NEPAL ELECTRICITY AUTHORITY

(GOVERNMENT OF NEPAL)

DISTRIBUTION AND CONSUMER SERVICE DIRECTORATE

Butwal Regional Office

Bhairahawa Distribution Centre

Bhairahawa, Rupandehi

Tender No: BHDC 2074/075-05

Tender Document

FOR

RESTRUCTURING OF SHIFTED POLES FROM NEA BHAIRAHAWA TO JOGIKUTTI UNDER BELAHIYA-BUTWAL ROAD FOR 33 KV LINE AND CONSTRUCTION OF NEW 33 KV LINE FROM YOGIKUTTI TO BUTWAL GRID

Nepal Electricity Authority
Distribution and Consumer Service Directorate
Bhairahawa Distribution Centre
Bhairahawa
Tel.: 071-520654, 520254 NEPAL
Fax : 071 -524248

ISSUED TO :

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Section I. Invitation for Bids

Invitation for Bids

(First Publication Date 2074/08/11 at National Daily Gorkhapatra)

1. The Nepal Electricity Authority (NEA), Bhairahawa invites sealed Bids from the eligible registered suppliers/Manufacturer for the jobs mentioned in the following table.
2. Interested Bidders should be registered with VAT office, Government of Nepal (GON) and shall have experience certificate in the related field.
3. A complete set of bid documents (hardcopy) can be purchased by any eligible bidder by applying a written request letter attached with a Bank voucher deposited in NEA's A/C No. 04-146-01018330-01-1 of Agriculture Development Bank, Bhairahawa or by providing account payee bank draft drawn in favour of the NEA of the said bid document amount (Non-refundable) in clause 4 of this notice from the first date of publication onwards in office hours. The bidding document shall also be available on NEA website **http://www.e-nea.org.np** and those bidders who wish for e-bidding may obtain further information pertaining to bid from this website. The bid document shall be available for sale up to one day before the last date of bid submission.
   For the purpose of the bidders who choose to submit their bid electronically through e-procurement section of NEA website hhttp://www.e-nea.org.np, the bidders may either purchase the hardcopy of the bidding documents directly from the office or download the necessary parts of the bidding document from the website to prepare their bids and submit it electronically as specified in the instruction to bidders. In case the bidder who choose to submit the bid electronically, they shall be required to submit an electronic scanned copy (*.pdf format) of the deposited amount bank voucher with the electronic bid documents.
4. All Bids accompanied by a bid bond in amount & validity period as specified below must be delivered in accordance with the Instructions to Bidders at or before 12:00 hour's local time on or before dates and address given below. The Bids shall be opened at 14:00 hours local time on the same date of the Bid submission, in the presence (or without presence) of the authorised representatives of the Bidders. Alternatively, bidders may submit their bids electronically through e-procurement section of NEA website **http://www.e-nea.org.np** as specified in the instruction to bidders. Documents received after this deadline shall not be accepted.

Tender No.	Work Details	Last date and time of Bid Submission	Estimate Amount (With VAT)	Cost of Bid document (Nrs.)	Bid Bond	
					Amount	Validity Period
BHDC 2074/075-05	Restructuring of shifted poles from NEA Bhairahawa to Jogikutti under Belahiya-Butwal road for 33 kV line and Construction of new 33 kV line from Jogikutti to Butwal Grid.	31st day up to 12:00 Noon from the first date of publication		5,000.00	5,25,000.00	120 days from the last date of bid submission
BHDC 2074/075-06	Supply, Delivery and Installation of 11 kV VCB, Line material and Construction of Dedicated Feeder line from Bhairahawa substation to Gautam Buddha International Airport.	31st day up to 12:00 Noon from the first date of publication	49,28,112.36	3,000.00	1,24,000.00	120 days from the last date of bid submission

5. If the last date of submission and opening falls on a government holiday then the next working day shall be considered as the last day.
6. The NEA will not be responsible for any cost or expenses incurred by the bidders in connection with the preparation or submission of bids.
7. The NEA reserves the right to accept or reject any bids, partly or wholly, without assigning any reason whatsever.
8. Mode of bidding is National Competitive Bidding (NCB).
9. Interested eligible bidders may obtain further information from the office given below:

Nepal Electricity Authority
Bhairahawa Distribution Center, Bhairahawa
Tel No. : +977(071)520654/520254 / Fax : +977(071)524248, E-mail : bhairahawadc@gmail.com

Section II. Instructions to Bidders

A. General

1. Scope of Works

The Employer invites bids for the contraction of works as detailed in attached specifications, drawings and the bill of quantities provided herein. The successful Bidder is expected to complete the works as mentioned in the Bidding Data.

2. Eligible Bidder

This Invitation for Bids is open to all registered Bidders with qualifications as described in the Bidding Data.

3. One Bid per Bidder

Each Bidder shall submit only one bid, either individually or as a partner in a joint venture. A Bidder who submits or participates in more than one bid shall cause all the proposals with the Bidder's participation to be disqualified. A firm may participate in more than one bid only as a subcontractor.

4. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of his bid and the Employer shall in no case be liable for those costs.

5. Site Visit

The Bidder at his own cost, responsibility and risk may visit the site of the works and acquire all necessary information for preparing the bid and entering into a contract for construction of the works.

B. Bidding Documents

6. Content of Bidding Documents

The Bidding Documents comprise the documents listed below:
Section

I. Invitation for Bids
II. Instructions to Bidders
III. Sample Forms of Bid, Letter of Acceptance and Agreement
IV. General Conditions of Contract (GCC)
V. Special Conditions of Contract (SCC)
VI. Technical Specifications
VII. Bill of Quantities
VIII. Sample Forms of Securities

7. Clarification of Bidding Documents

A prospective Bidder may request clarification on the bidding documents in writing and the Employer shall respond to such request. Copies of the response shall be forwarded to all the purchasers of the bidding documents.

C. Preparation of Bids

8. Language of Bid

All documents relating to the bid shall be in English or in Nepali.

9. Documents Comprising Bid

The bid by the Bidder shall comprise the following:

a. Bid and Qualification/ Eligibility Information
b. Bid Security
c. Priced Bill of Quantities
d. Rate Analysis (optional at request of Employer)

10. Bid Prices

The contract shall be for the whole works described in scope of works based on the priced Bill of Quantities submitted by the Bidder. The Bidder shall fill in rates and prices for all items of the works in Nepali Rupees. Items for which no rate or price is entered shall be deemed covered by the other rates and prices in the Bill of Quantities and shall not be paid by the Employer.

All duties, taxes and other levies payable by the contractor under the contract shall be included in the rates, prices and total Bid Price submitted by the Bidder.

11. Bid Validity

The bid shall remain valid for the period specified in the Bidding Data.

12. Bid Security

The Bidder shall furnish a Bid Security in Nepali Rupees in the amount specified in the Bidding Data. The Bid Security shall remain valid for a period of 30 days beyond the original validity period for bid and any period of extension subsequently requested by the employer.

The Bid Security shall be in the form of a bank guarantee from a bank acceptable to the Employer or a cash voucher deposited in the Bank Account of the Employer specified in the Bidding Data.

13. Format and Signing of Bids

One original copy of the bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorised to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bidding Data 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. Any entries or amendments including alternations, additions or corrections made shall be initialled by the same authorized person.

D. Submission of Bids

14. Sealing and Marking of Bids

The bid shall be placed in sealed envelope. The sealed envelope shall be placed in an outer envelope which shall also be sealed. The envelopes shall be addressed to the Employer at the address provided in the Bidding Data and bear the name and identification number of the contract.

15. Pre-Bid Meeting

A Pre-Bid meeting if provided for in the Bidding Data shall be held at least 10 days before the bid submission date at the place, date and time as mentioned in the Bidding Data. Any amendment to be made in the Bid subsequent to the Pre-bid meeting shall be issued within 5 days of the meeting and the Addendum shall be circulated

to all the purchasers of the Bidding Document, The Addendum thus issued shall be a part of the Bidding document.

16. Deadline for Submission of Bids

Bids shall be delivered to the Employer at the address no later than the time and date specified in the Bidding Data.

17. Late Bids

Any bid received by the Employer after the deadline shall not be accepted and shall be returned unopened to the Bidder.

18. Modification and Withdrawal of Bids

18.1 Bidders may modify or withdraw their Bids after it has been submitted by giving a written notice, duly signed by an authorized representative and shall include a copy of the authorization in accordance with Clause 13 before the deadline prescribed in Clause 16. The corresponding modification of the bid must accompany the respective written notice.

18.2 Each Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with Clauses 16 with the outer and inner envelopes additionally marked "MODIFICATION" or "WITHDRAWAL," as appropriate.

18.3 No bid may be modified after the deadline for submission of Bids.

E. Bid Opening and Evaluation

19. Bid Opening

The Employer shall open the bids in the presence of the Bidders' representatives who choose to attend at the time and in the place specified in the Bidding Data.

The Bidders' names, the Bid Prices, the total amount of each bid, any discounts, bid modifications and withdrawals, the presence or absence of Bid Security, difference of rate in words and figures, quoted price for alternate technical specification if proposed, whether the Bid Form has signature of the bidder or authorized representative, corrections/effacement or obliteration in bidding document, any remarks made by the bidder in the Bid Form, details of rates if requested and such other details as the Employer may consider appropriate shall be announced by the Employer at the opening.
The Employer shall prepare and provide minutes of the bid opening including the information disclosed to those present.

20. Process to be Confidential

Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the

successful Bidder has been announced.

21. Clarification of Bids and Contacting the Employer

21.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at the Employer's discretion, ask any Bidder for clarification of the Bidder's bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by facsimile, but no change in the price or substance of the bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause 23.

21.2 Subject to Sub-Clause 21.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.

21.3 Any efforts by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid.

22. Examination of Bids and determination of Responsiveness

22.1 Prior to the detailed evaluation of Bids, the Employer shall determine whether each bid (a) meets the eligibility criteria defined in Clause 2; (b) has been properly signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the Bidding documents.

22.2 A substantially responsive bid is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

22.3 If a bid is not substantially responsive, it shall be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

23. Correction of Errors

23.1 Bids determined to be substantially responsive shall be checked by the Employer for any arithmetic errors. Errors shall be corrected by the Employer as follows:

a. where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern; and

b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted shall govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted shall govern, and the unit rate shall be corrected.

23.2 The amount stated in the bid shall be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the bid shall be rejected and the Bid Security may be forfeited.

24. Evaluation and Comparison of Bids

24.1 The Employer shall evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 23.

24.2 Further the employer shall evaluate :

a) Whether the construction work plan, work performance schedule and mobilization period is consistent with the requirement of the bidding document or not,
b) Whether the quoted item unit rates in the Bill of quantities are reliable or not,
c) Whether or not the quoted price is unbalanced due to unnaturally high rates quoted by the bidder for work items to be completed in the initial stages of the contract or for work items whose quantities are assumed by the bidder to be underestimated.

24.3 In evaluating the Bids, the Employer shall determine for each bid the evaluated Bid Price by adjusting any corrections for errors pursuant to Clause 23;

24.4 The Employer reserves the right to accept or reject any variation deviation or alternative offer. Variations, deviations, and alternative offers and other factors which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer will

not be taken into account in bid evaluation.

24.5 If the bid, which results in the lowest Evaluated Bid price, is unbalanced or frontloaded in relation to the Employer's estimate of the items of Work to be performed under the contract pursuant to Sub - Clause 24.2, the Employer shall ask the bidder to give clarification with detailed rate analysis for any or all items of the Bill of Quantities. If the clarification is found satisfactory then the Employer shall increase at the expense of the bidder the performance security set forth in clause 28 by additional 8% of the quoted amount to protect the Employer against financial loss in the event of default of the successful bidder under the contract and if the clarification is found unsatisfactory then the Employer may reject such bid.

F. Award of Contract

25. Award of Contract

The Employer shall award the contract to the Bidder who has offered the lowest evaluated Bid Price, provided that such Bidder has been determined to be eligible in accordance with the provisions of Clause2.

26. Employer's Right to Accept any Bid and to Reject any or all Bids

The Employer reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids, at any time prior to the award of the contract, without assigning any reasons whatsoever and without thereby incurring any liability to the affected Bidder or Bidders.

27. Notification of Award and Signing of Agreement

27.1 The Employer shall notify its intention to award the Contract to the successful bidder in accordance with Clause 25 prior to the expiration of the bid validity period and within 7 days of acceptance of his bid. This notification (called the "Letter of Acceptance") shall state the sum that the Employer shall pay the Bidder in consideration of the execution, completion, and maintenance of the works as described by the contract. The employer shall also provide information regarding the name, address and the contract amount of the successful bidder to all bidders who participated in the bid.

27.2 Any Bidder who is not satisfied with the procurement process or Employer's decision as per Sub - Clause 27.1 and believes that the Employer has committed an error or breach of duty which has or will result in loss to the bidder then the bidder may give an application for review of the decision to the Employer with reference to the error or breach of duty committed by the Employer. The review application should be given within 7 days of receipt of information regarding issue of Letter of Acceptance by the Employer to the successful bidder.

27.3 If the review application is not received by the Employer as per clause 27.2 then the bid of the Bidder selected as per clause 25 shall be accepted by the Employer and the successful bidder shall be notified by the Employer to submit Performance security as per clause 28, within 15 days for

signing of an Agreement.

27.4 If the successful bidder fails to deliver the Performance Security and sign the Agreement pursuant to Sub - Clause 27.3 then the Employer shall forfeit the Bid Security of the bidder and accept the bid of immediately next lowest evaluated substantially responsive bidder.

