. Damaged Conductor

Damaged conductors shall be repaired by using a repair sleeve provided that no more than 2 strands of the outer aluminum layer are damaged and further provided that none of the sleeve core strands are damaged. For a conductor damaged in excess of the above conditions, the damaged section of the conductor shall be cut out and a tension splice installed.

When cutting out damaged section of conductor, no more than 1 tension splice shall be permitted in a span and no splice is made within 8 meters of an insulator attachment.

8.5 Sag Error

Sag error shall not exceed ± 40 mm from the sag defined by the sag chart.

8.6. Conductor Attachment

Conductors shall be secured to pin insulators with pre-formed conductor ties or with tie wire. Insulator ties, except at jumper supports in structures, shall be made with pre-formed ties when available.

Conductors shall be connected to dead end assemblies with tension set.

8.7 Line Splices for Tensioning and Looping

Cleaned and polished contact surfaces are necessary to make conductor splices so that it shall remain free from trouble. Great care shall be taken to completely clean the strands of aluminum conductor. The splicing sleeve must be centered over the conductor ends before compressing to make a splice of required strength.

Appropriate sleeve shall be used for splicing ACSR conductors prior to installation. The outer strands of aluminum shall be carefully cleaned with a wire brush to remove all foreign matter till the aluminum shines brightly. The cleaning applies to both new and old conductors. The manufacturer pre-filled with inhibitor compound supplies splicing sleeves for aluminum conductor.

Splices in line conductors shall be so located that the end of the splicing sleeve is at least 30 cm from the end of a suspension or dead end clamp. Non-tension loops, such as between dead ends, shall be spliced with a connector when the conductors are of same metal and size.

8.8 Connectors

Cleaned and polished contact surfaces are necessary to make electrical connections that will be free from trouble.

Tap connectors are supplied by manufacturers pre-filled with inhibitor compound. Excess inhibitor compound shall not to be removed but it shall be wiped over the connector as a moisture seal. Connectors shall not be covered or taped.

Compression connectors shall be located in such a manner that there shall be at least 30 cm of conductor between the end of the connector and the end of a dead end

Connectors shall be installed on non-tensioned portion of the conductor such as loops in preference to the conductor in the span.

Connectors installed on conductor shall be located in a span adjacent to the crossing rather than the crossing span when practicable.

Aluminum compression connectors, pre-filled with inhibitor compound, shall be compressed on the cleaned area of aluminum conductor. Where necessary, inhibitor compound shall be applied to the cleaned conductor and connector before assembly.

Aluminum compression connectors shall be used for connecting aluminum-to-aluminum conductors.

8.9 Conductor Accessories

Pre-Formed Ties and Grips

Taps for jumpers and services shall not be made over the legs of ties or dead end grips.

Pin Insulator Ties

Pin insulator ties are of 2 types:

a. With single top grooves: Single top ties may be used to turn line angles to 7 degrees where single insulators are permitted. Please refer construction drawing for specific applications.
b. With side grooves with specific size of ties for specific conductor in each tie style: Specific usage is dictated by insulator pin loading and use of single insulators as specified in construction drawing.

Preformed Stay Wire Binder

Preformed stay wire binder for stay wire are furnished as per construction drawing.

Preformed stay wire binder are right hand lay. Preformed stay wire binder may be removed and replaced up to 3 times, when initially installed, to permit adjustment of stay tension.

When applying ties or grips the manufacturer’s identification tag and colour coding shall be checked to insure that the tie or grip is the right unit specified for application on the specific conductor or wire strand.

Perform for stay wire are furnished with 2 crossover markings. When applying preformed on hardware, the grip shall be installed using the crossover point closest to the loop of the grip.

Compression Fittings

Full-tension conductor splices and repair sleeves are furnished for all conductors to be installed.

a. Full Tension Conductor Splice

Full-tension spliced for ACSR conductor is provided in a 2/1-piece unit. Full tension conductor splices will develop full conductivity of the conductor and a minimum of 95% of the rated conductor breaking strength. Please see construction drawing for splicing instructions.

b. **Repair Sleeves**

Conductor repair sleeves are furnished for all conductors to be used to restore the rated current carrying capacity of conductors with broken strands. Repair splices have no tension rating.

8.10 PG Clamps

PG clamps are furnished in a full range of sizes for application in the non-tension connection in 33 kV circuits. The PG clamps are designed for general use in making tap and jumper connections of various types.

In all applications of PG clamp fittings, the conductor metal shall be wire-brushed to a bright condition to remove surface oxidation on the conductor.

8.11 Application

When applying ties or grips the manufacturer's identification tag and colour coding shall be checked to insure that the tie or grip is the right unit specified for application on the specific conductor or wire strand.

Preformed for stay wire are furnished with 2 crossover markings. When applying preformed on hardware, the grip shall be installed using the crossover point closest to the loop of the grip.

In all applications of PG clamp fittings, the conductor metal shall be wire-brushed to a bright condition to remove surface oxidation on the conductor.

8.12 Line Construction

Arrangement of Conductor

The standard position of 33 kV phase conductors on the cross-arm in the normal triangular/horizontal configuration looking from the normal source of power supply shall be seen as:

Red (R) on top of the pole, Yellow (Y) on right hand end of the cross-arm and Blue (B) on left hand end of the cross arm.

Attachments to Poles

Bolt holes are provided on poles for cross-arms, cross-arm braces and stay bolts.

Conductor Ties

Pre-formed ties and grips shall be used for attaching conductors to structures when available.

If pre-formed materials are not available, the wire shall be soft conductor so that when made up, the tie wire will bind the conductor tightly. No tie wire shall be used for a second time.

Tie wire shall be of the same metal as that of the bare conductor to which the tie is applied.

Conductor Support

The conductor supports on straight lines shall be carried on the top wire groove of the pin insulator. Conductors shall be attached to the side conductor groove of pin insulator on the outside of angles so that transverse conductor tension will tend to hold the conductor in the insulator groove.

Conductor ties shall not hold a conductor on the insulator when uplift exists. If uplift is found, it is required to consult with the Site Engineer or the Engineer to determine remedial action to be taken.

8.13 Pole Wiring

All taps or connections passing from one level to another on the pole shall, as far as possible, be vertical. Connections shall have sufficient length so that the line conductors are not moved from normal positions and normal movement is not restricted. Connections shall have at least 30 centimeters clearance from other conductors. Any connection carried from one side of the pole to the other side shall be supported on pin insulators.

9. Installation Criteria

9.1 The line alignment should be as straight as possible to minimize requirements for stays.

The basic span shall be maintained within the following limits:-

33 KV line: 60 m

9.2 The entire construction works shall be performed as per the construction units specified. Whenever the construction unit does not cover any specific activity, the Contractor and the Employee shall mutually settle the cost as per the man-hour involvement for the same and according to the labor rate quoted by the Contractor in his Bid.

9.3 Detailed schedules of material to be used are provided in each structure drawing of the construction standards. It shall be the responsibility of the Contractor to judge the appropriateness of the listed material according to the site conditions. If there is any need for addition/reduction or deviation from the listed material size/quantity, the Contractor shall ask the Employee for the approval of the same.

9.4 All types of line clearances shall be maintained as per the construction standards provided to the Contractor. Deviations from the standards may be allowed only for unique or special conditions.

9.5 Safety rules of the NEA shall be strictly observed at all times by the Employee and the Contractor and their personnel. Special care shall be taken to maintain the optimum conductor sag to provide adequate safety to the construction and the property or people.

9.6 All fastenings (e.g. preformed, nut bolts, stays and the like) shall be so installed that the constructed line components shall not fail to remain within the safety margin while maximum working load is applied.

If the Contractor requires clarification of any construction standard or unit or he feels any doubt in his interpretation of construction activities he should clarify the points with the Employee in writing and the decision thus made shall be valid for further work.

In the case where the break angle exceeds the above values the Contractor shall make dead end at the angle structure and use disc insulator fittings.

11. Installation of Stays

11.1 The Contractor, in general, shall install at least one stay for the supports in the following cases

(a) Dead end structure

(b) Tee-off (Tap) structure

c) Double H- pole structure

11.2 Stay may not be installed in the following conditions

HV Line (33 kV) with 11 m Pole

a) - Conductor 3x150 mm^2

- Span 60 m (max)

- Break angle: 4 deg.

For conditions different from the above, the Contractor shall provide calculations showing the number of stays necessary and get approval from NEA prior to installation.

TECHNICAL SPECIFICATION

(Electrical Equipment)

STEEL TELESCOPIC TUBULAR POLE & FITTINGS

1. Scope

1.1 This Specification covers the design, fabrication, testing and supply of steel telescopic poles to be used to support overhead electric lines and equipment.

2. Description

2.1 The poles shall be telescopic, uniformly tapered circular in cross-section. The poles shall be fabricated in sections as specified in Table 2 out of welded tubes of suitable lengths. The diameters of the top and the bottom end of the completely assembled pole shall be as specified therein.

2.2 The sections of the steel poles shall be designed such that the butt end of the top section fits on the top end of the second section, the butt end of the second section fits on the top end of the third section and so on. The various sections shall be fitted together by pressed friction joints. The completely assembled telescopic pole shall have the design loads as specified in Table 1. The separate pole cap shall be provided with top section of the pole. The bottom section of the pole shall be provided with a base plate.

3. Material

3.1 The telescopic pole sections and fittings shall be manufactured from standard steel as per BS 4360 Grades 43 C, D, E or 50 C, D, E or equivalent national/ international standards.

3.2 The steel tubes shall confirm to the requirements of BS 6323 Parts 1 to 8 Steel Tubes.

4. Manufacture

4.1 The pole shall be erected by friction joint without involvement of through bolt, site welding or any type of additional device of joint at the time of erection.

4.2 It shall be the responsibility of the Bidder to determine the thickness of the tubing adequate to sustain the load and test requirements. The Bidder shall determine the thickness of the tubing to develop the required pole strength in accordance with the Bidder's method of fabrication. However, the thickness of the tubing shall not be less than 2.5 mm, and the following tolerances shall be maintained:

a) Tolerance on diameter: +/- 1% from Bidder's data sheet.

b) Tolerance on weight: Negative Tolerance Not Applicable.

c) Tolerance on thickness: Negative Tolerance Not Applicable.

d) Tolerance on telescopic poles: For each section it shall not exceed +10mm and -0 mm. After assembly the telescopic poles shall not exceed +/-75 mm of their stated length in the Technical data sheet.

e) The out-of-straightness of the assembled pole shall not exceed 1/600 of the height.

4.3 For 11m Pole

Each segment of the Pole has been denoted by the designation B2, B3, B4, B5, B6, B7. A combination of several pieces of these segments will form a pole. Each piece of segment shall be measured 2.5 m in length and tapered in such a way that each adjacent numbered pieces fit into the other for assembling the required type of pole such as Pole B26(11m) and B27(13 m). Assembling segments B2, B3, B4, B5 and B6 shall form the Pole B26. And assembling segments B2, B3, B4, B5, B6 and B7 shall form the Pole B27.

4.4 All welding of the poles shall be carried out at the manufacturers' plant.

4.5 Welds parallel to the longitudinal axis of the poles shall be fillet welds. Each section of the pole shall have only one longitudinal weld. No circumferential joints/welds of the tubes are permitted. All welds shall be capable of withstanding, without failure or cracking, the stresses in a pole when subjected to its ultimate design loads

4.6 All seam welds on joint mating surfaces shall be ground flush. All high spots in the galvanizing on the mating surface shall be ground and if the galvanizing is damaged in the process, it shall be repaired.

4.7 The pole shall have hole configurations and sizes as shown in the drawings attached herewith. The hole sizes and the locations of the hole must, however, be confirmed with the office prior to manufacture.

4.8 The steel tubular telescopic poles must be manufactured by a company approved to quality standard ISO 9001:2000. The ISO 9001 certification number, the name of the authorized approving authority with the contact address and telephone and fax numbers shall also be stated. The Bidder shall enclose a copy of the ISO 9001 certificate with the bid.

4.9 The minimum overlap between the following segments shall be as follows:

i. For 11m Pole(B26)

B2-B3	B3-B4	B4-B5	B5-B6	B6-B7
300 mm	350 mm	400 mm	450 mm	500 mm

5. Corrosion Protection

All sections of the pole shall be hot dip galvanized both internally and externally in accordance with IS: 2629-1985 or equivalent national or international standard. After galvanizing, the external surface of poles below ground level and 500mm above ground level shall be painted as follows:

a) Thorough clean brush and solvent degrease, then one coat of phosphoric acid based etch primer both inside and outside followed by,

b) One coat airless spray of epoxy based bituminous black paint of 1x100 microns dry film thickness inside of the pole base

c) Two successive coat airless spray of epoxy based bituminous black paint of 2x100 microns dry film thickness outside of the pole base.

6. **Marking of Pole**

The pole shall have an identification marked with indelible paint on the pole at a position approximately 3.5 m. from the butt end, which is clearly and indelibly marked with:

a) Date of manufacture and identification mark of manufacture.

b) Length of pole in meters and its design working loads as defined in this specification.

The pole shall be marked with a permanent horizontal line at a point 1/6th of the pole height from the butt end of the assembled pole. The mating depth of the relevant sections of pole shall also be indelibly marked.

7. **Footstep Holders, Earthing Lug, Base Plate and Pole Cap**

i. Each type of pole shall be provided with the Footstep Holders and the Earthling Lug and these shall be fabricated and shop-welded to the pole pieces as described below:

(a) The footstep holders shall be fabricated and shop-welded on the segments so that after assembly of the required type of pole these should be located alternatively on the opposite sides of the poles at a vertical distance of 0.6 m to 0.7 m. from each other. The Footstep holders shall be provided only on the pole segments that lie above 2.0 m above the ground level and 1.0 m below the Cross-arm level. The Contractor shall also provide Footsteps of adequate type, size and strength to hold on two man-weights (about 150 kg) in maximum and in numbers not less than 2% of the total numbers of Footstep holders welded on.

(b) The earthling lug shall be welded on the relevant segment of the pole so that it lies about 1.0 m below the ground level.

ii. Each steel telescopic pole shall be provided with pole cap and base plate of suitable type and size. The materials of the base plate and pole cap shall be same as that of pole and should also be galvanized. The minimum thickness of pole cap and base plate shall be 2mm and 4mm respectively.

(a) The size of pole cap should be designed so that it just hold tightly on the top of the topmost segment of each pole by three numbers of 8mm dia screws and hold the rain water from entering into the Pole.

(b) The size of base plate for different types of poles shall be designed by the manufacture considering 50 kN/m^2 as the maximum bearing capacity and 1.5 as the Factor of safety against overturning.

8. **Design**

The data and the drawings related to the poles and fittings provided in this specification are only conceptual. Contractor shall have to carry out detail design and submit for approval. Only after approval of the submitted drawings the contractor can manufacturer the poles and the fittings .In the following sections pole details are given for design calculation. *After the design calculation, the weight of the poles shall not be less than 241 kg weights for acceptance.* It

shall be clear to the Contractor that if the actual weight of the pole and/or fittings is less than guaranteed weight then a proportional deduction on the Contract cost will be made by the Owner as per the reduction of the weight of the pole and/or fittings. No increase in cost will be given to the Contractor for any increase of the weight of the pole.

Pole Type	Length of Pole			Dia. of Pole		Minimum Thickness ; mm	Load Pt. from Top, m	Max Load applicable (Design-working load) N (kg. f)
	Total m	Above Grd. M	Below Grd. M	Topm m (min.)	Bottom mm(min.)			
B26	11.0	9.17	1.83	151	409	2.5	0.6	3678 (375)

The strength of steel material and design load shall be as per below:

Particulars	11m Pole
Tensile Strength of Steel:	**Minm. 430/580 N/mm^2**
Yield Strength of Steel:	**Minm. 330 N/mm^2**
Transverse Load:	375 kgf
Vertical Load:	375 kgf
Wind Load	60kg/m^2

The design working load shall be the yield strength reduced by factor of safety of 2.0.

9. **Tests**

a) The Contractor shall keep the employer informed about the status of manufacture of the goods so that the inspection and testing can be performed in the presence of the employer or his representative. Before inspection & testing the Contractor shall satisfy himself that the work in all respect is in accordance with the specification and ready for inspection & testing.

b) All parts shown to be defective during testing & inspection shall be rejected or replaced at the Contractor's cost to the satisfaction of employer.

c) No parts of the goods shall be dispatched to the site before it has passed the tests or has been inspected and found to comply with the specification to the satisfaction of employer.

d) A program for factory tests to be performed is to be mutually agreed on by the Contractor and the Employer. The Contractor shall work out a complete program for testing of the poles and accessories to be supplied with a description of the various test procedures. All instruments and equipments necessary for carrying out the tests shall have evidence of recent calibration. The test program shall be submitted to the Employer for review & approval at least 15 days before the actual inspection date sought by the Contractor.

e) The following test shall be performed for each type of poles. All testing shall be fully documented and the certified test report shall be provided to NEA.

a. Checking of dimensions and the weight of each type of individual part of segment of the Tendered Goods assuming material density as 7850 kg/m^3.

b. Assembly test and checking of the Dimension and the weight of the Assembled Pole and the Fittings.

c. Drop Test from a height of 2 meters.

d. Deflection test & Permanent set test by applying the 1.2 times the maximum permissible load.

e. Break Test of the pole equals or exceeds 2 times the design working load.

f. Testing of the thickness of the Zinc coating.

g. Tensile tests and chemical analysis of Sulfur and phosphorus contents.

Number of each type fittings selected for conducting the above-mentioned tests shall be as follows:

Lot size	**Nos. of Poles for Dimension Check**	**No. of Poles for Assembly & Other Test**
Up to 100	5	1
More than 100 up to 500	10	2
More than 500	15	3

Above described testing of poles at the factory shall be performed in accordance with the following or the related standards or the practices:

(a) **For conducting the Drop Test**, the assembled pole shall be dropped vertically from a height of about 2.5 m or one sixth of the total pole height. The Drop Test may not result with any break in the welding of any of the pole segment. Any break observed in any of the pole segment may cause to reject the consignment at the Engineer's direction.

(b) **For conducting the Permanent Set Test**, the assembled pole selected shall be rigidly supported for a distance from its base equivalent to its scheduled buried depth. It will then be gradually loaded up to a load equal to the maximum permissible load. The load shall be applied at right angles at the point of load application located 30 cm from the top of the pole for poles of length less than 5 m and 60 cm from top of the pole for poles of length longer than 9 m. The load shall be gradually and uniformly applied in increments of 10% of the design-working load up to 120% of the design-working load. At each increment of load, deflection of the pole tip shall be measured. The 120% loading shall be maintained for 5 minutes. The load shall be gradually reduced to zero and the amount of permanent deflection of the pole tip shall be recorded.

The permanent deflection at this state shall not exceed 4mm per meter length of the free portion of the tested pole. If the Permanent Deflection Value exceeds the maximum specified value, in this case also the test is repeated on another sample from the consignment. Further failure in this test may also cause the rejection of the consignment at the Engineer's direction.

(c) Other tests shall be carried out as per the related standards or the practices.

Should any of the poles first selected fail to pass any of the tests specified above, two further poles shall be selected for testing from the same batch i.e. same pole length, manufactured on the same day in respect of each failure. Should one or both these additional poles fail, the test material represented by the test samples shall be deemed as not complying with the requirement of the specification.

12. Bid Documentation

12.1 The Bidder shall provide with the Bid two (2) clear copies of the governing standards for selection of tubings, fabrication and testing of Telescopic Tubular Steel Poles and two (2) clear copies of all other relevant standards referenced therein.

12.2 The Bidder shall provide a complete design, description and certified dimensional drawings of each type of pole; otherwise the bid offer shall be rejected.

12.3 Two (2) clear certified copies of all type tests performed on at least one type of pole and similar working loads shall be submitted otherwise the bid offer shall be rejected. The type test must have been carried out in recognized national or international testing laboratory.

12.4 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

12.5 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

ACSR CONDUCTOR

1. Scope

This Specification covers the fabrication and supply of aluminum conductors, steel reinforced (ACSR) commonly used on overhead power line construction.

2. Description

2.1 The manufacturer of the ACSR conductor must have been accredited with ISO 9001:2000 (design included) quality certifications.

2.2 The ACSR conductor shall be a concentrically stranded right-hand lay conductor.

2.3 The ACSR conductor shall be fabricated in accordance with BS: 215 (Part 2) latest revision or any other national or international standards that ensures a substantially equal quality to the standard mentioned above, will also be acceptable.

2.4 The following type of conductors shall be supplied:

Code Name	Nominal Area (Sq. mm)	Stranding (Al/Steel)	Breaking Strength (KN)	Mass (kg/km)	Max. d.c. Resistance at 20° Ohm/km	Diameter	
						Aluminum (mm)	Steel (mm)
WOLF	*150*	*30 /7*	*67.34*	*726*	*0.1871*	*2.59*	*2.59*

3. Packaging

3.1 All conductors shall be furnished on non-returnable treated seasoned wooden reels. All timber shall be treated to provide protection against rot and insects. Protective external lagging of sufficient thickness shall be provided and fitted closely on the reels. Binder consisting of steel straps shall be provided over the external laggings. The reel shall be new and sufficiently sturdy in construction to withstand ocean shipping, road transport, several loading and unloading, storage in tropics, hauling and field erection of conductor without distortion or disintegration confirming to IS: 1778-1980.

3.2 Each reel of the conductors furnished shall contain only one (1) length of conductor.

3.3 All reels shall be legibly marked in paint with the following information:

a) Manufacturer's name or trade mark:
b) Contract/specification number:
c) Size and type of conductor:
d) Net mass of the conductor:
e) Net mass of drum:
f) Gross mass of the drum and conductor:
g) Lengths of the conductor in meter:
h) Direction of rolling:
i) Drum and lot number:
j) Name and address of the consignee: NEA, PTSD

k) Supplier's Name:

3.4 The standard length of the completed conductor in each reel shall be as per the table below:

Conductor Size (sq. mm):	150
Normal Length of the Conductor (m):	1000

4. **Tests**

4.1 The manufactured conductor shall be tested in full compliance with the governing standard including following routine tests:

Aluminum wire

a) Tensile test

b) Wrapping test

c) Resistivity test

Steel wire

a) Determination of stress at 1% elongation

b) Tensile test

c) Torsion test or elongation test as appropriate

d) Wrapping test

e) Galvanization test

5. **Quality Assurance Program**

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;
ii. The duties and responsibilities assigned to staff ensuring quality of works;
iii. The system for purchasing, taking delivery and verification of materials;
iv. The system for ensuring quality of workmanship;
v. The quality assurance arrangement shall conform to relevant requirements of ISO 9001;
vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;
vii. List of manufacturing facilities available;
viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;
ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

6. Bid Documentation

6.1 The Bidder shall provided with the Bid two (2) clear copies of the governing standards for fabrication and testing of the ACSR conductor and two (2) clear copies of all other relevant standards referenced therein.

6.2 The Bidder shall provide certified type test results of all types of ACSR conductor as required by governing standards.

6.3 The Bidder shall also furnish the Certificate of Compliance, as specified in Paragraph 4.4 of BS 215, Part 2:1970, at the time of the shipment of each lot of conductor, or as required by the appropriate section of the equivalent national standard.

6.4 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

6.5.1 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

PREFORMED WIRE PRODUCTS

1. Scope

This Specification covers the fabrication and supply of pin insulator ties and wire strand grips for stay set commonly used in overhead power line construction.

2. Description

2.1 The design of the preformed wire products specified herein shall be appropriate for the optimum combination of conductor strand diameter, inside diameter, rod diameter, pitch diameter, number of pitch lengths, direction of lay, and raw materials of the specific application.

2.2 The manufacturer of the Preformed Wire Products must have been accredited with ISO 9001:2000 with design and manufacturing quality certification.

2.3 The preformed wire product shall be so designed to grip the designated surface evenly, with evenly-spaced gaps, and shall not bridge the gripped surface due to excessive number of strands in the grip or tie.

2.4 All pin insulator ties shall be suitable for use on the following ACSR conductors fabricated in accordance with British Standards Institution BS 215: part 2: 1970:

ACSR 150 mm^2;

3. Pin Insulator Top Tie

3.1 The top tie shall be designed for use with C-Neck Pin insulators (IS: 731-971) and ACSR bare conductors shown in Table 1. However, details of neck diameter and other details of the pin insulator shall be provided before manufacturing of ties.

3.2 The tie shall be manufactured of aluminum-clad steel wire. It shall be furnished with a semi conductive-rubber tie pad so as to protect insulator against abrasion. The top tie shall be right-hand lay. Applied length of tie shall not be less than 800 mm.

3.3 The tie shall be color coded for conductor size and insulator head style. The tie shall have an, identification tag attached showing manufacturer's catalog number and applicable conductor identification.

4. Double-Support Top Tie

4.1 The double support top tie shall be designed for use with C-Neck Pin insulators (IS: 731-971) and ACSR bare conductors shown in Table 1. However, details of neck diameter and other details of the pin insulator shall be provided before manufacturing of ties.

4.2 The tie shall be manufactured of aluminum-clad steel wire. It shall be furnished with a semi conductive-rubber tie pad so as to protect insulator against abrasion. The top tie shall be right-hand lay. Applied length of tie shall not be less than 800 mm.

4.3 The tie shall be color coded for conductor size and insulator head style. The tie shall have an identification tag attached showing manufacturer's catalog number and applicable conductor identification.

5. **Pin Insulator Side Tie**

5.1 The side tie shall be designed for use with C-Neck Pin insulators (IS: 731-971) and ACSR bare conductors shown in Table 1. However, details of neck diameter and other details of the pin insulator shall be provided before manufacturing of ties.

5.2 The tie shall be manufactured of aluminum-clad steel wire. It shall be furnished with a semi conductive-rubber tie pad so as to protect insulator against abrasion. The top tie shall be right-hand lay. Applied length of tie shall not be less than 800 mm.

5.3 The side tie shall be color coded for conductor size and insulator head style. The side tie shall have an identification tag attached showing manufacturer's catalog number and applicable conductor identification.

