

ROYAL GOVERNMENT OF BHUTAN

GEWOG ADMINISTRATION

TAREYTHANG

BIDDING DOCUMENT



Name of work:-*Construction of Trail steel truss bridge over Singaychu at Tareythang*

Issued to M/s:-

Opening date:- 15/01/2018 Time:-11:00 AM, Venue:- DT Hall, Sarpang Dzongkhag

SD/TG/ADM-12/2017-2018/39

Date: 18/12/2017

LIMITED TENDER BIDDING

The Gewog Administration Tareythang is pleased to invite sealed rates from the interested National contractors having valid trade license and registered with construction Development board for the following work.

Sl. No	Name of Work	Available date on Websites	Date of Submission	Class of Contract	Estimated Amount	EMD (Nu)	Contract Duration
1.	Construction of trail steel truss bridge over Singaychu at Tareythang	01/01/2018	15/01/2018	Small	1489205.04	29800.00	4 months

A completed set of tender document can be downloaded from Sarpang Dzongkhag Website from **01/01/2018**. Earnest money (EMD) should be in form of Bankers certified cheques, Demand Draft, cash warrant, Bank Guarantee in favor of **Gup, gewog Administration, Tareythang**. Electronic Bid shall not be permitted and late bids shall be rejected. Bidders are requested to check the www.sarpang.gov.bt from time to time for any amendments related to above works.

Bid shall be submitted on or before **10:30 AM** on **15/01/2018** and the tender will be opened on the same day at **11:00 AM** in the Dzongkhag DT Hall Sarpang. Interested bidders are requested to attend the bid opening.



(Gup, Tareythang)

Copy to:

1. Dasho Dzongda, Dzongkhag Administration, Sarpang for information
2. District Chief Engineer, Dzongkhag Administration, and Sarpang for information.
3. The Accounts/Budgets Officer, Dzongkhag Administration, Sarpang for information.
4. The ICT Officer, Dzongkhag Administration, Sarpang to upload in Dzongkhag Website.
5. Office copy.

STANDARD BIDDING DOCUMENT

Procurement of Small Works (up to Nu.4 million)



**Royal Government of Bhutan
Dzongkhag Administration Sarpang**

March 2011

(Revised August 2016)

Preface

This Standard Bidding Document for the Procurement of small works up to Nu. 4 million has been prepared by the Public Procurement Policy Division (PPPD) Ministry of Finance to be used for the Procurement of small works through National Competitive Bidding (NCB) in projects that are financed in whole or in part by the Royal Government of Bhutan (RGoB). It should be used in conjunction with the Procurement Rules and Regulations.

Those wishing to submit comments or questions on this Bidding Document or to obtain additional information on procurement under RGoB-financed projects may contact:

Public Procurement Policy Division (PPPD)
Ministry of Finance
Royal Government of Bhutan
pppd@mof.gov.bt



Guidance Notes on the Use of the Standard Bidding Document for small works *(This note should be deleted while preparing the bidding document)*

This guidance notes have been prepared by the PPPD to assist a Procuring Agency in the preparation and using of Standard Bidding Document (SBD), for the procurement of small Works. The Procuring Agency should also refer to the Procurement Rules and Regulations and the circulars and Notifications issued from time to time to supplement the Regulations.

The use of SBD applies for the Open bidding method and also for the limited bidding method, whereby bids are invited from a list of enlisted bidders.

Since the intention is that SBD small work should only be used for Contracts of short duration and of low risk/value, there is no provision for price adjustment. The general procurement principal shall apply.

SBD is based upon internationally acceptable model formats, which have been adapted to suit the particular needs of procurement within Bhutan. The SBD has 9 Sections, of which Section 1: (Instruction to Bidders) and Section 5: (General Conditions of Contract) must not be altered or modified under any circumstances.

The way in which a Procuring Entity addresses its specific needs is through the information provided in the **Bidding Data Sheet (BDS)** and the **Special Conditions of Contract (SCC)**, as well as in the detailed requirements of the procurement in the **Schedule of Works** and/or the **Drawings/specifications**.

SBD when properly completed will provide all the information that a Bidders need in order to prepare and submit a Bid. This should provide a sound basis on which a Procuring Agency can fairly, transparently and accurately carry out a Bid evaluation process on the Bids submitted by the Bidders.

The following briefly describes the Sections of SBD and how a Procuring Entity should use these when preparing a particular Bidding Document.

Section 1. Instructions to Bidders (ITB)

This Section provides relevant information to help Bidders prepare their Bids. Information is also provided on the submission, opening, and evaluation of Bids and on the award of Contract.

This Section also contains the criteria to be used by the Employer in order to determine the lowest evaluated Bid and the qualifications of the Bidder to perform the Contract. **The text of the clauses in this Section shall not be modified.**

Section 2. Bidding Data Sheet (BDS)

This Section consists of provisions that are specific to each object of procurement and that supplements the information or requirements included in Section 1: Instructions to Bidders.

Section 3. Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders if the bidding was not preceded by a prequalification exercise and post qualifications are applied. In accordance with ITB 34 and ITB 36, no other methods, criteria and factors shall be used. The Bidder shall provide all the information requested in the forms included in Section 4 (Bidding Forms).

Section 4. Bidding forms

This Section provides the standard format for the **Bid Form** and **Bid Security** if required, that are to be submitted by the Bidder.

This Section also contains the form of the **Notification of Award (Form-2)** and the **Contract Agreement (Form-3)** which, when completed, incorporates any corrections or modifications to the accepted Bidder relating to amendments permitted by the ITB, GCC and SCC.

The forms for **Performance Security (Form-5)** and **Advance Payment Security (Form-6)**, when required, are to be completed by the successful Bidder after Contract award.

Section 5. General Conditions of Contract (GCC)

This Section provides the General Conditions of Contract that will apply to the Contract for which the Bidding Document is issued. **The text of the clauses in this Section shall not be modified.**

Section 6. Special Conditions of Contract (SCC)

This Section provides clauses specific to the Special Conditions to a particular Contract. This can be modified according to requirements specific to the contract.

Section 7. Contract Forms

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

Section 8. Bill of Quantities

This Section provides the items and estimated quantities of Works and Related Services to be performed, as well as the detailed Technical Specifications that describe the Works to be procured and must be carefully prepared by a Procuring Agency for each object of procurement.

Section 9. Drawings

This Section contains any Drawings that supplement the Schedule of Works including Specifications for the Works and Related Services to be procured.

INVITATION FOR BID

(IFB)



ROYAL GOVERNMENT OF BHUTAN
RGOB PROJECT

INVITATIONS FOR BIDS (IFB)
(Required in case of open tender)

NATIONAL COMPETITIVE BIDDING

Date: 18/12/2017

Bid No.:SD/TG/ADM-12/2017-18/89

1. The [Gewog Administration, Tareythang] invites bids for the construction of works detailed in the table. The bidders may submit bids for any or all of the following works, for the package or for any of the slices.
2. A complete set of tender document can be downloaded from the Sarpang Dzongkhag website with effect from 01/01/2018. Interested bidders may obtain further information at the same address.
3. Bids must be accompanied by a bid security of Nu. 29800.00/- drawn in favour of Gup, Gewog Administration, Tareythang. Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 30 days beyond the validity of the bid.
4. Bids must be delivered to Dzongkhag Engineering Section, Sarpang on or before 10:30 AM on 15/01/2018 and will be opened on the same day at 11:00 AM, in the presence of the bidders who wish to attend.

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Section 1: Instructions to Bidder (ITB)

A. General

1. Scope of Tender
 - 1.1 The Employer, as **indicated in the BDS** issues this Bidding Document for the procurement of Works as specified in Section 6 (Employer's requirement): The name, identification and identification of this bidding are **provided in the BDS**.
 - 1.2 The successful Bidder will be required to complete the Works within the Time for Completion stated in the Special Conditions of Contract (SCC).
 - 1.3 Throughout this Bidding Documents;
 - (a) The term "in writing means communicated in written form with proof of receipt;
 - (b) If the context so requires, singular means plural and vice versa; and
 - (c) "day" means calendar day.
2. Corrupt Fraudulent Collusive or Coercive Practices
 - 2.1 The Royal Government of Bhutan requires that Employers and the Bidders shall observe the highest standard of ethics during the implementation of procurement proceedings and the execution of Contracts under public funds.
 - 2.2 In pursuance of this requirement, the Employer shall
 - (a) exclude the bidder from participation in the procurement proceeding concerned or reject a proposal for award; and
 - (b) declare a bidder ineligible, either indefinitely or for a stated period of time, from participation in procurement proceedings under public funds;
 - 2.3 If it, at any time, determines that the bidder has engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a Contract under the public funds.
 - 2.4 The Government defines, for the purposes of this provision, the terms set forth below as follows :
 - a) "**corrupt practice**" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - b) "**fraudulent practice**" is any intentional act or omission including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefits or to avoid an obligation;
 - c) "**collusive practice**" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - d) "**coercive practice**" 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.
 - 2.5 The bidder shall be aware of the provisions on fraud and corruption stated

in GCC Clause 3 and GCC Sub-Clause 34.2(d).

- 2.6 The RGoB requires that the Employer's personnel have an equal obligation not to solicit, ask for and/or use coercive methods to obtain personal benefits in connection with the said proceedings.
3. Eligible Bidders
- 3.1 Bidders of the categories **specified in the BDS** are eligible to participate in this bidding process.
- 3.2 The Employer shall invite Bids using the Open Tendering Method (National Competitive Bidding) or limited tender as applicable.
- 3.3 The bidder shall meet the qualification requirement stated in the BDS
4. Site Visit
- 4.1 The Bidders, at their own responsibility and risk, is encouraged to visit and examine the Site and obtain all information that may be necessary for preparing the bid and entering into a Contract for performance of the Works. The costs of visiting the Site shall be at the bidder's own expense.

B. Content of Bidding Document

5. Contents of Bidding Documents
- 5.1 The sections comprising the Bidding Document are listed below and should be read in conjunction with any Amendment issued in accordance with ITB Clause 7:
- PART 1 Bidding Procedures**
- Section 1: Instructions to Bidders (ITB)
 - Section 2: Bidding Data Sheet (BDS)
 - Section 3: Evaluation and Qualification Criteria
 - Section 4: Bidding forms
 - Section 5: General Conditions of Contract (GCC)
 - Section 6: Special Conditions of Contract (SCC)
 - Section 7: Contract Forms
 - Section 8: Bill of Quantities & Specifications
 - Section 9: Drawings
- 5.2 The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.
- 5.3 The Bidder is expected to examine all instructions, forms terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.
6. Clarification of Bidding Documents
- 6.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address **indicated in the BDS**.
7. Amendment of Bidding Documents
- 7.1 At any time prior to the deadline for submission of Bid, the Employer may amend the Bidding Document by issuing addenda and extend the deadline for the submission of bids at its discretion. Any amendment issued shall become an integral part of the Bidding Document and shall be communicated in writing to all those who have purchased the Bidding Document.

C. Preparation of Bids

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| 8. One Bid per Bidder | 8.1 A Bidder shall submit only one (1) Bid. A Bidder who submits or participates in more than one (1) Bid shall cause all the proposals with the Bidder's participation to be disqualified. |
| 9. Bid Preparation Costs | 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bids, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process. |
| 10. Language of Bid | 10.1 All documents relating to the Bid shall be in the language specified in the BDS. |
| 11. Documents comprising the Bid | <p>11.1 The original and copy(ies) of Bid submitted by the Bidder shall comprise the following:</p> <ul style="list-style-type: none"> (a) The Bid form (in the format indicated in Section IV – Forms of Bid, Qualification Information, Letter of Acceptance, and Contract); (b) License and certificate (c) Bid Security in accordance with Clause 19; (d) Priced Bill of Quantities; (e) and any other materials required to be completed and submitted by Bidders, as specified in the BDS. <p>11.2 The Instruction to Bidders, Bidding Data Sheet, General Conditions of Contract, Special Conditions of Contract, Specifications and drawings are for the information of the bidders and is not required to be submitted by the bidder,</p> |
| 12 Letter of Bid and Schedule | 12.1 The letter of Bid, Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms in Section 4 (Bidding Forms), if so provided in BDS. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. |
| 13. Alternative Bid | 13.1 Alternative Bid shall not be considered in small works. |
| 14. Bid Price and Discount | <p>14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Schedules shall confirm to the requirements specified below;</p> <p>14.2 The bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section 4, Bidding Forms. In case of admeasurements contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.</p> <p>14.3 The Bid price shall take into account the cost of materials, transportation, labour, taxes, levies, overheads and profit and any other cost. The Bid price shall be fixed for the duration of performance of the Contract and shall not be subject to any adjustment on any account. The Bid price shall be applicable for the whole works described in the Drawings, Specifications and Schedule of Works.</p> |

15	Currencies of Bid and Payment	15.1	All prices shall be quoted in Bhutanese Ngultrum (BTN) and shall be paid in BTN.
16	Documents comprising the Technical Proposal	16.1	The bidder shall furnish a work plan in simple bar chart and other information if provided in BDS, to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.
17	Documents establishing the Qualification of the Bidder	17.1	To establish its qualification to perform the Contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section 4 (Bidding Forms)
18	Bid Validity	18.1	Bids shall remain valid for the period specified in the BDS . Any Bids which does not meet the validity requirement as per the BDS shall be rejected by the Employer as non-responsive.
19	Bid Security	19.1	The Bidder shall at their option furnish, as part of the Bid, a Bid Security as specified in the BDS issued by any reputed Financial Institutions in Bhutan and shall be valid thirty (30) days beyond the Bid validity period. <ul style="list-style-type: none"> a) Unconditional Bank Guarantee; b) A demand Draft; or c) Cash Warrant
		19.2	In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may solicit the Bidder's consent to an extension of the Bid validity period. The request and responses shall be made in writing. The validity of Bid Security shall be suitably extended promptly.
		19.3	The Bid Security may be forfeited: <ul style="list-style-type: none"> (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity. Further the bidder may be excluded from future participation for a period of two years. (b) if the Bidder does not accept the correction of the Bid price, pursuant to clause 31; or (c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to sign the Agreement; or furnish the required Performance Security.
20	Format and Signing of Bid	20.1	The Bidder shall prepare one (1) original of the documents comprising the Bid as described in ITB Clause 11 and clearly mark it "ORIGINAL." In addition, the Bidder shall prepare the number of copies of the Bid, as specified in the BDS and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
		20.2	The original and each copy of the Bid shall be typed or written in indelible ink and shall be signed by the person duly authorized to sign on behalf of the Bidder.
		20.3	Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person(s) signing the Bid.

D. Submission and Opening of Bids

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| 21 Sealing and Marking of Bids | <p>21.1 The Bidder shall enclose the original in one (1) envelope and all the copies of the bid in another envelope, duly marking the envelopes as "ORIGINAL" and "COPY." These two (2) envelopes shall then be enclosed in one (1) single outer envelope.</p> <p>21.2 The inner envelopes shall:</p> <ul style="list-style-type: none"> (a) Be signed across the seals by the person authorised to sign the Bid on behalf of the Bidder; (b) Be marked "ORIGINAL" and "COPY" and (c) Bear the name and address of the Bidder. <p>21.3 The outer envelope shall;</p> <ul style="list-style-type: none"> (a) Be sealed with adhesive or other sealant to prevent reopening; <p>21.4 be addressed to the Employer at the address specified in the BDS; bear a statement "DO NOT OPEN BEFORE 11:00 AM, 15/01/2018" the time and date for Bid opening as specified in the BDS.</p> <p>21.5 If all or any envelopes are not sealed and marked as required by ITB Sub-Clause 21, the Employer shall not reject the bids but assume no responsibility for the misplacement or premature opening of the Bid.</p> |
| 22 Bid Submission Deadline | <p>22.1 Bids must be received by the Employer at the address and no later than the date and time specified in the BDS.</p> <p>22.2 Bids may be hand delivered, posted by registered mail or sent by courier.</p> <p>22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB Clause 7, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the new deadline as extended.</p> |
| 23 Late Bids | <p>23.1 Late bids shall not be considered and shall be returned unopened</p> |
| 24 Modification, Substitution or Withdrawal of Bids | <p>24.1 A Bidder may modify, substitute or withdraw their Bids after it has been submitted by sending a written notice before the deadline for submission of Bids.</p> |
| 25 Bid Opening | <p>25.1 The Employer shall open the Bids in the presence of the bidders who is attending the bid opening, including modifications or substitutions made pursuant to ITB Clause 24. Bidders or their representatives shall be allowed to attend and witness the bid opening and shall sign a register evidencing their attendance.</p> <p>25.2 The name of the Bidder, Bid modifications, substitutions or withdrawals, total amount of each Bid, number of corrections, discounts, and the presence or absence of requisite Bid Security, and such other details as the Employer, at its discretion, may consider appropriate, shall be read out aloud and recorded.</p> <p>25.3 The Employer shall prepare minutes of the Bid opening. The minutes shall include, as a minimum, the name of the Bidders and whether there has been a withdrawal, substitution or modification; the Bid Price including any discounts and the presence or absence of a Bid Security, if one was required.</p> |

- 25.4 Bids not opened and read out at the Bid opening shall not be considered, irrespective of the circumstances, and shall be returned unopened to the Bidder.

E. Tender Opening and Evaluation

- | | | |
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| 26 Confidentiality | 26.1 | After the opening of Bids, information relating to the examination, clarification, and evaluation of Bids and recommendations for award shall not be disclosed to Bidders or other persons not officially concerned with the evaluation process until after the award of the Contract is announced. |
| 27 Clarification | 27.1 | The Employer may ask Bidders for clarification of their Bids in order to facilitate the examination and evaluation of Bids. The request for clarification and the response shall be in writing, and any changes in the prices or substance of the Bid shall not be sought, offered or permitted, except to confirm the correction of arithmetical errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB Clause 31. |
| 28 Bidder:
Contacting the
Employer | 28.1 | Following the opening of Bids and until the Contract is signed no Bidder shall make any unsolicited communication to the Employer or try in any way to influence the Employer's examination and evaluation of Bids which may result in the rejection of bids. If any Bidder wishes to contact the Employer on any matter related to the Bidding process, it should do so in writing |
| 29 Determination
of
Responsiveness | 29.1 | Prior to detailed evaluation of bids, the employer shall determine whether each bid (a) meets the eligibility criteria defined in ITB clause 3; (b) has been properly signed; (c) is accompanied by the bid security; and (d) is substantially responsive to the requirements of the bidding documents. |
| | 29.2 | A substantially responsive Bid is one that conforms in all respects to the requirements of the Bidding Document without material deviation, reservation or omission. A material deviation, reservation or omission is one that: <ul style="list-style-type: none"> (a) affects in any substantial way the scope, quality, or performance of the Works specified in the Contract; or (b) limits in any substantial way, or is inconsistent with the Bid Document, the Employer's rights or the Bidder's obligations under the Contract; or (c) if rectified would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids. |
| | 29.3 | If a Bid is not substantially responsive to the Bidding Document it shall be rejected by the Employer and shall not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission. |
| | 29.4 | There shall be no requirement as to the minimum number of responsive Bids. |
| 30 Non
Conformities, | 30.1 | The Employer may regard a Bid as responsive even if it contains minor deviations that do not materially alter or depart from the characteristics, |

Errors and Omissions		terms, conditions and other requirement set forth in the Bidding Document or if it contains errors or oversights that are capable of being corrected without affecting the substance of the Bid.
31 Evaluation and Comparison of Tenders	31.1	The Employer shall evaluate and compare only those Bids determined to be substantially responsive to the requirements of the Bidding Document. Substantially responsive Bids are those which fulfil the requirements of ITB Clauses 11 and 12.
	31.2	The evaluation will take into account corrected Bid Price and discounts (if any).
	31.3	The Employer will check substantially responsive Bids for any arithmetical errors. Where there is a discrepancy between the amounts in figures and words, the amount in words will govern. If a Bidder refuses to accept the correction, its Bids shall be rejected. The Employer shall correct arithmetical errors on the following basis: <ul style="list-style-type: none"> (a) if there is a discrepancy between the unit price and the line item total, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price, as quoted, shall govern and the unit price shall be corrected; and
32. Employer's Right to Accept or Reject any or all	32.1	The Employer reserves the right to accept any Bid, to annul the Bid proceedings, or to reject any or all Bids, at any time prior to Contract award, without thereby incurring any liability to Bidders, or any obligation to inform Bidders of the grounds for the Employer's actions.