28. Performance Security

Within 15 days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in acceptable format to the Employer as specified in Section IX and equal to five percent (5%) of the contract Agreement Amount.

29. Advance Payment

The Employer may provide an Advance Payment on the Initial Contract Price as stipulated in the Letter of Acceptance, subject to a maximum amount as stated in the Bidding Data.

30. Additional Securities

The Contractor shall provide additional Performance Security pursuant to Sub -Cause 24.5

31. Adjudicator

The Employer proposes the person named in the Bidding Data to be appointed as Adjudicator under the Contract, at the hourly fee specified in the Bidding Data, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Contract Data at the request of either party.

32. Conduct of Bidders

32.1 The Bidder shall be responsible to fulfil his obligations as per the requirement of the Contract Agreement, Bidding documents, GoN's Procurement Act and Regulations.

32.2 The Bidder shall not carry out or cause to carryout the following acts with an intention to influence the implementation of the procurement process or the procurement agreement :

a) give or propose improper inducement directly or indirectly,

b) distortion or misrepresentation of facts

c) engaging or being involved in corrupt or fraudulent practice

d) Interference in participation of other prospective bidders.

e) coercion or threatening directly or indirectly to 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 bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract.

33. Blacklisting Bidder

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

a) if it is proved that the bidder committed acts pursuant to the Sub - Clause 32.2,
b) if the bidder fails to sign an agreement pursuant to Sub - Clause 27.4,
c) if it is proved later that the bidder/contractor had committed substantial defect in implementation of the contract or had not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract ,
d) if convicted by a court of law in a criminal offence which disqualifies the bidder from participating in the contract.
e) if it is proved that the contract agreement signed by the bidder was based on false or misrepresentation of bidder's qualification information,
f) other acts mentioned in the Bidding Data

33.2 A firm declared blacklisted and ineligible by the GoN shall be ineligible to bid for a contract during the period of time determined by the PPMO.

G. Bidding Data

Instruction to Bidders Clause References

A. General

ITB 1	The Employer is: ***Nepal Electricity Authority, Bhairahawa Distribution Centre.*** The Scope of Work: ***Restructuring of Shifted poles from NEA Bhairahawa to Jogikutti under Belahiya-Butwal Road for 33 kV line and Construction of new 33 KV line from Yogikutti to Butwal Grid.***
ITB 2	Bidder's Eligibility Requirement: a) Registration Certificate b) Business Registration Licence c) VAT and PAN Registration Certificates d) Tax Clearance Certificate or Submissions of Tax Returns. e) A written declaration made by the Bidder stating that the Bidder is not ineligible to participate in the Bid; has no conflict of interest in the proposed bid procurement proceedings and has not been punished for the profession or businesses related offence. f) Joint Venture Authorization/ Agreement (if any) g) Notarized Power of Attorney
ITB 3	Maximum number of members in a joint venture: ***1***

B. Bidding Documents

ITB 7	Employer's address for **clarification purposes** is: **Nepal Electricity Authority, Bhairahawa Distribution Centre, Bhairahawa.**

C. Preparation of Bids

ITB 8	The language of the bid is: ***English & Nepali***
ITB 11	The bid validity period shall be: ***90 days from the last date of submission of Bid***
ITB 12	Amount of Bid Security shall be: ***NRs 5,25,000.00.*** The bid security validity period shall be not less than 120 days from the last date of submission of Bid. The bank Account of the Employer: Account No- 04-146-01018330-01-1 of Agriculture Development Bank, Bhairahawa.

ITB 13	The written confirmation of authorization to sign on behalf of the Bidder shall indicate: Notarized Power of attorney authorizing the signatory of the bidders to commit the Bid

D. Submission of Bids

ITB 15	A Pre-Bid meeting ***"shall not"*** take place.
ITB 16	The Employer's address for **bid submission purposes** is: **Nepal Electricity Authority, Bhairahawa DC, Bhairahawa, Rupandehi. The deadline for bid submission is:** Date: 2074-09-12 Time: 12.00 hours In the event of the specified date for the submission of bids being declared a holiday for the Employer, the bids will be received up to the appointed time on the next working day.

E. Bid Opening and Evaluation

ITB 19	The bid opening shall take place at: Address: **Nepal Electricity Authority, Bhairahawa DC, Bhairahawa.** Date: 2074-09-12 Time: 14:00 hours In the event of the specified date of bid opening being declared a holiday for the Employer, the bids shall be opened at the appointed time and location on the next working day.

F. Award of Contract

ITB 31	The Adjudicator proposed by the Employer is*:* ***None*** The hourly fee for this proposed Adjudicator shall be: ***[.....]***. Brief biographical data of the proposed Adjudicator is as follows: If required, the adjudicator will be appointed by the Nepal Council of Arbitration.

Special Instruction to Bidders for E-Bidding

A) Bid submission procedure through electronically (e-submission):

• Interested bidders may either purchase the Bidding documents from the Employer's office as specified in the Bid Notice or choose to download the necessary part of bidding documents from e-procurement section of NEA's web site http://www.e-nea.org.np. In case, the Bidder choose to download the bidding documents, prepare his bids on downloaded documents, and submit his bid electronically, the Bidder is required to deposit the cost of bidding document (as specified in the bid notice) in the bank account specified in the IFB. In addition, electronic scanned copy (pdf format) of the Bank deposit voucher shall be also required to be submitted along with the electronic bid files.

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

S.No.	Document	PDF File name	Requirement	Remarks
1	Form of Bid	Bid form -1	Mandatory	
2	Bid Security (Bank Guarantee)	Bid security-2	Mandatory	
3	Company registration,	Company reg-3	Mandatory	All firms in case of JV
4	VAT registration,	VAT reg-4	Mandatory for National firms	All firms in case of JV
5	Tax clearances certificate,	Tax-5	Mandatory for National firms	All firms in case of JV
6	Power of Attorney of Bid signatory	Power of att-6	Mandatory	
7	Joint venture agreement	JV doc-7	Mandatory	In case of JV
8	Qualification Information	Qualifications-8	Mandatory	
9	BOQ with rate, amount and total amount	BOQ-9	Mandatory	
10	Manufacturers Authorization	Authorization - 10	Mandatory	If the bidder is not manufacturer
11	Technical Data Sheet	TDS-11	Mandatory	If asked by Tehnical specification
12	Certification Documents	Certifications-12	Mandatory	
13	Declaration Form	Declaration-13	Mandatory	

The Bidder shall then scan the completed original documents, forms in PDF files with appropriate filename as shown in the table above. PDF (Adobe acrobat) version must be 4.0 or above. Declaration Letter for Eligibility of Bidder (as mentioned) shall be prepared and scanned and uploaded.

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

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

• After preparing all the required bidding documents in PDF scan files as specified as above, the Bidder shall upload the PDF bid files and submit his complete bid online through e-procurement section

of NEA's website http://www.e-nea.org.np within the specified date and time.
• The e-procurement system will accept the e-submission of bid from the date after publishing of notice and will automatically not allow the e-submission of bid after the deadline for submission of bid, as specified above.
• The standard time for e-submission is Nepalese Standard Time as set out in the server of MIS Department of NEA. In case of e-submission of bids, the e-procurement system will, automatically, not allow the e-submission of bid after the deadline for submission 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.
• Bidders may submit his Substitution or Modification or Withdrawal either in hard copy or through e-submission.
• For Substitution of Bid, the Bidder shall follow similar steps with a Substitution letter in PDF file.
• 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 Authorised Representative/s of the Firm / all authorised Joint Venture partners.
• When a Bidder submits electronic bid by downloading the bidding documents from the NEA's webpage it is assumed that the Bidder prepares his bid by studying and examining all the Bidding documents including specifications and conditions of contract.
• In case, the Bidder choose to download the bidding documents and deposit the cost of bidding document (as specified in the bid notice) in the Project's account such deposited amount shall be verified by the office during bid evaluation process. The bid shall be non-responsive and shall not be evaluated if the specified cost for bidding document is not deposited in the specified account of the project for the said document.

B) Requirements and Conditions for E-Submission of Bid:

• The Bidder shall submit his bid electronically in PDF files in the manner specified above, and submission of hard copy of "original plus one copy of bid" is not mandatory.
• In case, if both the electronic bid and original bid in hard copy are submitted to the Employer within the bid submission dead line, the Bidder's electronic bid and original bid in hard copy will be accepted for evaluation provided if the facts and figures in hard copy confirm to the PDF files in electronic bid. If there is any discrepancy in fact and figures in 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
• However, for electronically submitted bid in PDF files, the Bidder shall be required to submit documents/ clarifications as specified in ITB clause within 3 days.
• The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files shall be considered incomplete and rejected for further bid evaluation.
• 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.
• 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.
• The Bidder shall attach the Bid Security Guarantee in the format attached in the Bid Document. The Bid Security may be forfeited

. → if the Bidder does not respond and/or submit the documents and or clarifications when requested by the Employer.
. → 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.

C) Bid Opening Process

• Electronically submitted bid shall be opened first at the Bid opening time.
• The e-procurement system allows the Employer to download the e-submitted bid files from the Bidders only after the time for opening the bids.
• The e-submitted bids must be readable through open standards interfaces. Unreadable and or partially submitted bid files shall be considered incomplete and rejected for further bid evaluation.
• After opening of e-submitted bids files, all files shall be printed and recorded at the time of bid opening.
• Envelopes marked with "WITDRAWAL" or "MODIFICATION" or "SUBSTITUTION" and in case of e-submission the files in PDF format 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 shall not be opened. In case of e-submission 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. In case, if the Bidder can 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 Clause *[bid forfeit]* as above shall be applicable.

• Proposed facility for submission of bid electronically through e-submission is to increase transparency, non-discrimination, equality of access, and open competition. The Bidders are fully responsible to use the e-submission facility in e-procurement section of NEA's website ***http://www.e-nea.org.np*** in specified procedures and in no case the Employer shall be held liable for Bidder's inability to use this facility.

Section III. Sample Forms of Bid, Qualification Information, Letter of Acceptance and Agreement

Bid-form

To
The Chief
Bhairahawa Distribution Center,
Butwal Regional Office,
Nepal Electricity Authority,
Bhairahawa, Nepal

We have examined the documents and offer to execute the Works in conformity with the Contract for the sum of …….. …….. (in words) ……(in figures) or such other sum as may be ascertained under the contract.
We undertake, if our bid is accepted, to commence the construction work within ……(number) days, and to complete the work of all the items specified in the contract within ……(number) days, calculated from the date of receipt of our notification of award and in accordance with the Contract execution schedule provided.
If our bid is accepted, we will provide the performance security in the sum of (Amount), equal to 5 (five) percent of the Contract price, for the due performance of the Contract.

This bid shall remain binding until _____ *[date]*. This bid and your written acceptance of it shall constitute a binding contract between us.

We understand that the Employer is not bound to accept the lowest or any offer received for the Works.

Signature _____

Date: _____

Name : _____

Designation: _____

Authorised to sign on behalf of (organisation name): _____

Office Stamp of the Organisation: _____

Eligibility Information

1. Eligibility Requirements:

All Bidders shall submit following documents as pre- requisites for eligibility:

a. Registration Certificate ***[attach copy]***
b. Place of Registration ***[insert]***
c. Principal place of Business ***[insert address]***
d. Business Registration Licence ***[attach copy]***
e. VAT and PAN Registration Certificates ***[attach copy]***
f. Tax Clearance Certificate or Submissions of Tax Returns as specified in Bidding Data ***[attach copies]***
g. A written declaration made by the Bidder stating that the Bidder is not ineligible to participate in the Bid; has no conflict of interest in the proposed bid procurement proceedings and has not been punished for the profession or businesses related offence.
h. Notarized Joint Venture Authorization/ Agreement (if any)
i. Notarized Power of Attorney

2. Joint Ventures Requirements (if any)

2.1 Attach the power of attorney of the signatory (ies) of the bid authorising signature of the bid on behalf of the joint venture.

2.2 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that

(a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;

(b) one of the partners will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture; and

(c) execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

(d) each joint venture partners shall provide details as per information listed in 1 above.

Letter of Intention to Award

[This letter should be in the letterhead paper of the Employer]

Date:

To: *[name and address of the Contractor]*

This is to notify you in accordance with the Instruction to Bidders that it is our intention to award the contract *[name of the Contract and identification number, as given in the* Contract Data *and/or SCC]* to you as your Bid price of *[amount in numbers and words in Nepalese Rupees]*, as corrected and modified in accordance with the Instructions to Bidders, is determined to be substantially responsive and lowest evaluated Bid price.

Authorized Signature:_____

Name and Title of Signatory:_____

Name of Agency:_____

Letter of Acceptance

[Letterhead of the Employer]

Date: _____

To: …….

……

This is to notify you that your bid dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Invitation to Bid]* for the Contract Price of *[insert the amount in Nepalese Rupees in numbers and words]* as corrected and modified in accordance with the Instructions to *Bidder*s is hereby accepted by our Agency.

You are hereby instructed to contact our office *[Office address]* to sign the formal agreement on *[date]* at *[time]. As per the Instructions to Bidders you are also required to submit Performance Security, as specified in the SCC, consisting of a Bank Guarantee in an approved format or cash deposit voucher in favour of the Employer in the Employer's Bank account as specified in the SCC.*

The Employer shall forfeit the bid security, in case you fail to furnish the Performance Security and to sign the contract.

Please convey your unconditional acceptance by signing on the original of this letter and submit the required Performance Security, at the time of formal agreement.