6. **Double Side Tie**

6.1 The double side tie shall be designed for use with C-Neck Pin insulators (IS: 731-971) and ACSR bare conductors shown in Table 1. However, details of neck diameter and other details of the pin insulator shall be provided before manufacturing of ties.

6.2 The tie shall be manufactured of aluminum-clad steel wire. It shall be furnished with a semi conductive-rubber tie pad so as to protect insulator against abrasion. The top tie shall be right-hand lay. Applied length of tie shall not be less than 800 mm

6.3 The double side tie shall be color-coded for insulator neck size and crossover point and for insulator identification. The double side tie shall have an identification tag attached showing manufacturer's catalogue number and applicable conductor identification.

7. **Steel Wire Strand Grip for Stay Set**

7.1 The steel wire strand grip shall be designed for use with thimble eye or double eye stay rod and tightener fabricated in accordance with given SPECIFICATION, stay wire fabricated in accordance with given SPECIFICATION (B.S. 183 1972/(1983)) and stay insulator fabricated in accordance with SPECIFICATION (IS:5300-1969).

7.2 The steel wire strand grip shall be furnished for strand size and grade in accordance with Table 2.

7.3 The steel wire strand grip shall be manufactured of a galvanized steel wire in cabled loop form with long and short legs. The grip shall have a left-hand lay. Galvanizing shall be equivalent to Class C zinc coating per ASTM A-475.

7.4 The steel wire strand grip shall be color-coded for strand size and length and shall have one (1) or two (2) crossover marks for different diameter fittings. An identification tag shall be attached showing the manufacturer's catalogue number and applicable strand size.

8. Tests

The performs shall undergo type and routine tests in accordance with the relevant governing standard.

9. Quality Assurance Program

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;

ii. The duties and responsibilities assigned to staff ensuring quality of works;

iii. The system for purchasing, taking delivery and verification of materials;

iv. The system for ensuring quality of workmanship;

v. The quality assurance arrangement shall conform to relevant requirements of ISO9001;

vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;

vii. List of manufacturing facilities available;

viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;

ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

10. Bid Documentation

10.1 The Bidder shall provide with the Bid two (2) clear copies of the governing standards for fabrication and testing of preformed wire products and two (2) clear copies of all other relevant standards referenced therein.

10.2 The Bidder shall provide certified type test results of preformed wire products as required by governing standards.

10.3 The Bidder shall provide complete description, and catalogue of preformed wire products.

10.4 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

10.5 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

TABLE 1
INSULATOR TIES

Tie Application	**Identification Tag and Color Code**	
	150 sq. mm. "WOLF"	
Top Tie	TT-1	Red
Double Pin Top Tie	DTT-1	Red
Side Tie	ST-1	Green
Double Side Tie	DST-1	Green

1. ***Note:*** All designations shown are used for product identification for the purpose of this IFB.

TABLE 2
STEEL WIRE STRANDED GRIPS

Tie Application for Strand Size	**Identification Tag and Color Code**	
7/10 SWG	GS-1	Red
7/12 SWG	GS-2	Blue

Note: All designations shown are used for product identification for the purpose of this IFB.

PARALLEL GROOVE (PG) CLAMPS

1. Scope

1.1 This Specification covers design fabrication testing and supply of universal parallel groove (UPG) clamps and fittings commonly used in overhead electric power lines.

2. Description

2.1 The PG clamp shall be designed and manufactured to achieve full compatibility between clamps and conductors and produce uniform and electrically efficient connections between conductors for the class of connection intended.

2.2 The manufacturer of PG Clamp must have been accredited with ISO 9001:2000 with design and manufacturing quality certification.

2.3 The PG clamp is intended to be used for ACSR to ACSR conductor.

2.4 The body of PG clamp shall be made of aluminum alloy from a permanent mould process and hardware consisting of nuts, bolts and washer shall be made of hot dip galvanized steel. The PG clamps shall have sufficient mass and contact area to provide the thermal capacity required for load cycling and fault current. The clamps shall be designed to provide the distributed current density necessary to prevent hot spots, and current carrying rating of the conductors for which they are designated. PG clamp shall have oxide inhibiting compound and contact aid.

2.5 The clamps shall be manufactured to accommodate ACSR conductors as shown in Table 1.

2.6 The grooves on the clamps shall be open-edged on two (2) edges for easy installation over a run conductor and insertion of tap conductor.

2.7 The clamp shall be tested in accordance with the relevant ANSI standard or other equivalent national or international standard specifying the performance requirement for the electrical and mechanical characteristics of clamps. The clamps shall conform to all testing requirements of that standard for the classes of clamps considered.

2.8 Each clamp shall be marked with the type and size of conductor, which will correctly fit each groove.

3. Tests

The PG clamps shall undergo type and routine tests in accordance with the relevant governing standard.

4. Quality Assurance Program

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;

ii. The duties and responsibilities assigned to staff ensuring quality of works;

iii. The system for purchasing, taking delivery and verification of materials;

iv. The system for ensuring quality of workmanship;

v. The quality assurance arrangement shall conform to relevant requirements of ISO9001;

vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;

vii. List of manufacturing facilities available;

viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;

ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

5. Bid Documentation

5.1 The Bidder shall provide with the Bid two (2) clear copies of the governing standards for fabrication and testing of PG clamp.

5.2 The Bidder shall provide a complete description, and catalogue/drawing of PG clamp.

5.3 The Bidder shall provide certified type test results of PG clamp as required by governing standards.

5.4 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

5.5 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

TABLE 1

PG CLAMP for ACSR to ACSR conductor

Groove A	Groove B	Identification
D	D	D-D

D= 150 mm^2 ACSR Conductor

CROSSARMS AND BRACING ANGLES

1. **Scope**

This Specification covers the fabrication and supply of galvanized steel cross-arms and bracing members commonly used in overhead power line construction.

2. **Material**

2.1 The steel cross-arms shall be fabricated from hot rolled channels and angles.

2.2 The steel channels and angles shall be fabricated and tested in accordance with Indian Standards IS: 226-1975 and IS-808-1964 or any revision thereof or other equivalent national or international standard provided that ensure at least equal or better quality to the standard mentioned above will also be acceptable. The minimum tensile strength of the steel shall be 4200 kg/cm^2.

3. **Description**

3.1 The steel cross-arms and bracing angles shall be of sizes shown in the Table 1: Cross-arms and bracing angles, contained herein.

3.2 Conceptual hole pattern and size of holes on cross-arm channels are shown in appropriate drawings herein, however, the Supplier must confirm with the Project the locations and sizes of holes prior to the manufacture.

3.3 The surface of the steel shall be flat after drilling or (punching) and free of dimpling or imperfections. The hole edges shall be broken by reaming. The holes shall be full dimension after galvanizing and no minus tolerance of specified hole size will be accepted.

3.3 The steel cross-arm and bracing angles shall be furnished reasonably smooth on all surfaces and free of burrs or sharp projections.

4. **Galvanizing**

4.1 The steel cross-arms and bracing angles shall be galvanized after fabrication in accordance with IS: 2629-1985 or any revision thereof or other equivalent national or international standard provided that ensure at least equal or better quality to the standard mentioned above will also be acceptable..

5. **Tests**

5.1 Apart from the tests indicated herein in the referenced standards, the channels and angles shall undergo following tests:

- Visual Inspection;
- Verification of Dimensions;

6. **Quality Assurance Program**

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;

ii. The duties and responsibilities assigned to staff ensuring quality of works;

iii. The system for purchasing, taking delivery and verification of materials;

iv. The system for ensuring quality of workmanship;

v. The quality assurance arrangement shall conform to relevant requirements of ISO9001;

vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;

vii. List of manufacturing facilities available;

viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;

ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

7. **Bid Documentation**

7.1 The Bidder shall provide with the Bid two (2) clear copies of the governing standards for fabrication and testing of channels and angles and two (2) clear copies of all other relevant standards referenced therein.

7.2 The Bidder shall provide a complete description, catalogue and certified dimensional drawings of all channels and angles.

7.3 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

7.4 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

FLAT CROSSARM BRACE

1. **Scope**

This Specification covers the fabrication, testing and supply of flat, galvanized steel cross-arm braces.

2. **Material**

2.1 The flat cross-arms brace shall be fabricated out of hot rolled steel flat.

2.2 The steel flat for cross-arms brace shall be fabricated and tested in accordance with Indian Standards IS: 226-1975, and IS-1731-1971 or any revision thereof or other equivalent national or international standard provided that ensure at least equal or better quality to the standard mentioned above will also be acceptable. The minimum tensile strength of the steel shall be 4200 kg/cm^2.

3. **Description**

3.1 The brace shall be furnished reasonably smooth on all surfaces and free of burrs or sharp projections.

3.2 The surface of the steel shall be flat after drilling or (punching) and free of dimpling or imperfections. The hole edges shall be broken by reaming. The holes shall be full dimension after galvanizing and no minus tolerance of specified hole size will be accepted.

3.3 The brace shall have a minimum tensile strength of 3182 kg at the bolt-hole and bolt slot.

3.4 The brace shall be capable of being bent 10 degrees at the bolt hole or slot and 140 degrees at any point between hole and slot without cracking of the base metal on the outside of bent portion.

3.5 The brace shall be drilled and dimensioned in accordance with Dwg. CA10 attached herein.

4. **Galvanizing**

4.1 The flat cross arm brace shall be hot dipped galvanized after fabrication in accordance with IS: 2629-1985 or any revision thereof or other equivalent national or international standard provided that ensure at least equal or better quality to the standard mentioned above will also be acceptable.

5. **Tests**

5.1 Apart from the tests indicated herein in the referenced standards, the flat cross arm brace shall undergo following tests:

- Visual Inspection;
- Verification of Dimensions;

6. **Quality Assurance Program**

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;

ii. The duties and responsibilities assigned to staff ensuring quality of works;

iii. The system for purchasing, taking delivery and verification of materials;

iv. The system for ensuring quality of workmanship;

v. The quality assurance arrangement shall conform to relevant requirements of ISO9001;

vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;

vii. List of manufacturing facilities available;

viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;

ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

7. **Bid Documentation**

7.1 The Bidder shall provide with the Bid two (2) clear copies of the governing standards for fabrication and testing of flat cross arm brace and two (2) clear copies of all other relevant standards referenced therein.

7.2 The Bidder shall provide a complete description, catalogue and certified dimensional drawings of flat cross arm brace.

7.3 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

7.4 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

INSULATORS & HARDWARES

This specification covers the design, manufacturing/fabrication, procurement, supply and delivery to the site of the following goods.

1. Porcelain Insulators

2. Stay Set

3. Miscellaneous

1. Porcelain Insulators

1.1 Scope

This specification covers the fabrication and supply of pin insulators, suspension insulators, stay insulators as herein specified for use on overhead power line construction. The qualified manufacturer should be a holder of valid ISO Certificate.

All insulators furnished under this specification shall be fabricated and tested in accordance with the National Standard referenced for each type of the following insulator.

1.2 Pin Insulator

The pin insulator made of brown glazed high quality porcelain shall be manufactured and tested in accordance with ISO or the latest version hereof as detailed in drawings.

The pin insulator shall have the following rating and features.

a)	System Voltage	33 KV
b)	Highest System Voltage	36 KV
c)	Rated Voltage	33 KV
d)	Creepage Distance (minimum)	840 mm
e)	Wet Power Frequency Withstand Voltage for 1 minute	75 KV
f)	Impulse withstand Voltage	170 kV
g)	Puncture Power Frequency Voltage (Minimum)	180 kV
h)	Visible Discharge Voltage (effective)	27kV
i)	G.I. Pin Head	Large [IS: 2486-1989 (Part II)]
j)	Electro-Mechanical Strength	10KN
k)	Applicable Standard	IS: 731 – 1971

1.3 Disc Insulator

The disc insulator made of brown glazed high-class porcelain shall be manufactured and tested in accordance with ISO or the latest version thereof as detailed in drawings.

The disc insulator shall be ball and socket type of size 16 mm- B. The disc Insulator shall be supplied in a string of three (3) pieces of 11 KV Disc Insulators for 33 KV voltage systems with the tension clamp as detailed in related drawing. Each 11 KV Disc Insulator shall have the following rating and features:

a)	System Voltage	11 KV
b)	Highest System Voltage	12 KV
c)	Rated Voltage	11 KV
d)	Porcelain Diameter	255 mm
e)	Spacing	145 mm
f)	Creepage distance (minimum)	320 mm
g)	Power Frequency Puncture Withstand voltage	1.3 × Actual dry flashover voltage
h)	Wet Power Frequency Withstand voltage	35 KV
i)	Impulse Withstand Voltage	75 KV
j)	Visible discharge voltage	9 KV
k)	Electro-Mechanical strength	45KN
l)	Applicable standard	IS:731:1971 & 3188:1980

1.4 Stay Insulator

The Stay insulators shall be made of brown glazed high class porcelain as shown in the related drawing. The stay insulator shall be manufactured and tested in accordance with ISO as detailed in drawings. The stay insulator shall have following ratings and features:

Rated Voltage KV	33
Highest system Voltage KV	36
Creepage distance (mm)	57
Minimum Failing Load	88 KN
Power Frequency Withstand Voltage, KV For 1 minute	
Dry	27
Wet	13
IS Designation of Insulation	C
Applicable Standard	IS: 5300-1969

1.5 Marking

1.5.1 Each insulator shall be legibly and indelibly marked to show the following:

a) Name or trademark of the manufacturer.

b) Year of manufacture.

c) Country of manufacturer

d) Applicable Standard

e) Name of the Purchaser as follows**: "NEA-MMTL"**

f) Minimum failing load in Newton (for pin and disc insulators only)

g)

1.5.2 Markings on porcelain shall be printed and shall be applied before firing.

1.6 Tests

1.6.1 Type test

The Bidders shall include with their offers type test certificates issued by an independent testing laboratory of repute comprising, among other:

- Dry lightning impulse withstand voltage test;
- Wet power frequency withstand voltage test.
- Visible discharge test

1.6.2 Routine test

Following routine test shall be carried out on the sample in accordance with the governing standard:

- Verification of dimensions
- Temperature cycle test
- Mechanical tests
- Puncture test
- Porosity test

1.7 Insulators pin

1.7.1. General

This specification covers the fabrication and supply of bolt type, cross arm insulator pins.

1.7.2. Description

The insulator pin to be supplied shall conform to the shape and dimensions shown in the drawing contained in this specification. The insulator pin shall be furnished with a spring steel spilt lock washer and nut assembled on the insulator pin. The insulator pins shall be compatible with the pin insulators as specified above.

The insulator pin shall have following ratings and features:

For 33kV

Head Type	Large L300N
Total Length (mm)	450
Stalk Length (mm)	300
Shank Length (mm)	150
Minimum failing load (kN)	10
Applicable Standard	IS: 2486-1989 (Part II)

1.7.3. Materials:

The insulator pins specified herein shall be fabricated from hot rolled steel. The pins shall be a single piece obtained preferably by the process of forging it shall not be made by joining,

welding shrink -fitting or any other process from more than one piece of material. It shall be of good finish free from flaws and other defects. The finish of the collar shall be such that a sharp angle between the collar and the shank is avoided.

1.7.4. Galvanization:

All ferrous pins, nuts and washers expect those made of stainless steel shall be hot dip galvanized. The threads of nuts shall be cut after galvanizing and shall be well oiled and greased. The galvanization shall confirm to IS 2629-1985.

1.7.5 Finish

All insulator pins shall be reasonably smooth on all surfaces and free of sharp projections.

1.7.6. **Test**

1.7.6.1 Insulator pins shall comply with the following tests as per IS: 2486 (Part I)-1993 or equivalent national or international standard.

1.7.6.2 *Type Tests:*

- Visual examination test
- Checking of threads on head
- Galvanizing test
- Mechanical test

1.7.6.3 *Acceptance Tests:*

- Checking of threads on head
- Galvanizing test
- Mechanical test

1.7.6.4 *Routine Test:*

- Visual examination.

1.8 Disc Insulator Fitting (Tension Set)

1.8.1 Scope

This specification covers the fabrication and supply of tension type disc insulator fittings.

1.8.2 Description

1.8.2.1 The disc insulator fittings shall be supplied with ball and socket couplings, twisted straps, and tension clamps. The insulator fittings shall conform to the shape and dimension shown in the drawings.

1.8.3. Material

1.8.3.1 The tension clamp shall be of the malleable iron type. Other accessories like ball and socket, nuts, bolts shall be made of hot rolled steel and the twisted cross arm strap shall be made of MS sheet metal. Cotter bolts and U-bolts shall be of galvanized steel. Cotter pins shall be stainless steel.

1.8.3.2 All forgings and castings shall be of good finish and free from flaws and other defects. The edges on the outside of fittings, such as the ball socket and holes, shall be rounded. The nominal dimensions of the ball and socket, ball eye and twisted cross arm straps, are given in Drawings. The ultimate strength of clamps shall not be less than 45 KN.

1.8.4. Galvanizing

1.8.4.1 All ferrous fittings and the parts other than those of stainless steel, shall be hot dip galvanized as per IS: 2629-1985 or equal internationally recognized standards.

1.8.5. Tests

1.8.5.1 The disc insulator fittings shall comply with the following tests as per IS: IS: 2486 (Part I)-1993 or equivalent national or international standard.

(a) Type Test:

- Verification of Dimensions,
- Visual Examination Test
- Slip Strength Test,
- Mechanical Test,
- Electrical Resistance Test,
- Heating Cycle Test.

(b) Acceptance Tests:

- Verification of dimensions,
- Galvanizing,
- Mechanical Tests.

(c) Routine Tests:

- Visual Examination Tests
- Routine Mechanical Test

2 Stay Set & Stay Wire

2.1 Stay Set

2.1.1 General

This specification covers the supply of the stay set assembled with the following accessories for use to guy overhead 33 KV line at angle points and dead end points. All the accessories shall be galvanized as per the relevant Standards.

2.1.2 Stay Rods

Stay rods shall be made of mild steel of ultimate tensile strength of 4200 kg/sq. cm as per IS 432 - (part - 1). Length and section of the rod shall be as mentioned in the rating and features. One end of stay rod shall be square headed 50 x 50 x 15 mm and other end is threaded as shown in drawing.

2.1.3 Turnbuckle:

The stay turnbuckle shall be bow type with ratchet nut adjuster as shown in figure. The turnbuckle shall be made of steel of 4200 kgf/sq. cm as per IS 432 (part -1). Bow type part of the turnbuckle shall be made of 19 mm steel rod. A thimble made of 8 SWG G.I. steel shall coupled with bow. The thimble shall be suitable for 7/8 SWG stay wire.

2.1.4 Stay Plate

The stay plate shall be square type galvanized M.S. plate of 6 mm thick. The plate shall have suitable square shape hole of 40mm x 40mm at the center. The dimension of the plate shall be of 600mm x 600mm for 33 kV line. Stay plate rod assembled with stay rod has been shown in the drawing.

2.1.5 Other accessories

The Stay Set shall also include all other accessories such as nut, bolts washers, thimble etc. that are necessary to assemble and fit the complete Stay Set.

Ratings of Stay Set

Details	Stay Type B (33KV)
Length of stay rod	8ft (2440mm)
Diameter of Rod	19 mm
Ultimate tensile Strength of stay rod and turn buckle	4200kg/sq cm
Length of threaded portion	300mm
Thimble Shape	Suitable for 7/8 SWG Steel wire
Thimble Section	8 SWG min
Stay plate section	600x600x6mm
Elbow	19 mm dia. M.S. Rod
Galvanization	Conform to IS -2629-1985
Applicable Standard for Steel	IS 432

2.1.6 Galvanizing

All the stay set assembly must include rod, plate, turnbuckle, nut & bolts, washers, thimble etc. and they should be hot dip zinc galvanized conforming to IS.2629-1985 or the latest version thereof or any other national or international standards that ensures at least equal or better quality to the standard mentioned above, will also be acceptable.

2.1.7 Tests

2.1.7.1 Apart from the tests indicated in the relevant referenced standards of steel, the stay set shall undergo following type tests:

- Visual Inspection.

- Verification of Dimensions.
- Tensile test: The stay set assemblies shall withstand a minimum tensile loads specified in Table 1.
- Bend test: The stay rod shall be bend-tested over a mandrel of 19 mm through an angle of 90 degrees at any point in the un-threaded section of the rod without fracture of the steel. Temperature of the test shall be 22.5 deg Celsius.

2.1.7.2 Routine tests shall be performed on each batch of the stay sets as per the relevant governing standards.

2.2 Stay Wire

The Stay Wire shall be the zinc-coated steel wire strand type generally used for guying the Stay Set used on poles for the construction of overhead power line.

2.2.1 Description of strands

The steel strand shall be fabricated in accordance with ASTM specification A-475 or and equivalent national or international standard, subject to the provision of paragraph 4 contained herein.

The steel strand shall have the following features:

For 33KV

Wire SWG	7/8
Quality of individual wire with high strength	Class B
Quoting on the wire	Zinc
Individual wire diameter after quoting	12.70 mm
No. of strand	7 wires
Nominal diameter of the Strand	4.19 mm
Laying of the Strand	Left hand lay
Minimum breaking strength	8527.53Kg
Applicable Standard for Stay Wire	B.S.183(1972/1983) IS:2629-1985

2.2.2 Packaging

The steel wire strand shall be furnished in 70m reels. Each reel shall have a weather resistance tag securely attached the length, nominal diameter, number of individual wires, grade of the strand, and the class of zinc coating.

2.2.3 Galvanizing

The stranded stay wire shall be galvanized after fabrication in accordance with IS: 2629-1985 or any revision thereof or any other national or international standards that ensure at least equal or better quality to the standard mentioned above will also be acceptable.

2.2.4 Tests

The stranded stay wire shall undergo type and routine tests in accordance with the governing standard.

3.0 Miscellaneous

3.1 Full Tension Sleeve

The sleeve shall be dual tension (2 pieces) for use with ACSR conductor. The steel sleeve shall be heavily plated for resistance to corrosion and compatibility with aluminum and shall be abrasive lined for maximum holding strength.

The aluminum outer sleeve for ACSR Wolf conductor shall have a filler hole to permit centering over the steel sleeve and permit inhibitor application.

3.2 Aluminum Binding Wire

The aluminum binding wire shall be used for binding or securing WOLF conductor to pin insulators fixed on the cross arms. The aluminum binding wire should be of required strength and conforming to latest ISO standards. However the diameter of the aluminum wire should not be less than 3.25 mm.

3.3 PG Clamp

PG Clamps shall be used for application in the non-tension connection at jumper supports in 33 kV line structures. PG Clamps should be suitably designed for tightening and holding of WOLF conductor in place. It must be corrosion resistant and conform to latest ISO standards.

3.4 Pre-shipment inspection

The materials to be procured shall be subjected to routine test before final shipment at the manufacturer's premises. Following tests shall be carried out:

i. Dimension Test
ii. Temperature Cycle test
iii. Mechanical failing Load Test
iv. Porosity Test
v. Power Frequency test
vi. Galvanizing test
vii. Bend Test/Load Test
viii. Hardness

Sample Size and Acceptance Number

Lot Size	For Dimensions and Temperature Cycle test					For Mechanical Electro-mechanical and porosity test		For galvanizing and puncture test	
	1st sample size	2nd sample size	Acceptance number	1st rejection number	2nd rejection number	1st sample size	2nd sample size	1st sample size	2nd sample size
Up to 1000	8	8	0	2	2	5	5	3	3
1001 to 3000	13	13	0	2	2	8	8	5	5
3001 to 10000	20	20	0	2	2	13	13	7	7
10001 and above	32	32	1	3	4	20	20	12	12

3.5 Quality Assurance Program

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;
ii. The duties and responsibilities assigned to staff ensuring quality of works;
iii. The system for purchasing, taking delivery and verification of materials;
iv. The system for ensuring quality of workmanship;
v. The quality assurance arrangement shall conform to relevant requirements of ISO9001;
vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;
vii. List of manufacturing facilities available;
viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;
ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

3.6. Bid Documentation

The Bidder shall provide with the Bid two (2) clear copies of the Specification governing manufacturing and testing of the insulators, stay set, stay wire, tension sleeve, aluminum binding wire and PG clamp along with relevant drawings, catalogues.

3.7 Type test certificate shall be included in the bid and shall bear a date that is not earlier than five years from the last date of bid submission. The type test certificate shall have been issued by a reputed independent laboratory.

3.8 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

3.9 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

POLE CLAMPS

1. Scope

1.1 This Specification covers the fabrication and supply of galvanized steel pole clamps with nuts, bolts and washers for use on overhead power line construction.

2. Material

2.1 The pole clamp shall be fabricated out of hot-rolled steel flat.

2.2 The steel flat for pole clamp shall be fabricated and tested in accordance with Indian Standards IS: 226-1975, and IS-1731-1971 or any revision thereof or other equivalent national or international standard provided that ensure at least equal or better quality to the standard mentioned above will also be acceptable. The minimum tensile strength of the steel shall be 4200 kg/cm^2.

3. Description

3.1 Outline details of pole clamps are shown in the drawings. Dimensions may be changed to comply with the final pole sizes selected. Therefore, the dimensions must be confirmed with the Project prior to manufacture.

3.2 Two (2) numbers of galvanized, 16 mm. (dia.) × 60mm. (length), fully threaded bolts with two (2) nuts and washers shall be provided with each pole clamp.

3.3 The fittings shall be free of burrs, splinters, splits, sharp points and edges, which may damage conductors or show evidence of poor workmanship.

3.4 The surface of the steel shall be flat after drilling or (punching) and free of dimpling or imperfections. The hole edges shall be broken by reaming. The holes shall be full dimension after galvanizing and no minus tolerance of specified hole size will be accepted.

3.5 The pole clamps shall have a minimum tensile strength of 3182 kg at the bolt-hole and bolt slot.

4. Galvanizing

4.1 The pole clamps and nut, bolts and washers shall be galvanized after fabrication in accordance with IS: 2629-1985 or any revision thereof or other equivalent national or international standard provided that ensure at least equal or better quality to the standard mentioned above will also be acceptable.