F. Contract Award

33. Award Criteria	33.1	The Employer shall award the Contract to the Bidders whose offer is substantially responsive to the Bidding Document and that has been determined to be the lowest evaluated Bid, provided that the Bidder is determined to be qualified to perform the Contract satisfactorily
34. Letter of Intent to Award the Contract/ Notification of Award	34.1	The Employer shall notify the concerned Bidder whose bid has been selected in accordance with ITB 33.1 in writing (in the format in Section 4-hereafter called the "Letter of Intent to Award") that the Employer has intention to accept its bid and the information regarding the name, address and amount of selected bidder shall be given to all other bidders who submitted the bid. Such notification should be communicated in writing, including by cable, facsimile, telex or electronic mail to all the bidders on the same day of dispatch. The Employer shall ensure that the same information is uploaded on their website on the same day of dispatch.
	34.2	If no bidder submits an application pursuant to ITB 35 within a period of ten (10) days of the notice provided under ITB 34.1, Prior to the expiration of the period of Bid validity, the Employer shall notify the successful Bidder, in writing that its Bid has been accepted. Until a formal contract is prepared and executed, the Notification of Award shall constitute a binding Contract.
	34.3	Within fifteen (15) working days of the receipt of the Notification of Award from the Employer, the successful Bidder shall furnish the Performance Security, in the amount specified in the BDS.
	34.4	The proceeds of the performance security shall be payable to the Employer unconditionally upon first written demand as compensation for any loss resulting from the Contractor's failure to complete its obligations under the

Contract

- 34.5 Within fifteen (15) working days of receipt of the notification of award, the successful Bidder shall sign, date and return it to the Employer.

35.Complaints

- 35.1 The Bidder shall submit the complaint in writing within ten (10) days from the date of letter of intent to award the contract pursuant to ITB 34.1 to the Employer.
- 35.2 The Bidder may appeal to the Independent Review Body only if the Employer has not delivered the decision within the specified time, or the complainant is not satisfied with the decision of the Employer in accordance with rules and procedures of Independent Review Body.



Section 2 - Bidding Data Sheet

Instructions for completing the Bidding Data Sheet are provided, as needed, in the notes in italics mentioned for the relevant ITB Clauses

ITB Clause	Amendment of, and Supplements to, Clauses in the Instructions to Bidders
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A. General

ITB 1.1	<p>The Employer is [Gup, Gewog Administration, Tareythang]</p> <p>The Name and Identification of the Contract is/are [Construction of trail steel truss bridge over Singaychu at Tareythang]</p> <p>The Works are [Construction of abutment, wing wall, Providing and fixing/launching of steel parts]</p>
ITB 3.2	<p>Option B: Open Tendering method</p> <p>All Bidders regardless of whether enlisted or not enlisted with the Dzongkhag may submit Bids provided they otherwise qualify.</p>
ITB 3.3	<p>The evaluation shall be based on the lowest price of the responsive bidder and the work will awarded to the lowest responsive bidder. <i>[Generally the selection is based on the lowest price. If there is a specific project need basic minimum technical qualification requirement should specified here]</i></p>

B. Bidding Documents

ITB 7.1	<p>For <u>clarification of Tenders purposes</u> only, the Employer's address is:</p> <p>Attention: [Sigyal Wangchuk, Junior Engineer]</p> <p>Address: [Dzongkhag Administration, Sarpang]</p> <p>Telephone: [17474748]</p> <p>Facsimile number: [06-365311]</p> <p>Electronic mail address: [.....]</p>
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C. Preparation of Bids

ITB 15.1	<p>The Bid validity period shall be [60] days.</p> <p><i>[normally be minimum of 60 days for Works of such a simple nature]</i></p>
ITB 15.2	<p>A Bid Security in the amount of Nu. [29800.00] will be required, 30 days beyond bid validity period in the form;</p> <ul style="list-style-type: none"> a) Unconditional Bank guarantee b) Cash warrant; or c) Demand draft
ITB 16.1	<p>A simple bar chart is not required <i>[delete which is not appropriate]</i></p>

ITB 19.1	In addition to the original, [<i>one</i>] identical copy shall be submitted.
D. Submission and Opening of Bids	
ITB 17.2	<p>The inner and outer envelopes shall bear the following additional identification marks:</p> <p><i>[Inner envelope: [sign across the seals, marked COPY & ORIGINAL, name and address of bidder.]</i></p> <p><i>Outer envelope: [Properly sealed, proper address to employer and mark, Confidential, DONOT OPEN BEFORE 11:00 AM, 15/01/2018]</i></p>
ITB 17.2	<p>For <u>Bid submission purposes</u> only, the Employer's address is:</p> <p>Attention: <i>Gup</i></p> <p>Address: <i>Gup, Gewog Administration, Tareythang</i></p> <p>The deadline for the submission of Tenders is:</p> <p><i>15/01/2018 at 10:30 AM</i></p>
ITB 21.1	<p>The Bid opening shall take place on the same day as the closing day of the bid submission at: <i>[Dzongkhag DT Hall, Sarpang]</i></p> <p>Date: <i>[15/01/2018]; Time: [11:00 AM]</i></p>
F. Award of Contract	
ITB 34.2	The amount of Performance Security shall be [<i>10%</i>] percent of the Contract Price.

Section 3 – Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders if the bidding was not preceded by a prequalification exercise and post qualifications are applied. Procuring Agency may apply basic minimum technical qualification requirement (manpower and equipments) only if there is a project specific need.

1. Evaluation

1.1 Evaluation shall be done to determine the responsiveness and the award shall be made to the lowest evaluated bidder.

Section 4: Forms of Bid & Qualification Information

Table of Standard Forms

Standard Form: Form of Bid

Standard Form: Letter of Intent

Standard Form: Letter of Acceptance

Standard Form: Bid security Bank Guarantee

Standard Form: Form of bid

Notes on Form of Bid:

The Bidder shall fill in and submit this bid form with the Bid. If Bidders do not fill in the Contract Price and does not sign this Bid form, the bids will be rejected.

_____ [date]

.....

.....

.....

We offer to execute the contract for

“.....

.....

.....”

in accordance with the Conditions of Contract accompanying this Bid for the Contract Price of

_____ [amount in figures] (_____

_____ [amount in words]

_____ Nu [name of currency]

The contract shall be paid in Ngultrums (Nu.)

This Bid and your written acceptance of it shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We hereby confirm that this Bid complies with the Bid validity and Bid Security required by the bidding documents and specified in the Bidding Data.

Authorized Signature: _____

(Affix Legal Stamp)

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Standard Form: Qualification Information

Notes on Form of Qualification Information: The following information is to be filled in by bidders which will be used for purposes of evaluation

1. Individual bidders

1.1 Constitution of legal status of Bidder [attach copy]

Place of registration: _____

Principal place of business: _____

Power of attorney of signatory of Bid [attach]

1.2 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Refer BDS. The supporting documents such detailed CVs signed in original supported by certificates for qualification and experience.

Position	Name	Qualification & year of experience (general)	Year of experience in proposed position	Remarks
	དཔལ་ལྷན་འབྲུག་གཞི་			
	ཨོང་ཁག་བདག་སྐྱོང་གསར་མང་།			

Standard Form: Letter of Intent

(Letterhead paper of the Employer)

Notes on standard form of letter of Intent

This issuance of Letter of Intent (always before letter of acceptance) is the information of the selection of the bid of the successful bidder by the Employer and for providing information to other unsuccessful bidders who participated in the bid as regards the outcome of the procurement process

The Employer shall allow 10 days as described in ITB 34.2 between this letter of intent and letter of acceptance to allow aggrieved bidders to challenge your decision if they feel they have treated unfairly.

(Insert date)

To:-----[Name and address of the Contractor]

This is to notify you that, it is our intention to award the contract for your Bid dated-----
[Insert date] for execution of the-----
-----[Insert name of the contract and identification number, as given in the BDS/SCC] for the
Contract Price of-----
-----[Insert amount in figure and words and name of currency] as corrected and modified [if any
corrections] in accordance with the Instructions to Bidders.

Authorized Signature:-----

Name and Title of Signatory:-----

Name of Agency:-----

CC:

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

Standard Form: Letter of Acceptance

[letterhead paper of the Employer]

Notes on Standard Form of Letter of Acceptance

The Letter of Acceptance will be the basis for formation of the Contract as described in Clauses 31 and 32 of the Instructions to Bidders. This Standard Form of Letter of Acceptance should be filled in and sent to the successful Bidder only after evaluation of bids has been completed.

[date] _____

To: _____

[name of the Contractor]

_____ [address of the Contractor]

This is to notify that your Bid dated _____ for the execution of the contract for the construction of “_____” for the Contract Price _____ [amount in numbers] _____ [amount in words] _____ [name of currency], as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency. The start date of the project is _____. The completion date for whole of the works shall be _____.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Agreement

Bank Guarantee for Bid Security

[this is the format for the Bid Security to be issued by a financial institutions in Bhutan in accordance with ITB Clause 19]

Invitation for Bid No:

Date:

Bid Package No:

To:

[Name and address of Employer]

TENDER GUARANTEE No:

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

Furthermore, we understand that, according to your conditions Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we *[name of bank]* hereby irrevocably undertake to pay you, without cavil or argument, any sum or sums not exceeding in total an amount of Nu *[insert amount in figures and words]* upon receipt by us of your first written demand accompanied by a written statement that the Bidder is in breach of its obligation(s) under the Bid conditions, because the Bidder:

- (a) has withdrawn its Bids during the period of Bid validity specified by the Bidder in the Form of Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders ITB; or
- (c) having been notified of the acceptance of the Bid by the Employer during the period of Bid validity,
 - (i) fails or refuses to furnish the performance security in accordance with the ITT, or (ii) fails or refuses to execute the Contract Form,

This guarantee will expire

- (a) if the Bidder is the successful Bidder, upon our receipt of a copy of the Performance Security and a copy of the Contract signed by the Bidder as issued by you; or
- (b) if the Bidder is not the successful Bidder, thirty days after the expiration of the Bidder's Tender validity period, being *[date of expiration of the Tender]*.

Consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Section 5. General Conditions of Contract

1. Definitions

1.1 The following words and expressions shall have the meaning hereby assigned to them. Boldface type is used to identify the defined terms:

- (a) **Completion Certificate** means the Certificate issued by the Employer as evidence that the Contractor has executed the Works in all respects as per drawing, specifications, and Conditions of Contract.
- (b) The **Completion Date** is the date of completion of the Works as certified by the Engineer, in accordance with GCC Clause 18.
- (c) **Contract** means the Agreement entered into between the Employer and the Contractor to execute, complete and maintain the Works.
- (d) **Contractor** means the person or corporate body whose Tender to carry out the Works has been accepted by the Employer and is named as such in the SCC.
- (e) **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract. The **Contractor's Bid** is the completed Bid Document including the priced offer submitted by the Contractor to the Employer.
- (f) **Days** mean calendar days.
- (g) A **Defect** is any part of the Works not completed in accordance with the Contract.
- (h) The **Employer** is the party named in the SCC who employs the Contractor to carry out the Works.
- (i) The **Engineer** is the person named in the SCC, who is responsible for supervising the execution of the works and administering the Contract.
- (j) The **Intended Completion Date** is the date specified in the SCC on which the Contractor shall complete the Works and may be revised if extension of time or an acceleration order is issued by the Engineer.
- (k) The **Site** is the area defined as such in the SCC.
- (l) The **Works** are what the Contract requires the Contractor to construct, install, and hand over to the Employer, as defined in the SCC.

2. Interpretation & Documents forming the Contract

2.1 In interpreting the GCC, singular also means plural, male also means female or neuter, and the other way around. Headings in the GCC shall not be deemed part thereof or be taken into consideration in the interpretation or construance of the Contract. Words have their normal meaning under the language of the Contract unless specifically defined.

2.2 The following documents forming the Contract shall be interpreted in the following order of priority:

- (a) the signed Contract Agreement.
- (b) the letter of Notification of Award.
- (c) the completed Bid form as submitted by the Bidder.
- (d) the Special Conditions of Contract.
- (e) the General Conditions of Contract.

- (f) Specifications
- (g) the Drawings.
- (h) any other document listed in the PCC as forming part of the Contract.
3. Corrupt, Fraudulent, Collusive or Coercive Practices
- 3.1 The Government requires that Employers, as well as Contractors shall observe the highest standard of ethics during the implementation of procurement proceedings and the execution of Contracts under public funds.
- 3.2 In pursuance of this requirement, the Employer shall
- (a) exclude the Contractor from participation in the procurement proceedings concerned or reject a proposal for award; and
- (b) declare a Contractor ineligible, either indefinitely or for a stated period of time, from participation in procurement proceedings under public fund;
- 3.3 The Government defines, for the purposes of this provision, the terms set forth below as follows:
- (a) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- (b) "fraudulent practice" is any intentional 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;
- (c) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party; and
- (d) "coercive practice" 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.
- 3.4 The Government requires that the Client's personnel have an equal obligation not to solicit, ask for and/or use coercive methods to obtain personal benefits in connection with the said proceedings.
4. Governing Language and Law
- 4.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Contractor and the Employer, shall be written in English unless otherwise stated in the SCC. The Contract shall be governed by and interpreted in accordance with the laws of the Kingdom of Bhutan.
5. Engineer's Decision
- 5.1 Except where otherwise specifically stated in the SCC, the Engineer will decide Contractual matters between the Employer and the Contractor in the role as representative of the Employer.
6. Delegation
- 6.1 The Engineer may delegate any of his duties and responsibilities to his representative, after notifying the Contractor, and may cancel any delegation, without retroactivity, after notifying the Contractor.

7. Communications and Notices	7.1 Communications between Parties pursuant to the Contract shall be in writing to the address specified in the SCC. A notice shall be effective when delivered or on the notice's effective date, whichever is later.
8. Sub- Contracting	8.1 The Contractor shall not be permitted to subcontract any part of the Works in whole or in part.
9. Contractor's Personnel	9.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, to carry out the functions stated in the Schedule, or other personnel approved by the Engineer.
10. Welfare of Labourers & Child Labour	<p>10.1 The Contractor shall provide proper accommodation to his labourers and arrange proper water supply, conservancy and sanitation arrangements at the site in accordance with relevant regulations, rules and orders of the government.</p> <p>10.2 The Contractor shall comply with the applicable minimum age, labour laws and requirements of (including applicable treaties which have been ratified by) the Government of Bhutan regarding hazardous forms of child labour.</p>
11. Safety, Security and Protection of the Environment	<p>11.1 The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein :</p> <p>(a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site and the Works in an orderly state;</p> <p>(b) provide and maintain at the Contractors own cost all lights, guards, fencing, warning signs and watching for the protection of the Works or for the safety on-site; and</p> <p>(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 the Contractors methods of operation.</p>
12. Access to the Site	12.1 The Contractor shall allow the Engineer and any person authorised by the Engineer 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.
13. Documents, Information.	13.1 The Contractor shall furnish to the Engineer all information, schedules, calculations and supporting documentation that may be requested of it.
14. Property	14.1 If the contract is terminated by the Employer because of the contractors default, then, the contractor shall not be allowed to remove any materials on the Site, Plant, and Temporary Works until the matter is amicably resolved.
15. Insurance	<p>15.1 The Contractor shall provide insurance as stated in the SCC</p> <p>15.2 The Contractor shall deliver policies and certificates of insurance to the Engineer, for the Engineer's approval, before the Start Date.</p> <p>15.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.</p>
16. Possession of the Site	16.1 The Employer shall give possession of the Site, or parts of the Site, to the Contractor on the date(s) specified in the SCC.

17. Commencement of Works	17.1	The Contractor may commence execution of the Works on the Start Date, or other such date as specified in the SCC, and shall carry out the Works in an expeditious manner.
	17.2	If the Contractor fails to commence the works within the above stated period, the Employer may, at his sole discretion, terminate the Contract and forfeit the Performance Security, if any.
18. Completion of Works	18.1	The Contractor shall complete the Works within the number of days stated in the SCC from the date of commencing the Works on the Site.
19. Programme of Works	19.1	Within the time stated in the SCC, the Contractor shall submit to the Engineer for approval a work program. The Contractor shall submit to the Engineer for approval an updated Programme at intervals no longer than the period stated in the SCC.
20. Early Warning	20.1	The Contractor shall warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work result in increase to the Contract Price or delay in the execution of the Works.
21. Compensation Events	21.1	The following shall be Compensation Events: (a) the Employer does not give access to the Site or part of the Site by the Site Possession Date stated in the SCC; and (b) if the payment is delayed pursuant to Clause 25.1.
	21.2	If a Compensation Event would prevent the work being completed before the Intended Completion Date, the Intended Completion Date shall be extended, as appropriate, by the Engineer.
22. Non-Scheduled Items of Works	22.1	The Contractor shall be paid for non-scheduled items of works only when the Engineer approves such works and at the rates and in the manner stated in the SCC.
23. Schedule of Works	23.1	The Schedule of Works will contain rates for all items for the construction including temporary works, installation, testing, and commissioning work to be done by the Contractor.
	23.2	The Contractor shall be paid for the quantity of the work done at the rate in the Contract Agreement for each item.
	23.3	The Contractor shall be entirely responsible for all taxes, duties, license fees, and other such levies imposed outside and inside Bhutan.
24. Payment Certificates	24.1	The Contractor shall submit to the Engineer monthly statements of the estimated value of the work executed less the cumulative amount certified previously. The Engineer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
	24.2	The value of work executed shall be determined by the Engineer.
	24.3	The value of work executed shall comprise the value of the quantities of the items in the Schedule of Works completed.
	24.4	The value of work executed shall include the valuation of Variations, Certified Dayworks and Compensation Events.
	24.5	The Engineer may exclude any item certified in previous certificates or reduce the proportion of any item previously certified in any certificate in the light of later information.
25. Payments and Currency	25.1	The Employer shall pay the Contractor the amounts certified by the Engineer within thirty (30) days of the date of each certificate.