Authorised Signature: _____

Name: _____

Designation: _____

Agreement

This Agreement, made the *[day]* day of *[month]*, *[year]* between *[name and address of Employer]* (hereinafter called "the Employer") and *[name and address of contractor]* (hereinafter called "the contractor") of the other part.

Whereas the Employer is desirous that the contractor execute *[name and identification number of contract]* (hereinafter called "the Works") and the Employer has accepted the bid for _____ *[insert the amount in Nepalese Rupees in numbers and words]* by the contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Agreement witnesseth as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.

2. In consideration of the payments to be made by the Employer to the contractor as hereinafter mentioned, the contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

3. The Employer hereby covenants to pay the contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, 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 thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____

was hereunto affixed in the presence of: _____

Signed, Sealed, and Delivered by the said _____

in the presence of: _____

Binding Signature of Employer _____

Binding Signature of Contractor _____

SECTION - IV

General Conditions of Contract

A. General	
1. Definitions	(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 42 hereunder. (f) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 53.1. (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) **Day works** 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) 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. (v) **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. (w) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works. (x) **Party** means the Employer or the Contractor, as the context requires. (y) **SCC** means Special Conditions of Contract (z) 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. (aa) **Retention** Money means the aggregate of all monies retained by the Employer pursuant to GCC 46.1. (bb) The **Site** is the area defined as such in the SCC. (cc) **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.
	(dd) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager. (ee) The **Start Date** is given in the SCC. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates. (ff) 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. (gg) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works. (hh) A **Variation** is an instruction given by the Project Manager which varies the Works. (ii) 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) Contractor's 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.
4. Project Manager's Decisions	4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
5. Delegation	5.1 The Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.
6. Communications	6.1 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.
7. Subcontracting	7.1 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.
8. Other Contractors	8.1 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
9. Personnel and Equipment	9.1 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. 9.2 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.
10. Employer's and Contractor's Risk	10.1 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.
11. Employer's Risks	11.1 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. 11.2 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.
12. Contractor's Risks	12.1 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.
13. Insurance	13.1 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.
	13.2 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. 13.3 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. 13.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager. 13.5 Both parties shall comply with any conditions of the insurance policies.
14. Site Investigation Reports	14.1 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 Bidder.
15. Contractor to Construct the Works	15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
16. The Works to Be Completed within intended Completion Date	16.1 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.
17. **Design by contractor and** Approval by the Project Manager	17.1 The contractor shall be responsible for the design of permanent works as specified in SCC. 17.2 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. 17.3 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. 17.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of temporary works.
18. Safety, Security and Protection of the Environment	18.1 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 off 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 life saving 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.
19. Discoveries	19.1 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.
20. Possession of the Site	20.1 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.
21. Access to the Site	21.1 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.
22. Instructions, Inspections and Audits	22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located. 22.2 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 58.2 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.
23. Dispute Settlement	23.1 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. 23.2 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 the Adjudicator or Dispute Resolution Committee (DRC) by either Party as specified in the SCC within 15 days after the expiration of amicable settlement period.
24. Appointment of the Adjudicator/ DRC Members	24.1 The adjudicator shall be as specified in SCC if indentified and agreed by the Employer and the Contractor during the contract agreement. If not identified in the SCC, the adjudicator shall have to be agreed and appointed whenever the dispute arises; by the consensus of the Employer and the Contractor. If the parties cannot reach an agreement on the appointment of the Adjudicator, either party may request the Appointing Authority designated in the SCC, to appoint the Adjudicator within 15 days of receipt of such request. 24.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 15 days of receipt of such request. 24.3 The DRC shall comprise of three members. Each Party shall appoint one member each and the third member who shall act as the Chairman shall be appointed by the two members appointed by the Parties. If either party fails to nominate a member of DRC within 30 days, then the appointing authority designated in the SCC shall upon the request of either or both of the parties and after due consultation with both parties appoints this members of the DRC. 24.4 If a DRC member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced member was required to have been appointed.
25 Procedures for Disputes	25.1 If a dispute is referred to the Adjudicator or the DRC then the adjudicator or the DRC shall give a decision in writing within 30 days of receipt of a reference of the dispute. 25.2 Either party may refer a decision of the Adjudicator or DRC to an Arbitrator within 30 days of the Adjudicator's or DRC's written

	decision. If either party refers the dispute to arbitration within the above 30 days, the Adjudicator's or the DRC's decision shall be final and binding. 25.3 The Adjudicator or the DRC Members shall be paid by the hour at the rate specified in the SCC, together with reimbursable expenses of the types specified in the SCC, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator or DRC. 25.4 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. Time Control	
26. Program	26.1 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. 26.2 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. 26.3 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. 26.4 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.
27. Extension of the Intended Completion Date	27.1 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. 27.2 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.
28. Acceleration	28.1 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. 28.2 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.
29. Delays Ordered by the Project Manager	29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
30. Management Meetings	30.1 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. 30.2 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.
31. Early Warning	31.1 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. 31.2 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	
32. Identifying Defects	32.1 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.
33. Tests	33.1 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.
34. Correction of Defects	34.1 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. 34.2 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.
35. Uncorrected Defects	35.1 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	
36. Contract Price	36.1 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. 36.2 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.
37. Changes in the Contract Price	37.1 In the case of a 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. 37.2 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.
38. Variations	38.1 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.
	38.2 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. 38.3 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. 38.4 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. 38.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning. 38.6 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 37.1 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.

39. Cash Flow Forecasts	39.1 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.
40. Payment Certificates	40.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously. 40.2 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. 40.3 The value of work executed shall be determined by the Project Manager. 40.4 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. 40.5 The value of work executed shall include the valuation of Variations and Compensation Events. 40.6 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.
41. Payments	41.1 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. 41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or 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. 41.3 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.
42. Compensation Events	42.1 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 20.1. (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. (l) Force majeure events as determined by the Project Manager. 42.2 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. 42.3 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. 42.4 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.
43. Tax	43.1 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 45.
44. Currency	44.1 The currency of Contracts shall be Nepalese Rupees.
45. Price Adjustment	45.1 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. 45.2 Adjustment Formulate[1]: "The adjustment to the Interim Payment Certificates in respect of changes in cost and legislation shall be determined from separate formulae for each of the types of construction work to be performed and Plant to be supplied. 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 Sub-Clause 41; A is a constant, specified in the Bidding Forms- Table of Price Adjustment data, representing the nonadjustable portion in contractual payments;[2]

[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.

	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 45.4, 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 45.4
	45.3 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. 45.4 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. 45.5 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 38 or for any other reason. 45.6 Subsequent Legislation: If, after the date 30 days prior to the latest date for submission of bids for the Contract, there occur changes to any National Statute, Ordinance, Decree, or other Law or any regulation or by-law of any local or other duly constituted authority, or the introduction of any such Statute, Ordinance, Decree, Law, regulation or by-law which causes additional or reduced cost to the Contractor, other than under the preceding sub-clauses of this clause, in the execution of the Contract, such additional or reduced cost shall, after due consultation with the Employer and the Contractor, be determined by the Project Manager and shall be added to or deducted from the Contract Price and the Project Manager shall notify the Contractor accordingly, with a copy to the Employer. Notwithstanding the foregoing,

	such additional or reduced cost shall not be separately paid or credited if the same shall already have taken into account in the indexing of any inputs to the Price Adjustment Formulae in accordance with the provisions of Sub-Clauses 45.2
	45.7 Where, price adjustment provision is not applicable pursuant to Sub-clause 45.1 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.. 45.8 The Price Adjustment amount shall be limited to a maximum of the initial Contract Amount as specified in the SCC. 45.10 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 or a Fixed Budget Contract.
46. Retention	46.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the SCC until Completion of the whole of the Works.

	46.2 Upon the issue of a Defects Liability Certificate by the Project Manager, in accordance with GCC 55.1, half the total amount retained shall be repaid to the Contractor and half when the Contractor has submitted the Tax evidence document issued by the concerned Internal Revenue Office that the contractor has submitted his Income Returns . On completion of the whole works, the Contractor may substitute retention money with an "on demand" bank guarantee.
47. Liquidated Damages	47.1 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. 47.2 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.41
48. Bonus	48.1 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.
49. Advance Payment	49.1 The Employer shall make advance payment to the Contractor of the amounts stated in the SCC 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 and by a bank 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.
	49.2 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.

	49.3 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.
50. Securities	50.1 The Performance Security 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. 50.2 The performance security issued by any foreign Bank outside Nepal must be counter guaranteed by an "A" class commercial Bank in Nepal.
51. Day works	51.1 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. 51.2 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. 51.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.
52. Cost of Repairs	52.1 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.
E. Finishing the Contract	
53. Completion	53.1 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.
54. Taking Over	54.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
55. Final Account	55.1 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.
56. Operating and Maintenance Manuals	56.1 If specification manuals are required, the Contractor shall supply them by the dates stated in the SCC.
57. Termination	57.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. 57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following : (a) 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; (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days; (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation. (d) 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; (e) 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; (f) the Contractor does not maintain a Security, which is required; and (g) 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. (h) 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 58.1. 57.3 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 57.2 above, the Project Manager shall decide whether the breach is fundamental or not.

	57.4 Notwithstanding the above, the Employer may terminate the Contract for convenience. 57.5 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.
58. Fraud and Corruption	58.1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 15 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site. 58.2 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 Clause 9. For the purposes of this Sub-Clause; (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 Sub-Clause 22.2.
59. Black Listing	59.1 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.
60. Payment upon Termination	60.1 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 and less the percentage to apply to the value of the work not completed, as indicated in the SCC. 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. 60.2 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

5 a "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

6 "parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

7 a "party" refers to a participant in the procurement process or contract execution.

	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.
61. Property	61.1 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.
62. Release from Performance	62.1 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.

63. Suspension of DP Loan/Credit/Grant	63.1 In the event that the Donor Agency 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 Donor Agency's suspension notice; and b. if the Contractor has not received sums due him within the 30 days for payment provided for in Sub-Clause 41.1, the Contractor may immediately issue a 15-day termination notice.
64. Project Manager's Duties and Authorities	64.1 The Project Manager's duties and authorities are restricted to the extent as stated in the SCC.
65. Quarries and Spoil Dumps	65.1 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.
66. Local Taxation	66.1 The prices tendered 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.
67. Value Added Tax	67.1 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.
68. Income Taxes on Staff	68.1 The Contractor's staff, personnel and labor will be liable to pay personal income taxes in Nepal in respect of their salaries and wages, as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions as may be imposed on him by such laws and regulations. 68.2 The issue of the Final Account Certificate pursuant to clause 55 shall be made only upon submittal by the Contractor of a certificate of income tax clearance from the Government of Nepal.

69. Duties, Taxes and Royalties	69.1 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. 69.2 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. 69.3 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.
70. Member of Government, etc, not Personally Liable	70.1 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.
71. Approval of Use of Explosives	71.1 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.
72. Compliance with Regulations for Explosives	72.1 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.
73. Permission for Blasting	73.1 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.
74. Records of Explosives	74.1 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.
75. Traffic Diversion	75.1 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 - V

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

A. General	
GCC 1.1 (q)	The Employer is *Bhairahawa Distribution Centre , NEA*
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be *4 months from date of Contract Effective*.
GCC 1.1 (aa) & 4.1	The Project Manager is *The Centre Chief , Bhairahawa Distribution Centre* The Project Manager and Engineer are synonyms.
GCC 1.1 (s)	For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Contractor. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
GCC 1.1 (cc)	The Site is located from NEA Bhairahawa to Butwal Grid
GCC 1.1 (ff)	*The **Start Date** shall be*: The Effective Date, upon which the period until the Time for Completion of the Facilities shall be counted from, is the date when all of the following conditions have been fulfilled: (a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor; (b) The Contractor has submitted to the Employer the performance security. Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.
GCC 1.1 (jj)	The Works consist of Restructuring of Shifted poles from NEA Bhairahawa to Jogikutti under Belahiya-Butwal Road for 33 kV line and Construction of new 33 KV line from Yogikutti to Butwal Grid on turnkey basis as defined in the Bidding data and scope of work.
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

<table>
<tr><td></td><td>The law that applies to the Contract is the law of NEPAL</td></tr>
<tr><td>GCC 8.1</td><td>Schedule of other contractors: NONE</td></tr>
<tr><td>GCC 13.1</td><td>
The minimum insurance covers shall be:

(a) <u>Installation All Risks Insurance</u>

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.
<table>
<tr><th>Amount</th><th>Deductible limits</th><th>Parties insured</th><th>From</th><th>To</th></tr>
<tr><td>110% of Contract Value</td><td>(*)</td><td>Contractor</td><td>Dispatch Certificate</td><td>Final Acceptance Value</td></tr>
</table>
(*) Excess 5% of claimed amount subject to minimum of NRs 10,000 for normal period and NRs 30,000 for testing period.
(b) <u>Third Party Liability Insurance</u>

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.
<table>
<tr><th>Amount</th><th>Deductible limits</th><th>Parties insured</th><th>From</th><th>To</th></tr>
<tr><td>NRs. 1 million</td><td>As in (a) above</td><td>Contractor's Employees</td><td>Commencement of Works</td><td>Defect Liability Certificate</td></tr>
<tr><td>NRs. 1 million</td><td>As in (a) above</td><td>Employer's Personnel</td><td>Commencement of Works</td><td>Defect Liability Certificate</td></tr>
<tr><td>NRs. 4 million</td><td>As in (a) above</td><td>Third Party Personnel</td><td>Commencement of Works</td><td>Defect Liability Certificate</td></tr>
</table>
<u>Automobile Liability Insurance</u>
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.

<u>Workers' Compensation</u>

In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed.