5. Tests

5.1 Apart from the tests indicated herein in the referenced standards, the pole clamps shall undergo following tests:

- Visual Inspection;
- Verification of Dimensions;

6. **Quality Assurance Program**

Along with the Bid the Bidder shall furnish quality assurance program of the manufacturer which includes the Quality System and the Quality Plans, which shall include, among others, information to meet the following requirement, failing which the Bid shall be liable for rejection.

i. The structure of the organization;

ii. The duties and responsibilities assigned to staff ensuring quality of works;

iii. The system for purchasing, taking delivery and verification of materials;

iv. The system for ensuring quality of workmanship;

v. The quality assurance arrangement shall conform to relevant requirements of ISO9001;

vi. Statement giving list of important raw materials, names of manufacturer for the raw materials, list of standards according to which the raw materials are tested, list of test normally carried out on raw materials;

vii. List of manufacturing facilities available;

viii. List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections;

ix. List of testing equipment available with the manufacturer for final testing of equipment specified and the test plant limitation, if any, vis-à-vis the type, special, acceptance and routine tests specified in the relevant standards.

7. **Bid Documentation**

7.2 The Bidder shall provide a complete description, catalogue and two (2) copies of certified dimensional drawings of pole clamps.

7.3 A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

7.4 All data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

INSPECTION, TESTING AND COMMISSIONING

1.1 SCOPE OF WORK

The whole of the Works supplied under the Contract shall be subject to inspections and tests by the Employer or their Representatives during manufacture, erection and after completion. The inspections and tests shall include, but not be limited to, the requirements of this section of the Specifications.

The Contractor shall provide all costs, appliances, apparatus, supervision, labor and services necessary to carry out all tests, unless specifically stated otherwise.

The Contractor shall furnish the detailed schedule of his commissioning plan at least one month prior to the scheduled date. The schedule shall include the commissioning procedures, testing sequences and details of special testing equipment, tests and commissioning record formats, information about relevant standards etc.

The scope of the commissioning program includes the site testing and putting into successful operation of all the equipment supplied under the Contract, for 33kV, 11kV, AC & DC plants and all secondary voltages systems. Testing of energy meters and certification of their accuracy shall also be included.

1.2 OBJECTIVES

The objectives of commissioning work, prior to the successful energization of Plant at full voltage and connection to the system, are the following:

- Confirm the integrity (correctness) of installation.
- Confirm the integrity of insulation, connections and phasing.
- Ensure proof of equipment characteristics.
- Review workmanship.
- Confirm the correct implementation of the design.
- Check equipment ratings.
- Check settings and operation of protective relays.
- Check and measure resistivity of earthing grid and earthing system.
- Confirm the proper functioning of SCADA system.

1.3 QUALITY ASSURANCE, INSPECTION AND TESTING

To assure that the supply and services under the scope of this Contract whether manufactured or performed within the Contractor's works or at his subcontractor's premises or at the Site or at any other place of work, are in accordance with the Specifications, the Contractor shall adopt suitable quality assurance program to control such activities at all points necessary. Such program shall be outlined by the Contractor and shall be finally accepted by the Employer after discussions before the award of the

Contract. A quality assurance program of the Contractor shall generally cover, but not be limited to the following:

(a) His organization structure for the management and implementation of the proposed quality assurance program.

(b) Documentation control system.

(c) Qualification data for bidder's key personnel.

(d) The procedure for purchases of materials, parts, components, and selection of sub-contractors' services including vendor analysis, source inspection, incoming raw materials inspection, and verification of materials purchases.

(e) System for shop manufacturing including process controls and fabrication and assembly controls.

(f) Control of non-conforming items and system for corrective actions.
(g) Control of calibration and testing of measuring and testing equipment.
(h) Inspection and test procedure for manufacture.
(i) System for indication and appraisal of inspection status.
(j) System for quality audits.
(k) System for authorizing release of manufactured products to the Employer.
(l) System for maintenance of records.
(m) System for handling storage and delivery.
(n) A quality plan detailing out the specific quality control procedure adopting for controlling the quality characteristics relevant to each item of supply.

The quality plan shall be mutually discussed and approved by the Employer after incorporating necessary corrections by the Contractor as may be required.

- Quality Assurance Documents

  The Contractor shall be required to submit all the Quality Assurance Documents as stipulated in the Quality Plan at the time of Employer's inspection of material/equipment.

  The Employer, through his duly authorized representatives, reserves the right to carry out Quality Audit and Quality Surveillance of the systems and the procedures of the Contractor's and the subcontractor's Quality Management and Control Activities.

- Inspection, Testing and Inspection Certificates

The Employer shall have the right to re-inspect at his expenses, any material though it would have been previously inspected and approved by him at the Contractor's works before, and if, after the same are inspected at Site following the latter, material is found defective, then the Contractor shall bear the cost of this inspection and reinstatement according to specification.

1.4 TESTS AT MANUFACTURERS WORKS

1.4.1 General

Where no specific test is specified, then the various items of materials and equipment shall be tested in accordance with the relevant British, IEC, or American Standards. Where no appropriate standard is available, tests shall be carried out in accordance with the maker's standard practice, which shall be subject to the Employer's approval.

At least fourteen days' prior notice, in writing or by tele-fax, shall be given to the Employer of the readiness of the plant for test or inspection and every facility shall be provided by the Contractor and sub-Contractor (s) to enable the Employer or their Representative to carry out the inspections and witness the tests. This includes progress, test rig and packing inspections also.

Inspection of equipment will not be carried out unless the Employer has approved copies of the relevant sub-orders, drawings and test procedures. No equipment shall be packed, prepared for shipment, or dismantled for the purpose of packing for shipment, unless it has been satisfactorily inspected, or inspection has been waived by the Employer.

Functional electrical and mechanical tests shall be carried out on the completed plant after assembly in the Works. The extent and method of recording the results shall be agreed by the Employer in sufficient time to enable the tests to be satisfactorily witnessed or to make any changes to the proposed program of tests. All instruments and apparatus used in the performance of the tests shall be subject to the approval of the Employer and, if required by the Employer, shall be calibrated to an agreed standard at a laboratory of national standing to be nominated by the Contractor and approved by the Employer. The costs of carrying out such calibration shall be borne by the Contractor in all cases.

The costs of making/performing any test shall be borne by the Contractor. This shall apply to tests performed at the site or elsewhere.

After receiving the prior information about the completion of manufacturing at the factory, the Employer will depute his personnel to the Contractor's factory to witness the fabrication, assembly and testing of any or all parts of major equipment. The number of the Employer's personnel and equipment to be witnessed will be as listed below. The duration of such visits shall be as per inspection/testing requirements. The Employer shall bear the cost of associated with to and fro travel, daily allowances, accommodation etc. of the inspection personnel. The Employer may hire the services of the third party for the inspection.

(1) 11 m Steel Telescopic Tubular Pole & Fittings	2 persons, 1 visit
(2) ACSR Conductor	1 person, 1 visit
(3) Insulators & Hardwares	2 persons, 1 visit

(4) Stay Set 1 person, 1 visit

The Inspection and Testing works of the power transformer and all other materials shall be carried out at the manufacture's Factory premises. The minutes of meeting of the inspection and testing works shall be prepared. The inspection reports as well as minutes of meeting shall be mentioned with, whether the results of inspection and testing comply with the Technical Specifications of the contract agreement or not.

1.4.2 Test Certificates

Within30 days of the completion of any test, triplicate sets of all principal test records, test certificates and performance curves shall be supplied to the Employer.

These test records, certificates and performance curves shall be supplied for all tests, whether or not they have been witnessed by the Employer or his representative. The information given on such test certificates and curves shall be sufficient to identify the material or equipment to which the certificate refers and should also bear the Contract reference title. Specified requirements shall be shown on each certificate for comparison with actual test results.

When all equipment has been tested, test certificates of all factory and site tests shall be compiled by the Contractor into volumes and bound in an approved form complete with index. Two copies of each volume shall be supplied to the Consultant and five copies to the Employer.

1.4.3 Type Tests

Type tests are required to prove the general design of the equipment and the Contractor may submit certificates of such design tests, which have been carried out on identical equipment. Notwithstanding any provision in BS, IEC or ANSI Standards, the Employer shall have the right to accept such certificates in lieu of the specified type tests or to reject them.

The type tests prescribed shall be carried out at the Contractor's cost in all cases, where either such certificates are not available or are rejected by the Employer.

1.4.4 Commissioning Test

The contractor shall be responsible for checking that total and relative sags of conductors are within the specified tolerances. Such checks shall be carried out at positions along the route selected by the Employer and the contractor shall provide the necessary surveying instruments to enable the checks to be carried out with the line in service without any extra charge.

The commissioning tests are as follows:

(a) Measurement of line parameters

The line insulation resistance shall be measured on each individual section of the lines before the jumper loops are closed and again on the whole lines when they are completed.

The electrical parameters of the lines such as resistance, reactance, susceptance etc. shall be measured in a manner to be approved by the Employer, sufficiently accurately to enable the positive, negative and zero sequence impedance to be determined for the lines.

The lines shall then be energized at the proposed operating voltage from the Employer's system or generating station and the charging current measured and other such tests performed as the Employer may require to make on the completed line.

The contractor shall carry out all these tests in the presence of the Employer, and shall provide all the necessary labor, transportation, apparatus, instruments and other assistance as required, without any extra charge.

(b) High voltage tests

The overhead lines shall be tested with DC voltage applied between each phase and earth by means of a DC high voltage testing unit and without cleaning of the insulators. Bidders shall state leakage current expected for such tests, for the different section of lines and taking into consideration and atmospheric conditions given in Section. The contractor shall supply the necessary apparatus, instruments and the D.C. high voltage supply to the testing unit including those required for carrying out test and should be shown in the appropriate schedules.

The test voltage shall be applied for five minutes for 33 kV overhead lines and shall be as follows:

Line Voltage: 33 kV
D C Test Voltage to Earth : 33x1.73 kV

The electric power necessary for the tests at Site shall be managed by the Contractor. The contractor shall satisfy himself that all connections are good before switching power and shall be responsible for, and make good any damage that may arise because of faulty connections.

All D.C. measuring apparatus, instruments including D.C. high voltage testing unit will be subject to checking and calibration by the Employer before starting the high voltage D.C. current test, catalogues and details to be submitted with offer. Full details and catalogue of the proposed high voltage D.C. testing equipment shall be submitted for approval before shipping the test equipment.

TECHNICAL DATA SHEETS

(To be completed by the Bidder)

TECHNICAL DATA SHEETS

(To be completed by the Bidder)

11m Steel Telescopic Poles

S.N.	Description	Unit	Data
1	Manufacturer		
2	Governing Standard for Steel		
3	Governing Standard for Galvanization		
4	Governing Standard for Welding		
5	Copy of Standard attached ?	Yes/No	
6	Overall length of pole in m		
7	Number of sections		
8	**Section B2**		
	Length	m	
	Thickness	mm	
	Top Dia (Outer)	mm	
	Bottom Dia (Outer)	mm	
	Weight	Kg	
9	**Section B3**		
	Length	m	
	Thickness	mm	
	Top Dia (Outer)	mm	
	Bottom Dia (Outer)	mm	
	Weight	Kg	
10	**Section B4**		
	Length	m	
	Thickness	mm	
	Top Dia (Outer)	mm	
	Bottom Dia (Outer)	mm	
	Weight	Kg	
11	**Section B5**		
	Length	m	
	Thickness	mm	
	Top Dia (Outer)	mm	
	Bottom Dia (Outer)	mm	
	Weight	Kg	
12	**Section B6**		
	Length	m	
	Thickness	mm	
	Top Dia (Outer)	mm	
	Bottom Dia (Outer)	mm	
	Weight	Kg	

14	Weight of pole including base plate & pole cap	Kg	
15	Guaranteed min. Transverse failure load	Kgf	
16	Guaranteed max. Permanent Deflection	mm	

Sign (Manufacturer's authorized Representative) ……

Date ……

Bidder's Seal ……

ACSR Conductor "WOLF"

Item	Description	Unit	Employer's Requirement	Bidder's Offer
1	Name & Address of the Manufacturer			
2	Governing Standards	IS, BS, IEC	IEC/BS: 215 (Part 2)	
3	Copies of Standards Attached?	Yes/No	Yes	
4	Copies of valid type test Attached?	Yes/No	Yes	
5	Copies of valid ISO certificate Attached?	Yes/No	Yes	
6	Technical data of ACSR "WOLF"			
6.1	Conductor Size	mm^2	150	
6.2	Number/Diameter of wire:			
	a) Aluminum	nos./mm	30/2.59	
	b) Steel	nos./mm	7/2.59	
6.3	Cross section:			
	a) Aluminium	mm^2	158.1	
	b) Steel	mm^2	36.8	
	c) Total	mm^2	194.9	
6.4	Conductor diameter	mm	18.13	
6.5	Ultimate strength	kgf	6880	
6.6	Coefficient of linear expansion	per deg. C	17.8×10^{-6}	
6.7	Standard mass of conductor	kg/km	726	
6.8	Electrical DC resistance at 20ºC	Ohm/km	0.1871	
6.9	Standard (non–jointed) length on reel	m	1000	
6.10	Nominal copper area	mm^2	96.8	
7	Drawing & catalogue Attached?	Yes/No	Yes	

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal

33kv Pin Insulator

	Description	Queries
1.	Manufacturer's name	
2.	Catalog number	
3.	Model number	
4.	Applicable standards	
5.	Copies of standards attached	Yes/No
6.	If not IS Standards, are standards used equivalent?	Yes/No
7.	Copies of alternate standard attached?	Yes/No
8.	Ratings:	
	a. Highest system voltage	……..kV
	b. Rated voltage	……..kV
	c. Creepage distance (min)	…….mm
	d. Wet frequency puncture withstand voltage for 1 min	……..kV
	e. Impulse withstand voltage	……..kV
	f. Puncture power frequency voltage (min)	……..kV
	g. Visible discharge voltage (effective)	……..kV
	h. Cantilever strength	……kN
	i. G I pin head	Large/Small

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

11kv Disc Insulators

	Description	**Queries**
1.	Manufacturer	
2.	Catalog Number	
3.	Model number	
4.	Applicable standard	
5.	Copies of standards attached?	Yes/No
6.	If not IS standards are standards used equivalent?	Yes/No
7.	Copies of alternate standard attached?	Yes/No
8	Ratings:	
	Highest system voltage	..... kV
	Rated voltage	..... kV
	Porcelain diameter (min)	..... mm
	Spacing	..... mm
	Creepage distance (min)	..... mm
	Power frequency puncture	
	Withstand voltage	..... kV
	Wet power frequency puncture	
	Withstand voltage	..... kV
	Impulse withstand voltage	..... kV
	Puncture power frequency voltage (min)	..... kV
	Visible discharge voltage	..... kV
	Mechanical strength	..... kN
	Ball and socket size	..... mm

Name & Sign (Bidder's authorized Representative) .....

Date ……

Bidder's Seal ……

33kv Stay Insulator

	Description	Queries
1.	Manufacturer	
2.	Catalog No.	
3.	Model number	
4.	Applicable standards	
5.	Copies of standards attached?	Yes/No
6.	If not IS standards, are standards	
	Used equivalent?	Yes/No
7.	Copies of alternate standards attached?	Yes/No
8.	Ratings:	
	Highest system voltage	……..kV
	Rated voltage	…...…kV
	Creepage distance (min)	……mm
	Minimum failing load	…….kN
	Power frequency withstand voltage, 1 minute	
	Dry	……..kV
	Wet	…….kV
	IS designation	

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

33kv Insulator Pin Fittings

	Description	Queries
1.	Manufacturer's name	
2.	Type of steel used	
3.	Dimensional drawings attached?	Yes/No
4.	Copies of type test attached?	Yes/No
5.	Ratings:	
	Head type	
	Highest system voltage	…….kV
	Total length	……..mm
	Stalk length	……..mm
	Shank length	……..mm
	Creepage distance (min)	……mm
	Minimum failing load	……kN
	Power frequency withstand voltage, 1 minute	
	Dry	…….kV
	Wet	…….kV
	IS designation	……..

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

Disc Insulator Fittings (Suitable for 150 sq.mm ACSR Conductor)

	Description	Queries
1.	Manufacturer	
2.	Catalogue number	
2.	Preliminary drawings furnished?	Yes/No
3.	Steel Classification	
4.	Malleable tension clamp?	Yes/No
5.	Cotter bolts and U-bolts are galvanized?	Yes/No
6.	Cotter pins are stainless steel?	Yes/No
7.	Galvanizing conforms to IS: 2629 – 1985?	Yes/No
8.	Ultimate strength of clamps	……..kN
9.	Applicable standard(s)	

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

33kv Stay Set

	Description	Queries
1.	Manufacturer's name	
2.	Steel Classification for stay set and stay wire	
3.	Governing Standard	
4.	Standard attached?	Yes/No
5.	Governing Standard for galvanizing	
6.	Drawings of stay set submitted?	Yes/No
7.	Rating details	
	Stay set	
	Length of stay rod	……..mm
	Diameter of stay rod	……..mm
	UTS of stay rod and turn buckle	……..kg/sq.cm.
	Length of threaded portion	……..mm
	Elbow diameter	……..mm
	Stay Plate	
	Length of stay plate	……..mm
	Breadth of stay plate	……..mm
	Thickness of stay plate	……..mm
	UTS of stay plate	……..kg/sq.cm.
	Length of threaded portion	……..mm
	Elbow diameter	……..mm
	Stay wire	
	Manufacturer	……..
	Wire SWG	……..
	Quoting on the wire	……..
	Individual wire dia after quoting	…….. mm
	Number of strands	……..

	Nominal diameter of the stranded wire (overall)	……..mm
	Left hand lay	Yes/No
	Minimum breaking strength	……..kg
	Class of Zn coating	
8.	Test reports submitted?	Yes/No

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

Cross Arms and Bracing Angles

	Description	Queries
1.	Manufacturer's name	
2.	Steel Classification	
3.	Minimum tensile strength of steel	…….kN
4.	Is the cross arm and angles fabricated from hot-rolled steel sections?	Yes/No
5.	Governing Standard	
6.	Standard attached?	Yes/No
6.	Governing Standard for galvanizing	
7.	Drawings of cross arm and bracing submitted?	Yes/No

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

Flat Cross Arm Brace

	Description	Queries
1.	Manufacturer	
2.	Steel Classification	
3.	Minimum tensile strength of steel	……..kN
4.	Is the flat cross arm brace fabricated from hot-rolled steel sections?	Yes/No
5.	Governing Standard for manufacturing and testing	
6.	Governing Standard for galvanizing	
7.	Standards attached?	Yes/No
8.	Drawings of flat cross arm brace submitted?	Yes/No

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

Galvanized Pole Clamps

	Description	Queries
1	Manufacturer	
2	Steel classification	
3	Minimum tensile strength of steel	……..kN
4	Referenced galvanizing specification	
5	Drawings of pole clamp furnished?	Yes/No

Name & Sign (Bidder's authorized Representative) ……

Date ……

Bidder's Seal ……

G**alvanized Steel Nuts and Bolts**

	Description	**Queries**
1.	Manufacturer	
2.	Material description furnished?	Yes/No
3.	Minimum tensile strength of steel	……..kN
4.	Governing standard for manufacturing and testing	
5.	Governing standard for galvanization	
6.	Standards attached?	Yes/No

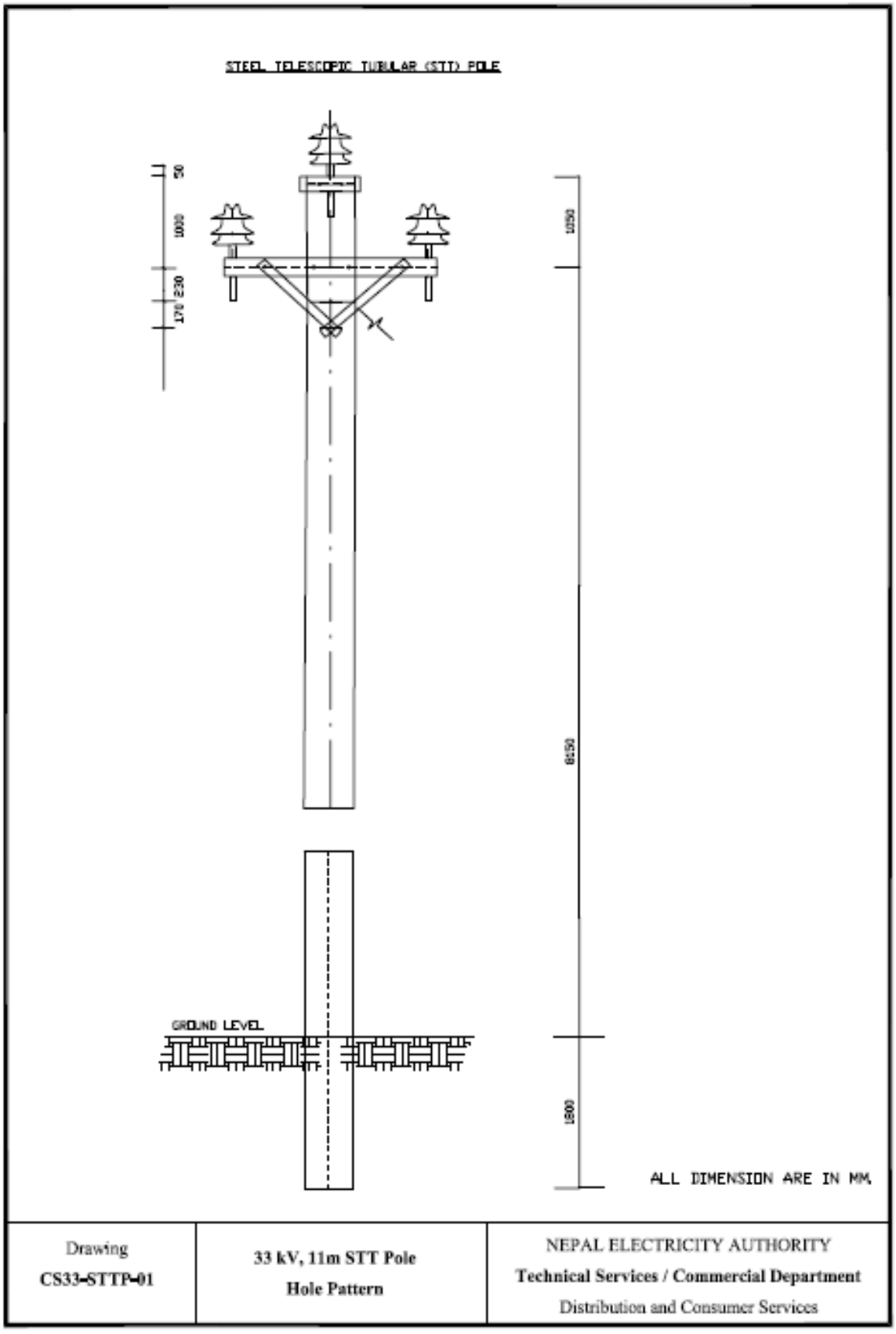
Name & Sign (Bidder's authorized Representative) ……

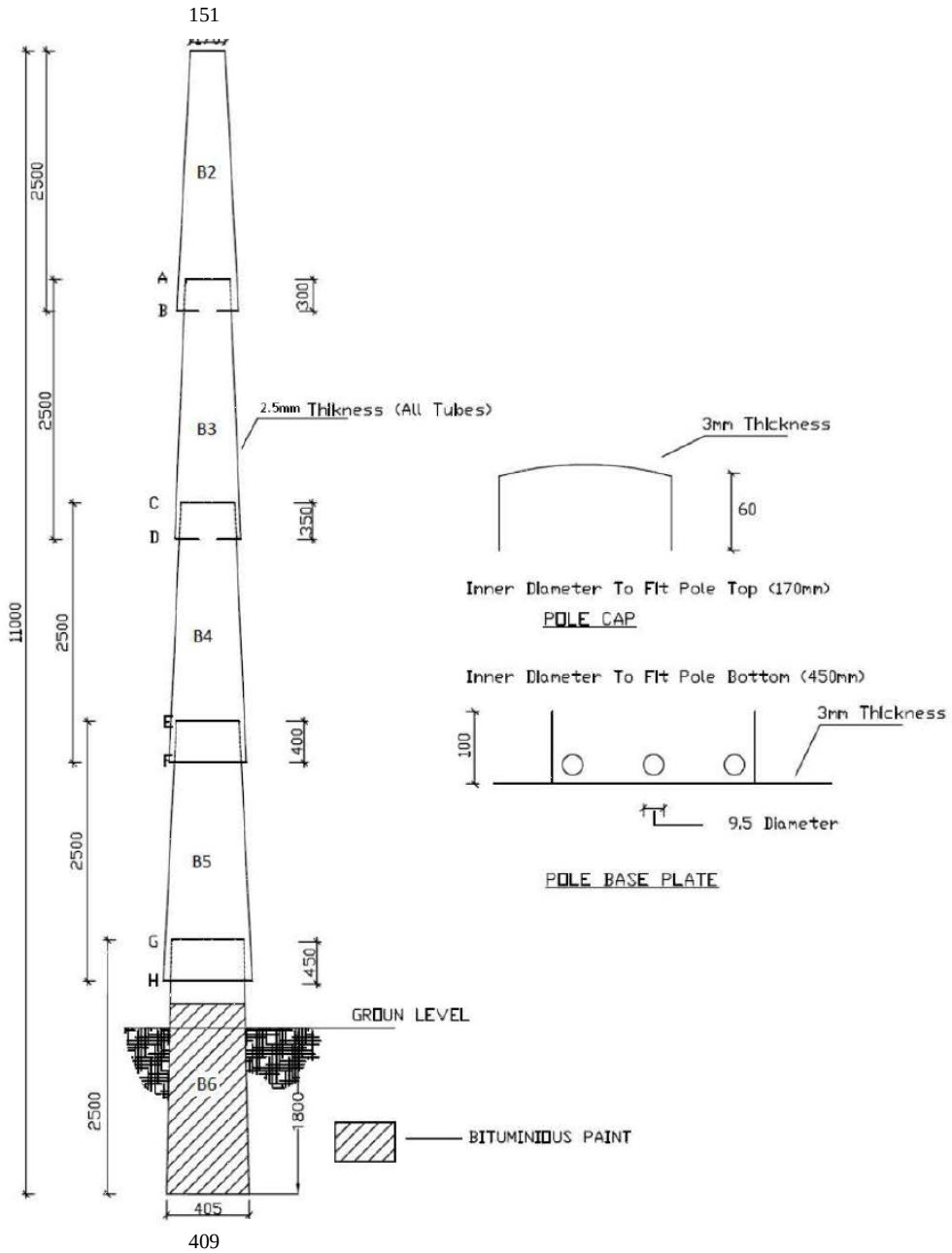
Date ……

Bidder's Seal ……

DRAWINGS

(The data and the drawings related to the poles and fittings provided here are only conceptual. Contractor shall have to carry out detail design and submit for approval. Only after approval of the submitted drawings the contractor can have manufacturer the poles, fittings and other.)