	25.2	The Employer shall make Advance Payment (mobilization and secured advance) to the Contractor of the amounts and by the dates stated in the SCC against provision by the Contractor of an unconditional Bank Guarantee, (Form 4).
	25.3	The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilisation expenses required specifically for the execution of the Contract. The Contractor shall demonstrate that the advance payment has been used in this way by submitting copies of invoices or other documents to the Employer.
	25.4	The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the 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, claims or any amount payable due to failure to complete the works.
26. Retention	26.1	The Employer shall retain from each payment due to the Contractor the proportion stated in the SCC until the completion of the whole of the Works.
	26.2	On completion of the whole of the Works, half the total amount retained shall be repaid to the Contractor, the remaining half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.
27. Liquidated Damages	27.1	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 for the works or for any part thereof.
28. Performance Security	28.1	Upon Notification of Award, a Performance Security shall be provided to the Employer in the amount and form stated in the Contract Forms (Form 3). The Performance Security shall be valid until a date thirty (30) days from the date of issue of the Certificate of Completion.
29. Price Adjustment	29.1	The rates and prices in the bill of quantities are fixed for the duration of the Contract and not subject to price adjustment during the performance of the Contract.
30. Completion	30.1	The Contractor shall request the Engineer to issue a Certificate of Completion of the Works, and the Engineer will do so upon deciding that the work is substantially completed.
31. Correction of Defects	31.1	The Engineer 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 the Defects remain to be corrected.
	31.2	If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.
32. Taking Over	32.1	The Employer shall take over the Site and the Works within seven (7) days of the Engineer issuing a Certificate of Completion.

33. Final Account
- 33.1 The Contractor shall supply the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract. The Engineer shall certify any final payment that is due to the Contractor within twenty-one (21) days of receiving the Contractor's account if it is correct and complete.
- 33.2 The Employer shall effect payment of the final account within thirty (30) days from the date of certification by the Engineer.
34. Termination
- 34.1 The Employer or the Contractor by giving thirty (30) days written notice of default to the other party, may terminate the Contract in whole or in part if the other party causes a fundamental breach of Contract.
- 34.2 Fundamental breaches of the Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for more than thirty (30) days when no stoppage of work is shown on the current Programme and the stoppage has not been authorised by the Engineer;
 - (b) the Engineer 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 Engineer;
 - (c) 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;
 - (d) the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices, as defined in GCC Clause 3, in competing for or in executing the Contract; and
 - (e) a payment certified by the Engineer is not paid to the Contractor by the Employer within sixty (60) days of the date of the Engineer's certificate.
- 34.3 The Employer and the Contractor may at any time terminate the Contract by giving notice to the other party if either of the parties becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to any party provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue to the other party.
- 34.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 34.5 If the Contract is terminated, the Contractor is to stop work immediately, make the Site safe and secure and hand over the Site to the Employer as soon as reasonably possible.

35. Payment upon Termination
- 35.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done and Plant 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.
- 35.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Contractor shall be entitled to payments for completed works and the materials that have been brought to the site for the purpose of the works, but not used as certified by the Engineer after adjusting any payments received by the Contractor.
36. Release from Performance
- 36.1 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 Engineer 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. The Contractor shall be paid for all works carried out before stoppage of work and any work carried out afterwards to which a commitment was made.
37. Force Majeure
- 37.1 For the purposes of this Contract, "Force Majeure" means an exceptional event or circumstance:
- (a) which is beyond a Party's control,
 - (b) which such Party could not reasonably have provided against before entering into the Contract,
 - (c) which, having arisen, such Party could not reasonably have avoided or overcome, and
 - (d) which is not substantially attributable to the other Party.
- 37.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:
- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - (b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
 - (c) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
 - (d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
 - (e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.
- 37.3 However, force majeure shall not include the following;
- i. rainfall
 - ii. snowfall
 - iii. strikes in other countries
 - iv. non-availability of labourer and materials such as timbers, boulders, sand, and other materials

v. difficulty and risky terrain and remoteness of site.

38. Settlement of Disputes

- 38.1 The Employer and the Contractor shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
- 38.2 Any dispute between the parties to the Contract that may not be settled amicably will be referred to Arbitration at the initiative of either of the parties.
- 38.3 The Arbitration shall be conducted in accordance with the Arbitration Rules of the Kingdom of Bhutan in force.



Section 6. Special Conditions of Contract	
<i>Instructions for completing the Special Conditions of Contract are provided, as needed, in the notes in italics mentioned for the relevant GCC Clauses.3</i>	
Clause Ref	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1(d)	The Contractor is [.....].
GCC 1.1(i)	The Employer is [Gup, Gewog Administration, Tareythang].
GCC 1.1(j)	The Engineer is [<i>Site Engineer</i>].
GCC 1.1(k)	The Intended Completion Date for the whole of the Works shall be [4 months].
GCC 1.1(l)	The Site is located at (Singaychu, Tareythang).
GCC 1.1(m)	The Works are [Construction of abutment, wingwall, Providing and fixing/launching of steel parts]
GCC 2.2(i)	The additional documents forming part of this Contract are: ["No additional documents" .]
GCC 4.1	The Language governing the Contract shall be [English .]
GCC 5.1	The Engineer shall obtain specific approval of the Employer before taking any of the following actions:
GCC 7.1	The addresses for Communications shall be: <u>For the Employer:</u> [Engineer 17474748] <u>For the Contractor:</u> [.....].
GCC 9.1	The Key Personnel of the Contractor are: [<i>specify only for higher value work</i>]
GCC 15.1	For insurance purposes the type of cover required shall be: The contractor shall be responsible for the insurance [as per RICBL Nomes/Financial institute of Bhutan]
GCC 16.1	Possession of the site shall be within [10] days from the date of signing of the Contract.
GCC 17.1	Commencement of work shall be within [10] days from the date of handing over possession of the Site.
GCC 18.1	Completion of works shall be within [4] months from the date of commencing the works on the site.

GCC 19.1 & 19.2	The Contractor shall submit the first workplan [15] days after signing the Contract, and shall update the workplan every [4] weeks during the period of the Contract.																		
GCC 22.1	<i>“The rates for non-scheduled items of works shall be determined by the Engineer”.</i>																		
GCC 25.2	An advance payment of [10] % of the Contract Price will be made to the Contractor within (14) days of Contract signing date.																		
GCC 26.1	The Retention shall be [10] % of the Contract Price.																		
GCC 27.1	<p>The liquidated damages for the whole of the Works are [% of final contract price, as per following tabular form] per day. The maximum amount of liquidated damages for the whole of the Works is [10%] of the final Contract Price.</p> <table><tr><td>Sl. No.</td><td>LD applied in %</td><td>No. of days delayed upto</td></tr><tr><td>1</td><td>0.06%</td><td>20 days</td></tr><tr><td>2</td><td>0.07%</td><td>40days</td></tr><tr><td>3</td><td>0.08%</td><td>60 days</td></tr><tr><td>4</td><td>0.09%</td><td>80 Days</td></tr><tr><td>5</td><td>0.10%</td><td>100 days and above</td></tr></table> <p><i>The imposition of LD shall not be segregated, the next higher percentage shall apply i.e., for 21 days 0.07% would apply, instead of .06% for 20 days and 0.07% for 1 days. However, LD on termination of the works shall be levied on the total quoted amount or the initial contract price.</i></p>	Sl. No.	LD applied in %	No. of days delayed upto	1	0.06%	20 days	2	0.07%	40days	3	0.08%	60 days	4	0.09%	80 Days	5	0.10%	100 days and above
Sl. No.	LD applied in %	No. of days delayed upto																	
1	0.06%	20 days																	
2	0.07%	40days																	
3	0.08%	60 days																	
4	0.09%	80 Days																	
5	0.10%	100 days and above																	
GCC 31.1	The Defects Liability Period shall be [06] six months																		
GCC 35.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is [20% of the value of work not completed up to a maximum of 10% of the initial contract price]																		

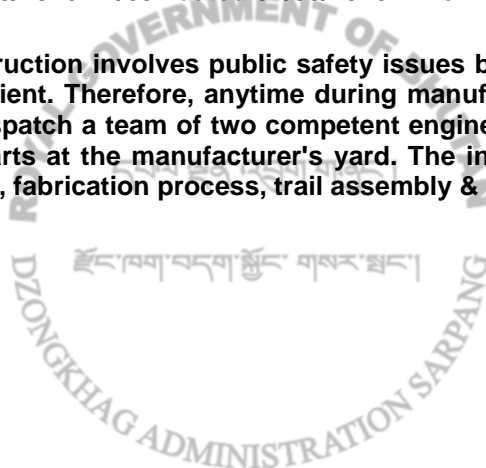
Notes:

- All the works should strictly follow the "Specifications for Buildings & Road Works-2013" of SQCA, MoWHS. All materials used to confirm as per "Bhutan Standard Bureau" BSB, specifications.
- The bidders are required to acquaint thoroughly with the bidding document.
- Bidders are encouraged to make prior site visit and acquaint thoroughly the Geo-technical situation, social and cultural features of the construction site in filling the bids
- Bidders are instructed to fill and submit what has been asked in the bidding documents
- A list of BSB approved materials are attached herewith, which should form the basis of materials to be used in the construction works and in guiding the bidders in filling the bidding forms appropriately.
- The entire cement requirement for the works should be procured either from PCAL cement depots (PCAL cement), Lhaki Cement and Dungsam cement (DCCL), from designated sales agents. The original cement invoices of the cement procured should be submitted to the employer periodically. This is in compliance to circular No. MoF/Central Procurement/2014/5502 dated 15th January 2014.

7. The entire HDPE pipe for the works like drinking water supply, plumbing, irrigation works should be procured either from BPCL, Bhutan Polythene Company limited(Druk pipes) or BPI, Bhutan Plastic Industry (Rabten). The invoices of the pipe procured should be submitted to the employer periodically. This is in compliance to circular No. FM/DNP/GP-46/2015-16/1263 dated 29th April 2016.
8. Don't hesitate to ask/make any queries on these bidding documents, "We strive to serve transparently".
9. Contractor has to provide a Sign-Board at Work Side reflecting all the information of the project as part of the Project.
 - a. Name of the contractor/ construction firm.
 - b. Name of Procuring Agency.
 - c. Site Engineer/project engineer.
 - d. Contract duration.

This is compliance with notification no. MoWHS/CDB-03/2013-2014/601 dated 17th April 2014

10. Abnormally low Bid: PRR 2009, Clause 5.4.5, additional differential security should be in the form of "cash Warrant" not in form of Bank Guarantee. Please refer to the notification no. Mowhs/Sec-30/2016-17/657 dated 31/08/2016 which is self explicit.
11. Bridge construction involves public safety issues besides incurring huge investment on the part of the Client. Therefore, anytime during manufacturing process of the bridge parts, the Client will dispatch a team of two competent engineers to carry out the quality inspection of the bridge parts at the manufacturer's yard. The inspection team will verify particularly the steel material, fabrication process, trail assembly & quality.



Section 7 – Contract Forms

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

Contract Forms

Form	Title
Form -1	Notification of Award
Form -2	Contract Agreement
Form -3	Bank Guarantee for Performance Security
Form -4	Bank Guarantee for Advance Payment



Notification of Award

Contract No:

Date:

To:

[name and address of Contractor]

This is to notify you that your Bid dated *[insert date]* for the execution of the Works for *[name of project / Contract]* for the Contract Price of Nu *[amount in figures and in words]*, as corrected and modified in accordance with the Instructions to bidder is hereby accepted by *[name of the Employer]*.

You are requested to proceed with the execution of the Works on the basis that this Notification of Award shall constitute the formation of a Contract, which shall become binding upon you furnishing a Performance Security within fourteen (14) days, in accordance with ITB Clause 32, and the signing the Contract Agreement within twenty-one (21) days, in accordance with ITB Clause 33.

We attach the Contract Agreement and Special Conditions of Contract for your perusal and signature.

Signed

Duly authorised to sign for and on behalf of
[name of Procuring Entity]

Date:

Contract Agreement

THIS AGREEMENT, made the [day] of [month] [year] between [name and address of Employer] (hereinafter called "the Employer") of the one part and [name and address of Contractor] (hereinafter called "the Contractor") of the other part.

WHEREAS, the Employer invited Tenders for certain Works, viz, [brief description of the Works] and has accepted a Tender by the Contractor for the execution of those works in the sum of Ngultrum [insert amount in figures and words], hereinafter called "the Contract Price.

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 General Conditions of Contract hereinafter referred to.
2. The documents forming the Contract shall be interpreted in the following order of priority:
 - (a) The signed Contract Agreement;
 - (b) The letter of Acceptance;
 - (c) The completed Bid form as submitted by the Bidder;
 - (d) The Special Conditions of Contract;
 - (e) The General Conditions of Contract;
 - (f) Specifications
 - (g) The Drawings; and
 - (h) Any other document listed in the SCC as forming part of the Contract..
3. 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 to remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the Parties thereto have caused this Agreement to be executed in accordance with the laws of Bhutan on the day month and year first before written.

For the Employer

For the Contractor

Signature

Print Name

Title

In the presence of
(Name)

Address

17694882

Bank Guarantee for Performance Security

[this is the format for the Performance Security to be issued by any financial institute in Bhutan in accordance with ITB Clause 35]

Contract No:

Date:

To:

[Name and address of Employer]

PERFORMANCE GUARANTEE No:

We have been informed that *[name of Contractor]* (hereinafter called "the Contractor") has undertaken, pursuant to Contract No *[reference number of Contract]* dated *[date of Contract]* (hereinafter called "the Contract"), the execution of works *[description of works]* under the Contract.

Furthermore, we understand that, according to your conditions, Contracts must be supported by a performance guarantee.

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

This guarantee is valid until *[date of validity of guarantee]*, consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Bank Guarantee for mobilisation advance

[this is the format for the Advance Payment Guarantee to be issued by a financial institutions in Bhutan in their letter pad in accordance with SCC Clause 25.2]

Contract No:

Date:

To:

[Name and address of Employer]

ADVANCE PAYMENT GUARANTEE No:

We have been informed that *[name of Contractor]* (hereinafter called "the Contractor") has undertaken, pursuant to Contract No *[reference number of Contract]* dated *[date of Contract]* (hereinafter called "the Contract"), the execution of works *[description of works]* under the Contract.

Furthermore, we understand that, according to your conditions, Advance Payments must be supported by a bank guarantee.

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

We further agree that no change, addition or other modification of the terms of the Contract to be performed, or of any of the Contract documents which may be made between the 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.

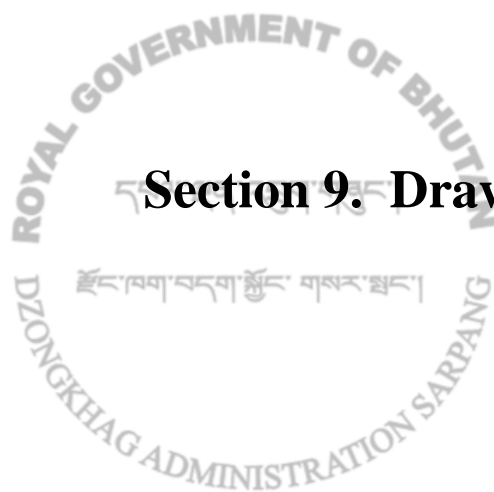
This guarantee is valid until *[date of validity of guarantee]*, consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Section 8 Bill of Quantities (BoQ)





Bill of Quantity

Name of work:- Construction of Trail Steel Truss Bridge over Singaychu

Location: Tareythang Gewog.

Sl. No	BRS Code	Description of work	Quantity	Unit	Rate	Amount
1	EW0105	Excavation in foundation trenches or drains not exceeding 1.5m in width or area 10 sq.m on plan, including dressing & ramming, disposal of surplus soil within 50m lead & 1.5m lift. Ordinary Soil	68.982	Cu.m		
2	CW0008	P/L Plain Cement Concrete excluding the cost of centering and shuttering- All work up to plinth level -1:4:8 (1 cement : 4 sand : 8 graded crushed stone 40 mm nominal size)	12.291	Cu.m		
3	SM0005	P/L Random Rubble Masonry with hard stone in foundation and plinth in cement mortar 1:4	35.125	Cu.m		
4	SM0006	P/L Random Rubble Masonry with hard stone in foundation and plinth in cement mortar 1:5	56.46	Cu.m		
5	SM0007	P/L Random Rubble Masonry with hard stone in foundation and plinth in cement mortar 1:6	45	Cu.m		
6	CW0005	P/L Plain Cement Concrete excluding the cost of centering and shuttering- All work up to plinth level -1:3:6 (1 cement : 3 sand : 6 graded crushed rock 20 mm nominal size)	23.924	Cu.m		
7	CW0003	P/L Plain Cement Concrete excluding the cost of centering and shuttering- All work up to plinth level -1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)	3.168	Cu.m		
8	EW0195	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m	40	Cu.m		
9	RC0090	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork Foundation and plinth etc.	22.94	Sq.m		

10	A/R	Providing and Fixing of bridge Steel Products for 32m span trail steel bridge (Procurement, including packaging, threading, holing, etc complete,handling & incl. wastage) completed set as per provided drawing.Bridge steel products incl. structural steel, reinforcement steel, screws,bolts, nuts & washers.Rust prevention by galvanizing as per IS code including cleaning, retreading, tapping, packaging & heat blowing. <i>(The rate should be inclusive of cost of steel parts,galvanizing for rust prevention, transportation of the site and fixing/launching of steel parts)</i>	1	L/s		
Total Nu:-						

Sign and Seal of bidder_____



འཕེལ་ཐོན་ལུགས་གཞིར་ཁལ་སྟངས་ལྗོངས་ལྷན་ཁག་། ལམ་ ལམ་ལམ་བྱུངས། བཅས་ལྟ་རྒྱུ་།



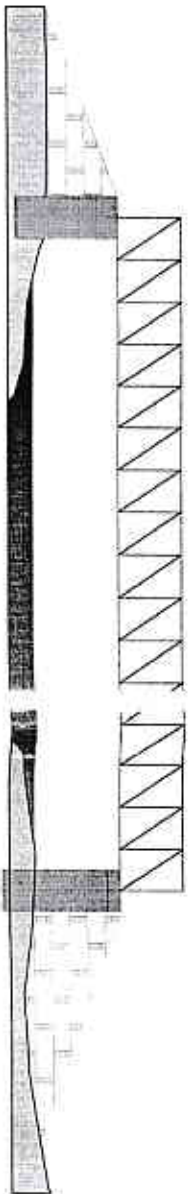
Royal Government of Bhutan
Ministry of Works & Human Settlement
Department of Roads