<u>Employer's Liability</u>

In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed.

<u>Other Insurances</u>
</td></tr>
</table>

	The Contractor is also required to take out and maintain at its own cost the following insurances: Details: None Amount Deductible limits Parties insured From To 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. i. .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 14.1	Site Investigation Reports are: *NONE*
GCC 17.1	The following shall be designed by the Contractor: As applicable.
GCC 20.1	The Site Possession Date(s) shall be: *as agreed during Contract signing.*
GCC 23.2	Any dispute between the parties as to matters arising pursuant to this contract which cannot be settled amicably will be settled as per prevailing law referring to the adjudicator.
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within 30 days from the date of the Letter of Acceptance.
GCC 26.3	The period between Program updates is *60* days. The amount to be withheld for late submission of an updated Program is: All due bills shall be withheld.
C. Quality Control	
GCC 34.1	The Defects Liability Period is: *365* days.
D. Cost Control	
GCC 37.1 (d)	*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 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 41	*Delete sub-clauses 41.1, 41.2 and 41.3 and replace with the following:* **Advance Payment** (i) Up to 20 % (Twenty percent) of total Contract price may be payable. The advance payment may be made according to the work progress of the contractor. (ii) For the Advance payment the Bidder shall produce the advance payment bank guarantee, which shall be deducted in proportion to each and every running bill submitted by the contractor. Such bank guarantee shall be made valid up to the entire contract period. Conditional bank guarantee shall not be accepted. (iii) The contractor shall submit to NEA, the provision evidencing for which the expenditure of the advance payment was made. (iv) 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 Construction and Installations*** Payment for 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. 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 Manager.

	Retention Amount **Five percent (5%) from each progress payment 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. The Employer shall pay the Contractor the amounts certified by the Manager within 45 days from the date of approval of each certificate. ***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 41.1	*[interest rate: Not Applicable]*
GCC 42.1	*Delete sub-clause 42.1 (e), (f), (g) & (i)*
GCC 43	*Delete sub-clause 44.1 and replace with the following:* **1. 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 the 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):** if not included in the costs while submitting bids by the Contractor, sub contractor or its nominated sub contractor, shall be eligible for refund on all imported equipment and materials to be supplied and delivered exclusively for use in the Project. (c) Thirteen percent (13%) VAT will be levied on Construction and Installation. The Employer will pay this VAT to the Contractor on each bill and the Contractor shall be responsible for payment of the same to the concerned tax authority in the Country.

	Failure to comply with this regulation may result in imposition of full customs duties, VAT, etc. as per prevalent rules and regulations of GOVERNMENT OF NEPAL. In such case, the additional taxes and duties, including VAT, shall be borne by the Contractor. **Staff Income Tax:** The Contractor's staff, personnel and laborers, and those of its subcontractors, will be liable to pay personal income taxes 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 regulations 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.
GCC 45.1	The Contract ***is not*** subject to price adjustment, and the following information regarding coefficients ***does not*** apply. [Firm Price Contract] The coefficients and indices for adjustment of prices in Nepalese Rupees shall be as specified in the Table of Adjustment Data submitted by bidder together with the Letter of Bid which is approved by the Project manager and attached as Annex-1.
GCC 45.7	Base Price of Construction Materials applicable for price adjustment shall be as per the Table of Adjustment Data submitted by Bidder together with the Letter of Bid which is approved by the Project manager and attached as Annex-1. [N/A]
GCC 45.8	The Price Adjustment amount shall be limited to a maximum ***[Insert percent]*** percentage of the initial Contract Amount ***[normally 25 %][Not Applicable]***
GCC 46.1	The proportion of payments retained is: 5 (FIVE) PERCENT
GCC 47.1	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 48.1	The Bonus for the whole of the Works is 0% per day. The maximum amount of Bonus for the whole of the Works is 0.00 of the Contract Price.
GCC 49.1	The Advance Payment shall be limited to Twenty percent (20%) 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 49.3	Deduction will be at the rate of 20% of the respective 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 70 % of the approved contract period.
GCC 50.1	The Performance Security shall be for the following minimum amounts equivalent as a percentage of the Contract Price: i. Five percent (5%) (Clause ITB 38.1) if the bid price is not below 15% of the office estimate. ii. 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) iii. an additional amount of 8% of the Contract price if the Employer has increased the Performance Security amount pursuant to ITB Sub Clause ITB 32.5 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.
E. Finishing the Contract	
GCC 53.1	Replace the whole clause with 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) months 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 is 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 Taking-Over Certificate will be issued by the Employer's Representative with copy to the Employer. The right to determine whether or not the whole Work is completed rests with the Employer/Employer's Representative. If the Works are divided into Sections, the Contractor shall be entitled to apply for a Taking-Over Certificate for each Section. The issuance of the Taking-Over Certificate marks the beginning of the Defect Liability Period. The Employer can reject the application, giving his reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued: the Contractor shall then complete such work before issuing a further notice under this Sub-Clause.
GCC 56.1	The date by which operating and maintenance manuals are required is: Prior to the

	issuance of the Certificate of Completion. The date by which "as built" drawings is required is: Prior to Completion Certificate. 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 57.2 (g)	The maximum number of days is: *consistent with clause 47.1 of liquidated damages.*
GCC 57.2	Add new Sub Clauses i) the Advance Payment as per GCC clause 41 is found to be misused. j) the Contractor fails to meet the Work Execution Schedule. k) the Contractor does not start the work within 30 days of the contract effective date.
GCC 57.6	Add this new Sub Clause The Contractor cannot terminate the contract without pre notification to the Employer.
GCC 59.1	Add new Sub Clauses (b) if the bidder fails to sign the contract as per ITB 39.1. (c) if the contractor has been found engaged in corrupt or fraudulent practices in competing for or in executing the contract pursuant to GCC 58.1.
GCC 60.1	The Performance Security shall be forfeited. The excess amount required for the completion of the remaining works as per contract shall be recovered from the contractor as government due.
GCC 61.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is ***50%.***
GCC 64	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 7; b. Certifying additional costs determined under General Conditions of Contract Clause 42; 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 27; e. Issuing a Variation under General Conditions of Contract Clause 1 and 38, 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 37;
GCC 76	Add the Clause 64 in GCC with followings Sub Clauses: **64.1** *Inspection and Tests* a) General The quality, workmanship and performance of all items and the Works or equipment (raw materials, components, intermediate assemblies and end products) shall be subject to inspections and tests by the Employer / Employer's Representative to the extent practicable, at the relevant locations and in any event prior to Taking Over. Unless otherwise directed, testing and inspection shall be done according to the best commercial method for the particular type and class of work. The Contractor shall furnish all reasonable aid and assistance required by the Employer / Employer's Representative, or inspectors, for the proper inspection and examination of the Work and all parts thereof. For tests on the premises of the Contractor or of any Sub-Contractor or at Site (unless otherwise stated in the Specifications), the Contractor shall provide at his expense such as means of access, space, vehicles, machines, labor, materials, electricity, fuel, stores, apparatus and instruments, as well as make available the use of all Contractor's facilities as may be required and as may be demanded reasonably to perform these tests efficiently. The Contractor shall analyze and test all materials and equipment, which the Employer / Employer's Representative requires to be analyzed or tested. Selection of samples for testing material or equipment shall be made by the Employer / Employer's Representative. The Contractor shall analyze and test these materials and equipment in the manner and at the time and place stated in the Contract Documents or required by the Employer / Employer's Representative in accordance with the provisions of the Contract. Under completion of manufacture 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 the equipment and materials as specified in Sub-Clause 64.2 of SCC. Unless waived in writing by the Employer / Employer's Representative or unless otherwise stated in the Specifications, all inspections and tests shall be made in the presence of the Employer / Engineer or inspector authorized by the Employer. Only those materials and parts of the Work and equipment, which have been approved by the Employer / Engineer shall be used. B. Cost of tests borne by the Contractor Unless otherwise specified, all costs related to the fabrication, assembly and test or tests shall be arranged and borne by the contractor at its own cost. This shall apply to tests performed at the Site or elsewhere. c. Dates for inspection and testing The Contractor shall agree with the Employer / Employer's Representative the date on and the place at which any Work will be ready for testing as provided in the Contract and if the Employer / Employer's Representative fails to attend at the place

	so named on the date agreed the Contractor may proceed with the tests, which shall be deemed to have been made in the Employer / Employer's Representative presence, and shall forthwith forward to the Employer / Engineer duly certified copies of the test readings. D. Facilities for testing Where the Contract provides for tests on the premises of the Contractor or of any Sub-Contractor the Contractor shall provide such assistance, labor, materials, electricity, fuel, stores, apparatus and instruments as may be requisite and as may be reasonably demanded to carry out such tests efficiently. E. Rejection If as a result of such inspection, examination or test of the Work the Employer / Employer's Representative shall decide that such Work is defective or not in accordance with the Contract he shall notify the Contractor accordingly stating in writing his objection and reasons therefore, the Contractor shall with all speed make good the defect or ensure that the Work complies with the Contract. Thereafter, if required by the Employer / Employer's Representative, the tests shall be repeated under the same terms and conditions and all expenses borne by the contractor. All costs incurred by the Employer by the repetition of the tests or false calls shall be borne by the Contractor. Any delay in delivery due to retest or false call shall not constitute a release of the Contractor for his responsibilities for delay. . 64.2 Inspection and Test at factory The Factory acceptance test shall be witnessed by the third party inspectors appointed by employer. In case the third party inspectors are not appointed, the factory acceptance test shall be witnessed by employer or the representatives on behalf of the employer. The employer shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all travelling & board and lodging expenses. Inspection Schedule shall be finalized during Contract Negotiation.

Section VI: Technical specifications of Materials

PRE-STRESSED CONCRETE POLE

1. Scope

These specifications apply to design, manufacture, and testing of rectangular pre-stressed concrete poles for use in electrical distribution.

2. Description

2.1 The pre-stressed concrete pole shall be designed and fabricated in full compliance with IS: 1678-1978, or latest revision 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.

3. Load

3.1 The working loads of various pole categories are given in Table 1. The design ultimate strength shall be calculated using a safety factor of 2.5. Pole Attributes are listed in Table 2.

4. Design

4.1 The poles shall be as per following design parameters and the dimensions shall be shown in Dwg.

Design Parameters:

Concrete mix:	M40
Nominal diameter of pre-stressing wire:	Refer Table 2
Working Load:	Refer Table 1
Depth of Plantation:	Refer Table 2
Point of Application of Load:	Refer Table 2

Further design details are given in Dwg attached at the end of this section

4.2 The minimum strength of concrete in the pole shall meet the requirements laid down in IS: 1343-1980 and IS: 456-1978 or in any other equivalent national or international standards.

4.3 **Pre-stressing steel:**

The Pre-stressing steel wires should confirm to IS: 1785(Part-I)-1983 and IS: 1785(Part-II)-1983 (Specification for plain hard drawn steel wire for pre-stressed concrete); OR IS: 6003: 1970 (Specification for indented wire for pre-stressed concrete). The plain wire should be of 4 mm in diameter with a guaranteed ultimate strength of 175 kg/mm$^{2.}$

The strands shall be made from cold-drawn non-alloy steel (high carbon content) wires. The seven-wire strand consists of a group of wires arranged in stranded formation and shall have the following properties. The seven-wire strands shall confirm to IS: 6003-1970, or latest revision thereof or any other equivalent national or international standards.

Geometrical Properties:

Type of material:	Seven-wire strand
Nominal diameter of strand:	7.9 mm (7/2.6 mm)
Nominal cross-sectional area of strands:	37.4 mm^2

Mechanical Properties:

Nominal mass of strand:	294 g/m
Minimum breaking load:	64.50 kN
0.2% proof loads	54.70 kN

Long Term Behavior:

Maximum relaxation after 1000 h of operation at initial load equivalent to 60%, 70% and 80% of breaking load shall not be higher than 1.0%, 2.5% and 4.5% respectively.

4.4 The pre-stressing strands shall be accurately positioned and satisfactorily protected against the formation of rust or other corrosion prior to the placement of the concrete. All pre-stressing strands shall be free from loose rust, dirt, grease, oil and other lubricants or substance that might impair their bond with the concrete.

4.5 The cement employed shall be the Ordinary Portland Cement (OPC), which shall conform to the chemical and physical requirements as set forth in IS: 269-1976, or any other equivalent national or international standards.

4.6 The amount of concrete cover on the outside of the pre-stressed reinforcement shall be not less than 20 mm.

4.7 The pole shall include cast-in holes. Typical hole patterns are shown in the drawings. Hole patterns must be confirmed with the CRED/NEA prior to manufacture.

4.8 All poles shall be unpolished but free of roughness, chips, excess cements, and other surface irregularities. All poles shall present a straight and symmetrical appearance after erection. The corners of all the poles shall be rounded so that they do not present a dangerously sharp edge, which could cause tearing or excessive wearing of safety belts.

4.9 All poles shall be provided with lifting hooks at two points for loading and unloading of poles.

Table 1

Working Load

S.No.	*Pole Length (m)*	*Design Load (kgf)*
1	11	350

4.10 Reinforcement

a) Reinforcing bars used for the manufacture of 8m and 9m pre-stressed concrete pole should be of IS: 1785(Part I) – 1985 (Part II)- 1967.

b) Reinforcing wire used for the manufacture of 10.4m and 11m pre-stressed concrete pole should be of IS: 6003-1970.

4.11 Cement

For the manufacture of pre-stressed concrete pole, the cement shall be of Ordinary Portland Cement confirming to IS: 269-1976 or rapid-hardening Portland Cement confirming to IS: 804IE-1976 or Portland Slag Cement confirming to IS: 455-1976 or Portland Pozzolana Cement confirming to IS: 1489-1976.