STEEL TELESCOPIC TUBULAR (STT) POLE
50
1000
1750
250
1050
8150
1500
GROUND LEVEL
ALL DIMENSION ARE IN MM.
Drawing
CS33-STTP-01
33 kV, 11m STT Pole
Hole Pattern
NEPAL ELECTRICITY AUTHORITY
Technical Services / Commercial Department
Distribution and Consumer Services

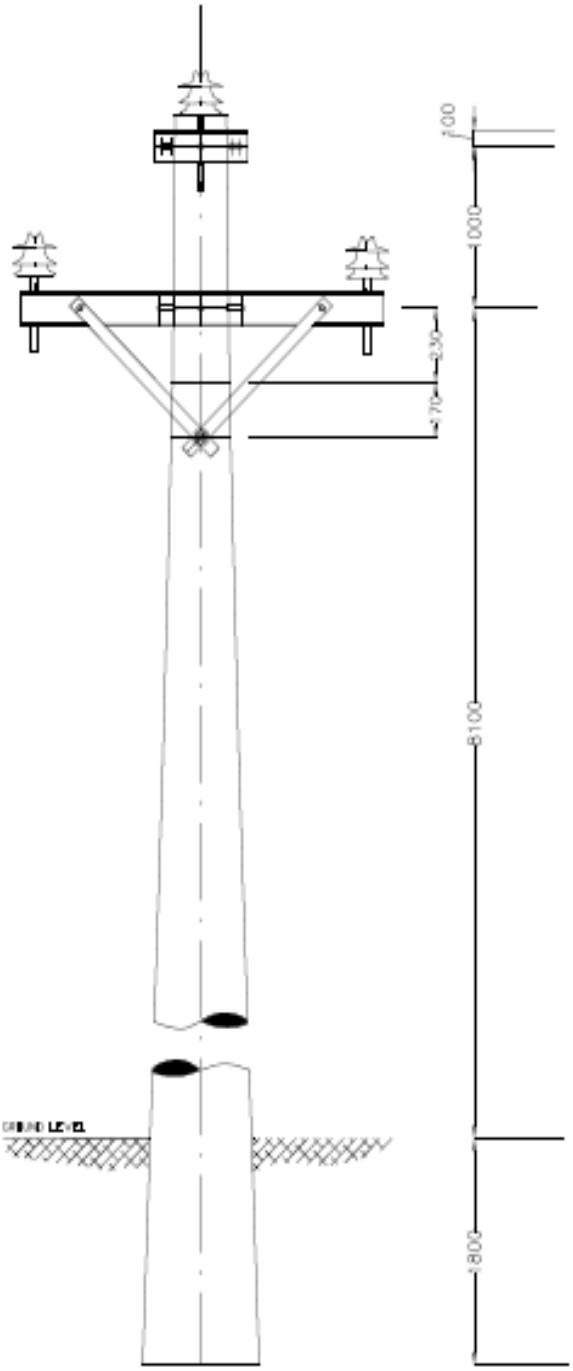


Drawing **CS33-STTP-02**	**33 kV, 11m STT Pole** **Pole Details**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CS33-STTP-03

S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR
2	3	NOS	INSULATOR PIN
3	3	NOS	PREFORM PIN TIES (TOP TIES)
4	1	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x300) mm.
5	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC1)
6	1	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x1900) mm.
7	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC2)
8	2	NOS	FLAT CROSSARM BRACE(40x 6.0x760) mm
9	2	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
10	1	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
11	1	NOS	POLE TELESCOPIC 11m

CONSTRUCTION STANDARDS **33 kV SINGLE ARM STRUCTURE TELESCOPIC POLE**	**NEPAL ELECTRICITY AUTHORITY** **Technical Service/ Commercial Department** **Distribution and Consumer Services**



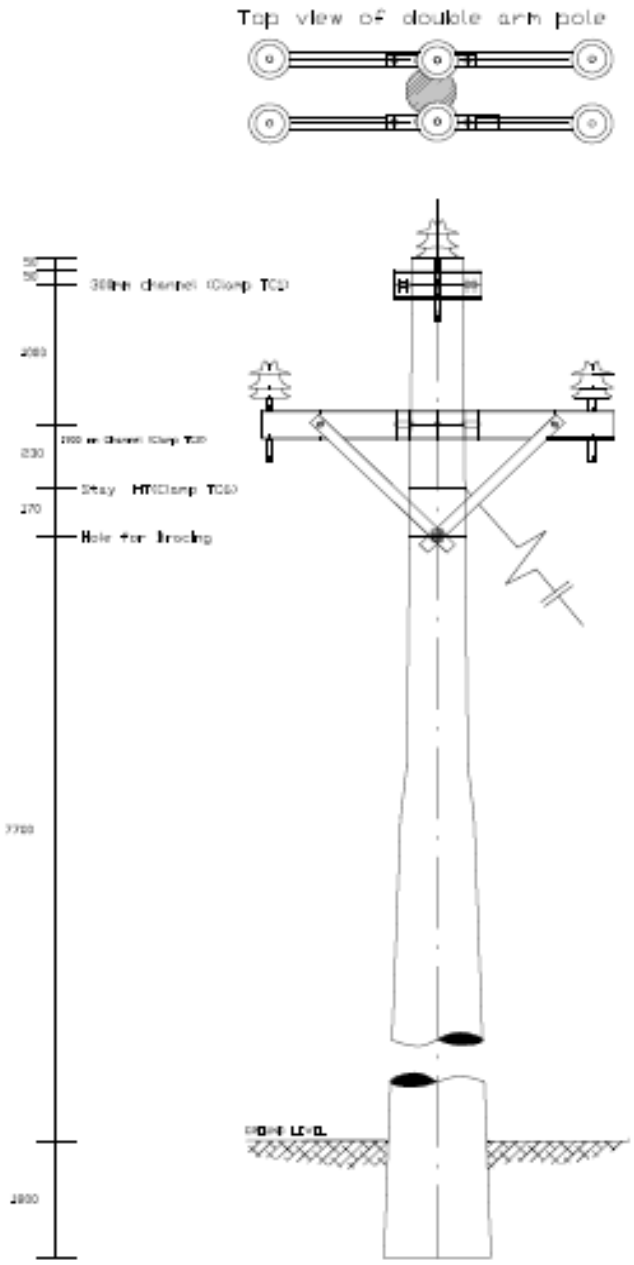
Drawing	33 kV, 11m STT Pole	NEPAL ELECTRICITY AUTHORITY
CS33-STTP-03	**Single Arm Structure**	**Technical Services / Commercial Department**
		Distribution and Consumer Services

Refer Drawing No: CS33-STTP-04

S.No.	QTY.	UNIT	MATERIAL
1	6	NOS	PIN INSULATOR
2	6	NOS	INSULATOR PIN
3	6	NOS	PREFORM PIN TIES (TOP TIES)
4	2	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x300) mm.
5	2	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x1900) mm.
6	4	NOS	FLAT CROSSARM BRACE(40x 6.0x760) mm
7	4	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
8	1	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (16 x350) mm
9	4	SET	DOUBLE ARMING BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
10	1	SET	HT STAY SET (AS REQUIRED)
11	1	NOS	POLE TELESCOPIC 11m

CONSTRUCTION STANDARDS
33 kV DOUBLE ARM STRUCTURE DA TELESCOPIC POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

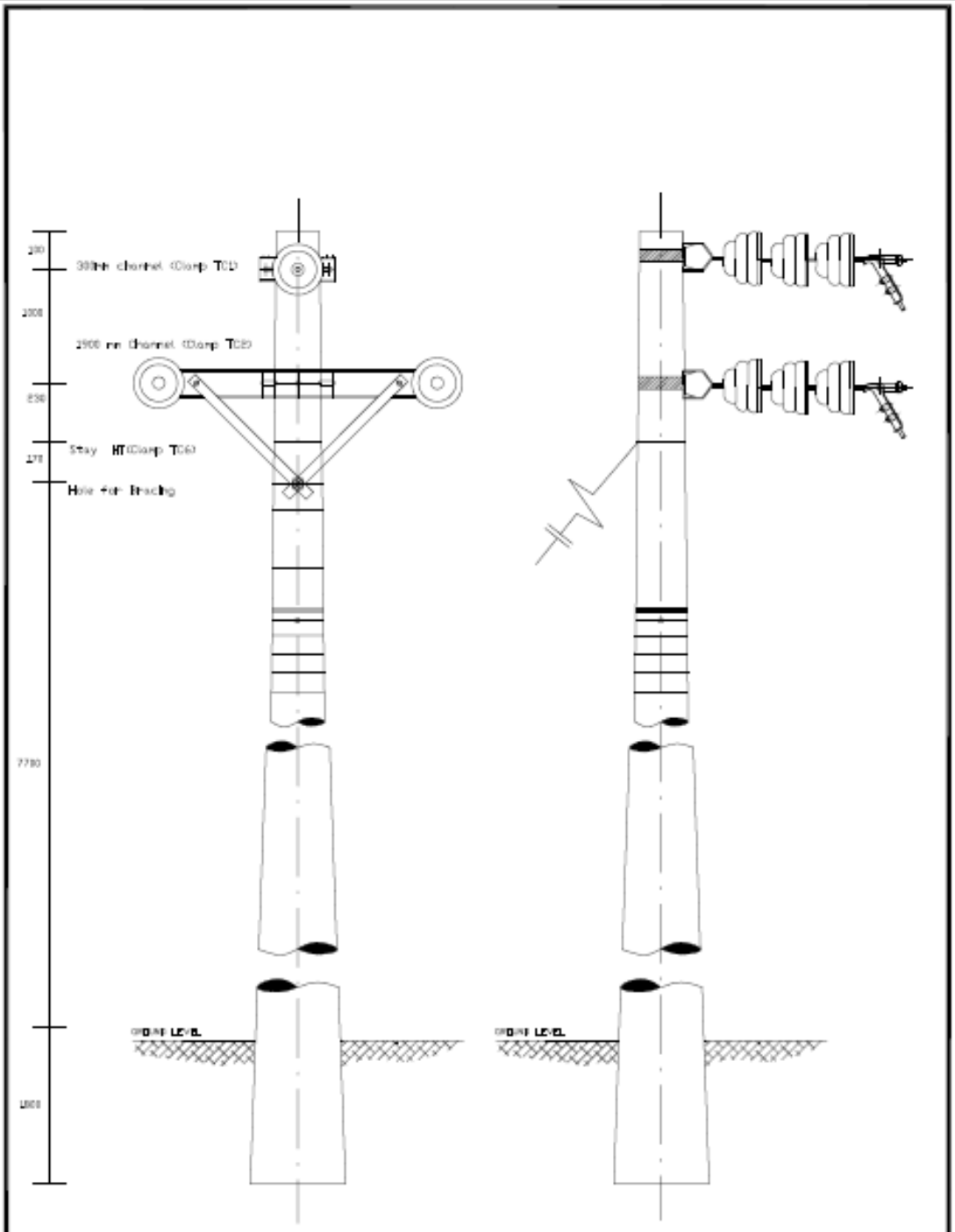


Drawing **CS33-STTP-04**	**33 kV, 11m STT Pole** **Double Arm Structure**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CS33-STTP-05

S.No.	QTY.	UNIT	MATERIAL
1	3	SET	DISC INSULATOR
2	3	SET	BRACK STRAP
3	3	SET	TENSION SET WITH BALL AND SOCKET EYE
4	1	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x300) mm.
5	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC1)
6	1	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x1900) mm.
7	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC2)
8	2	NOS	FLAT CROSSARM BRACE(40x 6.0x760) mm
9	2	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
10	1	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
11	1	SET	HT STAY SET (AS REQUIRED)
12	2	NOS	POLE TELESCOPIC 11m

CONSTRUCTION STANDARDS 33 kV SINGLE ARM STRUCTURE DE TELESCOPIC POLE	NEPAL ELECTRICITY AUTHORITY Technical Service/ Commercial Department Distribution and Consumer Services

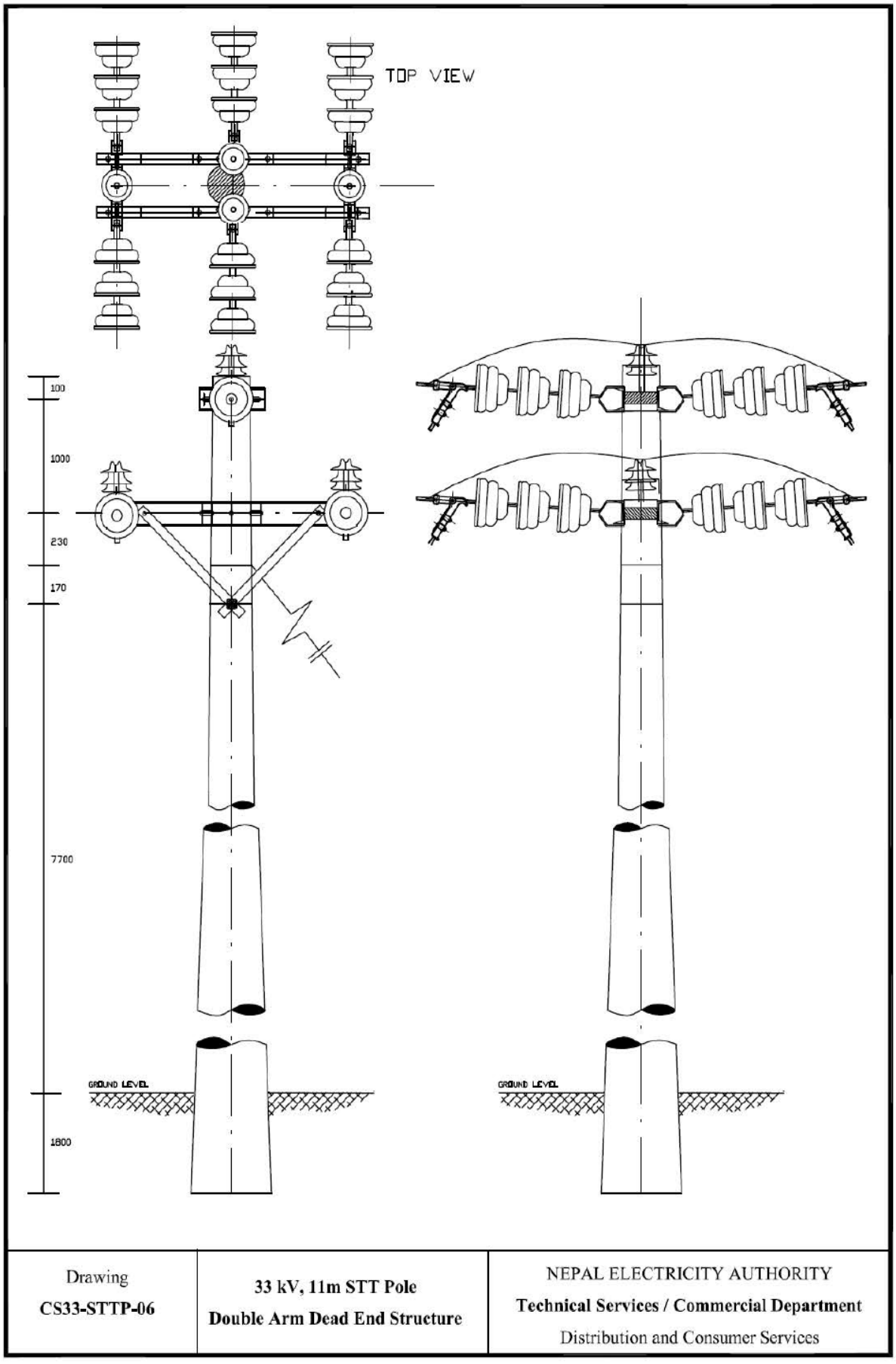


Drawing **CS33-STTP-05**	**33 kV, 11m STT Pole** **Dead End Structure**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CS33-STTP-06

S.No.	QTY.	UNIT	MATERIAL
1	4	NOS	PIN INSULATOR
2	4	NOS	INSULATOR PIN
3	4	NOS	PREFORM PIN TIES (TOP TIES)
4	6	SET	DISC INSULATOR (A SET OF THREE)
5	6	SET	BRACK STRAP
6	6	SET	TENSION SET WITH BALL AND SOCKET EYE
7	6	SET	PG CLAMP
8	2	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x300) mm.
9	2	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x1900) mm.
10	4	NOS	FLAT CROSSARM BRACE(40x 6.0x760) mm
11	12	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
12	1	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
13	4	SET	DOUBLE ARMING BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
14	4	NOS	STRAP FOR INSULATOR STRING
15	1	SET	HT STAY SET (AS REQUIRED)
16	1	NOS	POLE TELESCOPIC 11m

CONSTRUCTION STANDARDS **33 kV DOUBLE DEAD END STRUCTURE DDE** **TELESCOPIC POLE**	**NEPAL ELECTRICITY AUTHORITY** **Technical Service/ Commercial Department** **Distribution and Consumer Services**

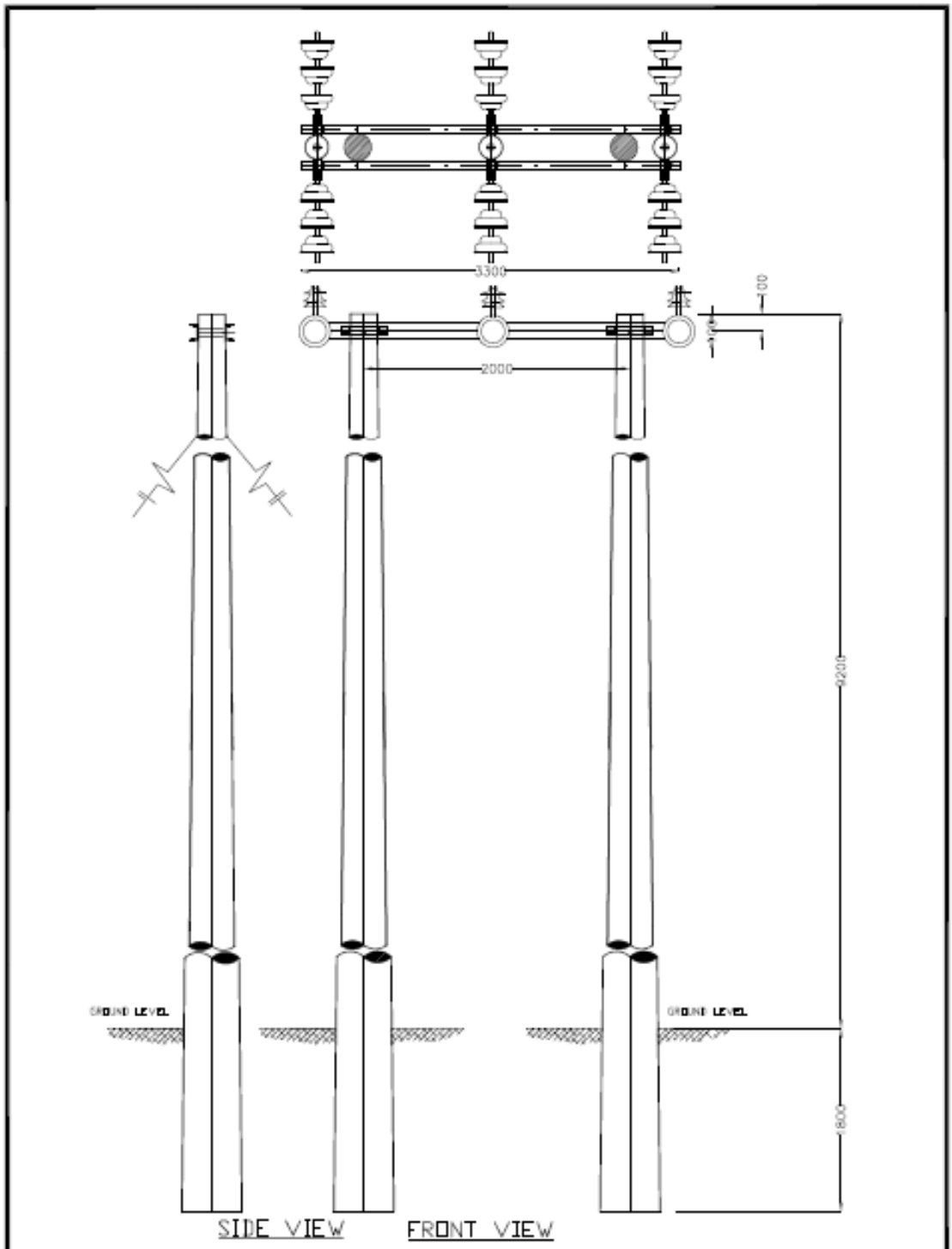


Drawing	33 kV, 11m STT Pole	NEPAL ELECTRICITY AUTHORITY
CS33-STTP-06	**Double Arm Dead End Structure**	**Technical Services / Commercial Department**
		Distribution and Consumer Services

Refer Drawing No: CS33-STTP-07

S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR
2	3	NOS	INSULATOR PIN
3	3	NOS	PREFORM PIN TIES (TOP TIES)
4	6	SET	DISC INSULATOR (A SET OF THREE)
5	6	SET	BRACK STRAP
6	6	SET	TENSION SET WITH BALL AND SOCKET EYE
7	6	SET	PG CLAMP
8	2	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x3300) mm.
9	6	NOS	STRAP FOR INSULATOR STRING (33 kV) (50x 6x404) mm
10	12	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
11	4	SET	DOUBLE ARMING BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
12	1	LOT	HT STAY SET (AS REQUIRED)
13	2	NOS	POLE TELESCOPIC 11m

CONSTRUCTION STANDARDS **33 kV DOUBLE POLE DOUBLE ARM STRUCTURE** **TELESCOPIC POLE**	**NEPAL ELECTRICITY AUTHORITY** **Technical Service/ Commercial Department** **Distribution and Consumer Services**

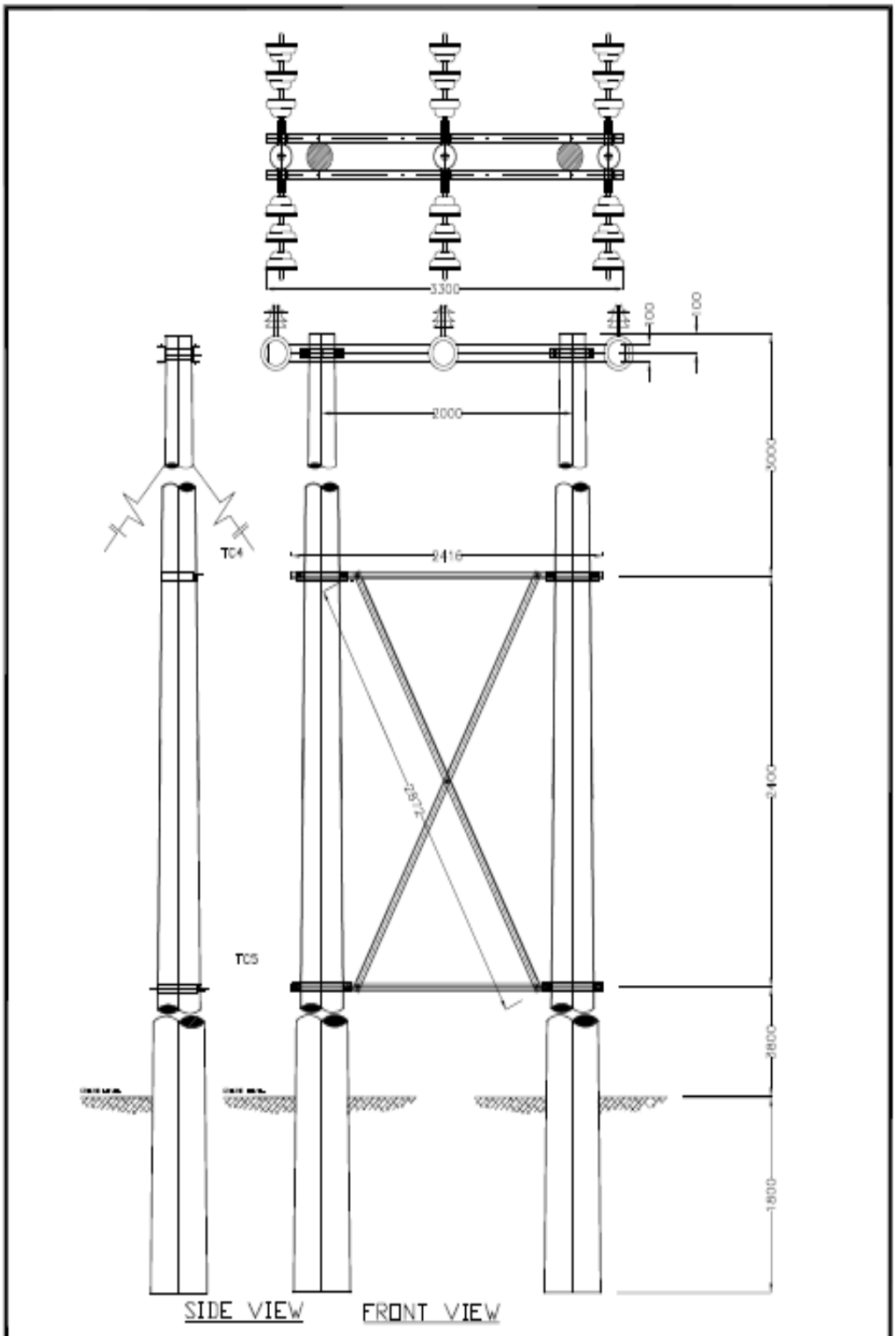


Drawing **CS33-STTP-07**	**33 kV, 11m STT Pole** **Double Pole Double Arm** **Dead End Structure**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CS33-STTP-08