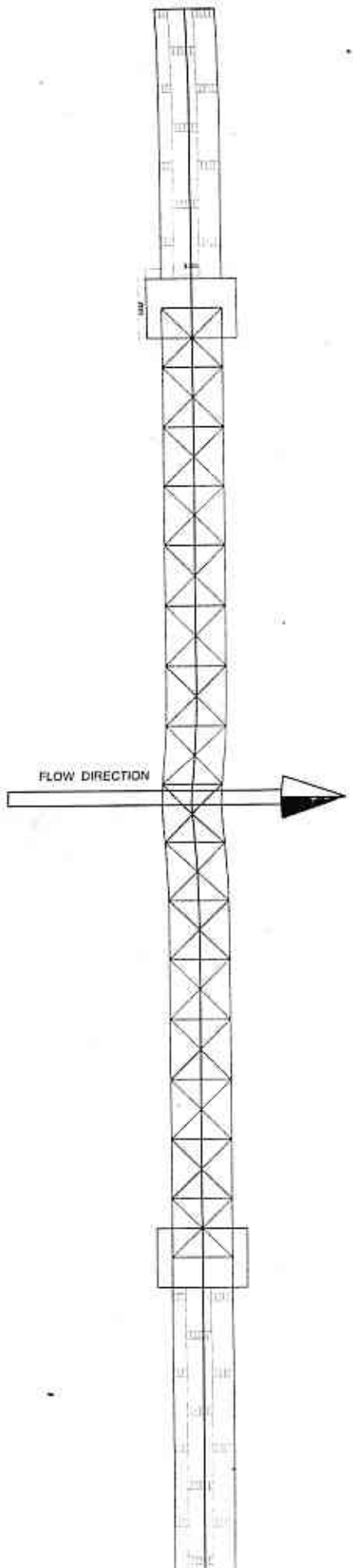
Bridge Division
Thimphu: Bhutan



"Construction Industry: Solutions through innovation and improved technology"

CONSTRUCTION OF 32.0m TRAIL STEEL TRUSS BRIDGE
OVER SINGAYCHU UNDER SARI WANG DZONGKHAG





ARIAL PLAN

Datum : 98.000

RRM sleep in 1.5 cement mortar

RRM in 1:4 cement mortar

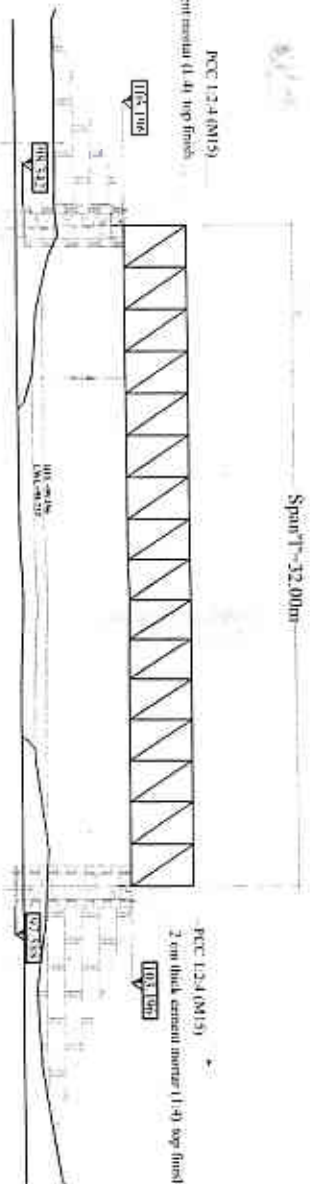
Plumb concrete 1:3.6 = 40 % boulder

100 mm thick PCC 1:4.8

LEFT BANK

RIGHT BANK

CROSS SECTIONAL ELEVATION



ROYAL GOVERNMENT OF BHUTAN
Ministry of Works & Human Settlement
Department of Road & Bridge Division
Thimphu, Bhutan

TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU
(UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG)

GENERAL
ARRANGEMENT

SHEET CONTENTS

REVISION
FIRST ISSUE

DATE
OCT. 2017

NAME & SIGNATURE

DRAWN

DESIGN

DRAWN

CHECKED

APPROVED

SCALE

FOR SCALE

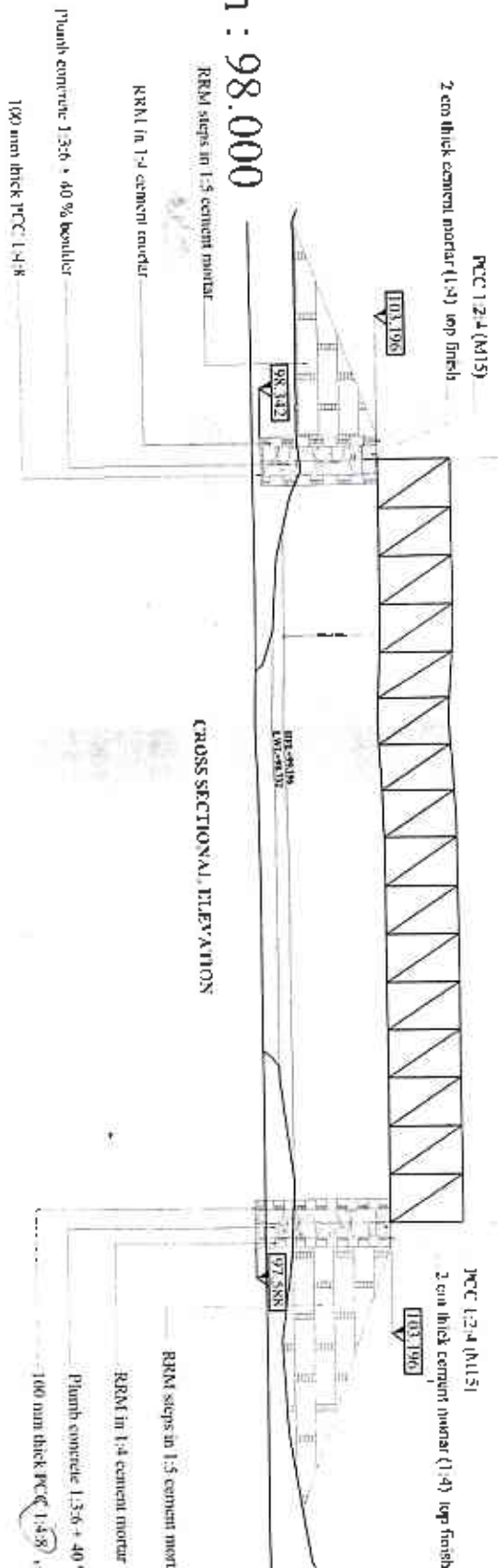
Span¹⁰ = 32.00m

Datum : 98.000

LEFT BANK

RIGHT BANK

CROSS SECTIONAL ELEVATION

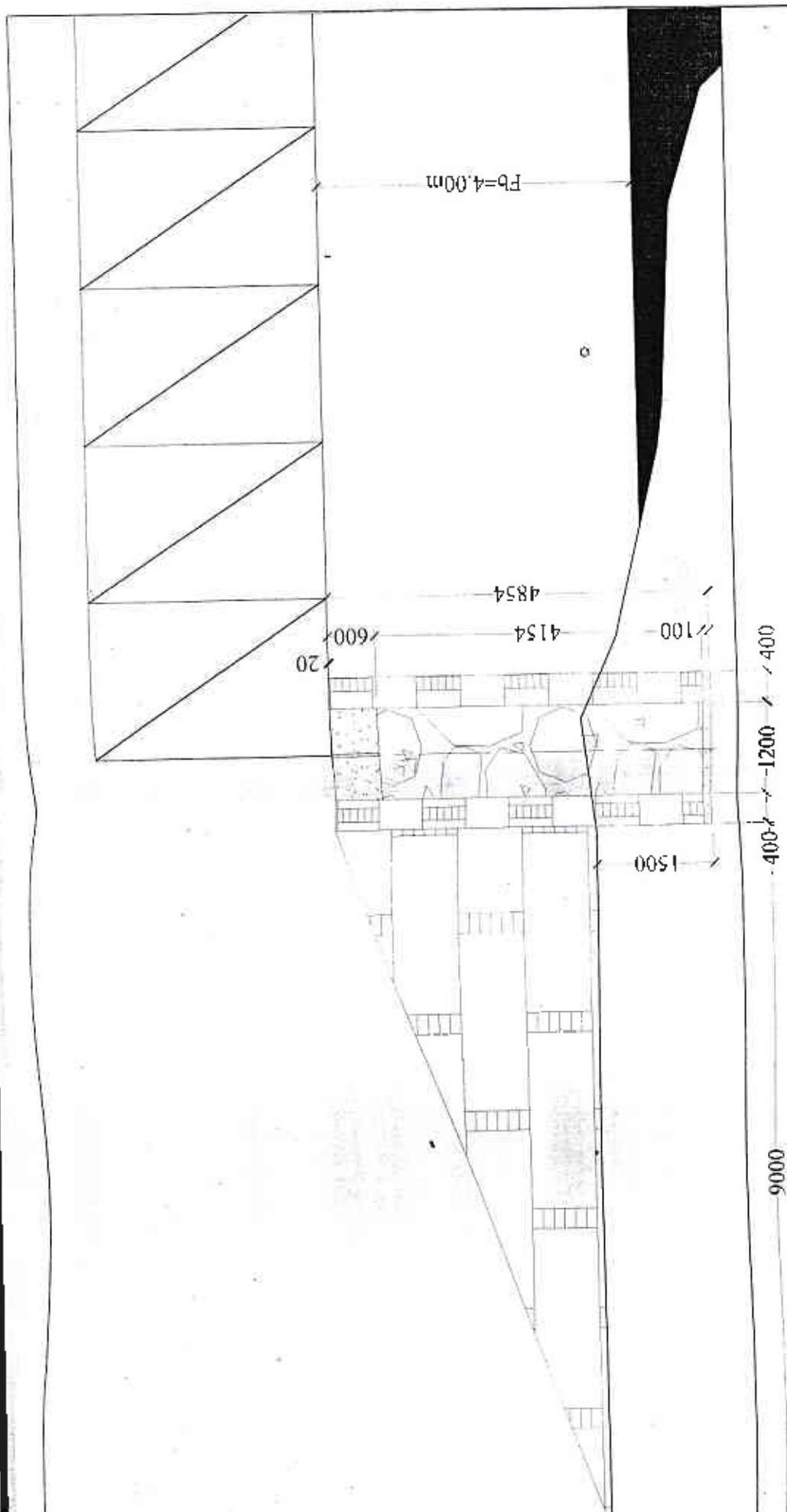


ROYAL GOVERNMENT OF BHUTAN
Ministry of Works & Human Settlement
Department of Roads, Bridge Division
Thimphu, Bhutan

TRAIL STEEL TRUSS BRIDGE 32.00m SPAN (ST) OVER SINGAYCHU
UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG

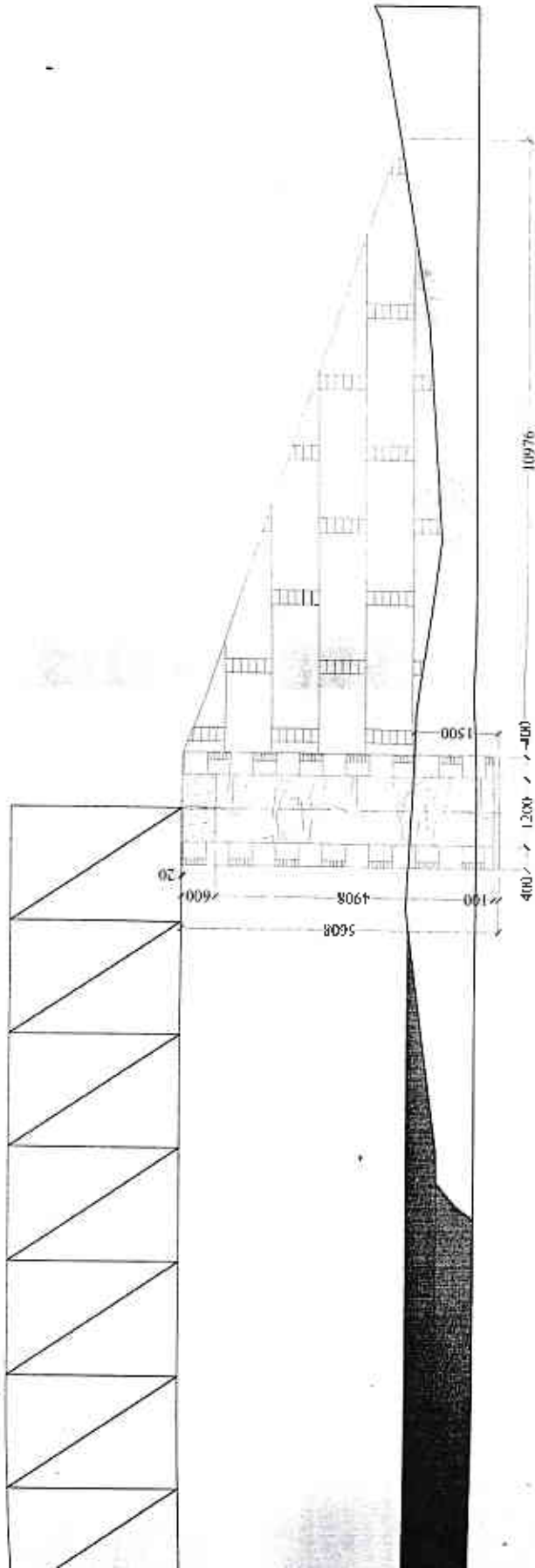
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CROSS SECTIONAL ELEVATION		FIRST ISSUE		OCT. 2017	DESIGN	CHOD GILL/ST/BAH/AC
				DRAWN	CHOD GILL/ST/BAH/AC	13/10/2017
				CHECKED	KARAN SHEROONI	13/10/2017
				APPROVED	13/10/2017	2017

SCALE 1:100



LEFT BANK

ROYAL GOVERNMENT OF BHUTAN Ministry of Works & Human Settlement Department of Roads, Bridge Division Thimphu, Bhutan	TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG	SHEET CONTENTS: LEFT BANK ABUTMENT	<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>NAME & SIGNATURE</th> <th>DRAWING NO</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>FIRST ISSUE</td> <td>DESIGN</td> <td>2017-7-ST-3</td> </tr> <tr> <td></td> <td></td> <td>DRAWN</td> <td></td> </tr> <tr> <td></td> <td></td> <td>CHECKED</td> <td></td> </tr> <tr> <td></td> <td></td> <td>APPROVED</td> <td></td> </tr> </tbody> </table>	REVISION	DATE	NAME & SIGNATURE	DRAWING NO	A	FIRST ISSUE	DESIGN	2017-7-ST-3			DRAWN				CHECKED				APPROVED	
REVISION	DATE	NAME & SIGNATURE	DRAWING NO																				
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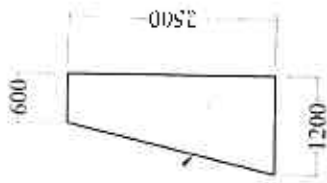


RIGHT BANK ELEVATION

RIGHT BANK

 ROYAL GOVERNMENT OF BHUTAN Ministry of Works & Human Settlement Department of Roads, Bridge Division Thimphu, Bhutan	TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG	SHEET CONTENTS RIGHT BANK ABUTMENT	REVISION	DATE	NAME & SIGNATURE	DIWANG HQ. 13/10/2017-7-ST-4 SCALE: NTS for Sheet A3 sized	
				FIRST ISSUE	OCT. 2017		DESIGN
							DRAWN
							CHECKED
							APPROVED

CM 1:6



NOTES:

1. Wing wall on Right bank and left bank up stream side, Length = 5mtr
2. Wing wall on Right bank and left bank downstream side, length=5mtr
3. Provide weep holes as per site condition.
4. For the both banks the excavaton of the foundation should be 1.50m below the ground level as shown in details of R/B & L/B abutments.

ROYAL GOVERNMENT OF BHUTAN
Ministry of Works & Highway Development
Department of Road's Bridge Division
Thimphu, Bhutan

TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU
UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG

SHEET CONTENTS :

WINGWALL ON
BOTH BANKS

REVISION

Δ FIRST ISSUE

DATE

OCT. 2017

NAME & SIGNATURE

DESIGN

DRAWN

CHECKED

APPROVED

CHOWDHURY, NABENDU

CHOWDHURY, NABENDU

CHOWDHURY, NABENDU

CHOWDHURY, NABENDU

CHOWDHURY, NABENDU

SCALE

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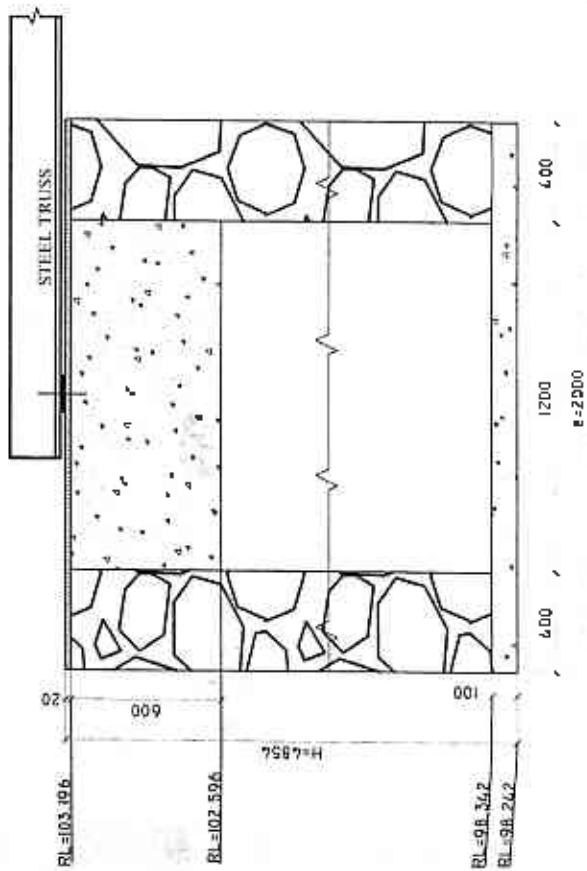
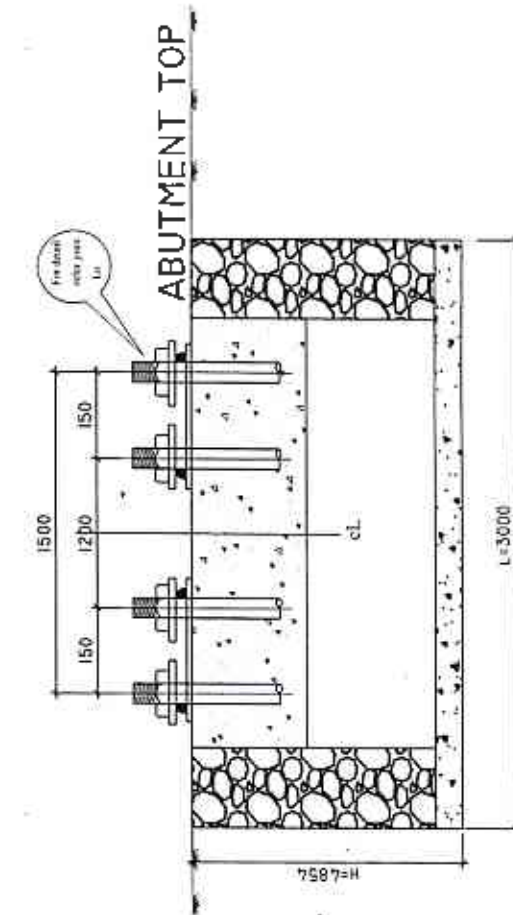
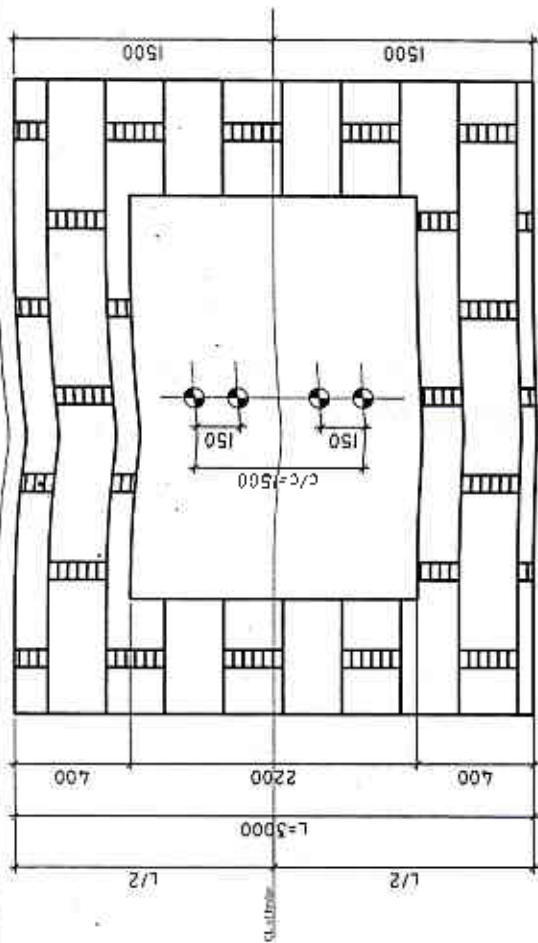
DRAWING NO.