4.12 Concrete

The Design of concrete mix shall confirm to the requirement as in IS: 1343-1960.

4.13 Aggregate

Aggregate used for the manufacture of pre-stressed concrete pole shall confirm to IS: 383-1970. As per standards, the maximum size of the aggregate shall not exceed more than 20mm.

5. Tests

Definition of various types of loads:

Working load = *Expected Load*

Design Working Load = *Expected Load X Factor of Safety (FOS)*

Ultimate Transverse Load (UTL) = *Load when applied to 600 mm below from top or at specified point of the pole, the failure occurs.*

Minimum Ultimate Transverse Load (MUTL) = *Load when applied to 600 mm below from top or at specified point of the pole, the first crack appears.*

Design Transverse Load(DTL) = *Design Working Load*

Design Transverse Load(DTL) = *Design load at the transverse direction at which the first crack expected to appear (given by the Designer after calculation)*

The **Design Ultimate Transverse Load** (**DUTL**) is less or equal to Ultimate Transverse Load

5.1 *Transverse Strength Test*

The pole shall be rigidly supported at the butt end for a distance equal to the specified planting depth. The load shall be applied at a point specified in Table 2 from the top of the pole and shall be steadily and gradually increased to the design transverse load until the occurrence of the first crack. The deflection is then measured. Prior to the application of the design transverse load there shall be no crack.

The load shall then be reduced to zero and increased gradually to a load equal to the first crack load plus 10% of the minimum ultimate transverse load, and held for 2 minutes. This procedure shall be repeated until the load reaches the value of 80% of the minimum ultimate transverse load and thereafter increased by 5% of the minimum ultimate transverse load until failure. Each time the load is applied, it shall be held for 2 minutes. The ultimate transverse load shall not be less than the design ultimate transverse load.

5.2 *Measurement of Cover*

The cover shall be measured at 3 points, one within 1.8m from the butt end of the pole, second within 0.6m from the top and the third at the intermediate point. The mean value of the measured cover should not differ by more than +/-1 mm from the specified value, and the individual value should not differ by more than+/-3 mm from the specified value.

5.3 The number of poles selected for testing and their conformity criteria shall be as follows:

Lot Size	*Sample Size*	*Permissible No. of Defective Samples*	*No. of Poles for Transverse Strength Test*
Up to 42	10	1	2

5.4 All the poles selected in 5.3 shall be tested for overall length, cross-section and up-rightness. The tolerance shall be +/-15 mm on overall length, +/-3 mm on cross-sectional dimensions, and 0.5% on uprightness.

5.5 The number of poles which do not satisfy the requirements of overall strength, cross-section and uprightness shall not exceed the number given in 5.3. If the number of such poles exceeds the corresponding number, all poles in the lot shall be tested for requirements, and those not satisfying the requirements shall be rejected.

5.6 All the poles tested for transverse strength test shall satisfy the requirements of the test. If one or more poles fail, twice the number of poles originally tested shall be selected from those already selected and subjected to test. If there is no failure among these poles, the lot shall be considered to have satisfied the requirements of the test.

5.7 In any batch, all poles of the same class and same dimensions shall be grouped together to make a lot for the testing.

5.8 Transverse strength test must be conducted in accordance with IS: 2905-1966. A pre-stressed concrete pole shall be deemed not to have passed the test if cracks wider than 0.1mm appear at a stage prior to the application of the design transverse load at first crack and/or the observed ultimate transverse load is less than the design ultimate transverse load.

6. Marking

The poles shall be cleanly and indelibly marked with the following:

a) Month and year of manufacture, at approximately 3m from the butt end;

b) Specified working load in kg, at approximately 3m from the butt end; and

c) The design lifting point.

7. Handling

The handling of PSC pole from manufacturer's premises to the NEA delivery sites should be as per ISM 7321-1979.

8.Bid Documentation

8.1 The Bidder shall furnish following documents together with Bid;

(a) Two (2) clear copies of the Standards, governing fabrication and testing of Pre-stressed Concrete Poles and Two (2) clear copies of other standards indicated in the specifications.

(b) Two (2) clear copies of detailed design and drawings of each type of pole.

(c) Two (2) clear certified copies of all type tests performed on similar poles of same sizes and similar working loads.

(d) A clause-by-clause commentary on specification, specifying compliance and deviations, if any.

8.2 The Bidder shall provide the following details:

a) Pole dimensions in cross-section and pole taper;

b) Location and size of pre-stressing strands;

c) Hole locations;

d) Design ground line;

e) Marking of the lifting point;

g) Minimum ultimate transverse load;

h) Transverse load at first crack

i) Concrete design mix and cement specification

j) Specifications of the pre-stressing strands, their tensile strength and sizes

8.3 Requirement for the bidders

a) The bidders must have to provide the design of the pre-stressed concrete pole for approval and sample test will be carried out in bidder's premises, after that only the employer will give order for mass production.

b) Prior to sample test and approval, the bidder shall have to provide the certificate of concrete cube test (M40) either doing in their own premises or from other certified test lab.

Table 2

Pole Attributes

S.No	Description	Unit	11m PSC Pole
1	Standard		IS 1678-1971
2	Length of PSC Pole	m	11
3	Weight of Pole	Kg	1150
3	Size	mm	400*180*150
4	Working Load	Kgf	350
5	Ultimate Load	Kgf	875
6	Concrete Grade		M40
7. Prestressing wire	Diameter	mm	7.9mm(7/2.6mm)
	Standard		IS 6003-1970
8	Factor of Safety		2.5
9	No of Tensioned wire	Nos	8(7.9mm)
10	No of untensioned wire	Nos	2
11	Minimum Ultimate transverse Strength	Kgf	875
12	Cement Specifications		OPC IS:269-1976
13	Concrete quantity per pole	m^3	0.4785
14	Steel quantity per pole	Kg	33
15	Depth of Plantation	m	1.34
16	Point of application of load from pole top	m	0.6

ACSR CONDUCTOR

1. SCOPE

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

2. DESCRIPTION

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

2.2 The ACSR conductor must be manufactured by a company approved to quality standard ISO 9001. 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.

2.3 The ACSR conductor shall be fabricated in accordance with BS 215, Part 2: 1970/IEC 209 latest revision, and all referenced standards therein, or other equivalent national standard which will result in a conductor of same stranding, quality, conductor diameter, strand size, direction of lay, and lay ratio. These equal characteristics are required to achieve full tensioning compatibility with bolted type tension sets, will full tension compression splices and other commonly used lint hardware.

2.4 The following conductors in the quantities specified in the Price Schedule shall be supplied.

Code Name	Nominal Area	Stranding Al/St	Wire Diameter		Breaking Strength	Mass
			AL	ST		
	mm2		mm	mm	KN	Kg/km
DOG	100	6/7	4.12	1.57	32.70	394

3. PACKAGING

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

3.2 The standard length of the completed conduct is shown in the table below:

Conductor Size(MM2)	100
Normal length of the conductor (Meter)	1000

4. TESTS

4.1 The manufactured conductor shall be tested in full compliance with the governing standard and a certified test report shall be produced for all tests conducted.

5. Packaging

5.1 Each reel of conductor furnished shall contain only one (1) length cable.

5.2 The conductor drum shall be made of steel suitably protected against corrosion. Protective external lagging of sufficient thickness shall be provided and fitted closely on the reels. Bidder consisting of steel straps shall be provided over the external laggings. The drum shall be new and sufficiently rugged in construction to withstand ocean shipping, road transport, several load and unloading, storage in tropics, hauling and field erection of conductor without distortion or disintegration.

5.3 All reel shall be legibly marked in paint with the following information:

a) Size of conductor

b) Color of insulation

c) length in meters

d) Net weight of conductor

6. BID DOCUMENTATION

6.1 The BIDDER shall provide with the Bid Two (2) clear copies of the Standard governing fabrication of the conductor and two (2) clear copies of all other specifications referenced therein as relevant to the fabrication and testing of the ACSR conductor.

6.2 The BIDDER shall provide the name and the address of the manufacturers of the cable being offered and the length of the cable in the manufacturer's standard reels including net and gross weights.

6.3 The SUPPLIER shall also provide with the Certificate of compliance, as specified in Paragraph 4.3 of BS 2015, Part2:1970, at the time of shipment of each lot of conductor, or as required by the appropriate section of the equivalent national standard.

6.4 All data supplied shall be bound separately from the Bid Document.

TECHNICAL DATA SHEET

(to be completed by Bidder)

Item

ACSR Conductor

Description

Unit

1. Manufacturer

2. Copies of the fabrication standards attached? Yes / No

3. If standards are not to BS 215, Part 2 (1970), are conductors the dame as BS 215 requirements?

Diameter

Yes / No

Strand size

Yes / No

Direction of lay

Yes / No

Lay ratio

Yes / No

Materials

Yes / No

4. DOG

Nominal diameter	(mm)	----------
Stranding	(Al / St)	----------
Breaking strength	(kN)	----------
Mass	(kg / km)	----------

Stay Set

1. Scope

This Specification covers the fabrication and supply of complete stay set for use in overhead power line suitable as per Bill of Quantity.

2. Description

The Stay Set shall be fabricated in accordance with B.S. 183 1972/ (1983) or an equivalent national or international standard.

3. Tests

3.1 Apart from the tests indicated herein in the referenced standards, the Materials shall undergo following tests:

- Visual Inspection;
- Verification of Dimensions;

4. Rating & Features

Length of stay rod:	1.8m (6')
Diameter of stay rod:	16mm
Ultimate tensile strength of stay rod and turn-buckle:	4200 kg/cm^2
Minimum breaking load:	6,433 kg
Length of threaded portion:	300mm
Thimble shape :	Suitable for 7/12 SWG stay wire
Thimble section:	18 SWG min.
Stay plate section:	300x300x6mm
Galvanization:	IS: 2629-1985

5. Bid Documentation

The Bidder may provide all data, drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

Note: The sample of Stay set shall be approved by NEA engineer prior to supply.

STAY WIRE

1. Scope

This Specification covers the fabrication and supply of zinc coated steel wire for use in overhead power line as stay wire ropes for line supports (poles).

2. Description of Strands

The steel strand shall be fabricated in accordance with B.S. 183 1972/ (1983) or an equivalent national or international standard. The wires shall be 45-ton quality fully galvanized by hot dip process to British Standards or equivalent.

The steel wire strand shall have a left-hand lay. The steel wires shall have no joint throughout the each reel. Strands shall be uniform and shall have no defects such as cracks, dust encapsulation or crevices.

3. Packing

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

4. Tests

4.1 Apart from the tests indicated herein in the referenced standards, the Materials shall undergo following tests:

- Visual Inspection;
- Verification of Dimensions;

5. Ratings and Features

Steel Wire Size (No. of wire/SWG)	7/12
Grade	700
Steel quality	45 ton
Diameter of Wires	2.64mm
Minimum Weight	300 kg/km
Zinc coating on steel	According to B.S. 443(1982)
Applicable Standard	B.S. 183 1972/(1983)

6. Bid Documentation

The Bidder may provide all data; drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

Note: The sample of Stay wire shall be approved by NEA engineer prior to supply.

CHANNEL:

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/cm2.

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 ISO9000;
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.

Note: The each size fabricated channels shall be approved by NEA engineer prior to supply.

Galvanised BOLTS, NUTS AND WASHERS

1. Scope:

The specification covers the fabrication & supply of washers, Galvanised bolts & nuts . As specified herein for use in overhead line construction.

2. Materials:

The washers, bolts& nuts shall be manufactured & tested in accordance with IS: or any other national or international standards that ensure at least equal or better quality to the standard mentioned above will also be acceptable.

3. General:

Washer, Bolts & nuts shall be furnished in the types. Diameters & length specified in the price schedule. However, the dimension & length of threading of bolt must be confirmed with the project prior to manufacture.

4. Bid Documentation

The Bidder may provide all data; drawings, catalogues and other technical documents shall be bound separately from the Bid documents.

Note: The sample of bolts, nuts and washers shall be approved by NEA engineer prior to supply.

PORCELAIN INSULATOR

1.0 SCOPE

This Specification covers the pin insulators, disc insulators, stay insulators and shackle insulators, as herein specified for use on overhead power line construction.

2.0 GENERAL

All insulators furnished under this Specification shall be fabricated and tested in accordance with the Standards referenced for each type of insulator or internationally accepted standards.

3.0 PIN INSULATOR

The pin insulator shall be manufactured and tested in accordance with IS 731-1971 or equivalent national or international standard. The lead thread shall be compatible with the insulator pin specified in these.

The pin insulator shall have following ratings and features:

	33 kV System
Highest System Voltage	36 kV
Rated Voltage	33 kV
Creepage Distance (min)	680 mm
Wet Power Frequency Withstand Voltage	80 kV
Impulse Withstand Voltage	110 kV
Puncture Power Frequency Voltage (min)	185 kV
Visible Discharge Voltage (effective)	27 kV
Cantilever Strength	10 kN
G.I. Pin Head	Large Thimble type IS 2486 Part II

4.0 DISC INSULATOR

The disc insulator shall be manufactured and tested in accordance with IS 731-1971 or equivalent national or international standard.