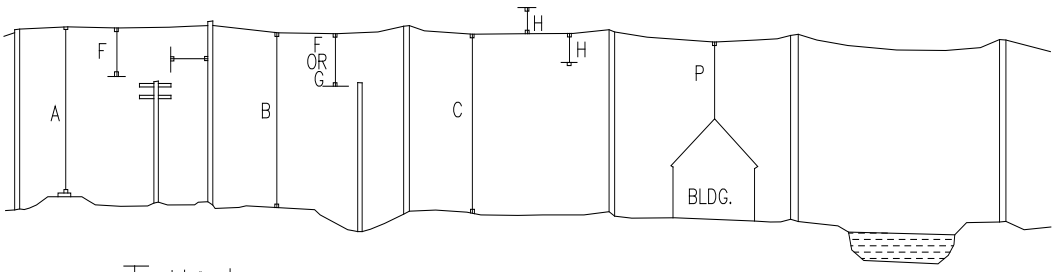
S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR
2	3	NOS	INSULATOR PIN
3	3	NOS	PREFORM PIN TIES (TOP TIES)
4	6	SET	DISC INSULATOR (A SET OF THREE)
5	6	SET	BRACK STRAP
6	6	SET	TENSION SET WITH BALL AND SOCKET EYE
7	6	SET	PG CLAMP
8	2	NOS	STEEL CROSSARM CHANNEL (100x 50x7.5x3300) mm.
9	6	NOS	STRAP FOR INSULATOR STRING (33 kV) (50x 6x404) mm
10	2	NOS	BRACING ANGLE (40x 40x5x2416) mm.
11	2	NOS	CROSS BRACING ANGLE (40x 40x5x2872) mm.
12	17	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
13	4	SET	DOUBLE ARMING BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
14	2	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS ,TOP BRACING (TC5)
15	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS,BOTTOM BRACING (TC6)
12	1	LOT	HT STAY SET (AS REQUIRED)
16	2	NOS	POLE TELESCOPIC 11m

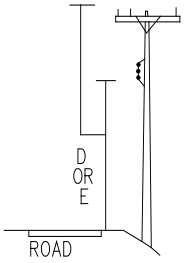
CONSTRUCTION STANDARDS **33 kV H -STRUCTURE** **TELESCOPIC POLE**	**NEPAL ELECTRICITY AUTHORITY** **Technical Service/ Commercial Department** **Distribution and Consumer Services**



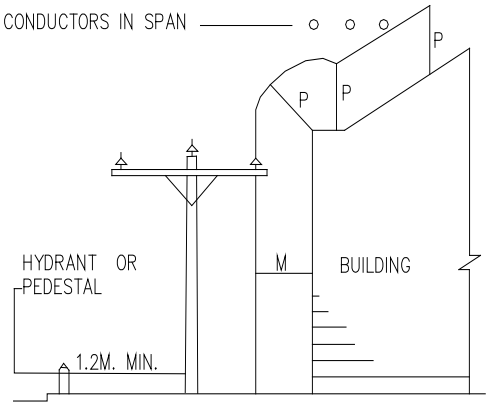
Drawing	33 kV, 11m STT Pole	NEPAL ELECTRICITY AUTHORITY
CS33-STTP-08	Double Pole Double Arm Dead End Structure (H - Structure)	Technical Services / Commercial Department Distribution and Consumer Services

CONDUCTOR CLEARANCE





POLES ADJACENT TO ROADS



MINIMMUM CLEARANCE FROM BUILDINGS

	CROSSING OVER	VOLTAGE OF CIRCUIT CROSSING	METER
A	RAILROAD OR TURNPIKE	STAY & CABLE MESSENGER	7.10
		0 – 650 V.	7.10
		651 – 33,000 V.	7.60
B	ROAD, STREET, HIGHWAY OR LIMITED ACCESS HIGHWAY –	STAY & CABLE MESSENGER	5.80
		0 – 650 V.	5.80
		651 – 33,000 V.	6.10
C	AREAS ACCESSIBLE TO PEDESTRIANS ONLY	STAY & CABLE MESSENGER	4.60
		0 – 650 V.	4.60
		651 – 33,000	5.50
	LINE ALONG SIDE OF		
D	MAIN HIGHWAYS STREETS OR ALLEYS	STAY & CABLE MESSENGER	5.50
		0 – 650 V.	5.50
		6581 – 33,000 V.	6.10
E	RURAL ROADS NO VEHICLE CROSSING UNDER	STAY & CABLE MESSENGER	4.60
		0 – 650 V.	4.60
		651 – 33,000 V.	6.00

LOCATIONB	VOLTAGE	CLEARANCE (METER)
M	0 – 11.000 V.	1.20
	11.000 – 33.000 V.	1.83
P	0 – 11.000 V.	2.44
	11.000 – 33.000 V.	3.65

CLEARANCE M ALSO SPECIFIED HORIZONTAL CLEARANCE FROM BALCONIES.

CONSTRUCTION STANDARDS

CONDUCTOR CLEARANCE

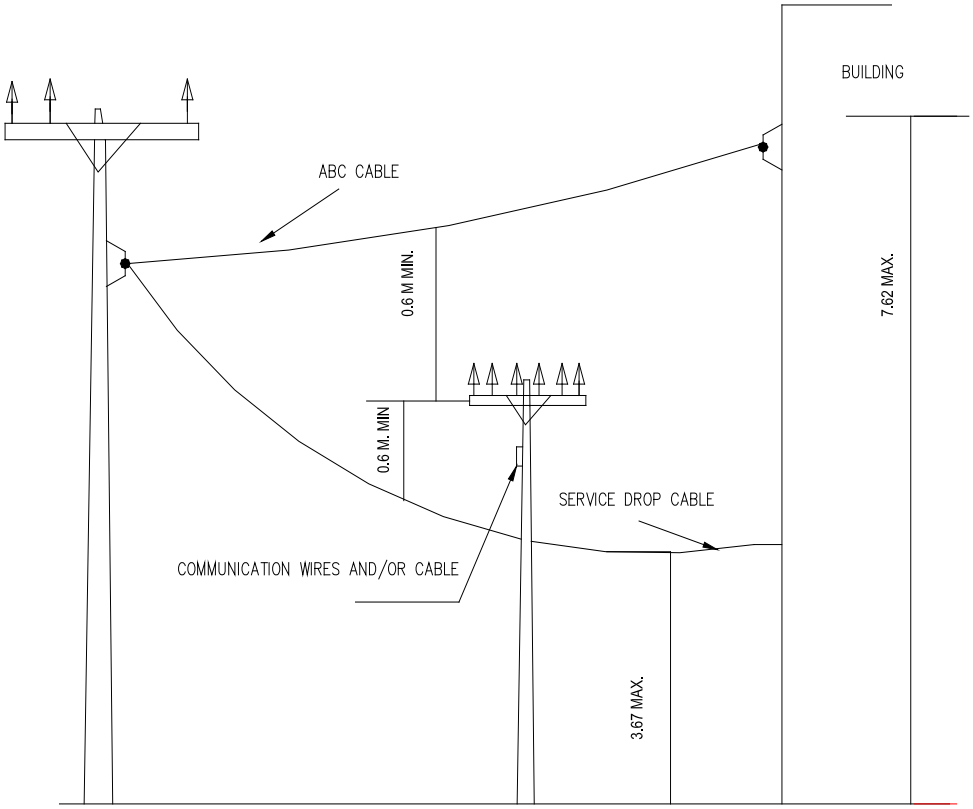
NEPAL ELECTRICITY AUTHORITY

CONDUCTORS AT HIGHER LEVEL / CONDUCTORS AT LOWER LEVEL		SERVICE DROP 0 – 650 V	OPEN SUPPLY WIRES			STAYS AND SUPPLY CABLES ON GROUNDED MESSENGER
			0 – 650V	651 – 11000 V	33000 V	
F	COMMUNICATION WIRES	0.60 M.				
	COMMUNICATION CABLES AND MESSENGER	0.6 M. OVER 1.2 M. UNDER	1.38	2.15	—	0.60
G	SUPPLY CABLES ON EFFECTIVE GROUNDED MESSENGER	0.6 M. OVER 1.2 M. UNDER	0.60	0.60	—	0.60
H	OPEN SUPPLY 0 – 650 V.	—	1.30	1.80	2.70	0.60
	WIRES 651 – 11,000 V.	—	—	1.20	—	1.20
GUYS SERVICE DROPS 0 – 650 V.		0.60	0.60	1.20	—	—

— VOLTAGE SHOWN ARE PHASE TO GROUND VALUES.

	CONSTRUCTION STANDARDS CONDUCTOR CLEARANCE	NEPAL ELECTRICITY AUTHORITY

CONDUCTOR CLEARANCE



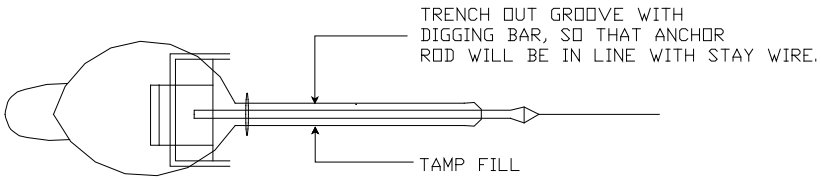
SERVICE DROP: Install Service over communication facilities where practical and attached to pole when available; otherwise cross under communication facilities; with proper clearance.

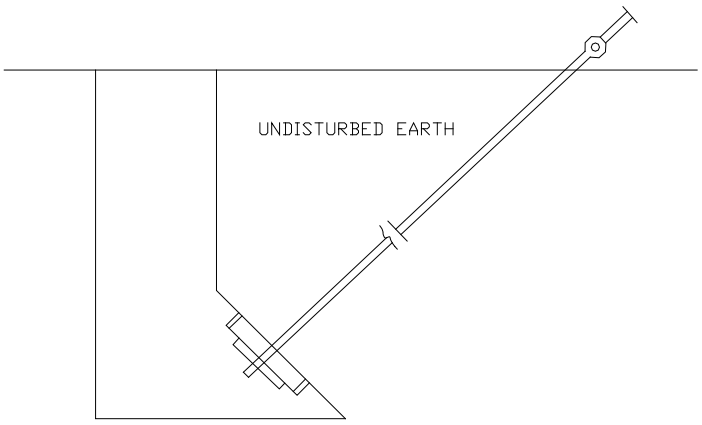
SERVICE DROP (0-600 V) Crossing Over	CLEARANCE
DRIVE WAY TO RESIDENCE, GARAGE, OR OVER PARKING LOT EXCLUDING TRACKS IN URBAN AREA	3.67 M
DRIVE WAY AND COMMERCIAL PARKING LOT OR AREA SUBJECT TO TRUCK TRAFFIC	4.57 M

CONSTRUCTION STANDARDS

CONDUCTOR CLEARANCE

NEPAL ELECTRICITY AUTHORITY

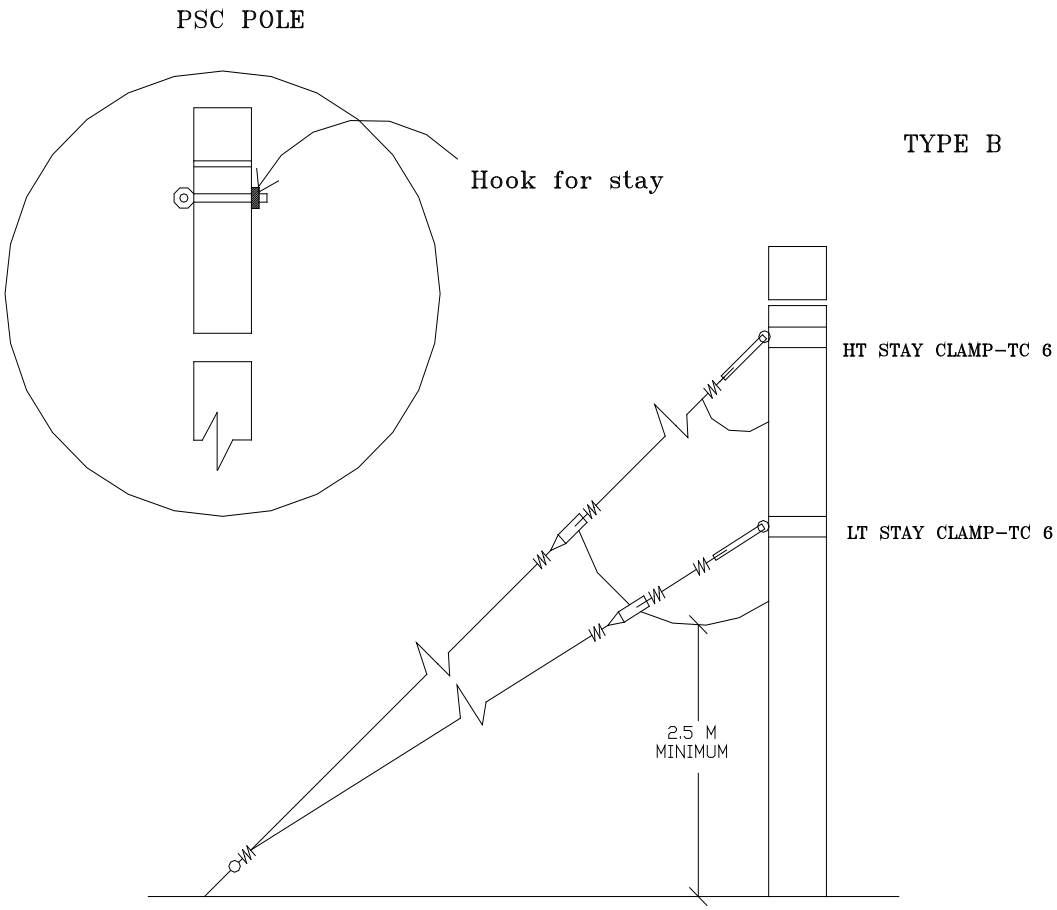




MAKE UNDERCUT AT BOTTOM OF ANCHOR HOLE,
PLATE TO BEAR AGAINST UNDISTURBED EARTH.

1. BACKFILL SHALL BE THOROUGHLY TAMPED.
2. BACKFILL FOR ANCHORS PLACED IN SOFT OR UNSTABLE SOIL SHALL BE 50MM GRAVEL PLACED TO DEPTH OF 1000 MM ABOVE ANCHOR PLATE.

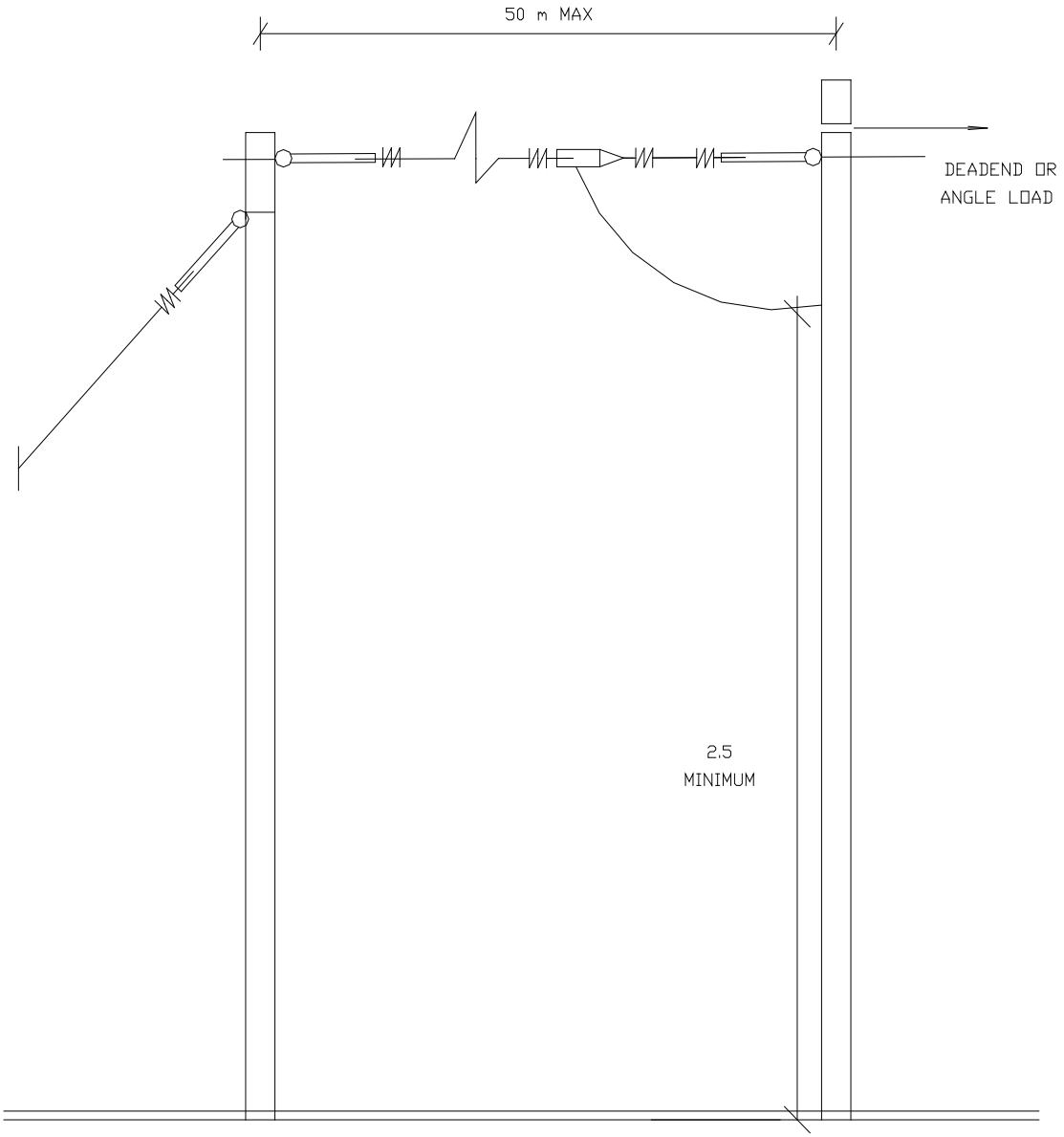
	CONSTRUCTION STANDARDS STAYS AND ANCHORS	NEPAL ELECTRICITY AUTHORITY



NOTE:
1. REFER CSG-M3 & CSG-M4 FOR PSC & TTSP POLE RESPECTIVELY FOR B/M.
2. STAY ROD EYE SHALL NOT EXTEND ABOVE SOIL MORE THAN 150mm.
3. REFER FOR CONSTRUCTION STANDARD, SECTION IX-2D.

	CONSTRUCTION STANDARDS STAYS AND ANCHORS	NEPAL ELECTRICITY AUTHORITY

TYPE C



NOTE:

1. REFER CSG-M1 & CSG-M2 FOR PSC & TTSP POLE RESPECTIVELY FOR B/M.
2. SPAN OF STAY SHALL BE LIMITED TO A MAXIMUM LENGTH OF 50 METERS.
3. REFER FOR CONSTRUCTION STANDARD, SECTION IX-2D.

	CONSTRUCTION STANDARDS STAYS AND ANCHORS	NEPAL ELECTRICITY AUTHORITY

NOTES

A. PLOT APPROXIMATE GROUND LINE PROFILE UNDER PROPOSED SAY.

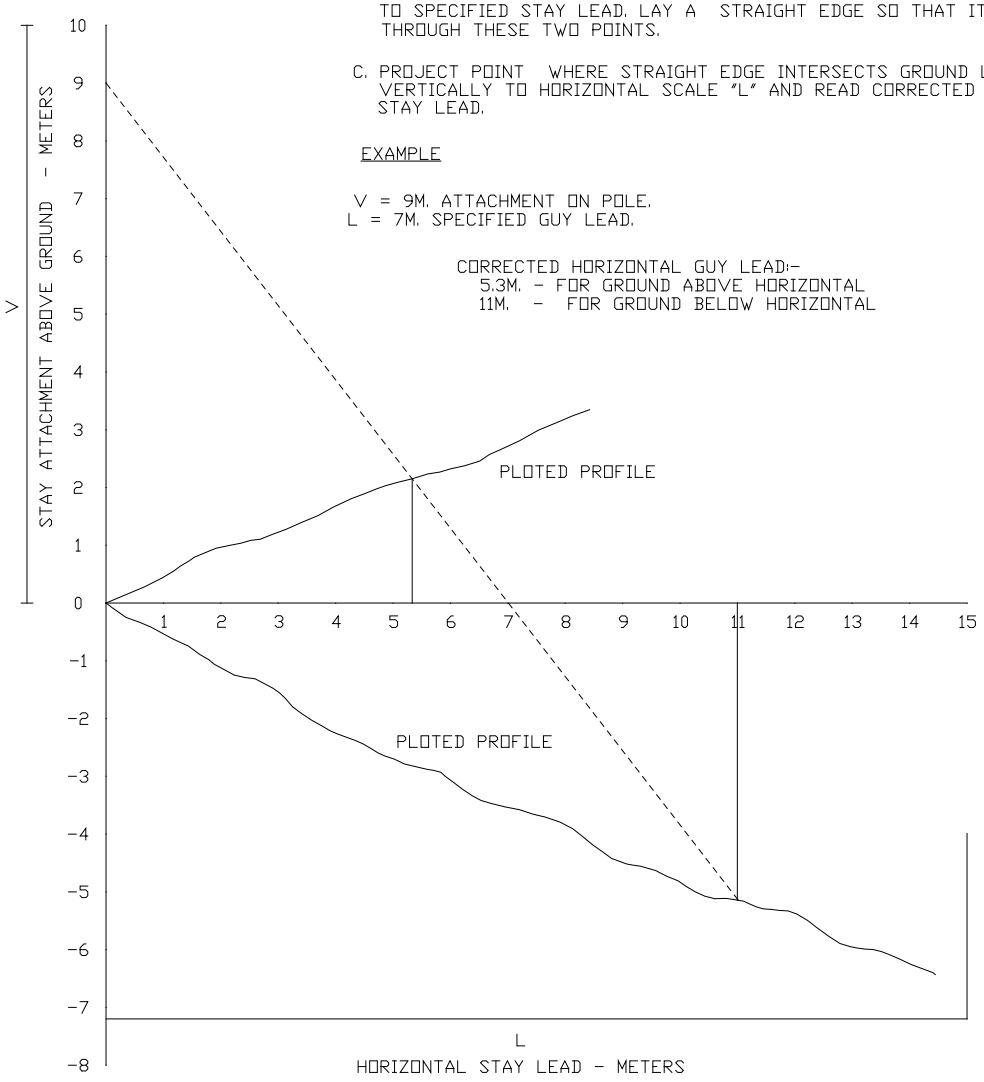
B. SELECT A POINT ON VERTICAL SCALE "V" CORESPONDING TO GUY ATTACHMENT ON POLE , SELECT A POINT ON HORIZONTAL SCALE "L" CORESPONDING TO SPECIFIED STAY LEAD. LAY A STRAIGHT EDGE SO THAT IT PASSES THROUGH THESE TWO POINTS.

C. PROJECT POINT WHERE STRAIGHT EDGE INTERSECTS GROUND LINE PROFILE VERTICALLY TO HORIZONTAL SCALE "L" AND READ CORRECTED HORIZONTAL STAY LEAD.

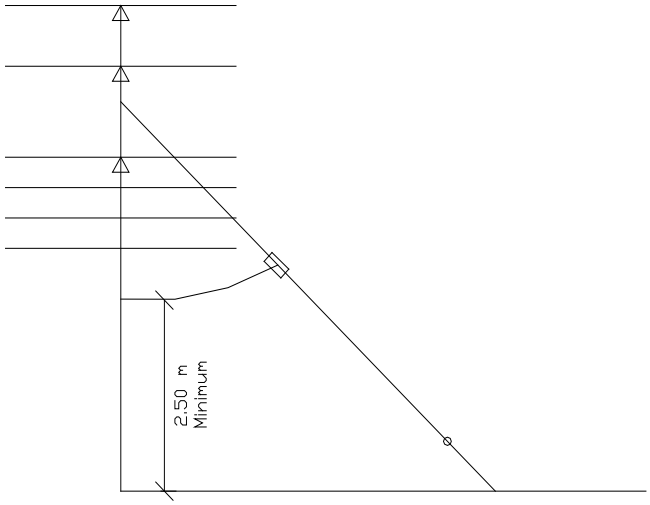
EXAMPLE

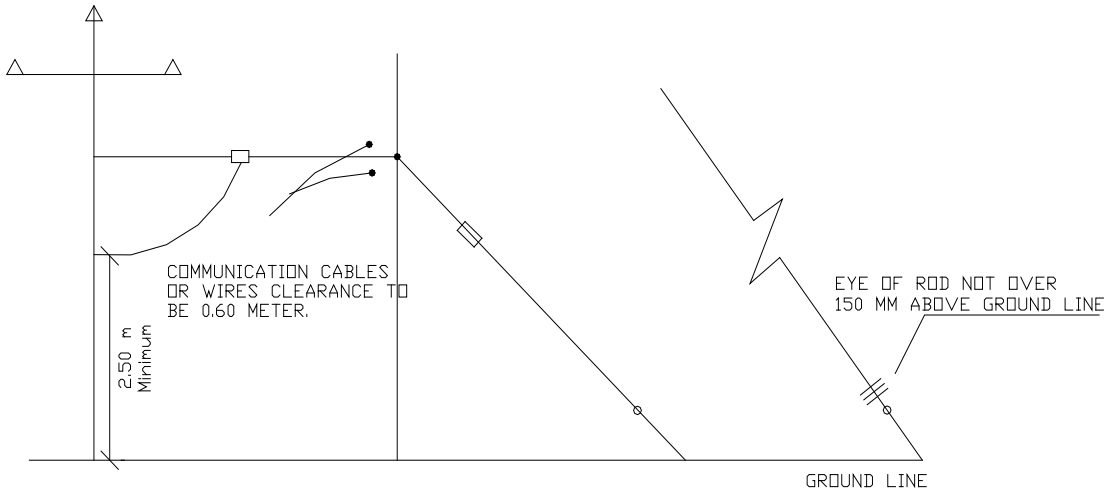
V = 9M. ATTACHMENT ON POLE.
L = 7M. SPECIFIED GUY LEAD.