2017-7-ST-5

2017-7-ST-5

2017-7-ST-5

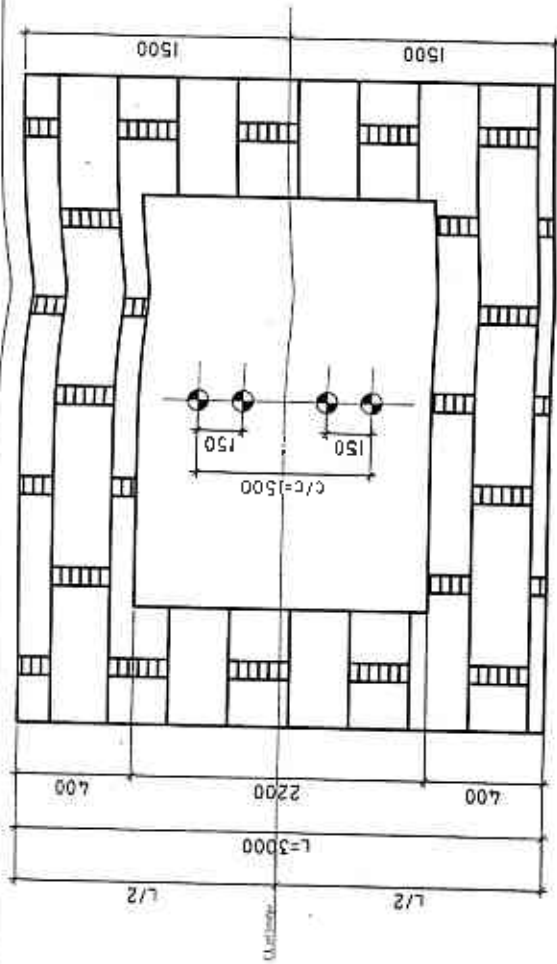
2017-7-ST-5



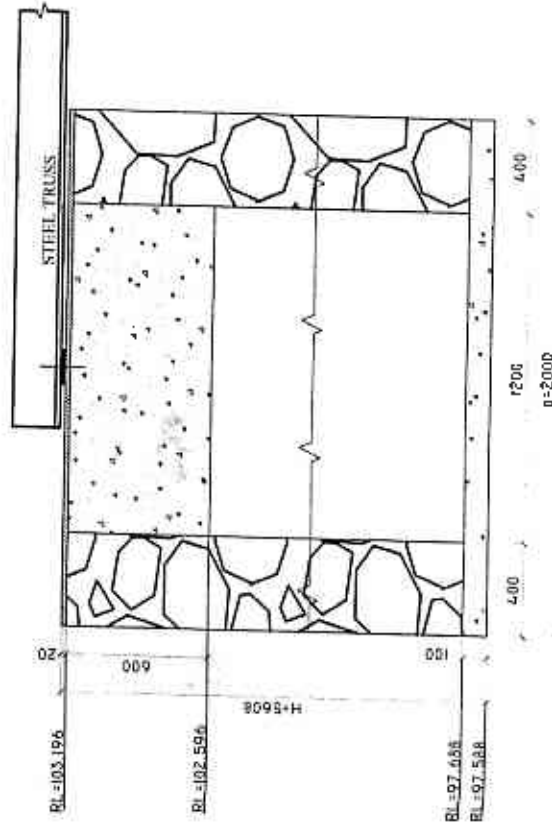
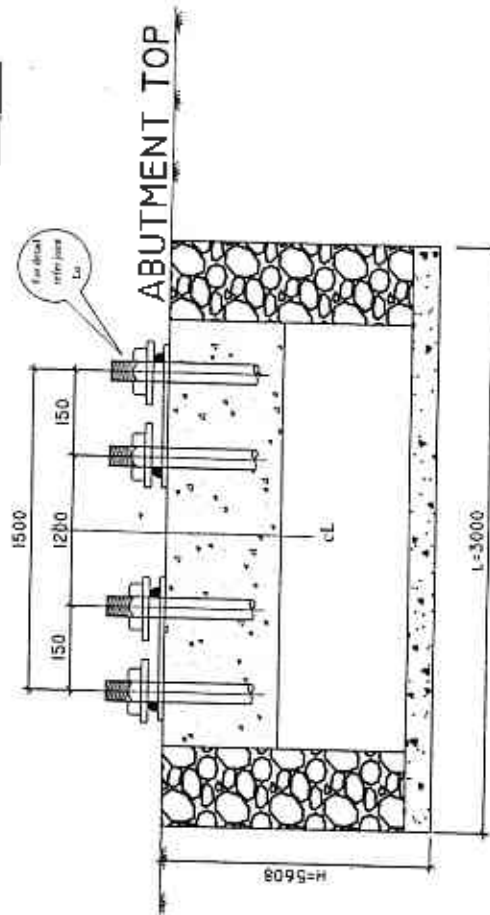
SECTIONAL FRONT ELEVATION OF ABUTMENT

SECTION

<div><p>ROYAL GOVERNMENT OF BHUTAN Ministry of Works & Human Settlement Department of Roads, Bridge Division Thimphu, Bhutan</p></div>	SHEET CONTENTS		NAME & SIGNATURE		DRAWING NO.	
	TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG	REVISION	DATE	DESIGN'S	<div><p>DR. J. K. MOHANTY CHIEF ENGINEER ROAD DIVISION DEPARTMENT OF ROADS THIMPHU</p></div>	62017-7-ST-6
		△ FIRST ISSUE	OCT, 2017	DESIGN'S		
				DR. A. W. N.		
				CHECKED		
				KARMA WANGDOL		
		APPROVED	SCALE: NTS	(IN SHEET A3 SIZE)		



PLAN



SECTION

SECTIONAL FRONT ELEVATION OF ABUTMENT

ROYAL GOVERNMENT OF BHUTAN
Ministry of Works & Human Settlement
Department of Roads, Bridge Division
Thimphu, Bhutan

TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU
UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG

SHEET CONTENTS
FOUNDATION
DETAILS ON
RIGHT BANK

REVISION
A FIRST ISSUE

DATE
OCT, 2017

NAME & SIGNATURE
DESIGN
DRAWN
CHECKED
APPROVED

DRAWING NO.
2017-7-ST-7

SCALE
1:100

SITS
100 Sheet A3 (100)

NOTES FOR CONSTRUCTION OF ABUTMENTS

1. Casting of mass concrete 1:2:4 and fitting of foundation bolts has to be done one bank first. After launching the bridge only the casting of mass concrete and fitting of foundation bolts on the other bank has to be done.

Refer part number 49a of drawing $\frac{182}{1}$ to avoid problem on fitting on other bank at early stage.

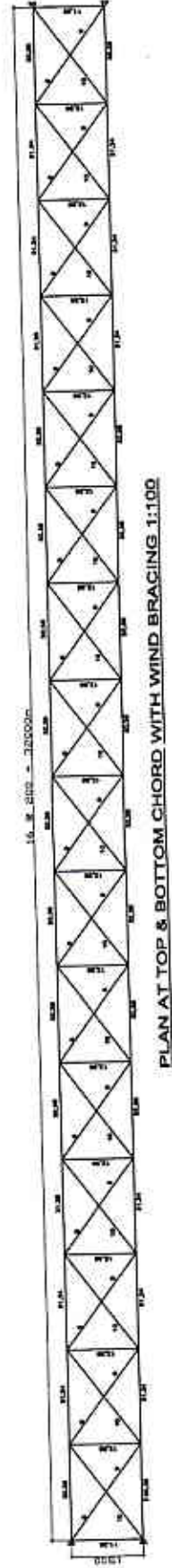
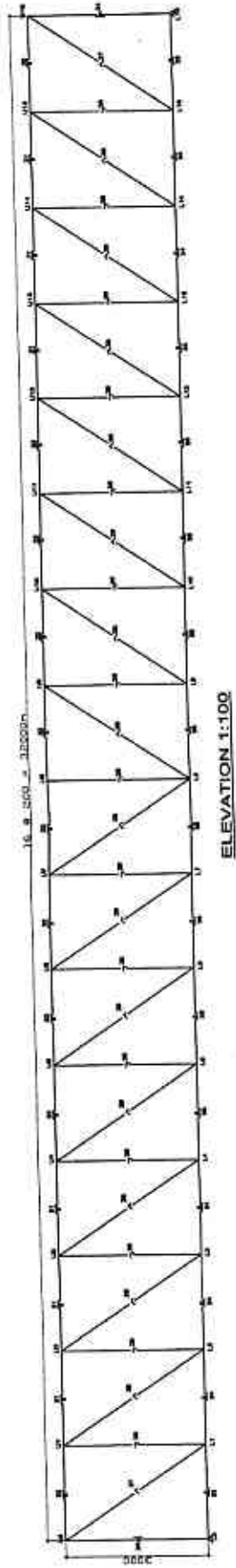
2. Provide vertical support to each and every joint during launching of bridge.

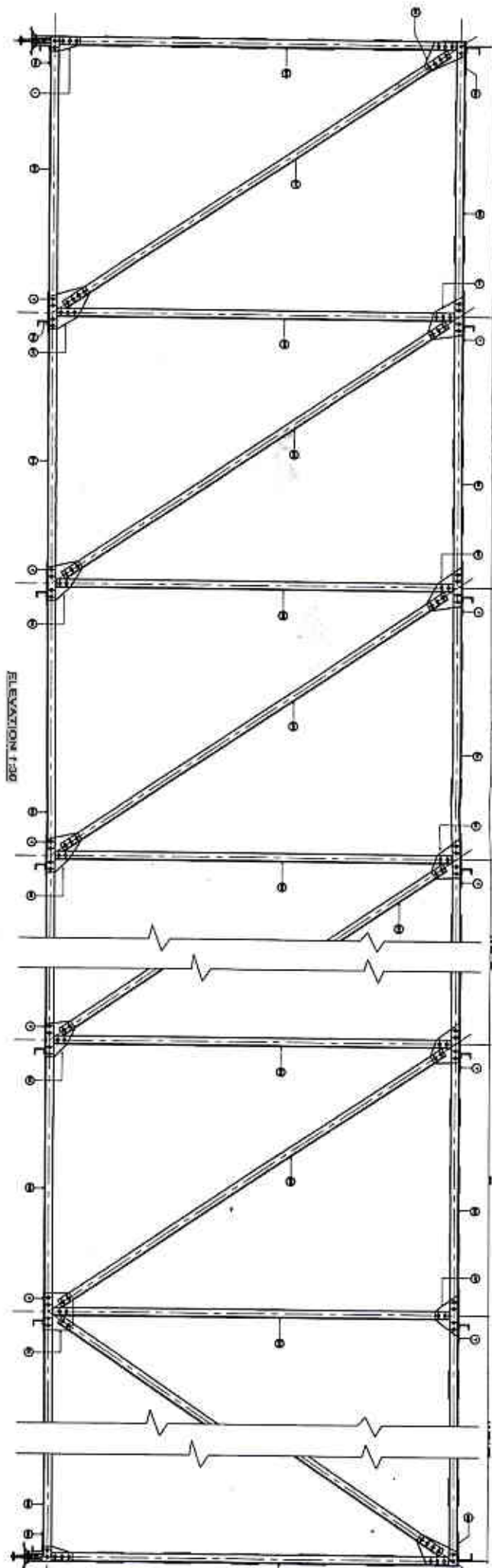
3. Intensive care has to be maintained the straightness of the deck after joining the every element of the truss.

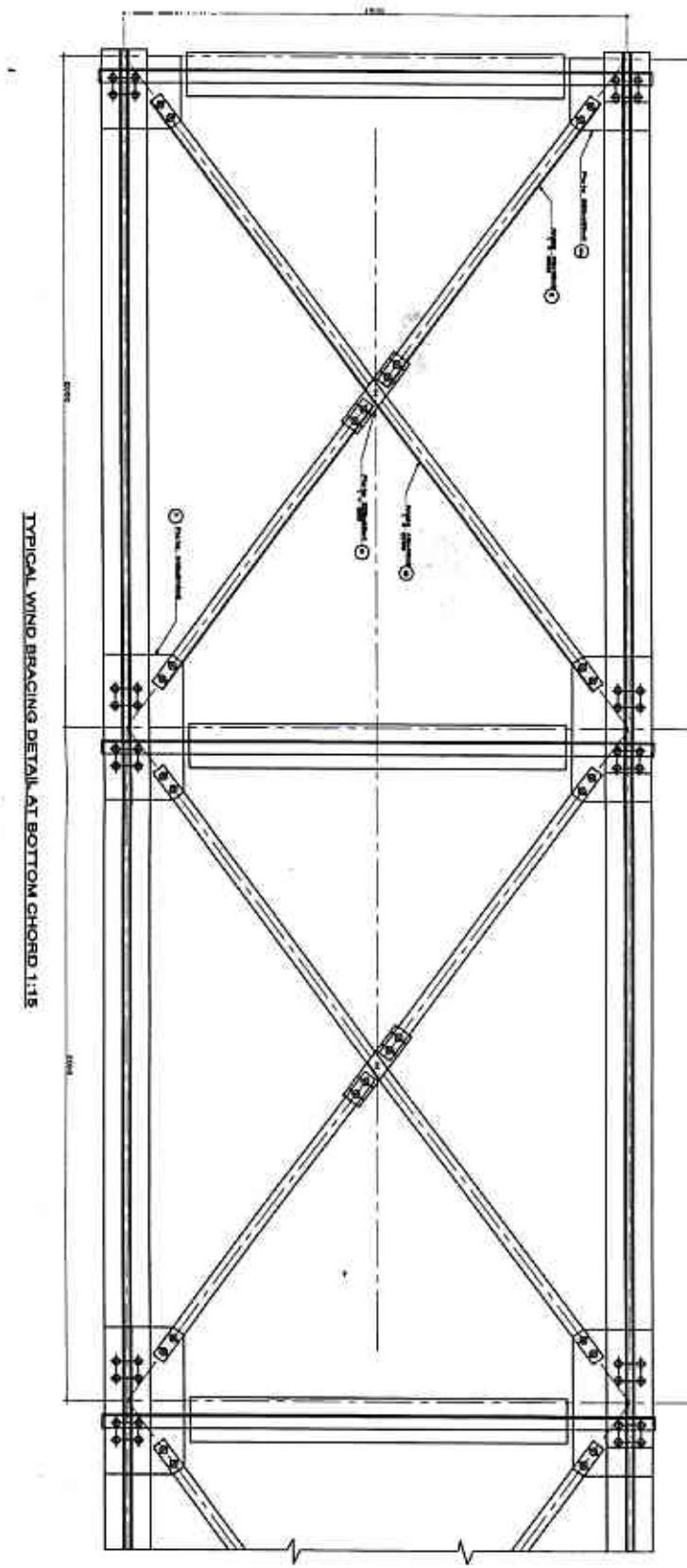
4. Retightening of the bolts and nuts after the launching of the bridge is mandatory.