The disc insulator shall be ball and socket fitting type. The disc insulator shall have the following ratings and features:

Highest system Voltage	12 kV
Rate Voltage	11 kV
Porcelain Diameter (min)	255 mm
Spacing	145 mm
Creepage Distance (min)	280 mm
Power Frequency Puncture Withstand Voltage	1.3 x Actual dry flashover voltage
Wet Power frequency Withstand Voltage	35 kV
Impulse Withstand Voltage	75 kV
Puncture Power Frequen cy Voltage (min)	100 kV
Visible Discharge Voltage	9 kV
Mechanical Strength	45 kN
Ball and Socket Size	16 mm B
Applicable Standard for Special Characteristics	IS: 3188-1980
Reference Drawing	Construction standard

5.0 STAY INSULATOR

The stay insulator shall be manufactured and tested in accordance with IS: 5300- 1969 or equivalent national or international standard.

The stay insulator shall have following ratings and features:

	33 kV System	11 kV System
Highest System Voltage	36 kV	12 kV
Rated Voltage	33 kV	11 kV
Creepage Distance (min)	57 mm	41 mm
Minimum Failing Load	> 80 kN	> 40 kN
Power Frequency Withstand Voltage, 1 minute;		
Dry	27 kV	18 kV
Wet	13 kV	8 kV
IS Designation	C	A
Reference Drawing		

TECHNICAL SPECIFICATION OF WORKS

A. Erection of 11 m PSC pole

i. Transportation from site store to construction place
ii. A minimum depth 1/6 of the pole length deep hole shall be dug for erection of the pole. After erection, proper ramming shall be done around the pole.
iii. The pole should be straight (perpendicular to the ground.)

B. Erection of stay set and wire.

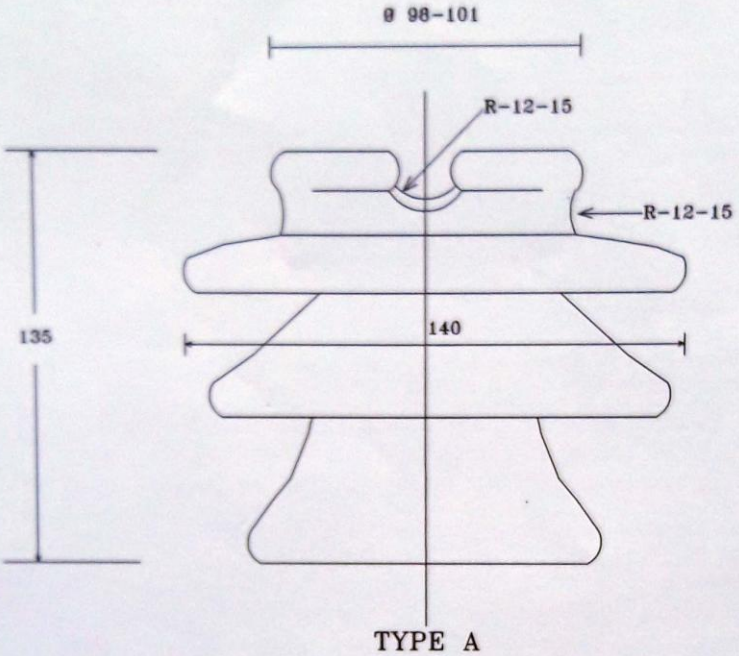
I. Stay plate shall be approximate depth of 5 feet.
II. Stay insulator shall be put in stay wire at least 12 feet above ground level.
III. Stay wire shall be in tension.

C. Stringing of ACSR conductors 0.1 sq. in

I. The conductors shall be in tension after stringing.
II. Stringing of conductor includes fittings of channel, Bracket, pin insulator, disc insulator, dead end points, jumperings shall be used as required.
III. The size of conductors to string in particular poles shall be as directed by NEA.

All works should be carried out according to NEA Standards and under the supervision of NEA Bhairahawa DC.

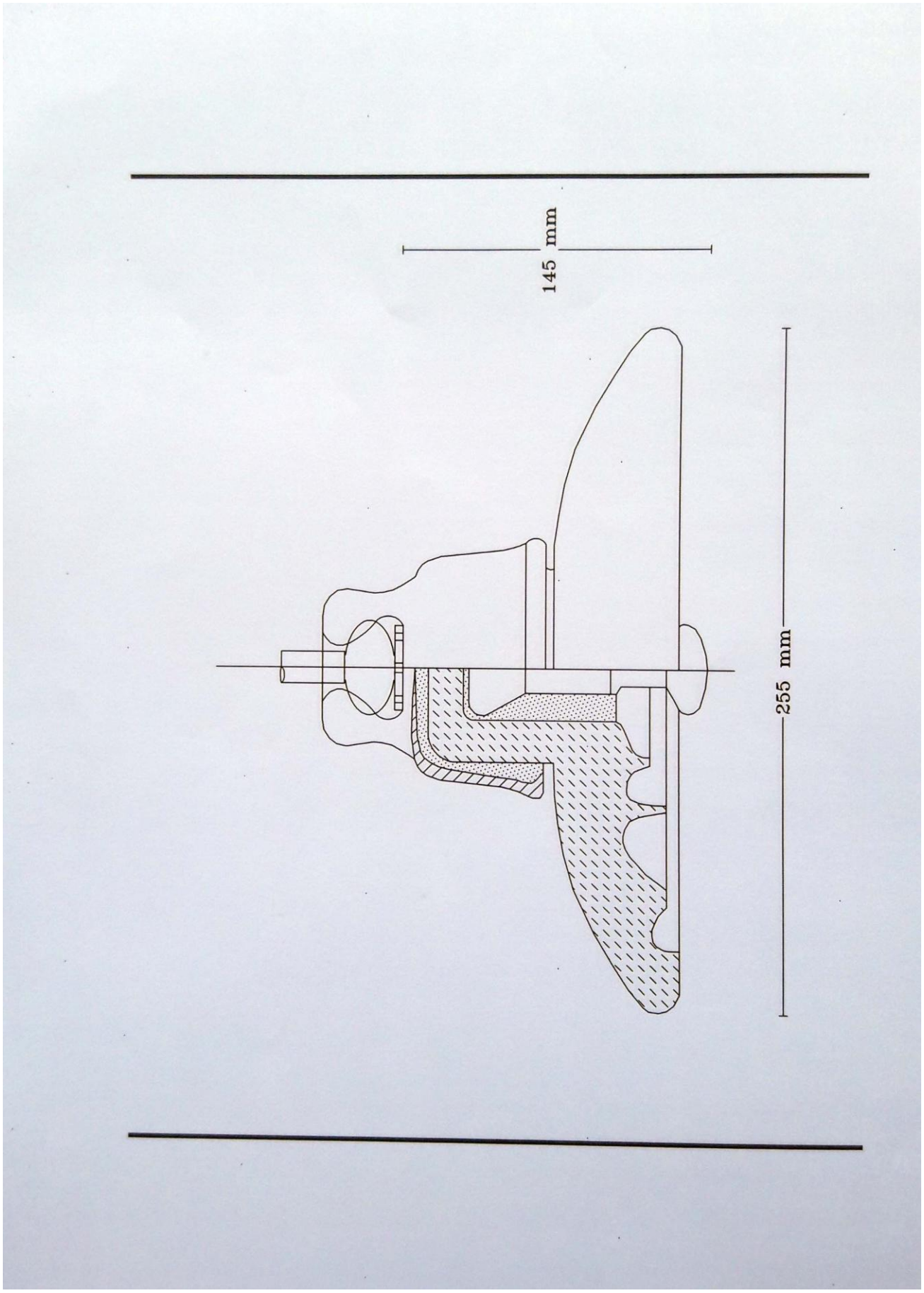
SECTION VII: DRAWINGS

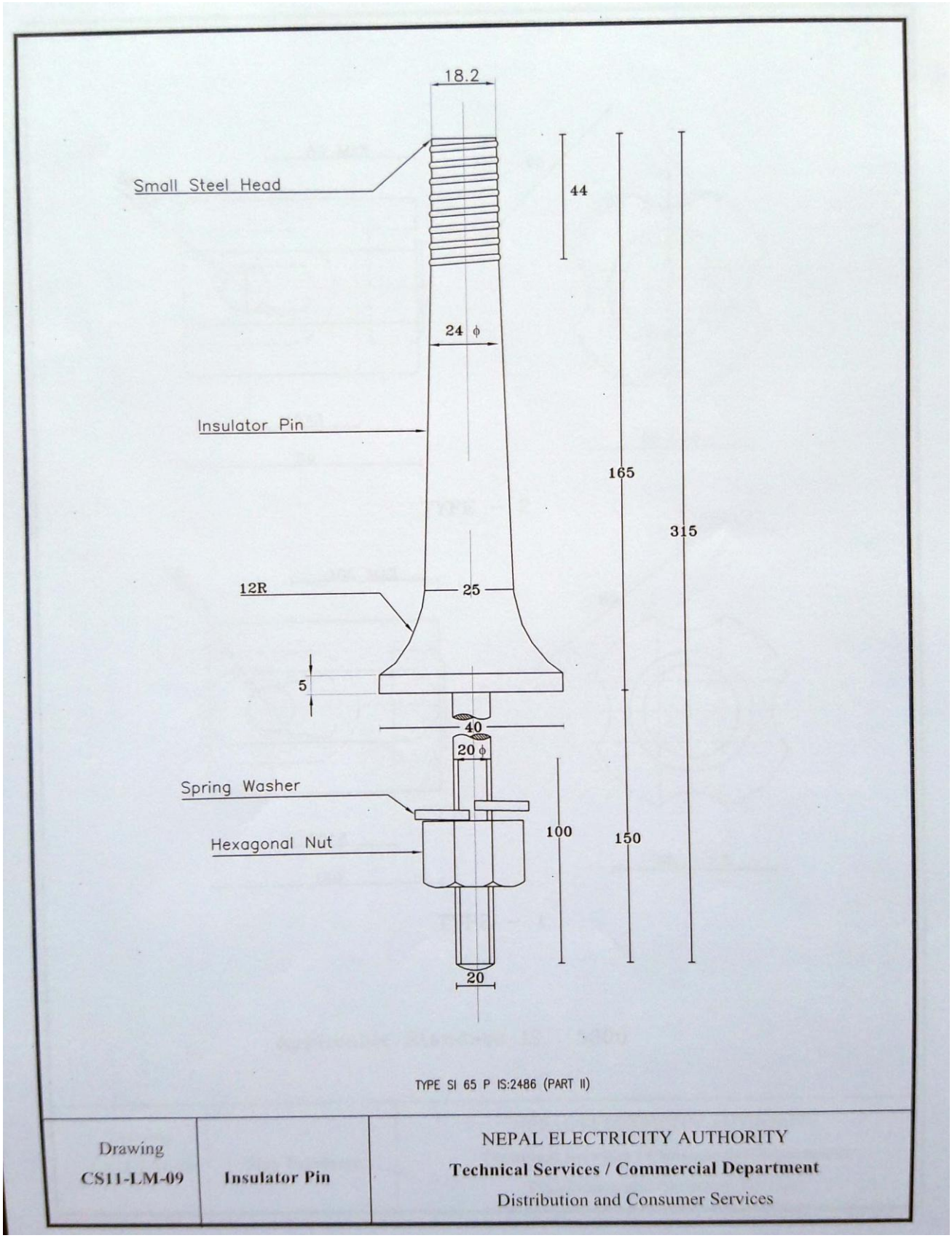


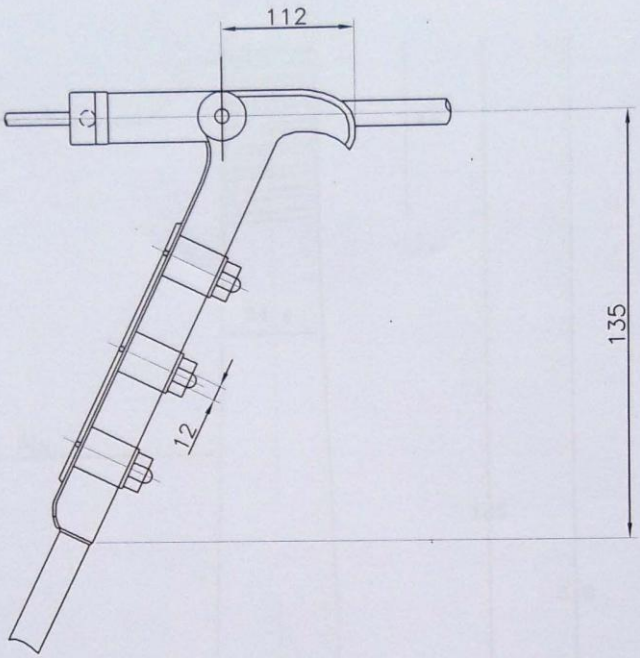
TYPE A

Applicable Standard IS : 731

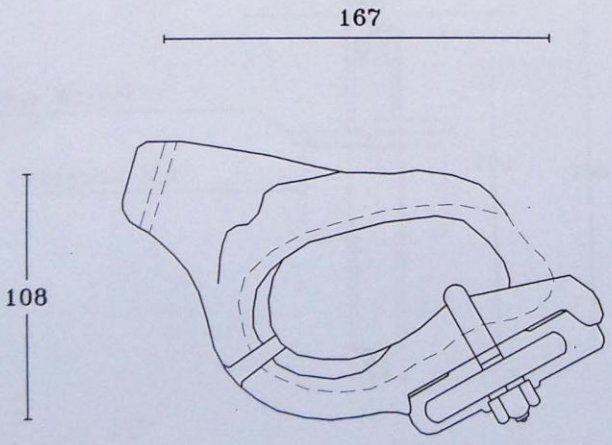
Drawing		
CS11-LM-05	11 kV Pin Insulator	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services