CORRECTED HORIZONTAL GUY LEAD:-
5.3M. - FOR GROUND ABOVE HORIZONTAL
11M. - FOR GROUND BELOW HORIZONTAL



	CONSTRUCTION STANDARDS STAYS AND ANCHORS	NEPAL ELECTRICITY AUTHORITY

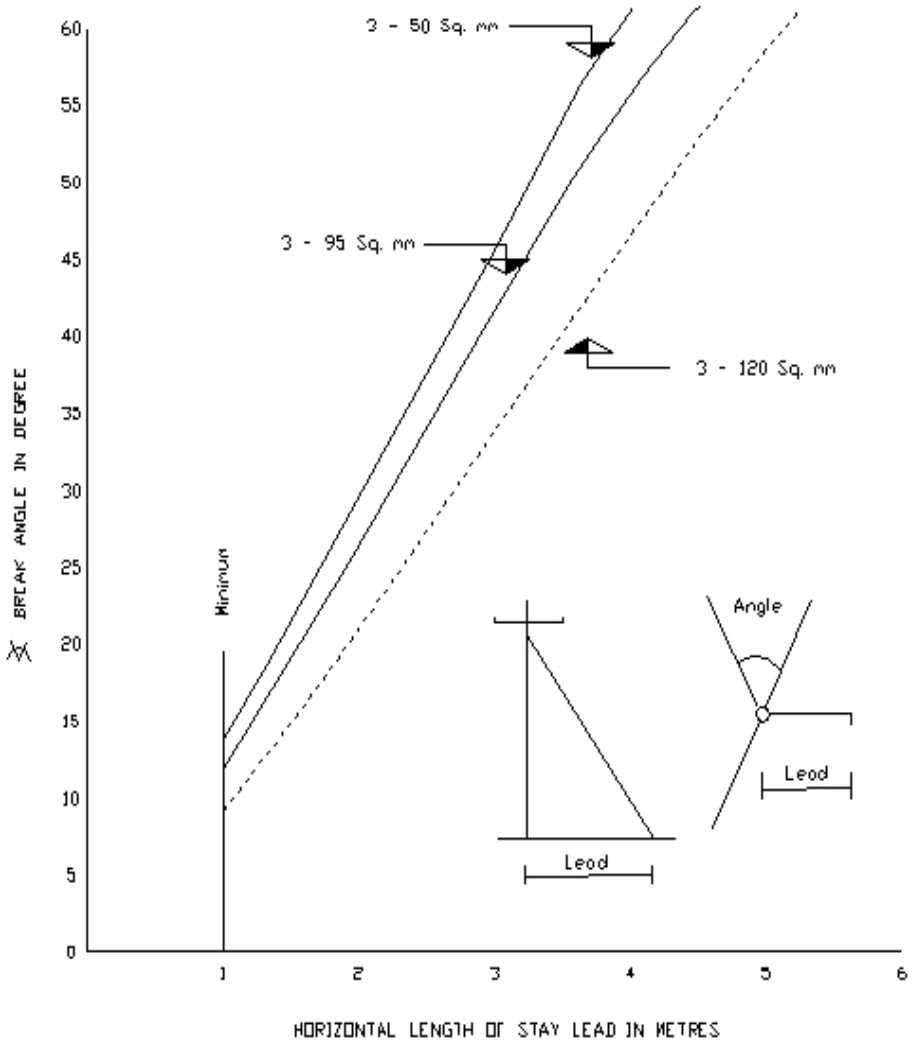




CONSTRUCTION STANDARDS

STAYS AND ANCHORS

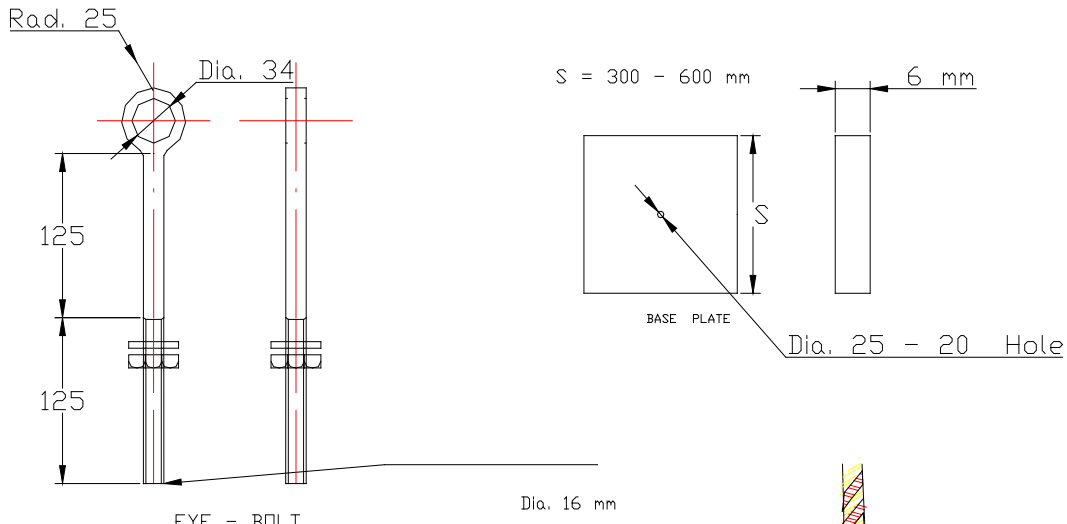
NEPAL ELECTRICITY AUTHORITY

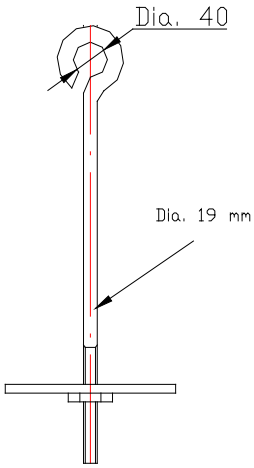


CONSTRUCTION STANDARDS

MINIMUM LEAD FOR SIDE ANGLE STAYS

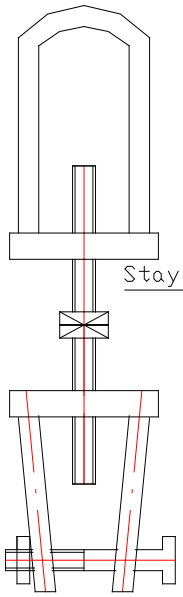
NEPAL ELECTRICITY AUTHORITY



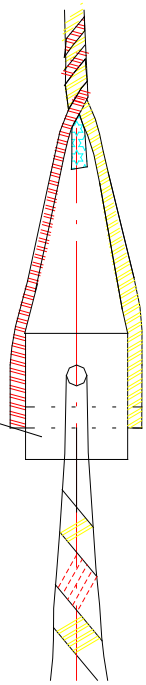


STAY ROD

S. N.	Description	Unit	HT Stay	LT Stay
1	Length of Stay Rod	mm	2440	1800
2	Diameter of Stay Rod	mm	19	16
3	Length of threaded portion	mm	300	



TURN BUCKLE



PREFORMED WIRE ASSEMBLY WITH STAY INSULATOR

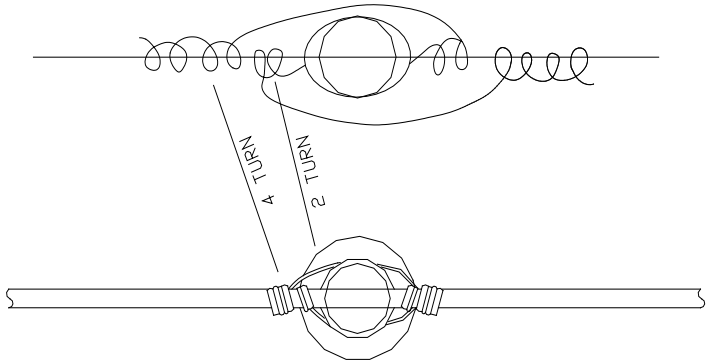
CONSTRUCTION STANDARDS

Hardware for Stay Set

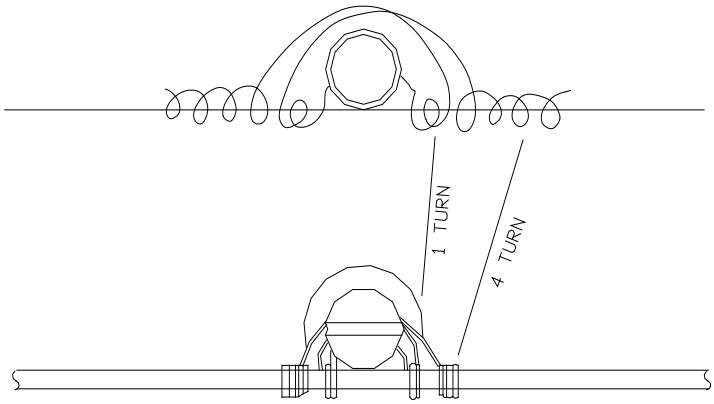
NEPAL ELECTRICITY AUTHORITY

JUMPER TIES

TOP GROVE



SIDE GROOV

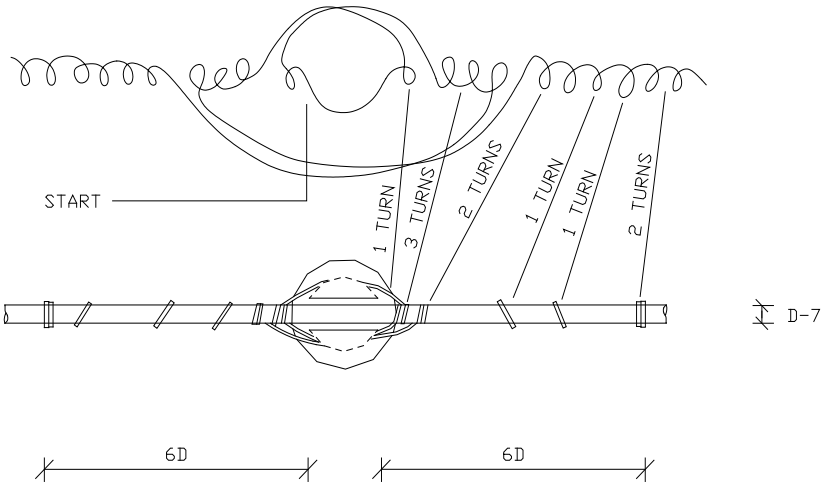


NOTES

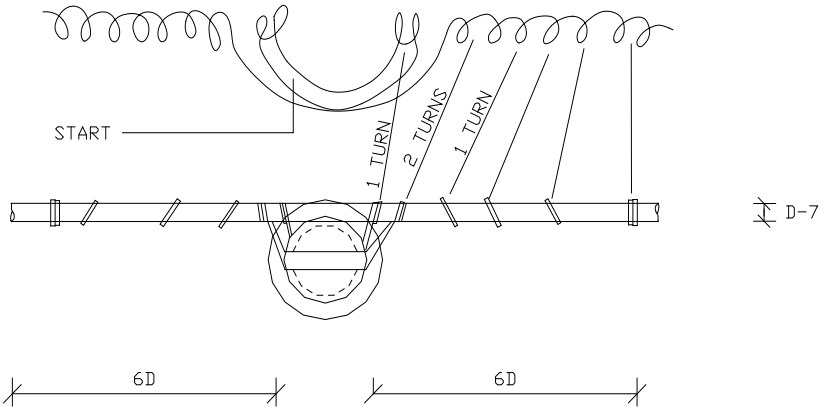
1. TIE WIRE ASSEMBLY SHOULD BE AS TIGHT AS CAN BE WRAPPED.
2. TURNS MAY BE IN EITHER DIRECTION, AS LONG AS ONE-HALF THE TURNS OPPOSE THE OTHER HALF TO PREVENT LOOSENING OF THE TIE.
3. USE ONLY FOR SECURING JUMPERS ON STRUCTURES.

	CONSTRUCTION STANDARDS INSULATOR TIES	NEPAL ELECTRICITY AUTHORITY

TOP GROVE

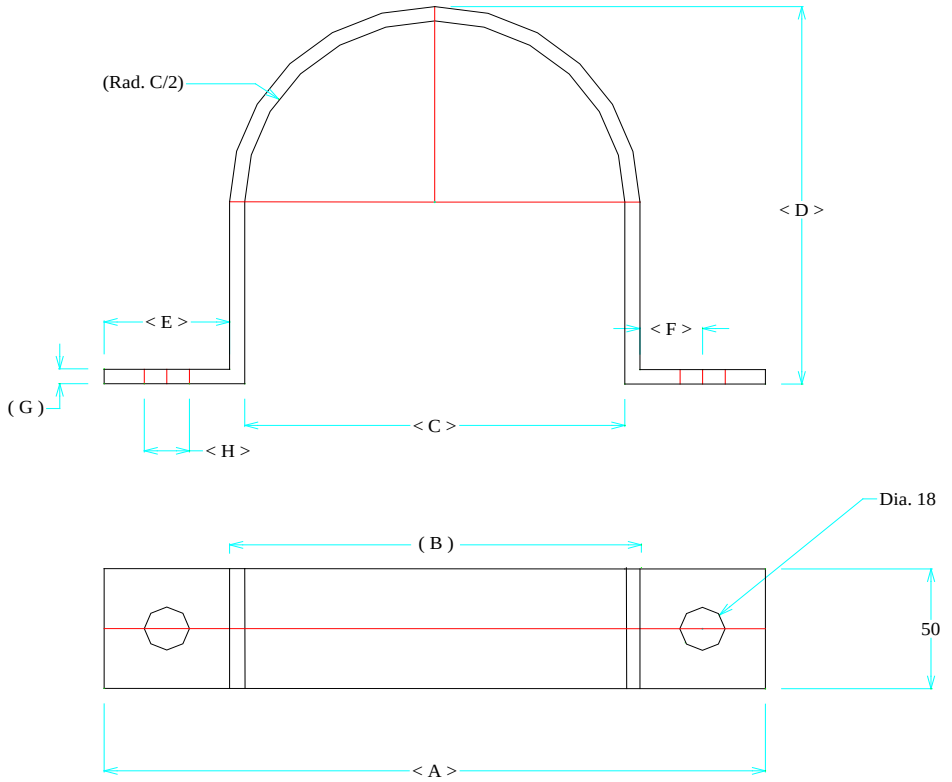


SIDE GROVE



NOTE
1. HAND TIES TO BE USED ONLY WHEN PREFORMED TIES NOT AVAILABLE.
2. CLINCH LAST TWO TURNS TIGHT WITH PLIERS.
3. SOFT DRAWN - TIE WIRE, TO BE USED FOR ALL TIES.

	CONSTRUCTION STANDARDS INSULATOR TIES	NEPAL ELECTRICITY AUTHORITY



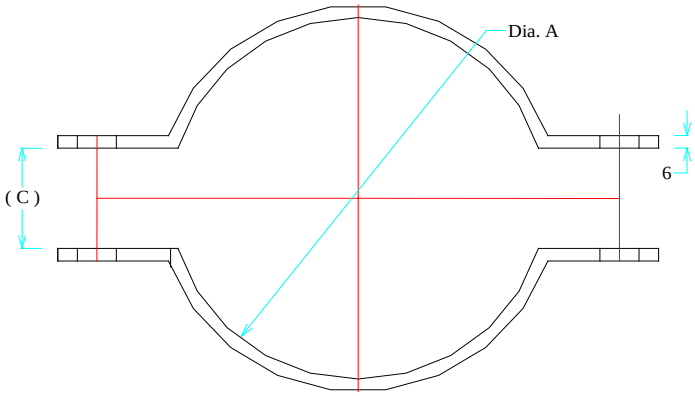
Type	Unit	A	B	C	D	E	F	G	H	Remarks
TC1	mm	285	185	173	179	50	25	6	18	
TC2	mm	297	197	185	191	50	25	6	18	
TC3	mm	307	207	195	201	50	25	6	18	
TC7	mm	334	234	222	228	50	25	6	18	
TC4	mm	347	247	235	241	50	25	6	18	
TC5	mm	397	297	285	291	50	25	6	18	

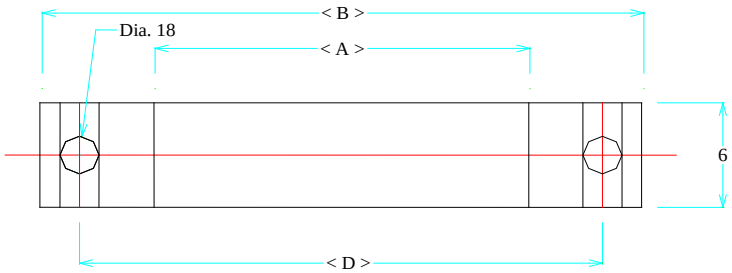
Note :- Dimensions are subject to approval prior to manufacture.

NEPAL ELETRICITY AUTHORITY

All Dimension in mm	Semicircular Clamp for Tubular pole DWG. 1H	Drawn by		
		Checked by		
		Approved by		

** Conceptual Drawing for Steel Telescopic Tubular Pole*





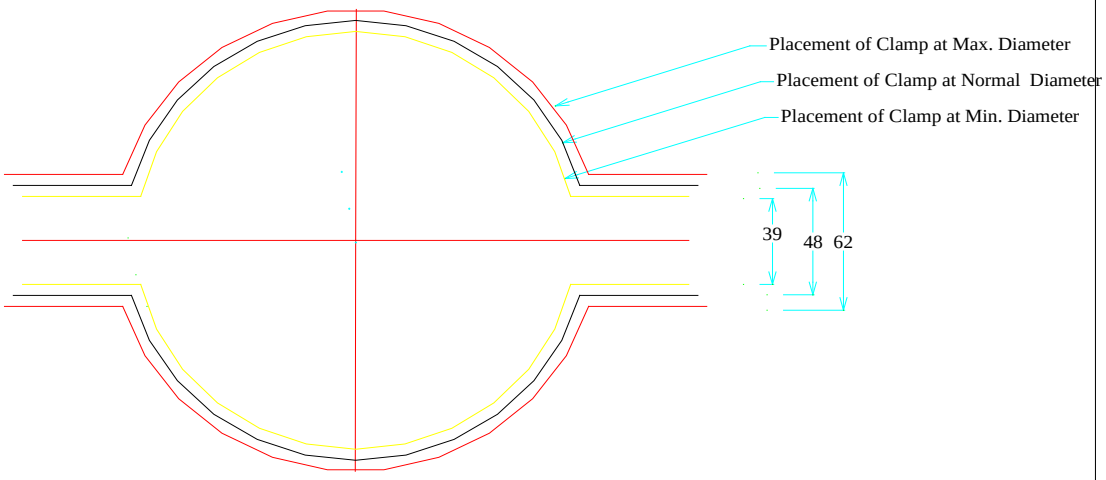
Type	Unit	A	B	C	D	Remarks
TC6	mm	200	302	50	268	
TC8	mm	155	257	50	223	

Note :- Dimensions are subject to approval prior to manufacture.

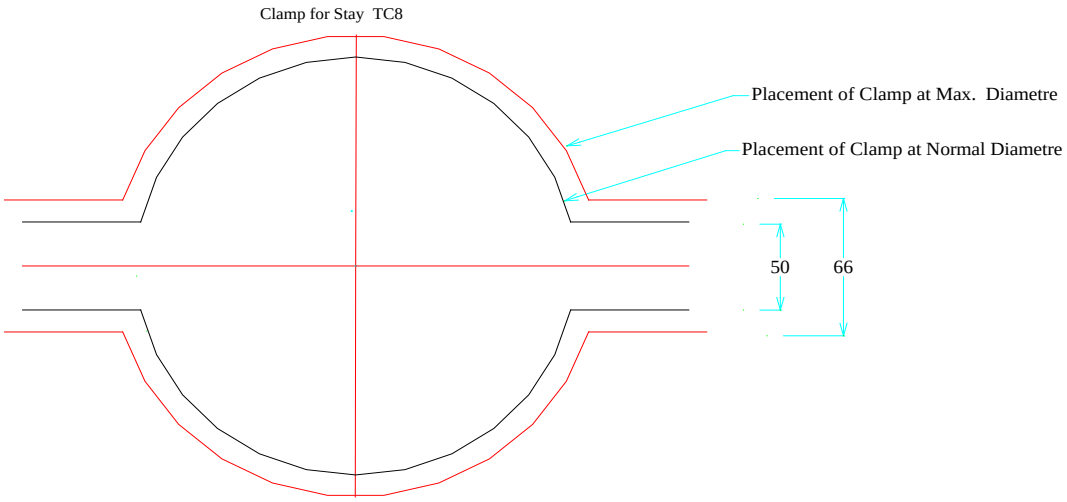
NEPAL ELECTRICITY AUTHORITY				
All Dimension in mm	Semicircular Stay Clamp for Tubular Pole DWG. 3H	Drawn by		
		Checked by		
		Approved by		

** Conceptual Drawing for Steel Telescopic Tubular Pole*

Clamp for Stay TC6



Clamp for Stay TC8

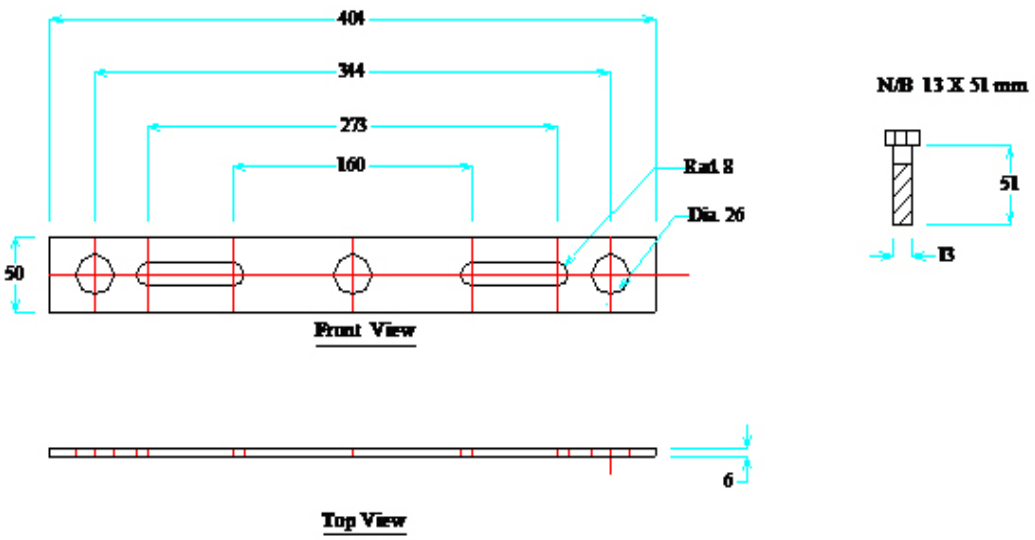


Note :- Dimensions are subject to approval prior to manufacture.

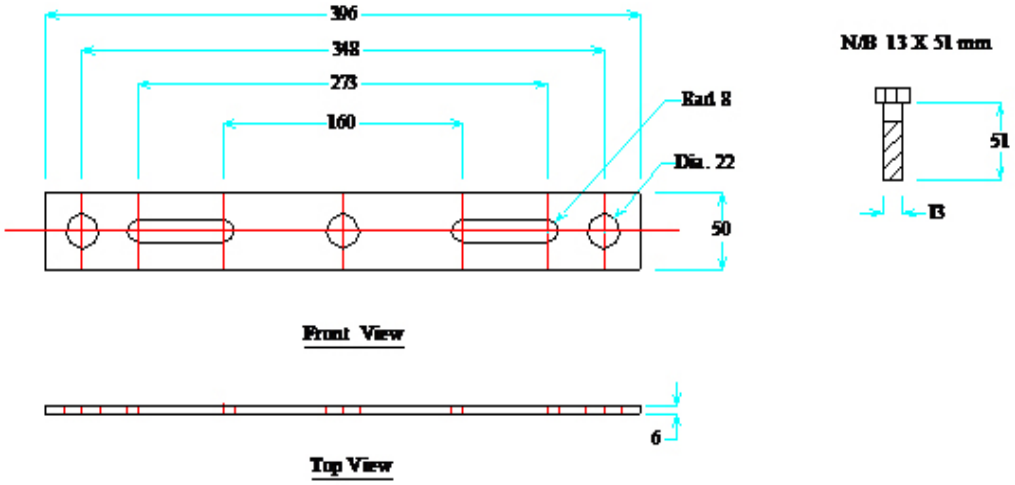
NEPAL ELECTRICITY AUTHORITY				
All Dimension in mm	Placement of Semicircular Stay Clamp for Tubular pole DWG. 4H	Drawn by		
		Checked by		
		Approved by		

** Conceptual Drawing for Steel Telescopic Tubular Pole*

Strap for 33 kV Pin Insulator String (404 x 50 x 6 mm)



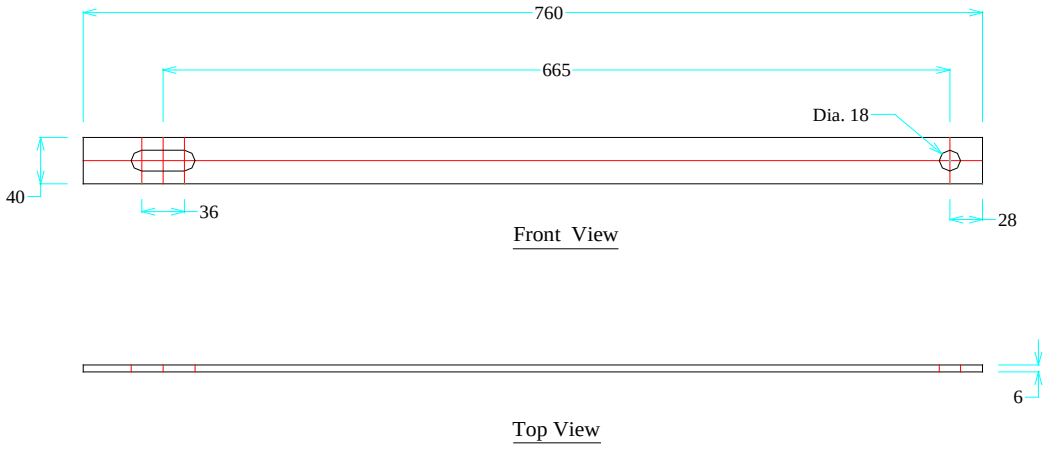
Strap for 11 kV Pin Insulator String (396 x 50 x 6 mm). Not Applicable



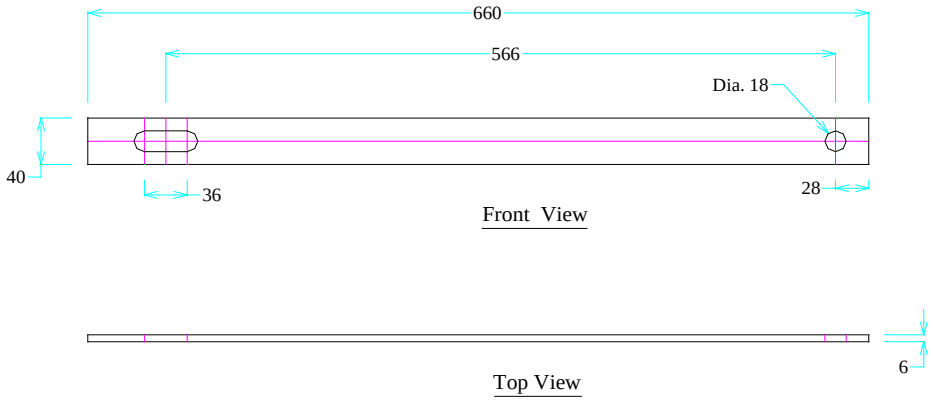
Note :- Dimensions are subject to approval prior to manufacture.