 ROYAL GOVERNMENT OF BHUTAN Ministry of Works & Human Settlement Department of Roads, Highway Division Thimphu, Bhutan	TRAIL STEEL TRUSS BRIDGE 32.0M SPAN (ST) OVER SINGAYCHU UNDER TARAYTHANG GEWOG OF SARPANG DZONGKHAG	SHEET CONTENTS: NOTES FOR CONSTRUCTION	REVISION A FIRST ISSUE	DATE OCT. 2017	NAME & SIGNATURE DESIGN DRAWN CHECKED APPROVED		DRAWING NO. 2017-7-ST-8 SCALE: NTS (as Sheet A1:500)

STEEL TRUSS FOR 32M SPAN

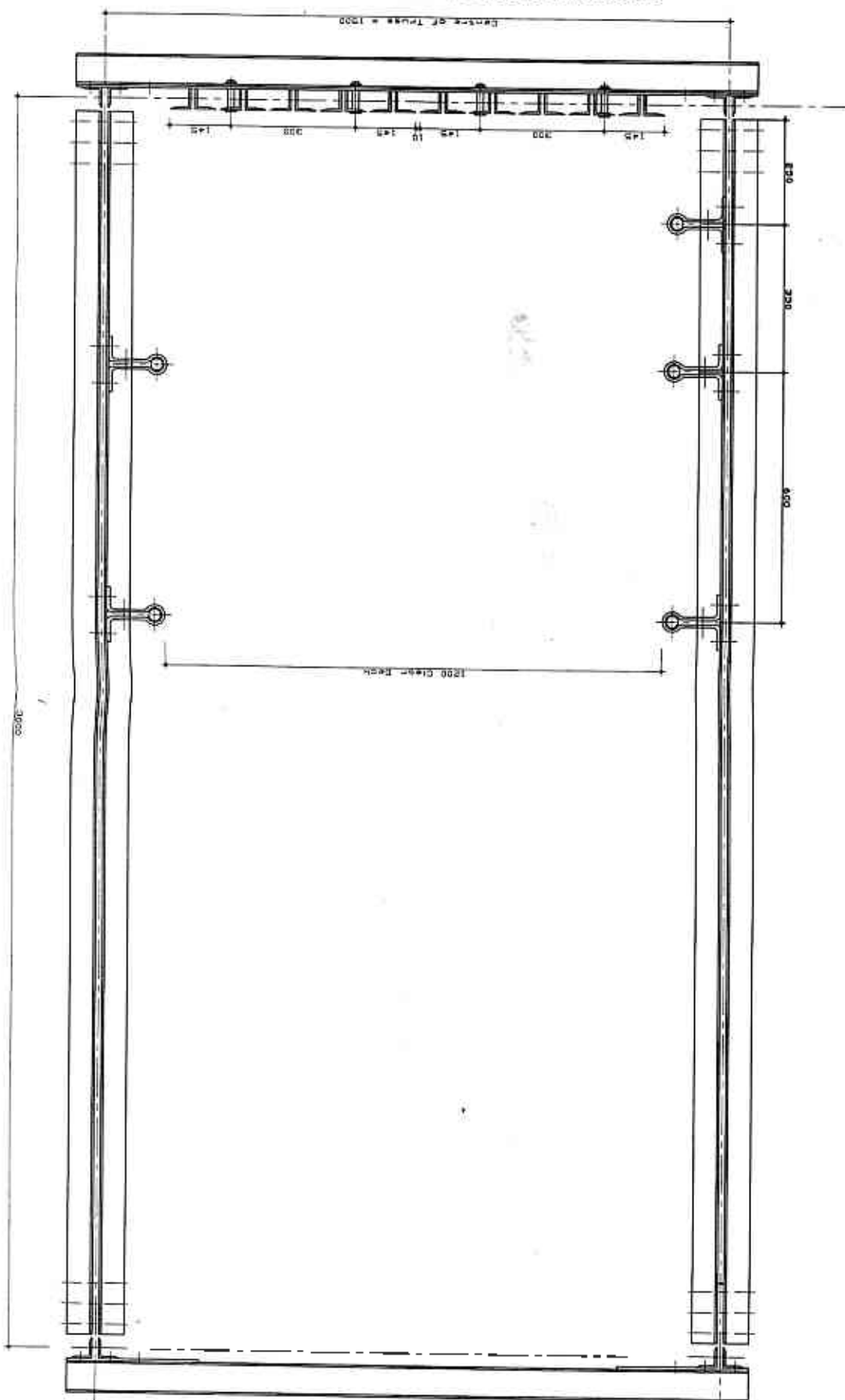


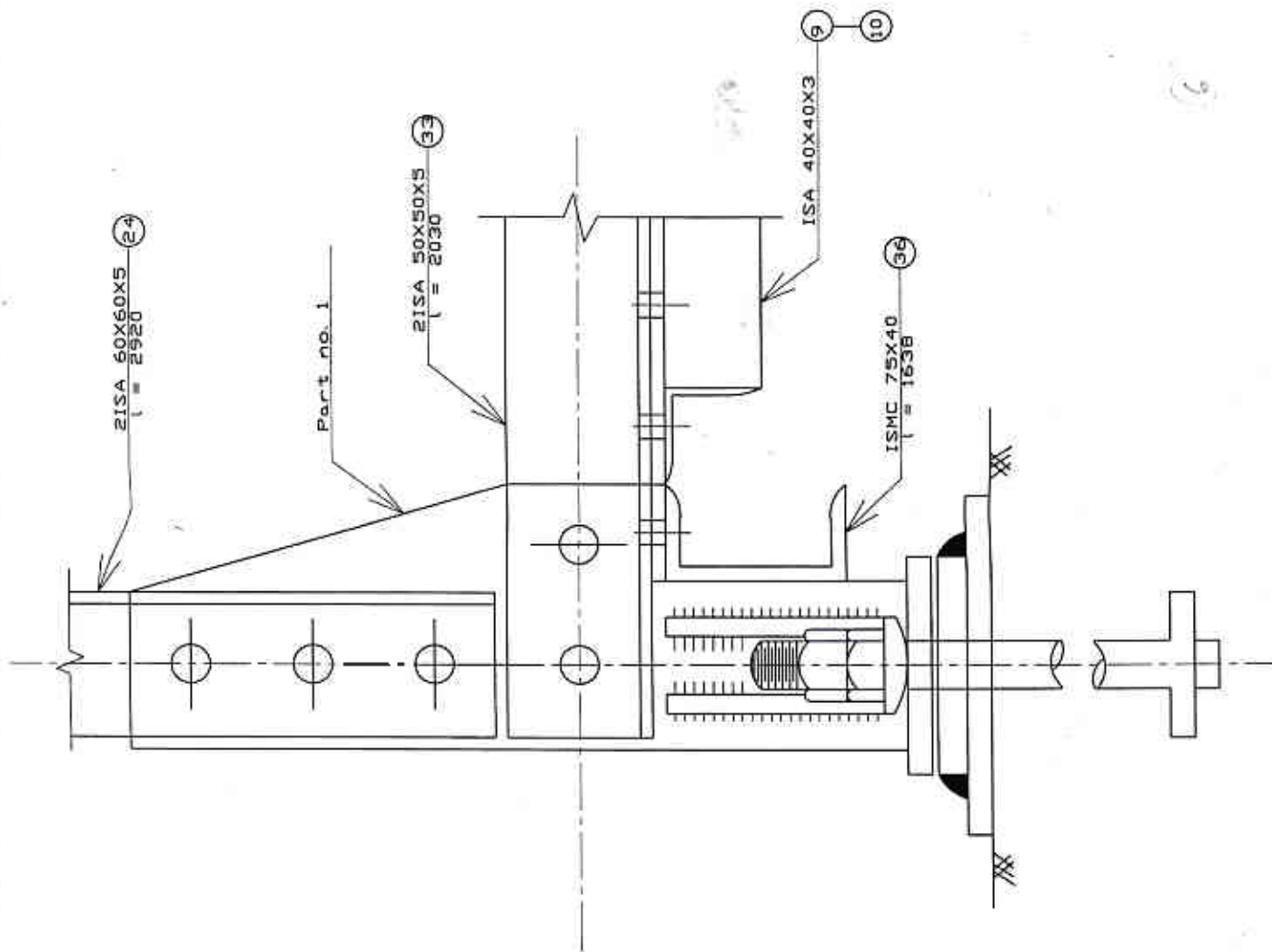




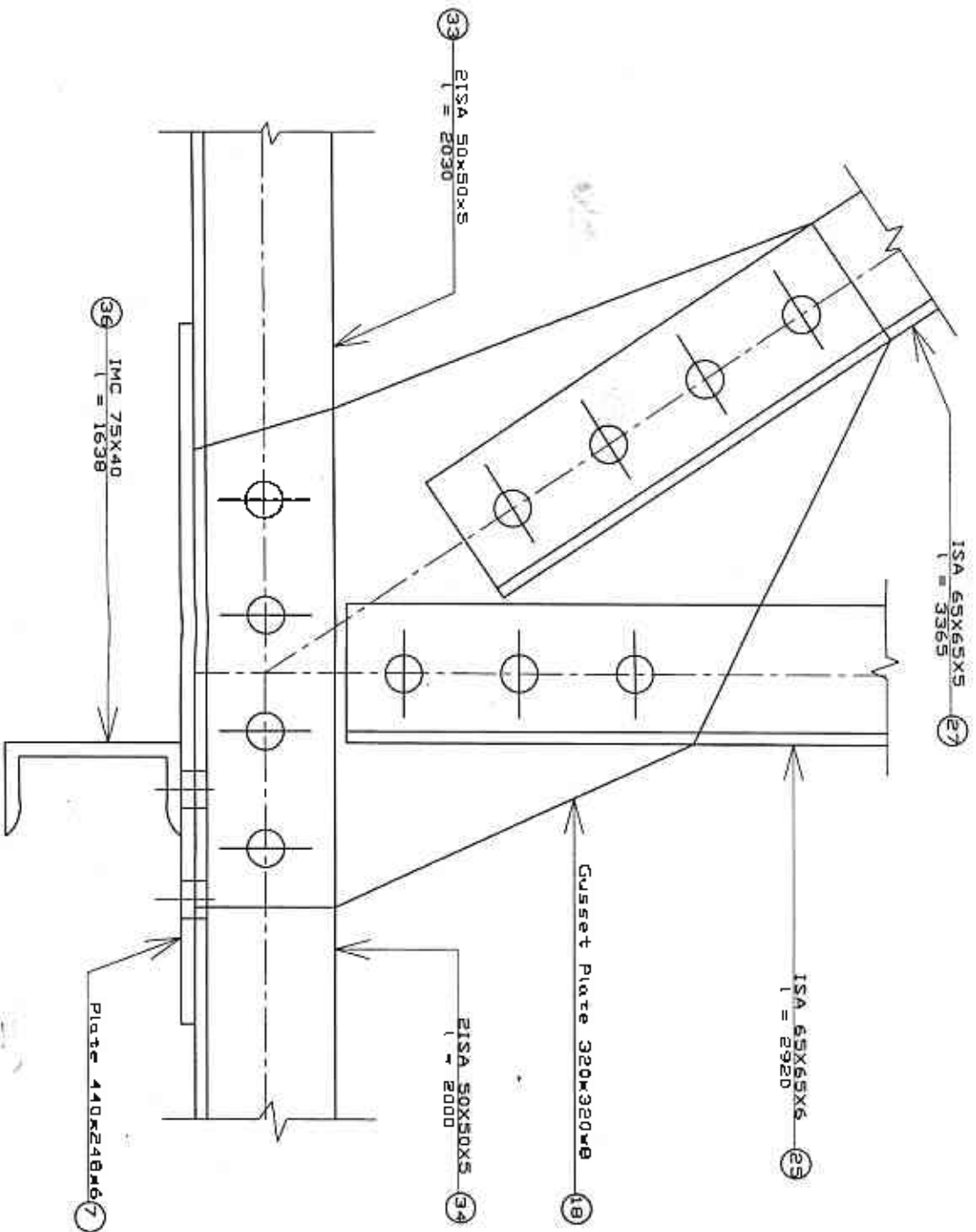
TYPICAL WIND BRACING DETAIL AT BOTTOM CHORD 1:15

CROSS SECTION OF DECK 1:10

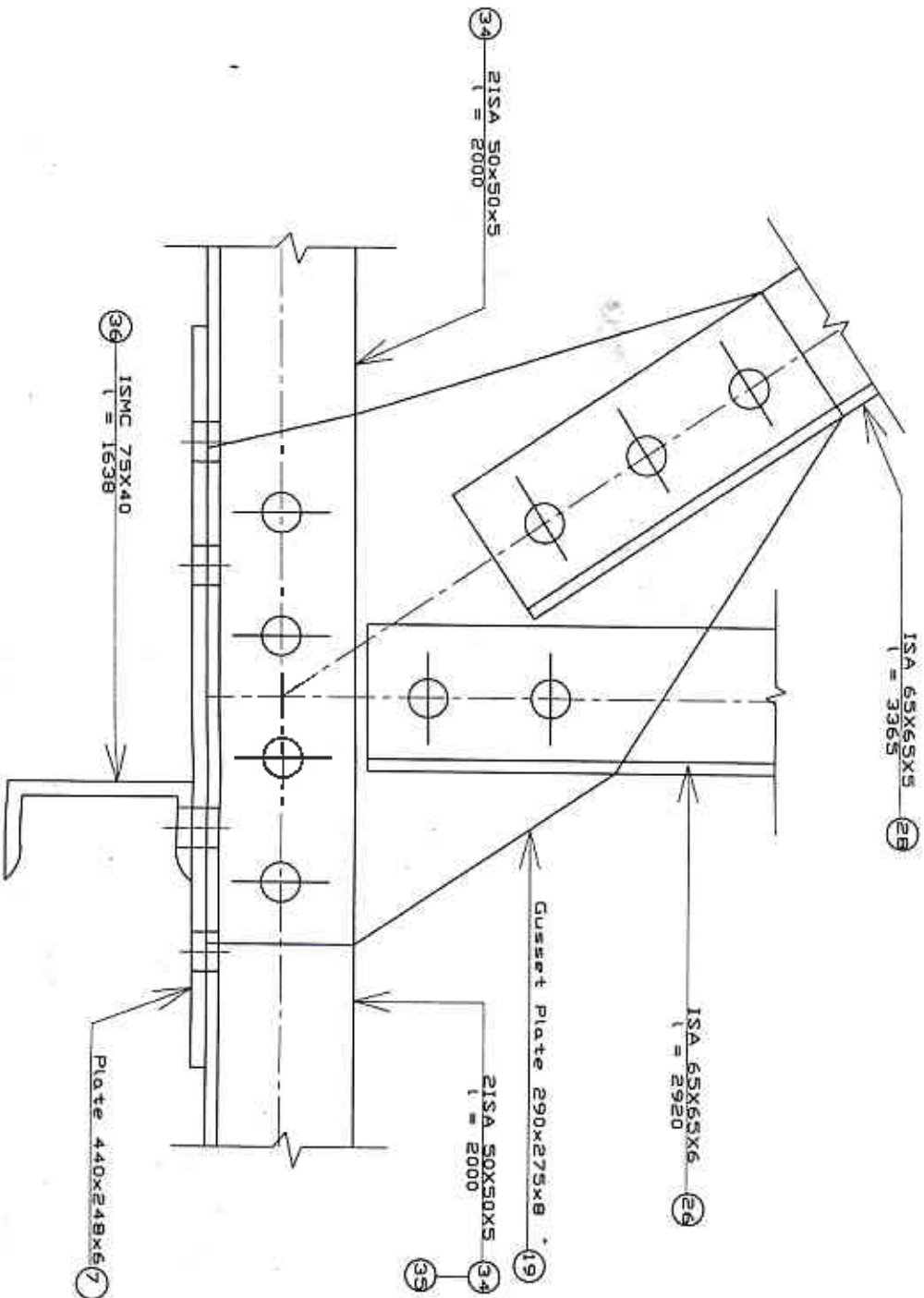




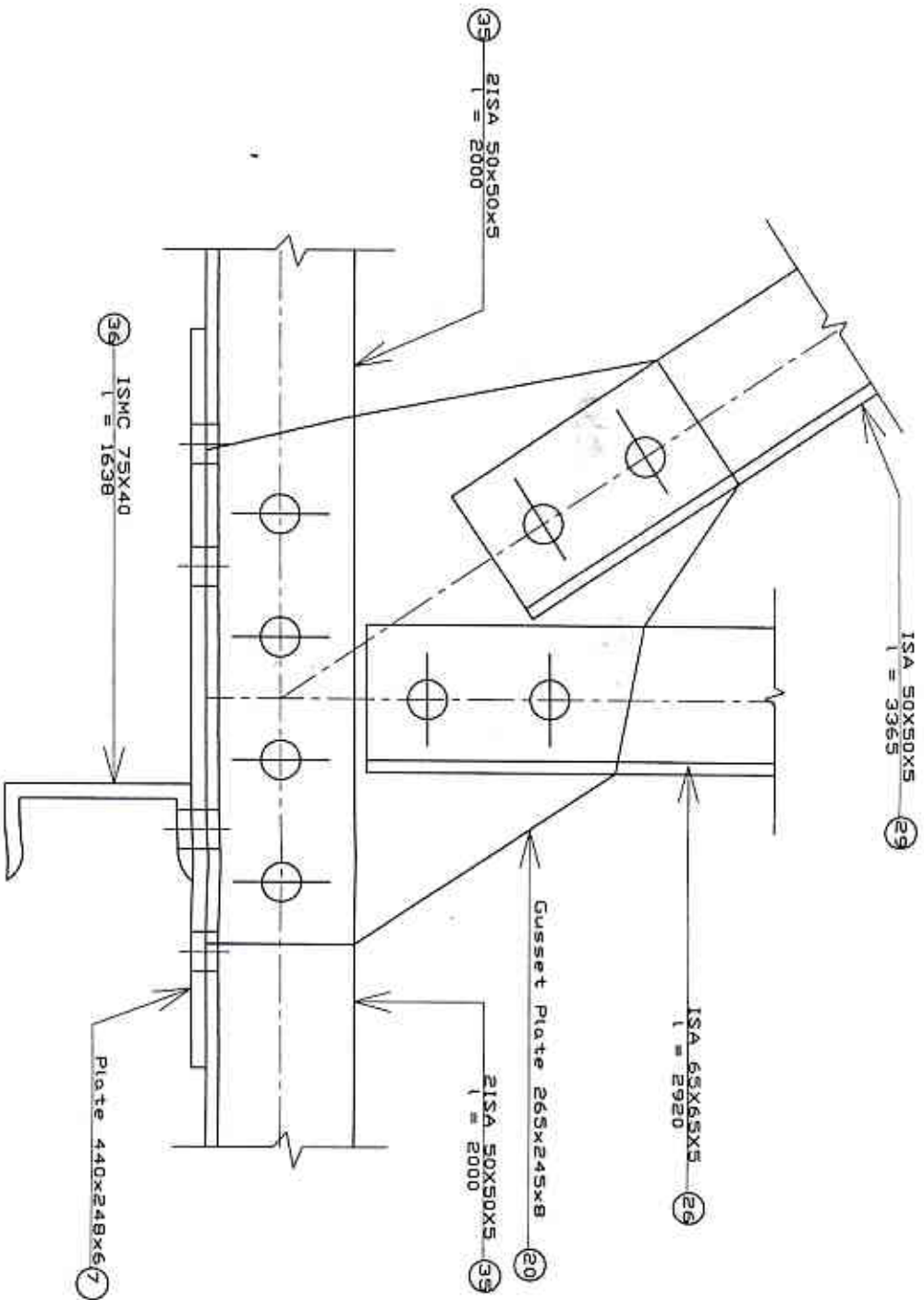
JOINT L0 & L16



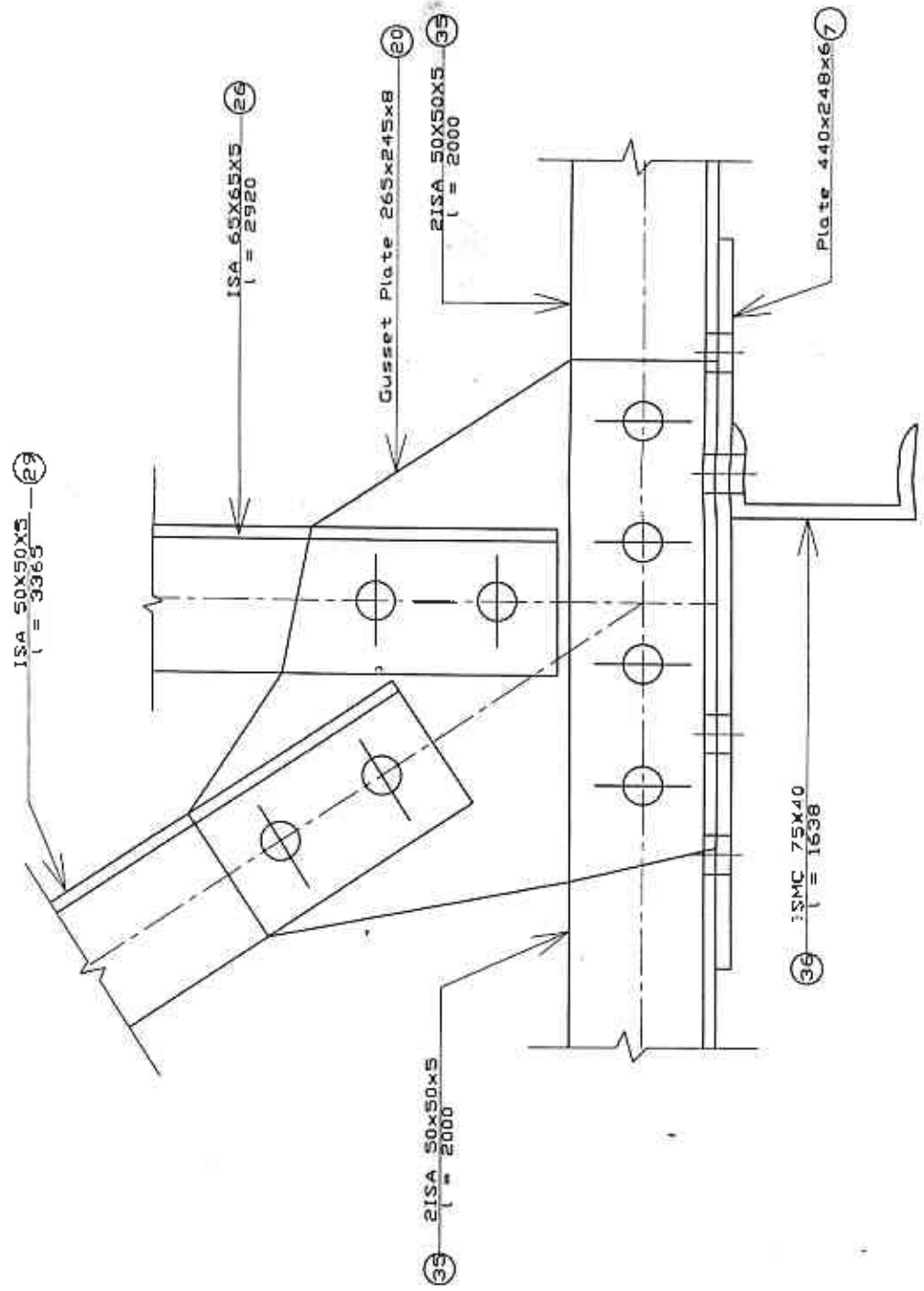
JOINT L1 & L15



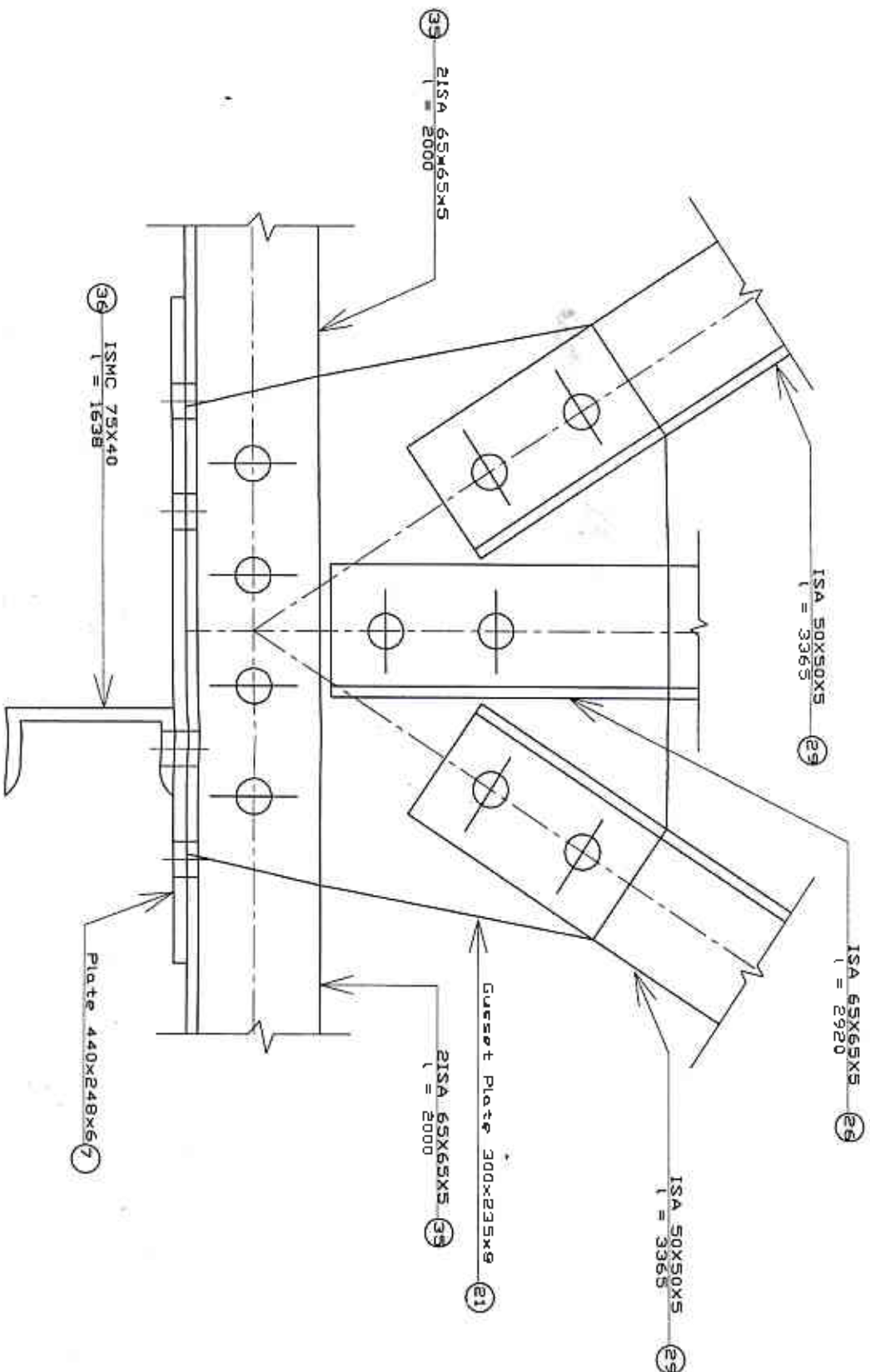
JOINT L2,L3,L13 & L14



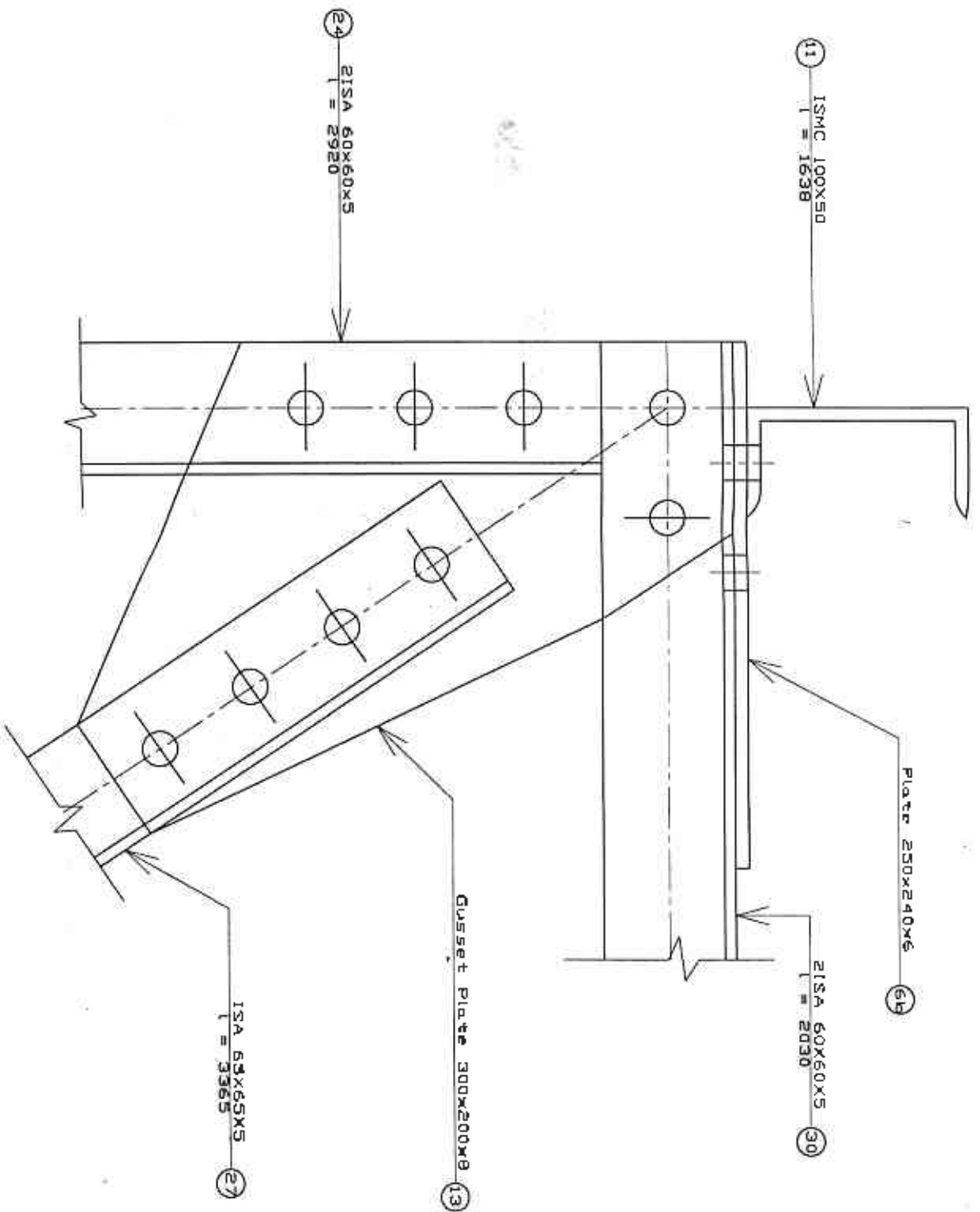
JOINT L4,L5,16,17,19,110,111,& 112



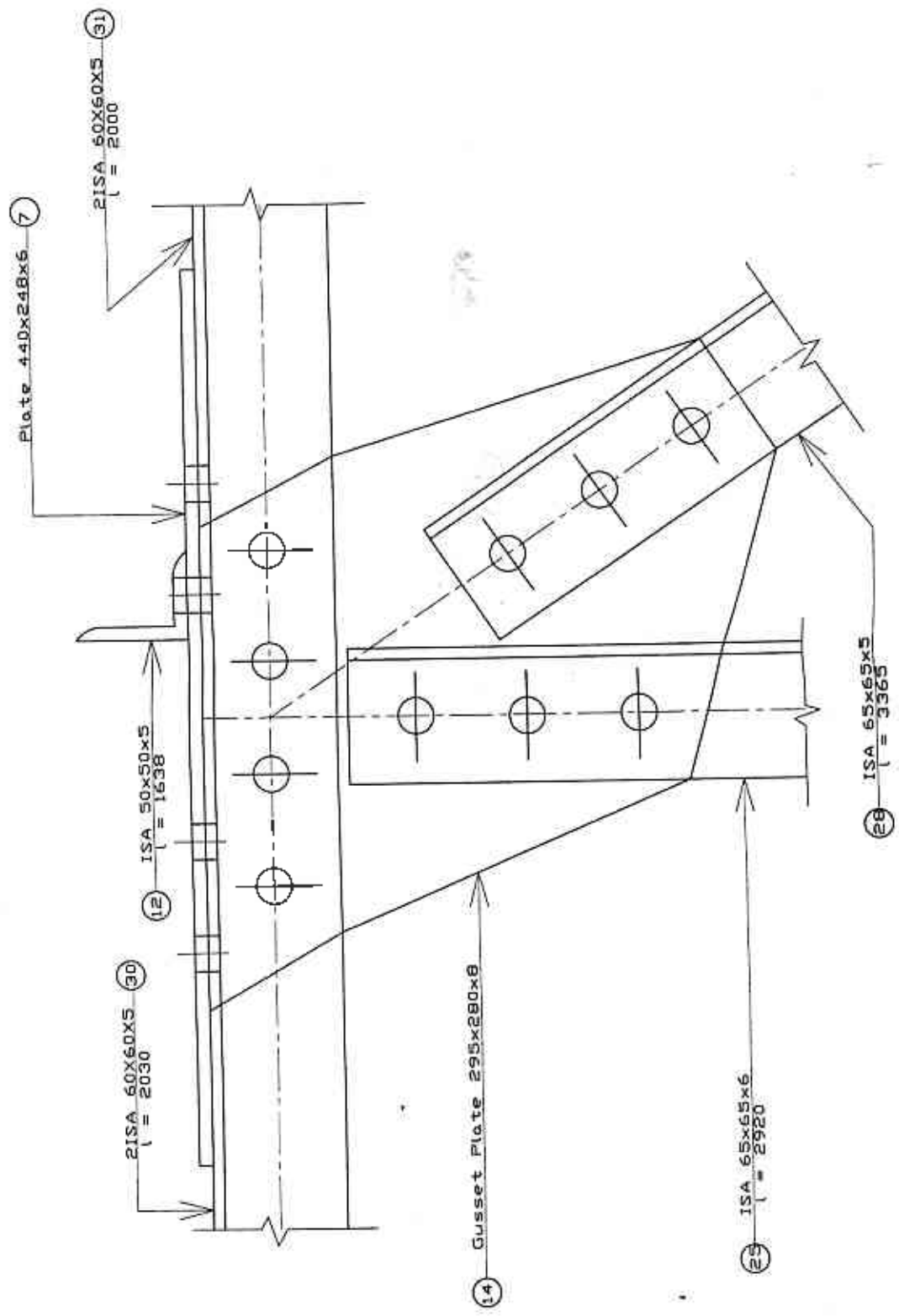
JOINT L4,L5,16,17,19,110,111, & 112



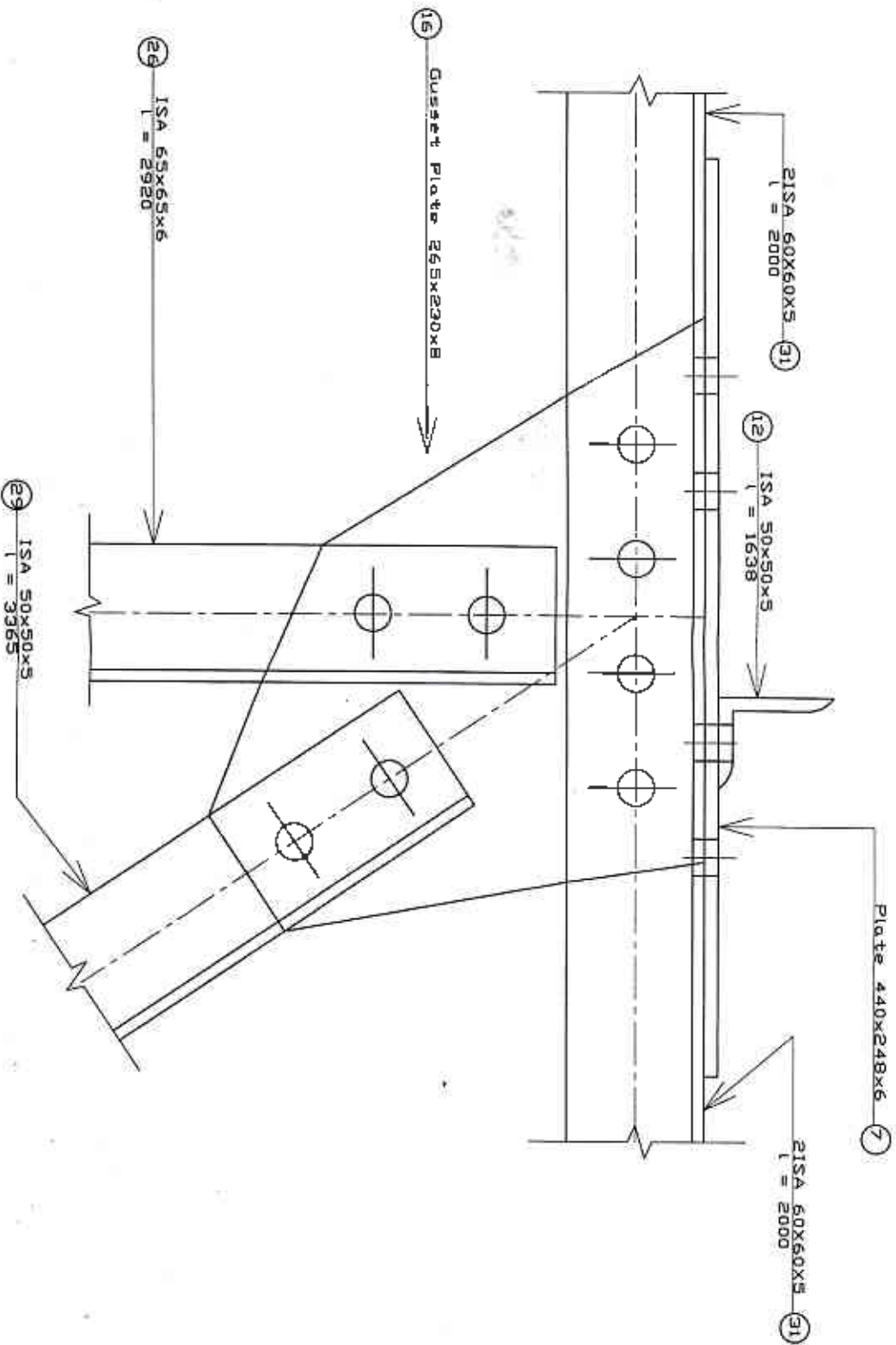
JOINT L8



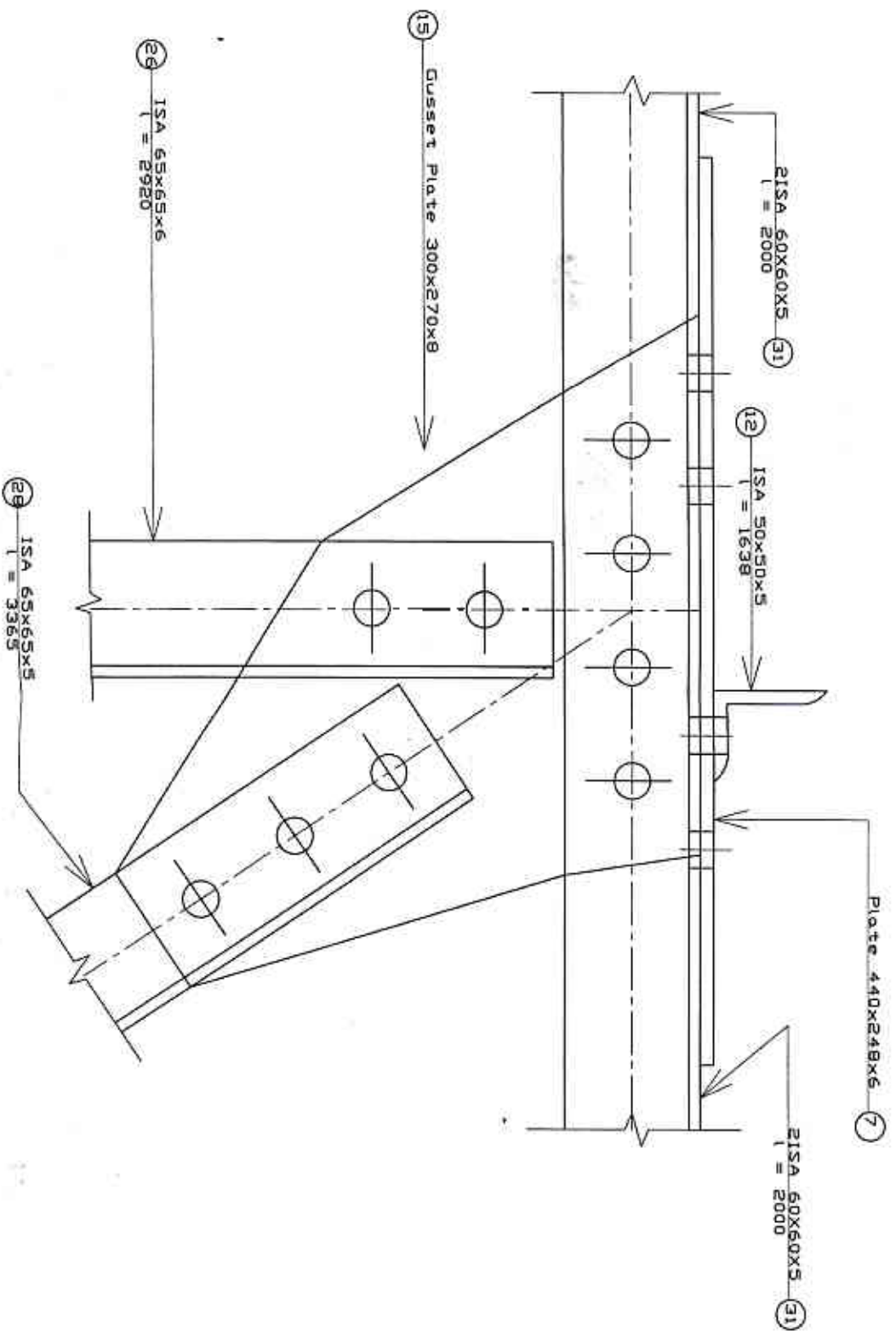
JOINT U0 & u16



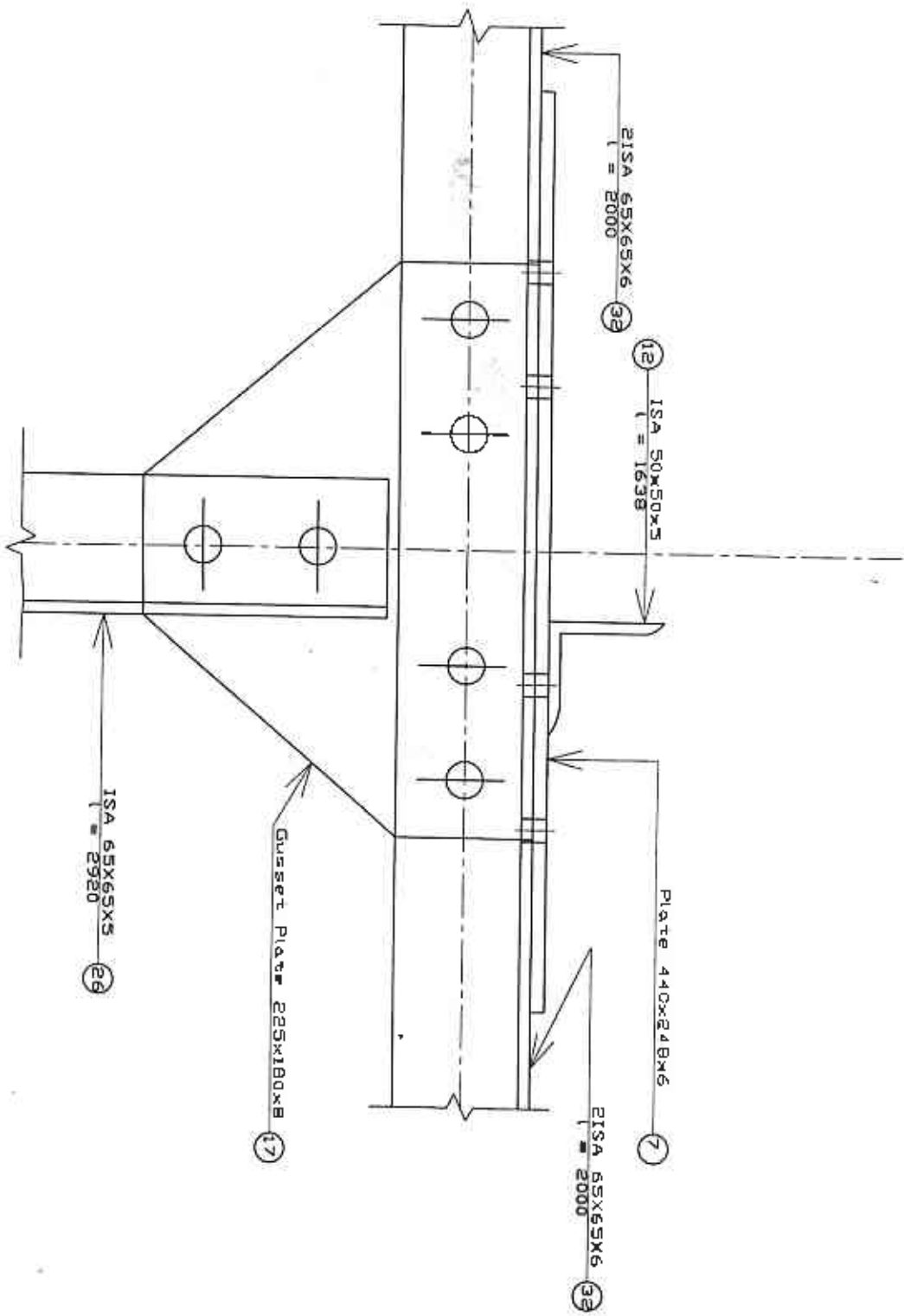
JOINT U1 & U15



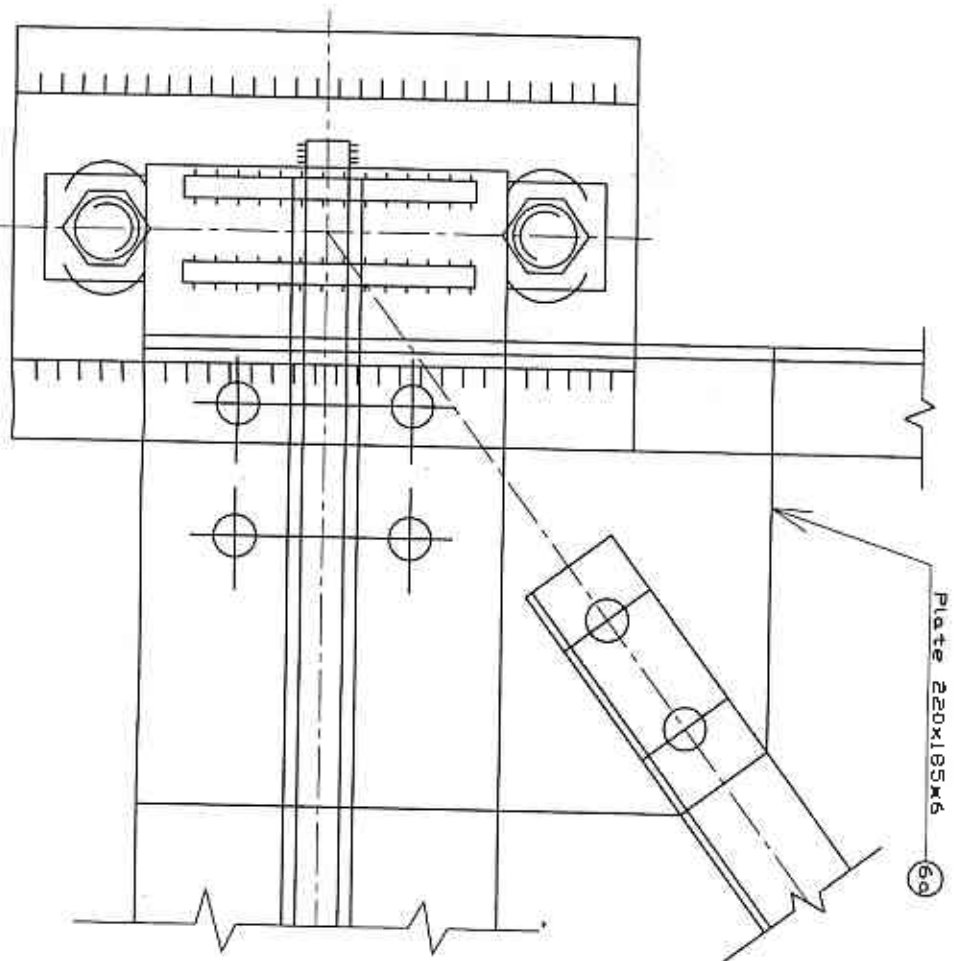
JOINT U2 & U14



JOINT U3,U4,U5,U6,U7,U9,U10,U11,U12 &U13

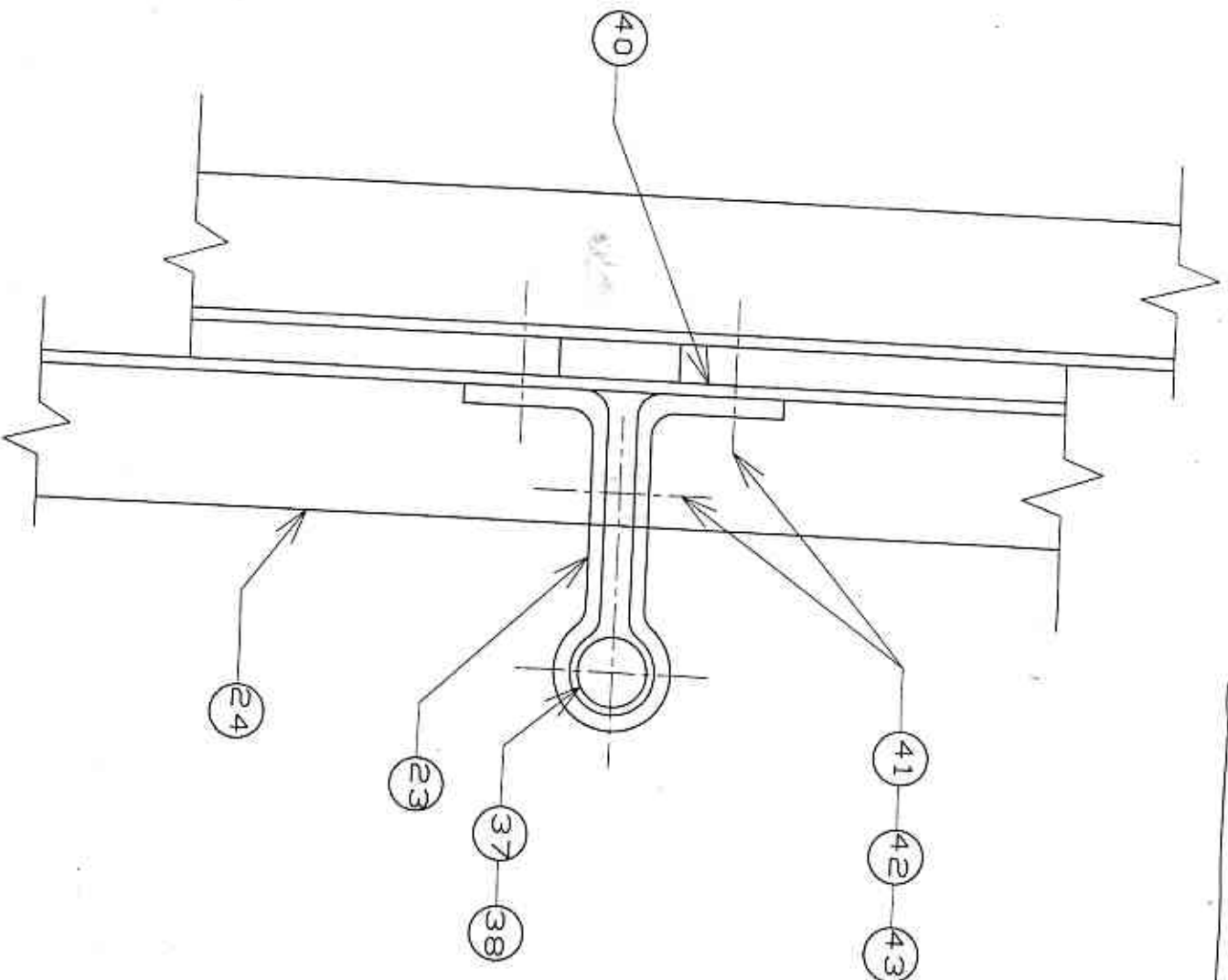


JOINT U8



PLAN (FOUNDATION BOLTING)

FIXING OF RAILING AT END VERTICALS



NOTES -

- 1) Upper chord 2L 60X60X5
(part no. 30,31) & 2L
65X65X5 (part no. 32)
- 2) Lower chord 2L 50X50X5
(part no. 33,34) & 2L
65X65X5 (part no. 35)
- 3) Verticals 1L 65X65X5
(part no. 25,26)
except 1L 60X60X5 & 1L
60X60X5 (part no. 24)