145 mm
255 mm


18.2
Small Steel Head
44
24 ϕ
Insulator Pin
165
315
12R
25
5
40
20 ϕ
Spring Washer
Hexagonal Nut
100
150
20
TYPE SI 65 P IS:2486 (PART II)
Drawing
CS11-LM-09
Insulator Pin
NEPAL ELECTRICITY AUTHORITY
Technical Services / Commercial Department
Distribution and Consumer Services

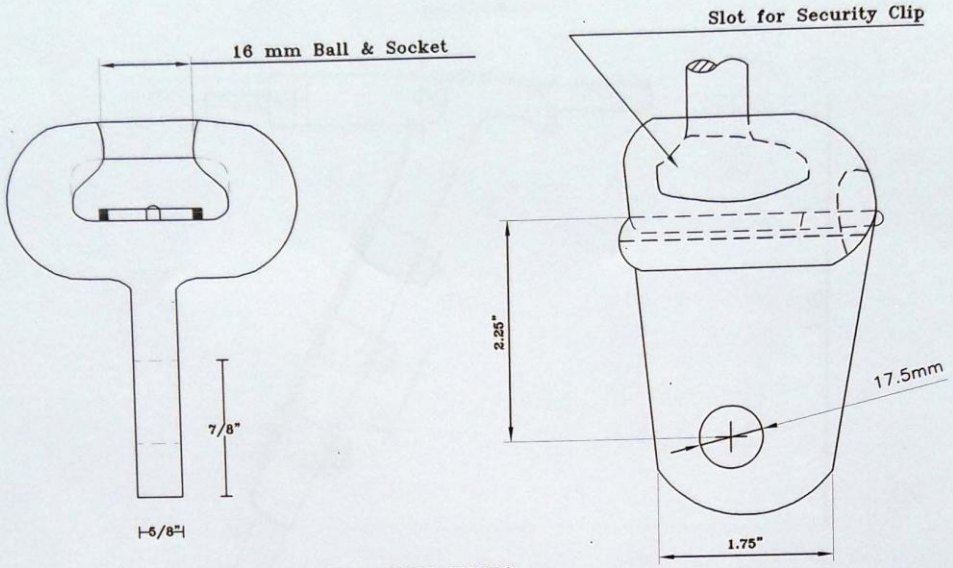


TYPE A (Straight Type)

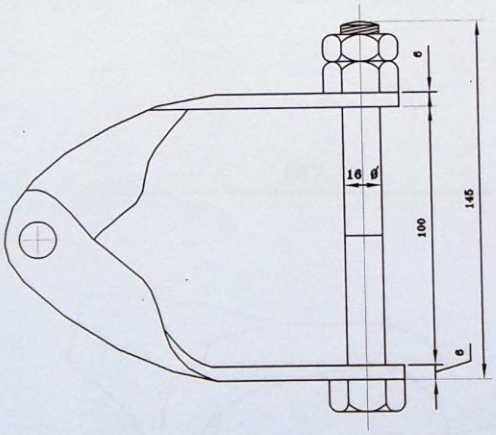


TYPE B (Snail Type)

Drawing		NEPAL ELECTRICITY AUTHORITY
CS11-LM-10	Tension Clamp	Technical Services / Commercial Department
		Distribution and Consumer Services

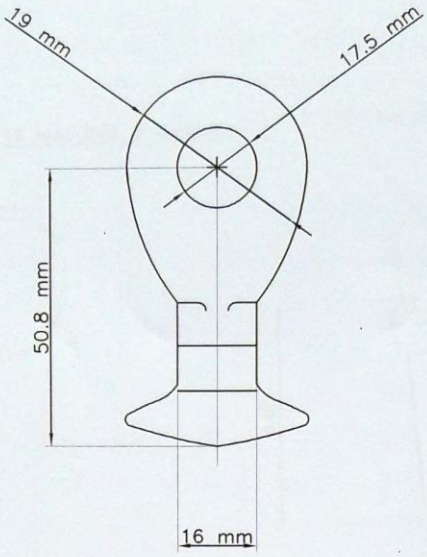


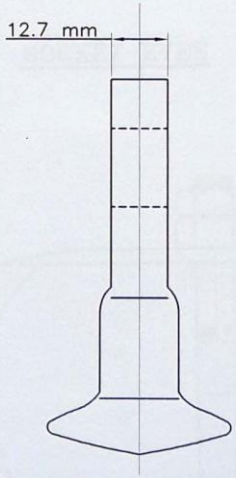
SOCKET EYES



BACK STRAP

Drawing CS11-LM-11	Hardwares for Tension Set	NEPAL ELECTRICITY AUTHORITY Technical Services / Commercial Department Distribution and Consumer Services

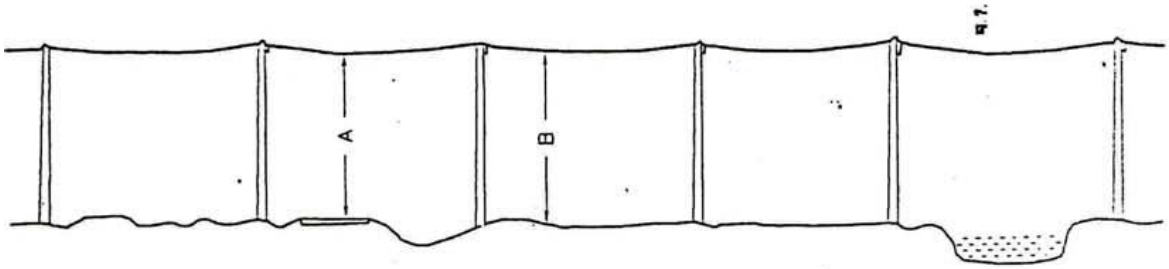




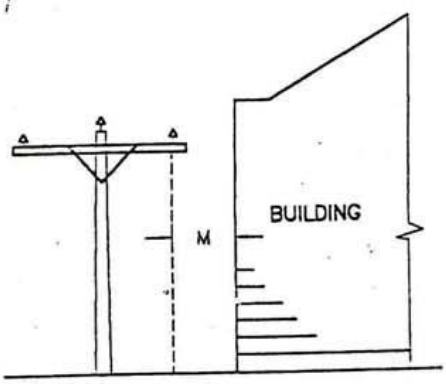
BALL EYES

Drawing **CS11-LM-12**	**Hardwares for Tension Set**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

A–1



CONDUCTOR CLEARANCES



MINIMUM CLEARANCES FROM BUILDINGS

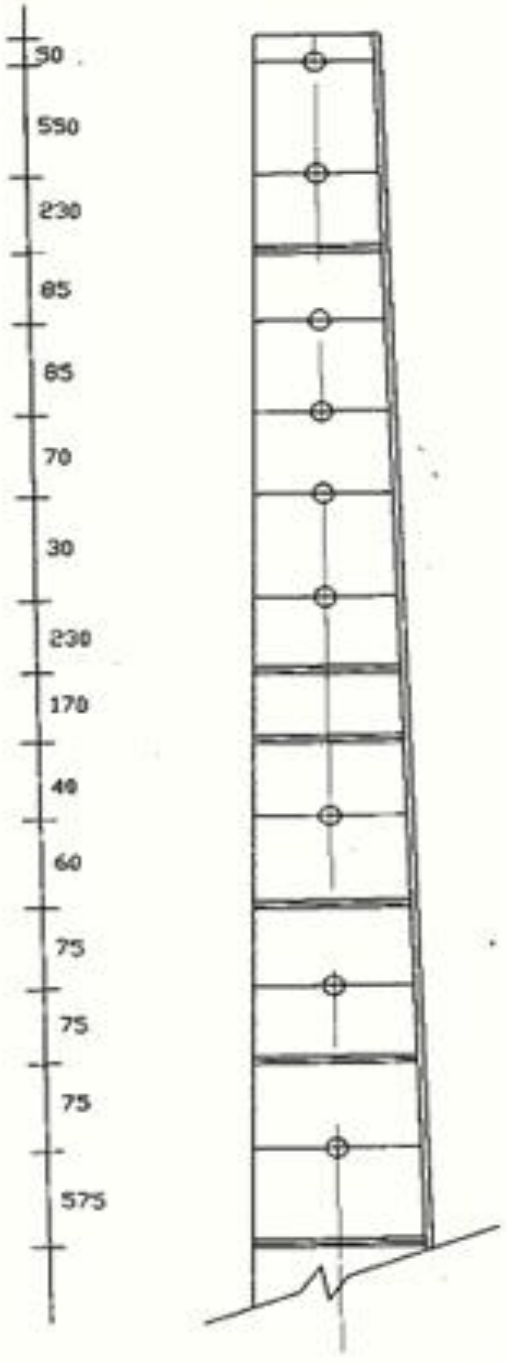
	CROSSING OVER	VOLTAGE OF CIRCUIT CROSSING	METER
A	ROAD, STREET HIGHWAY OR LIMITED ACCESS HIGHWAY	400/230 V	5.8
		11 KV	6
B	AREAS ACCESSIBLE TO PREDESTRIANS ONLY	400/230 V	4.6
		11 KV	4.6

LOCATION	VOLTAGE	CLEARANCE (METER)
M	400/230 V	1.25
	11000 V	1.25

CLEARANCE M ALSO SPECIFIES HORIZONTAL

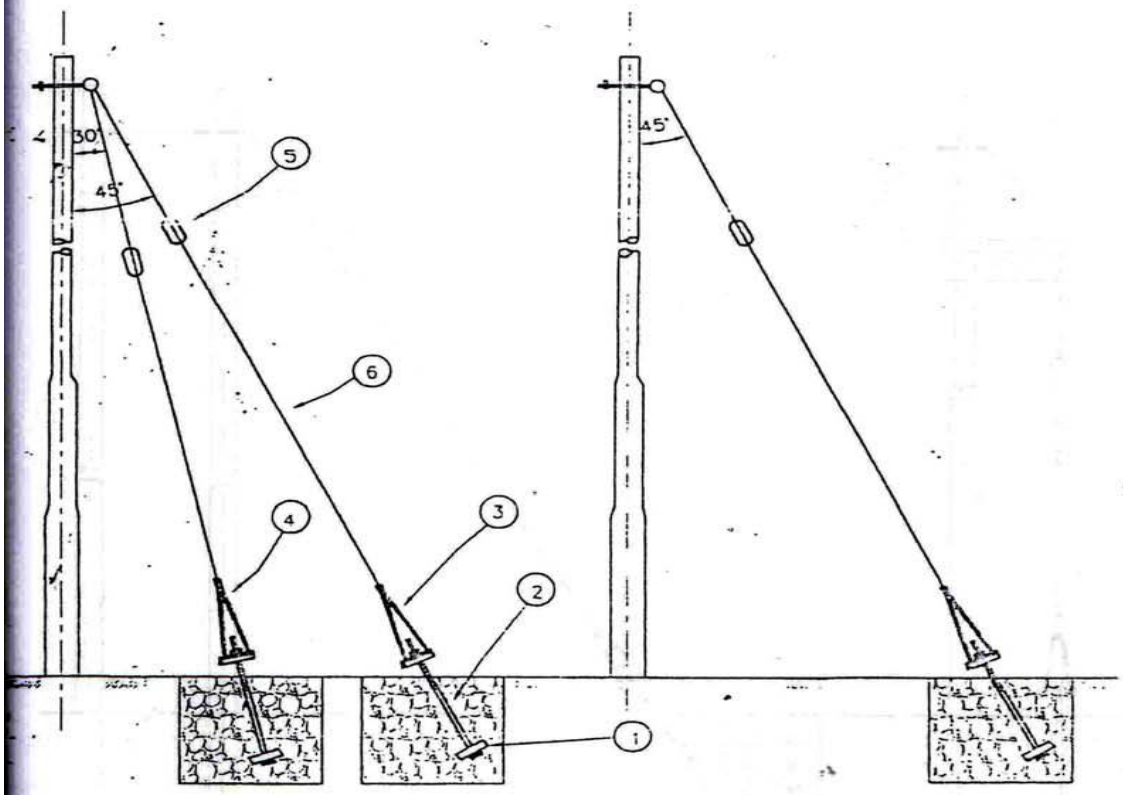
ISSUED Ashad 2050 REVISION (01)	STANDARDS CONDUCTOR CLEARANCES	TECHNICAL SERVICES DEPARTMENT DCS/NEA

10 / 11 M Pre-Stressed Concrete (PSC) Pole



Drawing	11 kV, 10/11 m PSC Pole	NEPAL ELECTRICITY AUTHORITY
CS11-PSCP-01	Hole Patterns	BHADRAPUR DISTRIBUTION CENTER, BHADRAPUR