NEPAL ELECTRICITY AUTHORITY				
All Dimension in mm	Strap for Pin Insulator string (33kV) DWG. 6H	Drawn by		
		Checked by		
		Approved by		

Cross Arm Brace for 33 kV (760 x 40 x 6 mm)



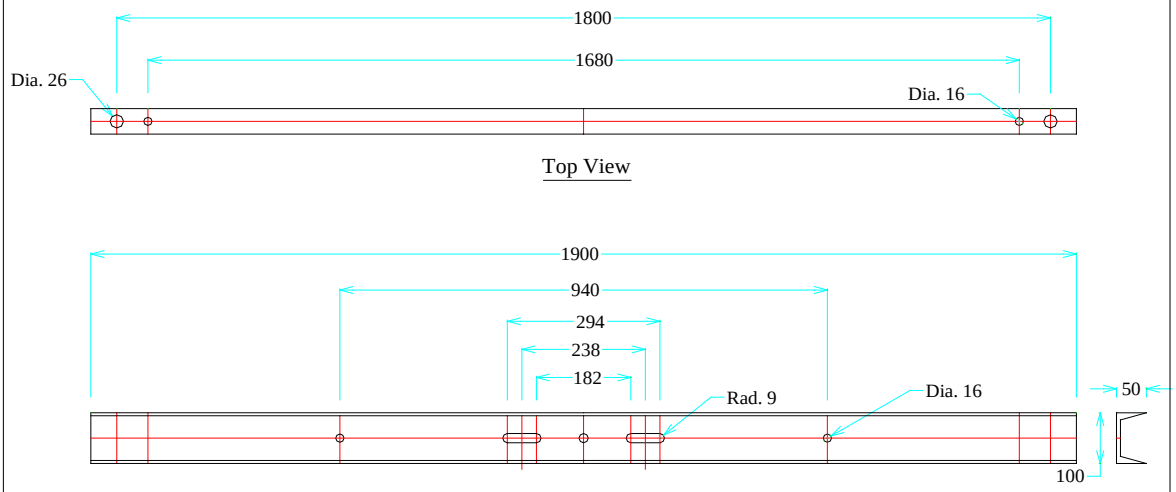
Cross Arm Brace for 11 kV (660 x 40 x 6 mm) **Not Applicable**



Note :- Dimensions are subject to approval prior to manufacture.

NEPAL ELECTRICITY AUTHORITY				
All Dimension in mm	**Cross Arm Bracing** DWG. 7H	Drawn by		
		Checked by		
		Approved by		

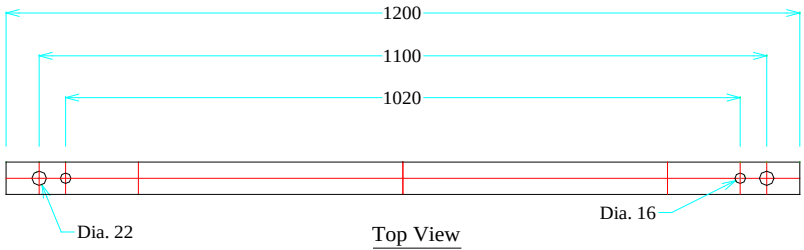
Cross Arm for 33 kV (1900 x 100 x 50 x 7.5 mm)



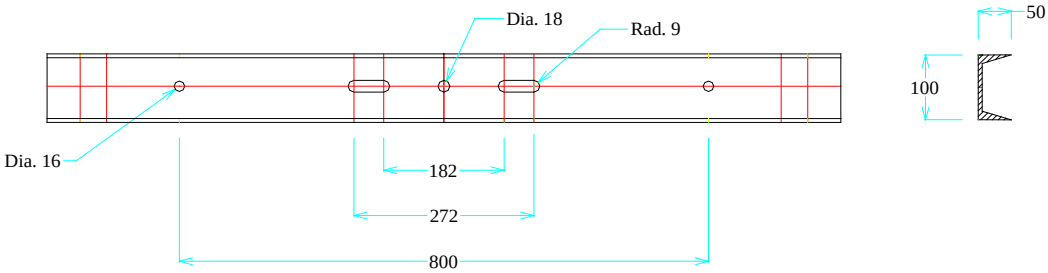
Top View

Front View

Cross Arm for 11 kV (1200 x 100 x 50 x 6.4 mm) **Not Applicable**



Top View

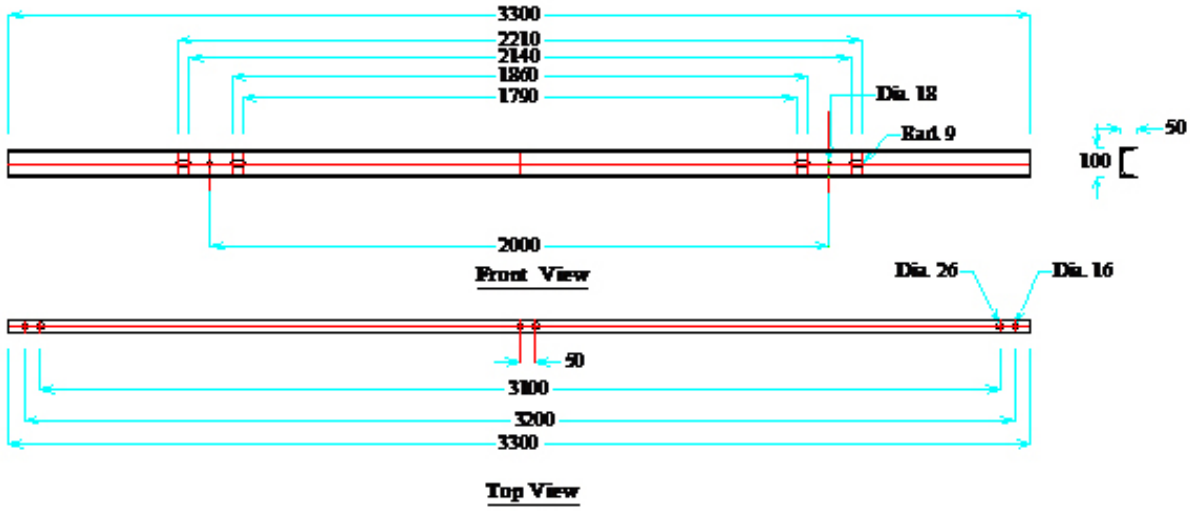


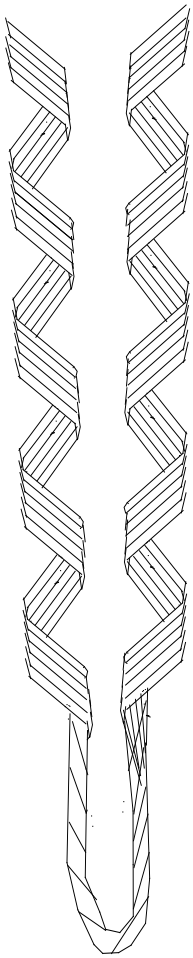
Front View

Note :- Dimensions are subject to approval prior to manufacture.

NEPAL ELECTRICITY AUTHORITY				
All Dimension in mm	**Cross Arms** DWG. 9H	Drawn by		
		Checked by		
		Approved by		

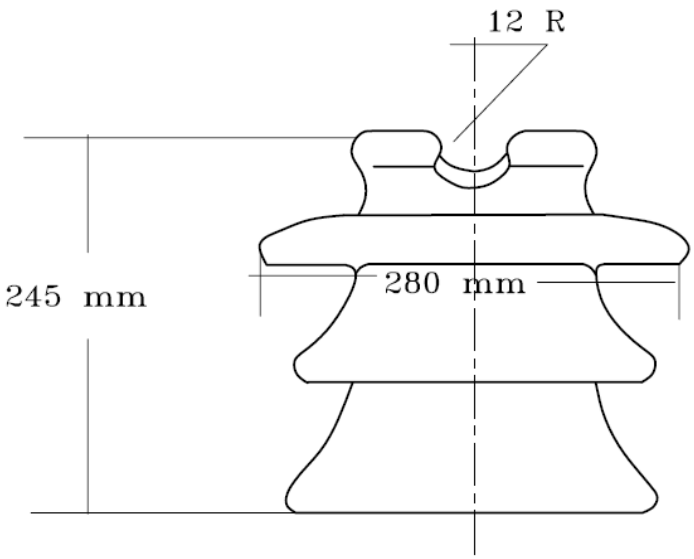
Cross Arm for 33 kV H-Pole (3300 x 100 x 50 x 7.5 mm)





DRAWING NO.	PREFORMED WIRE PRODUCTS	NEPAL ELECTRICITY AUTHORITY

D–9

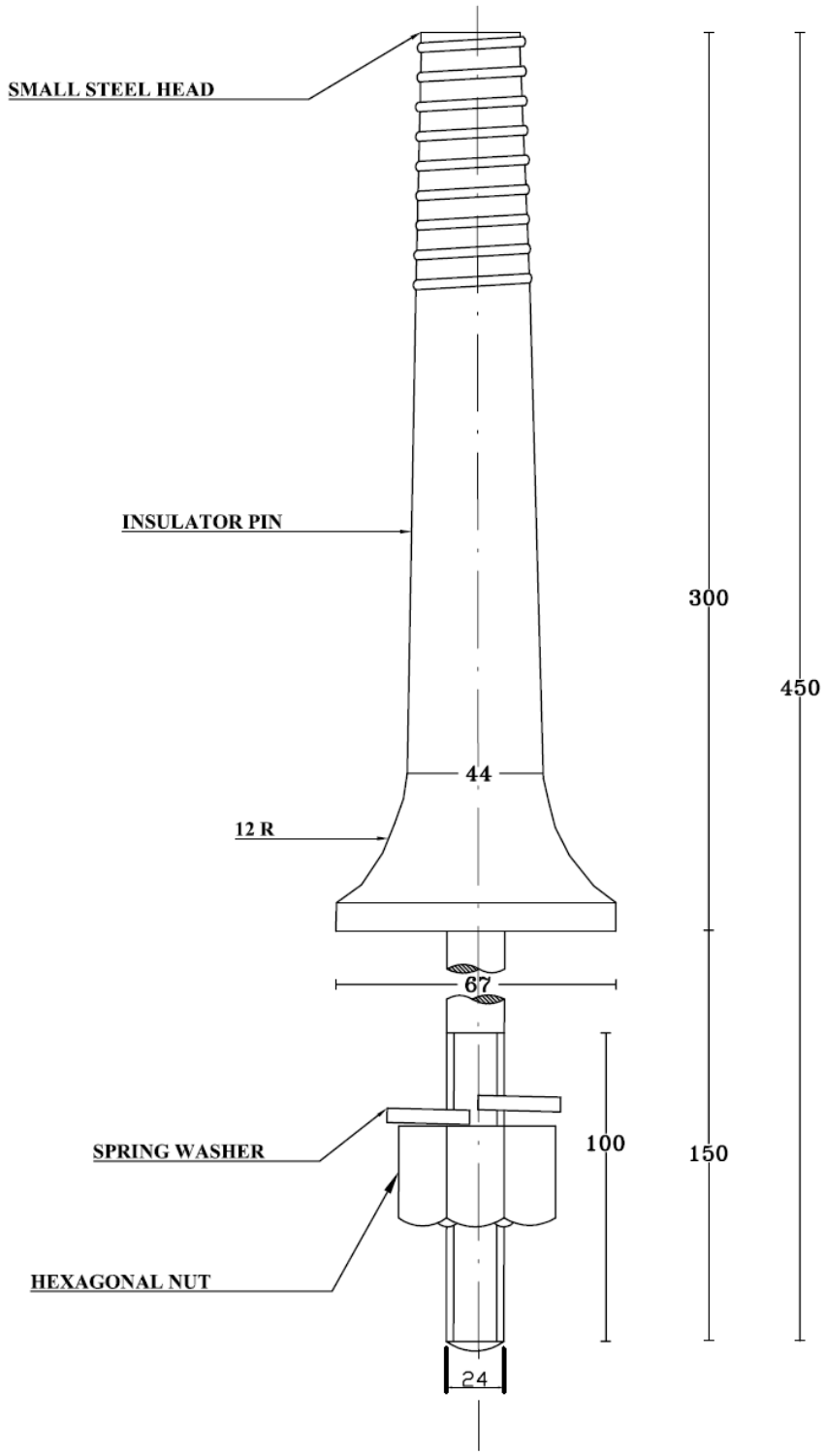


PIN INSULATOR

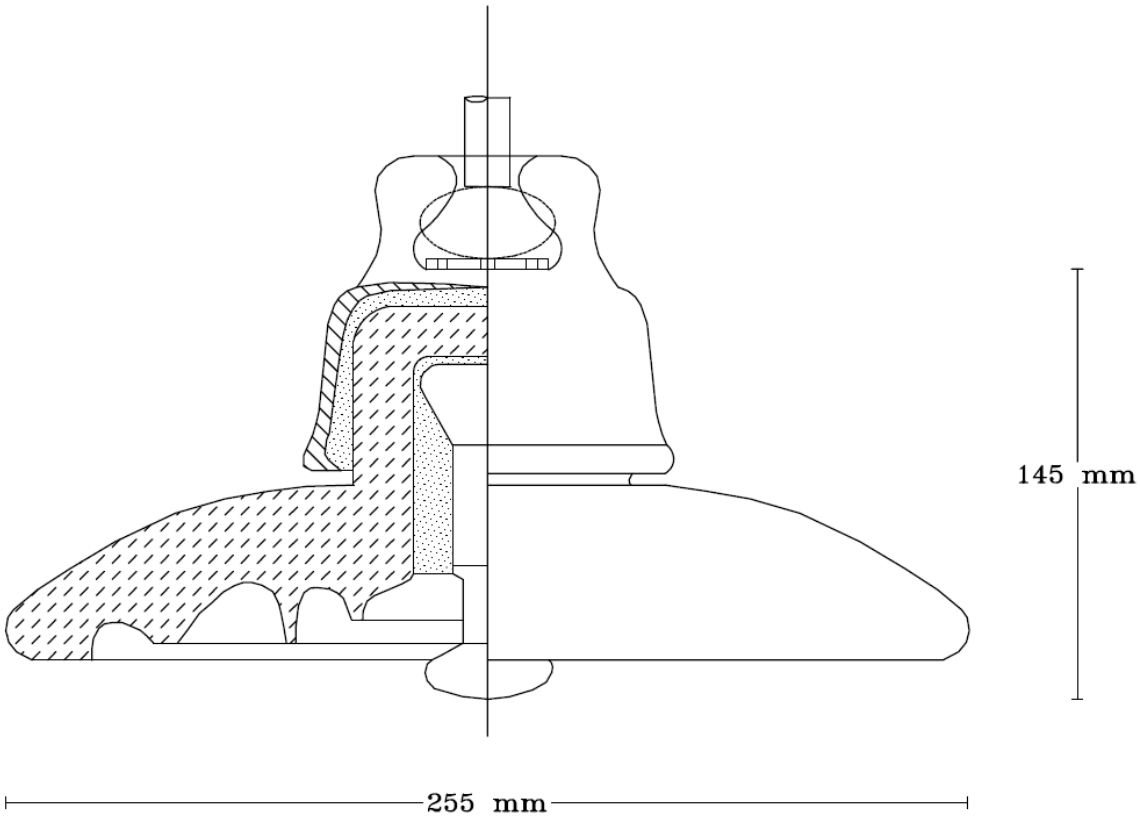
REMARKS:

APPLICABLE STANDARD IS: 731 & IS: 3188

ISSUED *Ashad 2050* **REVISION** (09)	33 KV INSULATORS	TECHNICAL SERVICES DEPARTMENT DCS/NEA



Drawing **CS33-LM-04**	**33 kV Insulator Pin**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

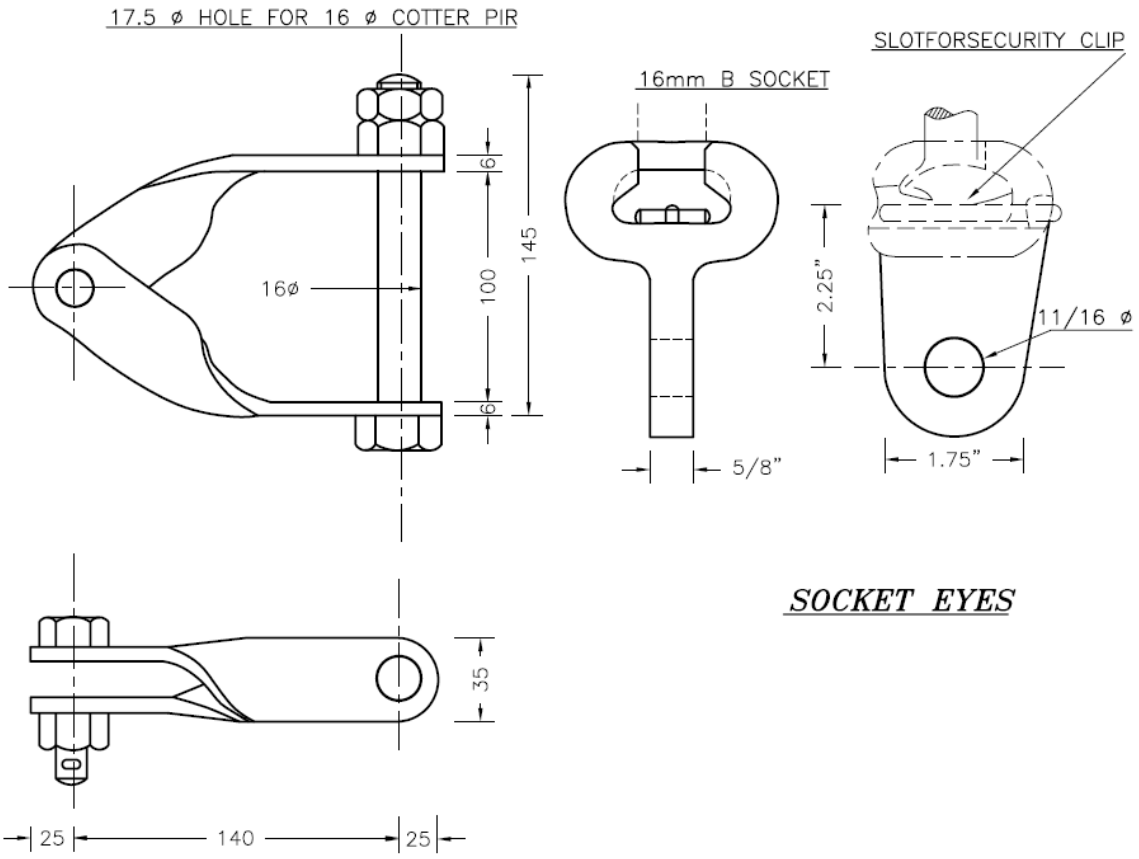


Applicable Standard IS : 731 & IS : 3188

A Set of 3 Disc Insulators Shall be Used for 33 kV

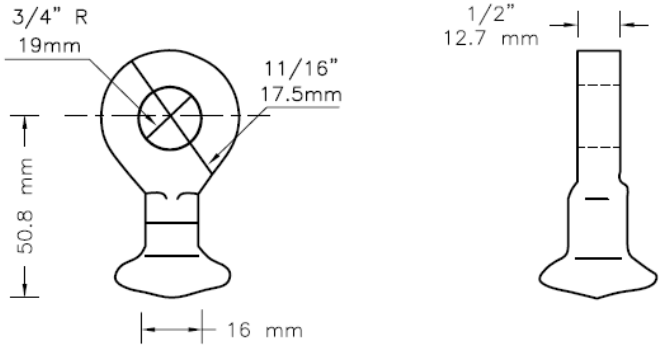
Drawing **CS33-LM-05**	**Disc Insulator**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

D-14



SOCKET EYES

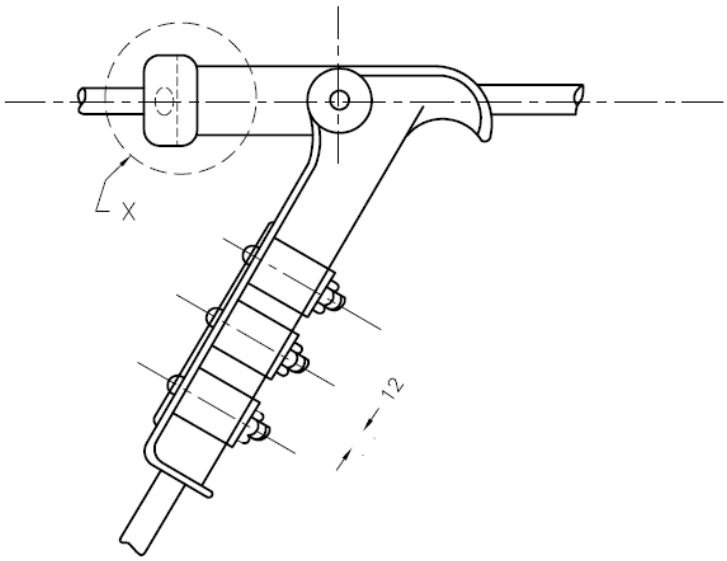
BRACK STRAP



BALL EYES

ISSUED *Ashad 2050* REVISION (13)	HARDWARES FOR TENSION SET	TECHNICAL SERVICES DEPARTMENT DCS/NEA

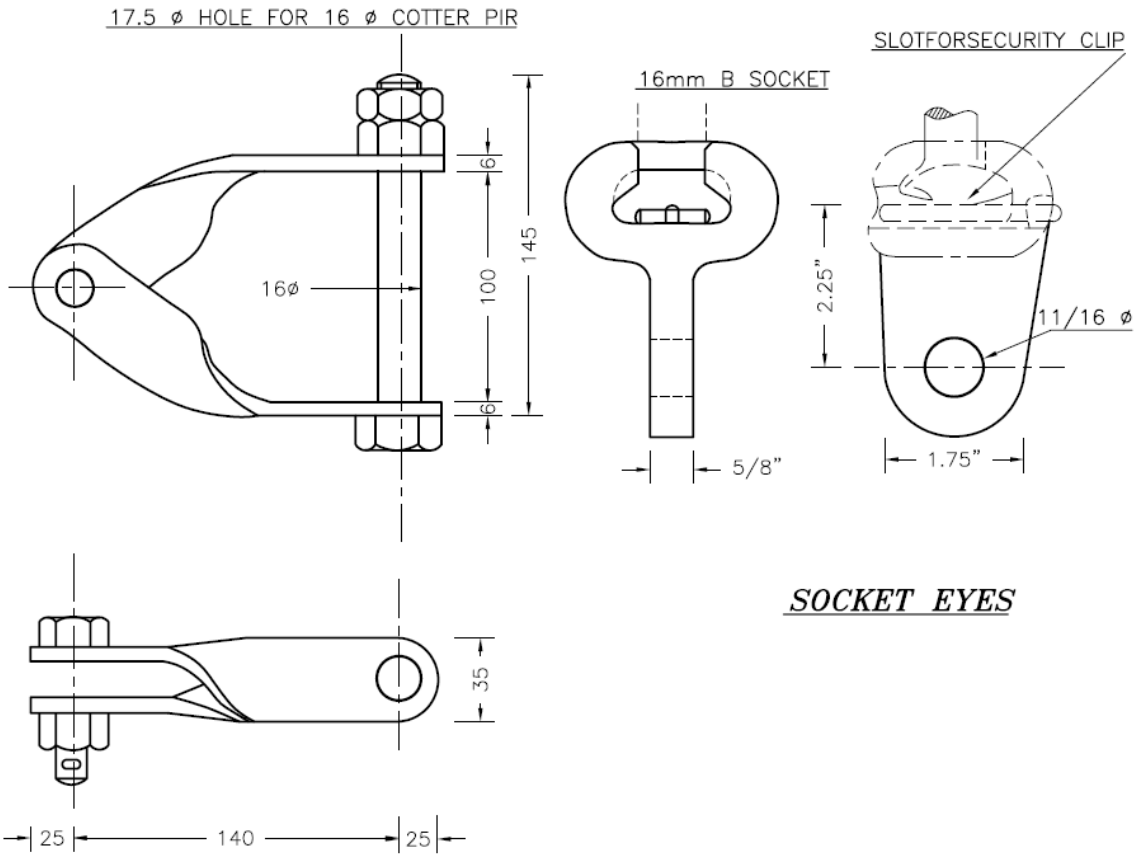
D-13



STRAIGHT TYPE

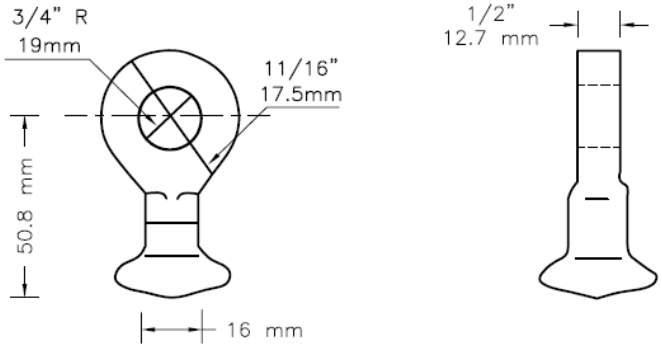
ISSUED Ashad 2050 REVISION (12)	CONCEPTUAL DRAWING TENSION SET	TECHNICAL SERVICES DEPARTMENT DCS/NEA