- 4) Diagonals 1L 65X65X5
(part no. 27,28) & 1L
50X50X5 (part no. 29)
- 5) Gusset 8mm thick
- 6) Wind bracings at upper &
lower chord
(a) Diagonals - 1L
40X40X3
(part no. 9 & 10)
(b) End strut - 1IMC 100X
(part no. 11)
(c) Internal strut -
1L 50X50X5 (part no. 12)



ROYAL GOVERNMENT OF BHUTAN
SUSPENSION BRIDGE PROJECT

TRAIL SUSPENSION BRIDGE

STANDARD DESIGN

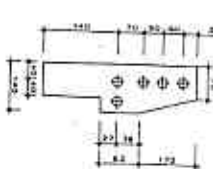


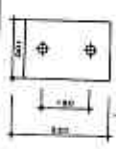
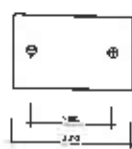


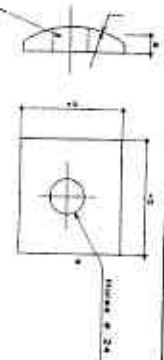
BRIDGE NAME : Singphu NO. 201-7
SPAN : 20.00 m

Working & Assembly Drawing
STEEL TRUSS BRIDGE
32.00M




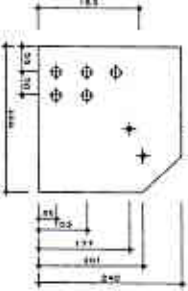
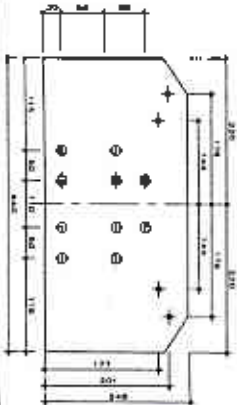
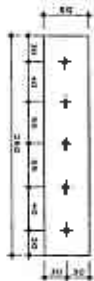

OFFICE COPY	
SITE COPY	
STORE COPY	
WORKSHOP COPY	

Designed by: Chen Drawing no: **T32-1** Corrections:
Drawn by: Chen Scale: 1/15
Approved by: Director Drawing site: AS Date: 2017
Page 17 of 17 Drawing no. T32-1

STEEL PARTS LIST

Part No.	Section mm	Quantity	Working Drawing	(See Dimensions in mm)	Length		Weight		Surface to be painted		Weight of Part	Remarks
					Single/pc (kg)	Total (kg)	Single/pc (kg)	Total (kg)	Single/pc (m ²)	Total (m ²)	(kg)	
1	d	4	 Plate 342x120x8 5 holes φ 17	-	-	-	2.028	8.152	0.0649	0.260	8.310	
	e	10	 Plate 83x40x8 Plate 8 thick	-	-	-	0.206	4.096	0.008	0.128	4.175	
	f	4	 Plate 220x100x10 2 holes φ 24 Plate 10 thick	-	-	-	1.727	6.908	0.039	0.156	7.004	Part 1 (a,b,c) to be shown in detail
	g	4	 Plate 220x100x14 2 holes φ 24 Plate 14 thick	-	-	-	2.418	9.672	0.044	0.176	9.779	
2	b	4	 Plate 220x150x10 2 holes φ 24 Plate 10 thick	-	-	-	2.590	10.360	0.066	0.264	10.521	