E-39

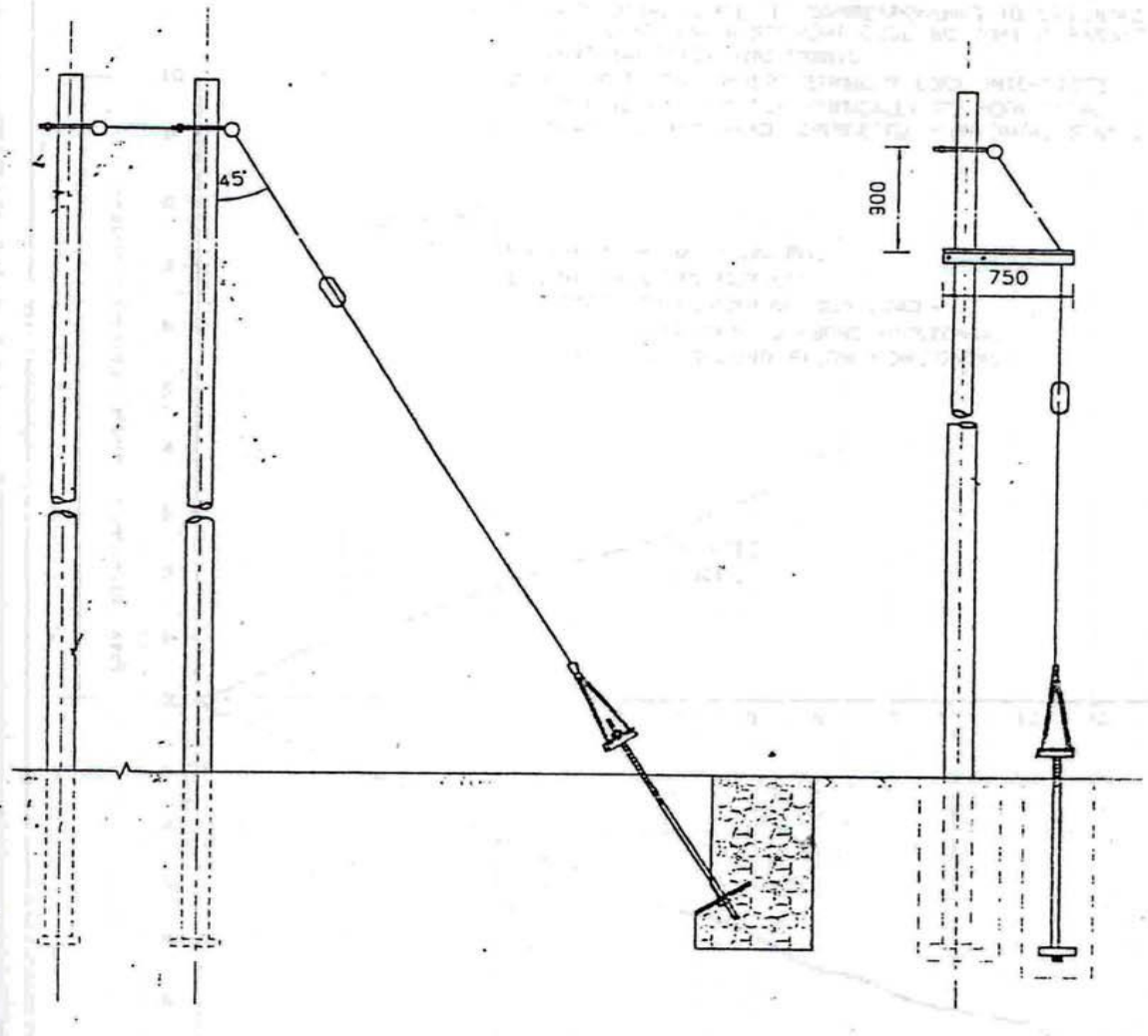


TYPE-B

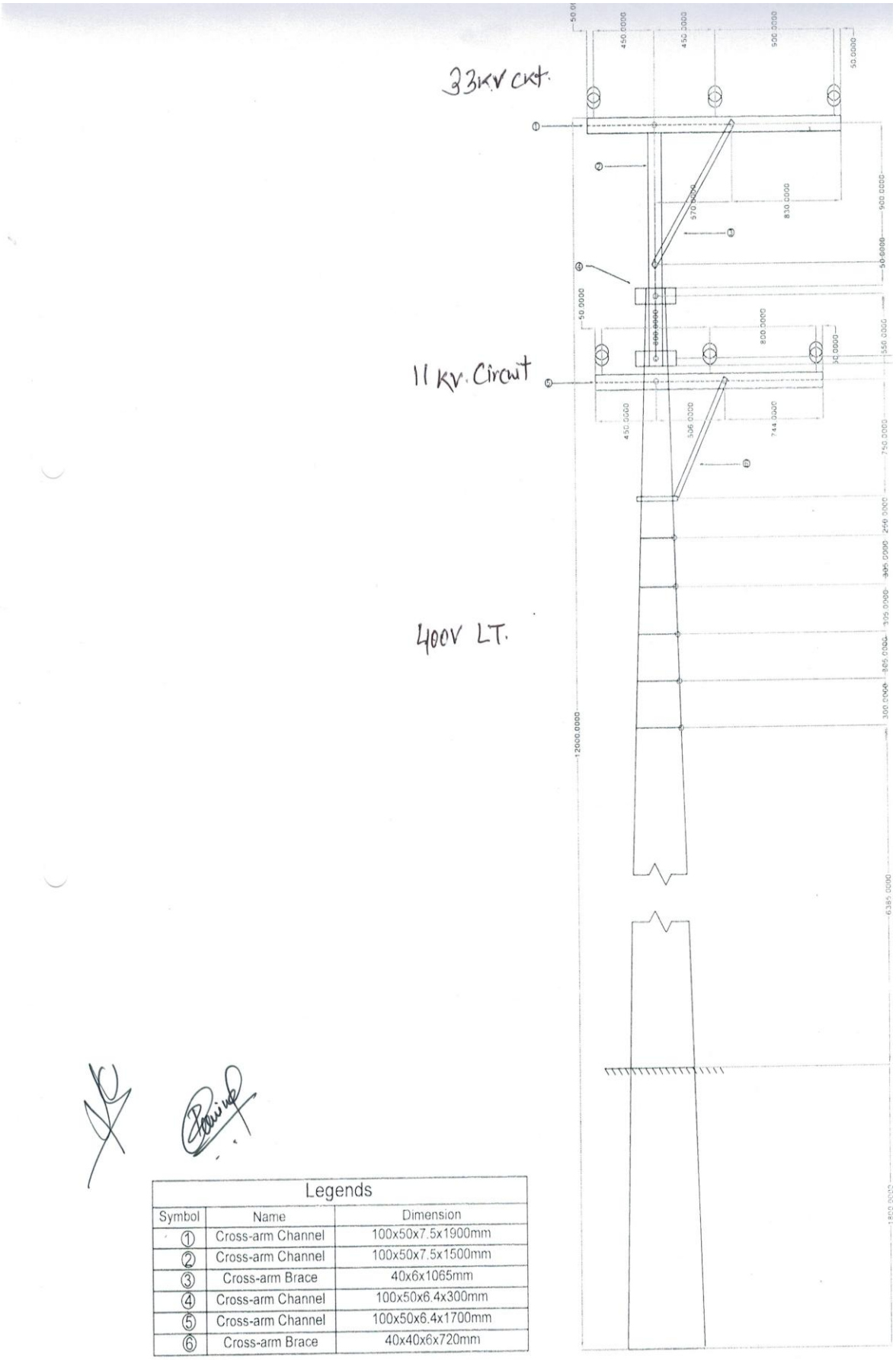
TYPE-A

ISSUED Bashad 2050 REVISION 21	STAY SET	TECHNICAL SERVICES DEPARTMENT DCS/NEA

E-40



ISSUED Ashad 2050 REVISION (22)	STAY SET	TECHNICAL SERVICES DEPARTMENT DCS/NEA



Legends		
Symbol	Name	Dimension
①	Cross-arm Channel	100x50x7.5x1900mm
②	Cross-arm Channel	100x50x7.5x1500mm
③	Cross-arm Brace	40x6x1065mm
④	Cross-arm Channel	100x50x6.4x300mm
⑤	Cross-arm Channel	100x50x6.4x1700mm
⑥	Cross-arm Brace	40x40x6x720mm

(VIII) Bill of Quantities

Nepal Electricity Authority

Distribution and Consumer Services

Bhairahawa Distribution Centre

Bhairahawa

FY: 2074/075

Bill of Quantities

Job: Restructuring of Shifted poles from NEA Bhairahawa to Jogikutti under Belahiya-Butwal road for 33 kV line and Construction of new 33 kV line from Jogikutti to Butwal Grid.

Tender No: BHDC 2074/075-05

S.N.	Description	unit	Quantity	Rate		Total Amount	Remarks
				In figures	In words		
A	**Material Cost**						
1	11 mtr PSC Poles	nos	22				
2	Crossarm GI channel (100x50x50x7.5x3300) mm	nos	2				
3	Crossarm GI channel (100x50x50x7.5x1900) mm	nos	591				
4	Crossarm GI channel (100x50x50x6.4x1700) mm	km	536				
5	Crossarm GI channel (100x50x50x7.5x1500) mm	set	572				
6	GI Crossarm Brace (40x40x6x1065) mm	set	591				
7	GI Crossarm Brace (40x40x6x720) mm	nos	536				
8	GI Crossarm channel (100x50x50x6.4x300) mm	nos	1086				
9	0.1 sq. inch ACSR for 33 kV	km	58.3				
10	11 kV pin insulator	set	20				
11	Shackle insulator with D-iorn	set	30				
12	33 KV Pin insulator with Spindle	set	1653				

13	33 KV Disc insulator with complete hardware	set	252				
14	PSC Pole Clamp (GI)	nos	2158				
15	PG Clamps	nos	252				
16	33 kV Stay set	set	22				
17	Stay insulator (33 kV)	nos	22				
18	Stay wire	kg	220				
19	33 kV armoured 400 sq. mm 3 core Aluminium Cable	m	200				
20	Cable jointing kit	set	6				
21	6 inch GI Pipe	m	20				
22	8 inch HDPE pipe	m	50				
23	Different size nut bolts (GI)	kg	1541.5				
	Sub Total (A)						
B	**Labour Charge**						
1	Tranportation of 11 mtr. PSC Poles	nos	22				
2	Erection of PSC Poles	nos	22				
3	Dismantling and Restringing of 11 kV 0.1 Sq. inch ACSR conductor (3w)	km	18				
4	Stringing of 33 kV 0.1 sq. inch ACSR Conductor (3w)	km	18.5				
5	Installation of Stay Set	set	22				
6	Cable jointing works	set	6				
7	Cable laying and installation with necessary accessories	lot	3				
8	Transportation of Materials upto site	lot	19				

9	Transportation of dismantled Materials from site to office (Channels)	lot	5				
	Sub Total (B)						
	Total (A+B)						
	VAT (13%)						
	Grand Total						

Total Amount (In Words):

Name of Bidder:

Bidder's Address:

Authorized signature:

Seal:

Section IX. Forms of Securities

Bid Security (Bank Guarantee)

Whereas, *[name of Bidder]* (hereinafter called "the Bidder") has submitted his bid dated *[date]* for the construction of *[name of Contract]* (hereinafter called "the bid").

Know all people by these presents that We *[name of Bank]* of *[name of country]* having our registered office at *[address]* (hereinafter called "the Bank") are bound unto *[name of Employer]* (hereinafter called "the Employer") in the sum of *[amount]*[1] for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this *[day]* day of *[month]*, *[year]*.

The conditions of this obligation are:

(1) If, after bid opening, the Bidder withdraws his bid during the period of bid validity specified in the Form of Bid; or

(2) If the Bidder having been notified of the acceptance of his bid by the Employer during the period of bid validity:

(a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or

(b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or

(c) does not accept the correction of the bid,

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer's having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date *[number]* days[2] after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

Date _____ Signature of the Bank _____

Witness _____ Seal _____

_____

[signature, name, and address]

[1] The Bidder should insert the amount of the Guarantee in words and figures denominated in Nepali Rupees. This figure should be the same as shown in Clause 13 of the Instructions to Bidders.

[2] Usually 30 days after the end of the validity period of the *bid*. The date should be inserted by the Employer before the bidding documents are issued.

Performance Bank Guarantee

To: *[name and address of Employer]*

Whereas *[name and address of contractor]* (hereinafter called "the contractor") has undertaken, in pursuance of Contract No. *[number]* dated *[date]* to execute *[name of Contract and brief description of Works]* (hereinafter called "the Contract");

And whereas it has been stipulated by you in the said Contract that the contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

And whereas we have agreed to give the contractor such a Bank Guarantee;

Now therefore we hereby affirm that we are the Guarantor and responsible to you, on behalf of the contractor, up to a total of *[amount of Guarantee] [amount in words]*[3] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of Guarantee]*[4] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid for at least 30 days beyond the date of issue of Defects Liability Certificate.

Signature and seal of the Guarantor _____

Name of Bank _____

Address _____

Date _____

[3] An amount is to be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract, and denominated in Nepalese Rupees.

[4] The Unconditional (or "On-Demand") Bank Guarantee has the merit of simplicity and of being universally known and accepted by commercial banks. The contracting community, however, strongly objects to this type of Security because the Guarantee can be called (or threatened to be called) by Employers without justification. Employers should recognize the contractual conditions governing nonperformance by the Contractor and should normally act only on the advice of the Project Manager in calling a Performance Guarantee.

Bank Guarantee for Advance Payment

To: *[name and address of Employer]*

[name of Contract]

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub clause 11.9("Advance Payment") of the above-mentioned Contract, *[name and address of contractor]* (hereinafter called "the contractor") shall deposit with *[name of Employer]* a Bank Guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of *[amount of Guarantee] [amount in words]*[5]

We, the *[Bank or Financial Institution]*, as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the contractor, in the amount not exceeding *[amount of Guarantee] [amount in words]*[6]

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed there under or of any of the Contract documents which may be made between *[name of Employer]* and the contractor, shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

The validity period of the guarantee shall be 30 days beyond the period scheduled for repayment of the advance payment and the guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until the *[name of Employer]* receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and seal: _____

Name of Bank/Financial Institution: _____

Address: _____

Date: _____

[5] An amount is to be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Nepali Rupees of the Advance Payment as specified in the Contract.

[6] An amount is to be inserted by the Bank or Financial Institution representing the amount of the Advance Payment,denominated in Nepali Rupees.