D-14



SOCKET EYES

BRACK STRAP



BALL EYES

ISSUED *Ashad 2050* REVISION (13)	HARDWARES FOR TENSION SET	TECHNICAL SERVICES DEPARTMENT DCS/NEA

CONSTRUCTION SCHEDULE

S. No.	Description	Month					
		2	4	6	8	12	18
1	Contract Award/Mobilization						
2	Pre Construction Survey & Engineering						
3	Design, Manufacturing & supply, Delivery to site						
4	Construction, Testing and Commissioning & As Built Documentation						

Section VI: Bill of Quantities

(Please Refer to Price Bid)

Part - III

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General Conditions of Contract

A. General	
1. Definitions	1.1 Boldface type is used to identify defined terms. (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. (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. (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. (d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid. (e) **Compensation Events** are those defined in GCC 50 hereunder. (f) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 68.1. (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. (h) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer. (i) The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer. (j) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract. (k) **Days** are calendar days; months are calendar-months. (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. (m) A **Defect** is any part of the Works not completed in accordance with the Contract. (n) The **Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor. (o) The **Defects Liability Period** is the period calculated from the Completion Date where the Contractor remains responsible for remedying defects. (p) **Drawings** include calculations and other information provided or approved by the Project Manager for the execution of the Contract. (q) The **Employer** is the party who employs the Contractor to carry out the Works, as **specified in the SCC**. (r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

	(s) **Force Majeure** means an exceptional event or circumstance: which is 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. (t) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance. (u) **In writing** or **written** means hand written, type written, printed or electronically made, and resulting in permanent record. (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. (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. (x) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works. (y) **Party** means the Employer or the Contractor, as the context requires. (z) **SCC** means Special Conditions of Contract (aa) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function. (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. (cc) **Retention Money** means the aggregate of all monies retained by the Employer pursuant to GCC 54.1. (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. (ee) The **Site** is the area defined as such in the SCC (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. (gg) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager. (hh) The **Start Date** is given i**n 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. (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. (jj) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

	(kk) A **Variation** is an instruction given by the Project Manager which varies the Works (ll) The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as **defined in the SCC**.
2. Interpretation	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. 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). 2.3 The documents forming the Contract shall be interpreted in the following order of priority: (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	3.1 The language of the Contract and the law governing the Contract are **stated in the SCC**.
	a. Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when (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	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

	(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 (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.
6. Care and Supply of Documents	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.
	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.
	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. 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.
7. Confidential Details	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.
	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.
	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 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 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 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. 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. 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.

16. Employer's and Contractor's Risk	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.
17. Employer's Risks	17.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks: (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 (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 (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. (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. 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 (a) a Defect which existed on the Completion Date, (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or (c) the activities of the Contractor on the Site after the Completion Date.
18. Contractor's Risks	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.
19. Insurance	19.1 The Contractor shall provide insurance in the joint names of the 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: (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.
	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.

	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. 19.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager. 19.5 Both parties shall comply with any conditions of the insurance policies.
20. Site Investigation Reports	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.
21. Contractor to Construct the Works	21.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
22. The Works to Be Completed within intended Completion Date	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.
23. Design by contractor and Approval by the Project Manager	23.1 The contractor shall be responsible for the design of permanent works as **specified in SCC**. 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. 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. 23.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of temporary works.
24. Safety, Security and Protection of the Environment	24.1 The Contractor shall, throughout the execution, and completion of the works and remedying of any defects therein: 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.
25. Discoveries	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.
26. Possession of the Site	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.
27. Access to the Site	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 intended to be carried out.
28. Instructions, Inspections and Audits	28.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located. 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. 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.
29. Dispute Settlement	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.

	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.
30. Procedures for Disputes	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**.
B. Staff and Labor	
31. Forced Labor	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.
32. Child Labor	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.
33. Non-discrimination and Equal Opportunity	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 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.
B. Time Control	
34. Program	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. 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. 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. 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.
35. Extension of the Intended Completion Date	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. 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 7 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.
36. Acceleration	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. 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.
37. Delays Ordered by the Project Manager	37.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
38. Management Meetings	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. 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.
39. Early Warning	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.

	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.
C. Quality Control	
40. Identifying Defects	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.
41. Tests	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.
42. Correction of Defects	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. 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.
43. Uncorrected Defects	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.
D. Cost Control	
44. Contract Price	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. 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.
45. Changes in the Contract Price	45.1 In the case of an Unit Rate contract: (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. (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. (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. 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.
46. Variations	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.
	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 longer period stated by the Project Manager and before the Variation is ordered. 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. 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. 46.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning. 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.
47. Cash Flow Forecasts	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.

48. Payment Certificates	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. 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. 48.3 The value of work executed shall be determined by the Project Manager. 48.4 The value of work executed shall comprise: (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. 48.5 The value of work executed shall include the valuation of Variations and Compensation Events. 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.
49. Payments	49.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified 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. 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. 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.
50. Compensation Events	50.1 The following shall be Compensation Events: (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. 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 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. 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. 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.
51. Tax	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.
52. Currency	52.1 The currency of Contracts shall be Nepalese Rupees.
53. Price Adjustment	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.

	53.2 Adjustment Formulae[1]: The formulae will be of the following general type: $$pn = A + b\frac{Ln}{Lo} + c\frac{Mn}{Mo} + d\frac{En}{Eo} + etc.$$ Where: *pn* 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; *A* is a constant, specified in the Bidding Forms- Table of Price Adjustment data, representing the nonadjustable portion in contractual payments;[2] b, 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, **as specified in the SCC;** *Ln, Mn, En,* 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 *Lo, Mo, Eo,* etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in Sub-Clause 53.4
	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. 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. 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.

[1] 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

[2] 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.

	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: For unexpected increase in price $P = [R_1 - (R_0 \times 1.10)] \times Q$ For unexpected decrease in price P $= [R_1 - (R_0 \times 0.90)] \times Q$ Where: "P" is price adjustment amount "R_1" is the present price of the construction material (Source of indices shall be those listed in the Bidding forms) "R_0" is the base price of the construction material "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**.. 53.7 The Price Adjustment amount shall be limited to a maximum of the initial Contract Amount **as specified in the SCC**. 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
54. Retention	54.1 The Employer shall retain from each payment due to theContractor the proportion stated in the SCC until Completion of the whole of the Works. 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.
55. Liquidated Damages	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. 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
56. Bonus	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 certify that the Works are complete, although they may not be due to be complete.
57. Advance Payment	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 'A' class commercial Bank 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.
	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. 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.
58. Securities	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 'A' class commercial bank 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. 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. 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 in the case of a bank guarantee.

	58.2 The performance security issued by any foreign Bank outside Nepal must be counter guaranteed by an "A" class commercial Bank in Nepal.
59. Day works	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. 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. 59.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.
60. Cost of Repairs	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.
F. Force Majeure	
61. Definition of Force Majeure	61.1 In this Clause, "Force Majeure" means an exceptional event or circumstance, (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.
	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: (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 the Contractor's use of such munitions, explosives, radiation or radio-activity; and (e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

62. Notice of Force Majeure	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.
	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.
	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.
63. Duty to Minimize Delay	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.
	63.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
64. Consequences of Force Majeure	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 (a) an extension of time for any such delay, if completion is or will be delayed, under GCC35 ; and (b) if the event or circumstance is of the kind described in sub-paragraphs (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.
	64.2 After receiving this notice, the Project Manager shall proceed in accordance with GCC 10 to agree or determine these matters.
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	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

Release	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 (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, (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 (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.
G. Finishing the Contract	
68. Completion	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.
69. Taking Over	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.

70. Final Account	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.
71. Operating and Maintenance Manuals	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**. 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.
72. Termination	72.1 The Employer may terminate the Contract at any time if the contractor; a. does not commence the work as per the Contract, b. abandons the work without completing, c. fails to achieve progress as per the Contract. 72.2 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. 72.3 Fundamental breaches of Contract shall include, but shall not be limited to, the following : (a) The Contractor uses the advance payment for matters other than the contractual obligations, (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; (c) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days; (d) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation. (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; (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; (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; (h) the Contractor does not maintain a Security, which is required; (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 (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. 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. 72.5 Notwithstanding the above, the Employer may terminate the Contract for convenience. 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.
73. Fraud and Corruption	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 daysnotice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site. 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. For the purposes of this GCC 73; (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. (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; (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; (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; (v) "obstructive practice" is (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 (bb) acts intended to materially impede the exercise of the GON's/DP's inspection and audit rights provided for under GCC28.3.

74. Black Listing	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: (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. (b) If convicted from a court of law in a criminal offense liable to be disqualified for taking part in procurement contract, (c) If it is established that the Contractor has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
75. Payment upon Termination	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. 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	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

on Staff	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 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. 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.
86. Member of Government, etc, not Personally Liable	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.
87. Approval of Use of Explosives	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.
88 Compliance with Regulations for Explosives	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.
89. Permission for Blasting	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.
90. Records of Explosives	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.
91. Traffic Diversion	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 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.

SECTION - VIII
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 **Nepal Electricity Authority(NEA)**
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be : **18 months from the date of contract effective.**
GCC 1.1(bb) & 10.1	The Project Manager is **Er. Nand Kishor Mandal** The Project Manager and Engineer are synonyms.
GCC 1.1 (ee)	The Site is located at ***Majhifeda-Madankudari and Mude(Kavre/Sindhupalchok District)*** and is defined in Scope of the works.
GCC 1.1 (hh)	The Start Date shall be the date of Contract Effectiveness 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 and the advance payment guarantee; (c) The Employer has paid the Contractor the first installment of advance payment Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable. ***In case the Contractor does not claim the advance payment within 30 days of the date of Contract signing, the 31st day will be considered as the start date.***
GCC 1.1 (ll)	The Works consist of S**upply, Delivery, Installation / Erection, Testing and Commissioning of Majhifeda-Mude 33 kV Transmission Line** on Turnkey basis as specified in the Works Requirements, Section V and Bill of Quantities, of the Bidding Document.
GCC 2.2	Sectional Completions are: **Not Applicable**
GCC 2.3(i)	The following documents also form part of the Contract - Minutes of Meetings as agreed upon. - Value Added Tax (VAT) certificate - PAN certificate - Tax clearance certificate
GCC 3.1	The language of the contract is **ENGLISH/NEPALI**

	The law that applies to the Contract is the law of NEPAL
GCC 11.1	The Project Manager *may* delegate any of his duties and responsibilities.
GCC 13.1	Not Applicable
GCC 14.1	Schedule of other contractors**: N/A**
GCC 19.1	The minimum insurance amounts and deductibles shall be: (a) Cargo Insurance Covering loss or damage occurring, while in transit from the supplier's or manufacturer's works or stores until arrival at the Site, to the Facilities (including spare parts therefore) and to the construction equipment to be provided by the Contractor or its Subcontractors. Amount | Deductible limits | Parties insured | From | To 110% of Contract Amount | (*) | Contractor | Dispatch Certificate | Arrival to Site (*) Excess 5% of claimed amount subject to minimum of NRs 20,000 for normal and NRs 80,000 for act of God/major perils and collapse. (b) Installation All Risks Insurance i. Covering physical loss or damage to the Facilities at the Site, occurring prior to completion of the Facilities, with extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the defect liability period while the Contractor is on the Site for the purpose of performing its obligations during the defect liability period. Amount | Deductible Limits | Parties insured | From | To 110% of Contract Value | (*) | Contractor | Dispatch Certificate | Final Acceptance (*) Excess 5% of claimed amount subject to minimum of NRs 10,000 for normal period and NRs 30,000 for testing period (c) Third Party Liability Insurance Covering bodily injury or death suffered by third parties (including the Employer's personnel) and loss of or damage to property (including the Employer's property and any parts of the Facilities that have been accepted by the Employer) occurring in connection with the supply and installation of the Facilities. Amount | Deductible Limits | Parties insured | From | To NRs 1 million | as in (b) above | Contractors Employees | Commencement of Works | Defect Liability Certificate NRs 1 million | as in (b) above | Employer's Personnel | Commencement of Works | Defect Liability Certificate NRs 1 million | as in (b) above | Employer's Personnel | Commencement of Works | Defect Liability Certificate NRs 4 million | as in (b) above | Third party | Commencement of | Defect Liability

	Personnel Works Certificate (d) Automobile Liability Insurance Covering use of all vehicles used by the Contractor or its Subcontractors (whether or not owned by them) in connection with the supply and installation of the Facilities. Comprehensive insurance in accordance with statutory requirements. (e) Workers' Compensation In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed. (f) Employer's Liability In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed. (g) Other Insurances The Contractor is also required to take out and maintain at its own cost the following insurances: Details: None The Employer shall be named as co-insured under all insurance policies taken out by the Contractor except for the Third Party Liability, Workers' Compensation and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insured's under all insurance policies taken out by the Contractor, except for the Cargo, Workers' Compensation and Employer's Liability Insurances. All insurers' rights of subrogation against such co-insured's for losses or claims arising out of the performance of the Contract shall be waived under such policies. ii. The minimum cover for personal injury or death insurance shall, however, be not less than as per requirements of the Labor Act of Nepal.
GCC 20.1	Site Investigation Reports are: None**.**
GCC 23.1	The following shall be designed by the Contractor: As Applicable
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	The period between Program updates is **60 days.** The amount to be withheld for late submission of an updated Program is **All due shall be withheld.**
D. Quality Control	
GCC 42.1	The Defects Liability Period is: ***365*** days.

E. Cost Control	
GCC 46.7	Add this new sub-clause: **The quantities entered in the Price Schedule are only estimated quantities. After detailed site investigation and design, the Contractor shall prepare a final Price Schedule within 3 months from the date of Contract Signing and submit to the Manager for approval. The Contractor shall agree to make no claims for anticipated profit or alleged losses because of any difference between the quantities actually furnished and erected and the estimated quantities in the Contract.** NEA reserves the right at the time of award of contract or within six months from the effective date of contract to increase or decrease the quantities of the Price-schedule by up to fifteen percent (15%) of the contract price. Taking this into consideration, the Bidder shall present a fairly balanced price on Bill of Quantities.
GCC 49.1	Delete sub-clauses 49.1, 49.2 and 49.3 and replace with the following: General Payments of the plant and equipment offered from outside the Nepal shall be made in Nepalese Currency only and no Letter of Credit shall be established. Payments for insurance, clearing, forwarding and transportation up to site, locally manufactured equipment and construction and installations shall also be made only in local currency, i.e. in Nepali Rupees. Advance Payment (i) Up to 20% (Twenty percent) of total Contract price may be payable in two installments: Up to 10% after the signing of agreement for the mobilization of contractor's team at the site. The remaining 10% is conditional and shall be payable to the contractor after the contractor completes full mobilization at site and fulfills contractual obligations such as submission of insurance policies, work program, approval of Pre Construction Survey & Engineering report (PCSE) , Structural Data Sheet (SDS) and final BOQ for approval. Contractor is also required to provide evidence related to order placement of the required construction materials in the form of L/C or any other applicable methods. (ii) For the Advance payment the Bidder shall produce the advance payment bank guarantee valid for 19 months (i.e. 30 days beyond the contract completion period, which shall be deducted in proportion to each and every running bill submitted by the contractor. Conditional bank guarantee shall not be accepted. If the Contractor fails to complete the work within the said time of Contract agreement and accordingly fails to clear the advance payment received, the advance payment made to the contractor shall be recovered by forfeiting the advance bank guarantee and additional 10 % amount shall be penalized as an interest for unrecovered advance money. (iii) The contractor shall start the work within 30 days of the first Advance Payment. (iv) The contractor shall submit to NEA, the provision evidencing for which the

expenditure of the advance payment was made.

(v) The Advance Payment guarantee shall be forfeited if the Advance Payment is used in the works other than the scope of this contract.

Payment for Supply & Delivery, Erection, Construction and Installation

Payment for Supply, Delivery, Construction and Installation works against progress bill will be made according to the progress report, approved by the Employer's Representative.

i. Payments to the Contractor for progress payments shall be made by the NEA to the Contractor within reasonable time after receipt of invoices.

ii. Payments to be made to the Contractor by the NEA other than progress payments shall be made in accordance with the relevant clauses governing each type of payment.

iii. All payments to the Contractor for work performed under the Contract shall be in Nepalese Rupees in accordance with supply and construction items unit prices pursuant to the Bid Price Schedules. Notwithstanding NEA procedural assistance to the Contractor, will neither make any foreign currency payments to the Contractor for any reason whatsoever nor guarantee any foreign currency commitment by the Contractor.

iv. Payments shall be made adhering to actual measurements at site strictly. For any variations in quantity the unit rate of the bid shall prevail. Measurement at site shall be jointly carried out by the representative/engineer of employer and contractor.

v. Progress Payment shall be made only after the completion of work under any construction unit complete as mentioned in BOQ as per standard drawing, specification and as directed by the Project Manager / NEA. Contractor shall not receive any amount against material delivered at sites until these materials are installed or erected at site. Further the progress Bill less than 20% of contract amount shall not be processed for payment.

Retention Amount

Five percent (5%) from each payment for supply of Plant and Materials; Insurance, Clearing, Forwarding and Inland Transportation to Site; and Construction and Installation works shall be retained. The following conditions shall be fulfilled for the payment of such retained amount:

(a) 5% retention amount shall be paid against issuance of Defect Liability Certificate. This Certificate shall be issued upon receipt of income tax clearance certificate by Government of Nepal (GON), Internal Revenue Department (IRD) and custom clearance documents showing the re-export of all the returnable items or tax payment Certificate for items disposed in the Country including fulfillment of all outstanding obligations. If the Contractor fails to clear all the required taxes, custom clearances and all outstanding obligations as mentioned above, such money shall be deducted from this portion of the Retention money.

Income Tax Deduction

From each progress bill, an amount, as determined by the prevalent rules and regulations of GOVERNMENT OF NEPAL, shall be deducted and deposited with the concerned Tax Department in the Country as a deposit towards Contractor's income tax.

GCC 51	***Delete sub-clause 51.1 and replace with the following:*** **1. In the country of Origin** The prices bid by the Contractor shall include all taxes, duties and other charges imposed outside the Employer's country on the production, manufacture, sales and transport of the Contractor's Equipment, Plant, Materials and supplied to be used on or furnished under the Contract, and on the services performed under the Contract. **2. In Nepal** **General:** (a) Unless otherwise specifically declared in the contract documents, the prices bid by the Contractor and its suppliers and subcontractors shall include business taxes and other taxes that may be levied in accordance with the laws and regulations in force or in effect in Nepal as of 28 days prior to the closing date for submission of tenders in the Employer's country on the Equipment, Plant, Materials and Supplies (permanent, temporary and consumables) acquired for the purpose of Contract and on the services performed under the Contract. Whatsoever provisions made in the Contract document shall not relieve the Contractor, its suppliers and subcontractors from their responsibility to pay income tax that may be levied in the Employer's country on profits made by the Contractor, its suppliers and subcontractors in respect of the Contract. (b) **Value Added Tax (VAT):** value added tax (VAT) shall be imposed on all imported equipment and materials to be supplied and delivered exclusively for use in the Project. The prices bid by the Contractor and its suppliers and subcontractors shall include the VAT as specified on Price Schedule. (c) In the event that the origin of any of the contractor's or its subcontractor's or the nominated subcontractor's plant, equipment and materials is India or third country, the provisions for the exemption of customs duties and VAT as per regulation of GoN, as mentioned in this clause shall be applied. For such provision, the Contractor must submit the request for the Custom, VAT exemption along with all supporting documents as required by GoN. **Staff Income Tax:** The Contractor's staff, personnel and laborers, and those of its subcontractors, will be liable to pay personal income tax in the Employer's country, irrespective of whether they are local or foreign nationals on income earned including salaries and wages as applicable under the laws and regulation of Nepal. The Contractor shall perform such duties in regard to Tax Deduction at Source (TDS) thereof as may be applicable by such laws and regulations. **Duties on Equipment, Plant, Materials and Supplies:** (a) The Contractor shall pay all applicable customs & taxes and shall be included in the Contract Rates and Prices. (b) Income tax assessed in accordance with the prevailing Income Tax Act of Nepal and as per the provision of any specific Double Taxation Agreement, shall be imposed on the Contractor, its sub-contractors and nominated sub- contractors. An advance income tax as per the prevailing income Tax Act and Finance Act shall be deducted from the monthly progress payment of the Contractor. (c) The Contractor shall pay all duties, taxes, fees and contributions levied in Nepal in

	Nepalese Rupees as directed by the relevant governmental department or office, or any other local statutory agency or body in accordance with the relevant rules and regulations. (d) Other local fees and charges (toll taxes) shall be applied in accordance with the prevailing laws and regulations of Nepal. (e) Locally available goods, construction materials including fuel, lubricating oil, cement, timber, iron and steel goods, etc. shall be procured locally. All taxes for such goods procured from the local market shall be included in the Contract Rates and Prices and no reimbursement or payment in that respect shall be made to the contractor.
GCC 53.1	Delete sub-clause 53.1, 53.2 & 53..3 and replace with the following: **This is Fixed Price Contract.**
GCC 53.6	***Not Applicable***
GCC 53.7	***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	Delete this clause
GCC 57.1	The Advance Payment shall be limited to **Twenty Percent (20%)** may be payable in two installments, 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 for advance payment.
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 10% 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 shall be for the following minimum amounts equivalent as a percentage of the Contract Price: Five percent (5%) if the bid price is not below 15% of the office estimate. If the bid price is below 15% of the office estimate then the Performance Security shall be additional 50% of the amount which is below 15% of the office estimate as follows. performance security = 5% of Bid price + 50% of (0.85 * Office Estimate - Bid Price) an additional amount of 8% of the Contract price if the Employer has increased the

	Performance Security amount pursuant to ITB Sub Clause ITB 40.1 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. The Performance security shall be valid for a period of ninety (90) days beyond the expiration of warranty period and will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract including any warranty obligations and submission to purchaser by the supplier of Income Tax clearance certificate issued by the concerned GON office. The supplier shall promptly extend the validity suitably to cover agreed extension of the warranty period of the supplied goods.
G. Finishing the Contract	
GCC 68.1	***Replace the whole clause with the following:*** The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, after completion of the Works in accordance with the Contract, including Tests on Completion. A pre-requisite for such request is that the entire Work has been subjected to normal operating stresses for at least two(2) weeks and that no defects or elements of danger have developed during this period (except for minor outstanding work that does not affect the use of the Works or Section for their intended purpose). The Employer's right to subject part of the Work to normal operating stresses during the course of execution is not affected by the provisions of this article. When the Employer/Employer's Representative along with CBO are satisfied that the whole Works have been completed and has established that the individual components are impeccable in all respects and fulfill the stipulated conditions, and after any defects that may have come to light have been remedied, a Hand-Over Certificate will be issued by the Employer's Representative along with CBO with copy to the Employer. The right to determine whether or not the whole Work is completed rests with the Employer/Employer's Representative. The issuance of the Hand-Over Certificate marks the beginning of the Defect Liability Period. The Employer can reject the application, giving his reason and specifying the work required to be done by the Contractor to enable the Hand-Over Certificate to be issued: the Contractor shall then complete such work before issuing a further notice under this Sub-Clause.
GCC 71.1	The date by which operating and maintenance manuals are required is: Prior to the issuance of the Certificate of Completion. Moreover, should any change is required in the "as built" drawings because of rectification of any defects within the Defects Liability Period, such changes shall be incorporated and "as built" drawings shall be updated accordingly before issuance of the Final Acceptance Certificate.
GCC 71.2	The date by which "as built" drawings is required is: Prior to Completion Certificate.The amount to be withheld for failing to produce "as built" drawings and/or

	Operating and maintenance manuals is: **Full value of last Invoice**
GCC 72.3 (i)	The maximum number of days is: **200**
GCC 80	The Project Manager has to obtain the specific approval of the Employer for taking any of the following actions : a. Approving subcontracting of any part of the works under General Conditions of Contract Clause 13; b. Certifying additional costs determined under General Conditions of Contract Clause 50; c. Determining start date under General Conditions of Contract Clause 1; d. Determining the extension of the intended Completion Date under General Conditions of Contract Clause 35; e. 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. f. Adjustment of rates under General Conditions of Contract Clause 45;

SECTION - IX

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 the .....day of…..between……. name of the Employer ***……(hereinafter "the Employer"),*** of the one part, and ……name of the Contractor ……(hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as …….... name of the Contract .....should 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 'A' class commercial Bank)

..... ***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 'A' class commercial Bank)

…….. 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 that ……has 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".