	c	8	 220x Rod 1250 Plate 8 thick	1250	10.00	✓	28.83	230.520	0.083	0.683	30.247	
	d	4	 Plate 220x50x8 2 holes φ 24 Plate 8 thick	-	-	-	0.661	2.764	0.022	0.088	2.818	Part 2 (a,b,c,d) to be shown in detail
3	Plate 45x45x8	10	 Plate 45x45x8 2 holes φ 24	-	-	-	0.15	1.500	0.004	0.04	1.503	Part 3 (a,b,c,d) to be shown in detail

STEEL PARTS LIST

Part no.	Section mm	Quantity	Working Drawing	Length		Weight		Surface to be painted		Weight Galvanized Total (kg)	Remarks
				Single/pc (m)	Total (m)	Single/pc (kg)	Total (kg)	Single/pc (m ²)	Total (m ²)		
4	Hexagonal nut M 22	10		-	-	0.0971	0.970		Galvanized	2.5	
5	Hexagonal nut 10 Unck, M 22	10		-	-	0.0437	0.437		Galvanized	3.5	
6	Plate 220x185x6	4		-	-	1.916	7.664	0.081	0.321	7.839	
	Plate 230x240x6	4		-	-	2.826	11.304	0.120	0.480	11.595	
7	Plate 440x240x6	60		-	-	5.139	308.34	0.218	13.080	316.318	
8	Plate 250x60x4	32		-	-	0.566	18.080	0.036	1.152	18.782	
9	Angle 40x40x3	84		1065	68.16	1.917	122.688	0.170	10.860	129.324	

Page 5 of 5

Part no.	Section mm	Quantity	Working Drawing	(all dimensions in mm)	Length		Weight		Surface to be painted		Weight galvanized (kg)	Remarks
					Single/pc (m)	Total (m)	Single/pc (kg)	Total (kg)	Single/pc (sqm)	Total (sqm)		
10	Angle 40x40x3 L = 2150	32		3 holes x 13	2150	70.08	3.942	126.144	0.350	11.20	132.976	
11	ISM 100x50 L = 1638	2		3 holes x 13	1638	3.27	15.069	30.138	0.491	0.982	50.738	
12	Angle 50x50x3 L = 1638	12		3 holes x 13	1638	24.57	8.224	92.360	0.337	4.005	96.353	
13	Plate 320x245x8	4		17 holes x 13	-	-	2.979	11.918	0.095	0.380	12.143	
14	Plate 205x280x8	4		17 holes x 13	-	-	3.783	15.132	0.120	0.480	15.424	

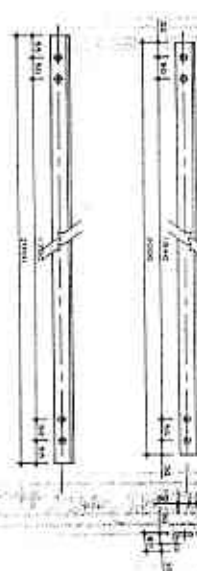
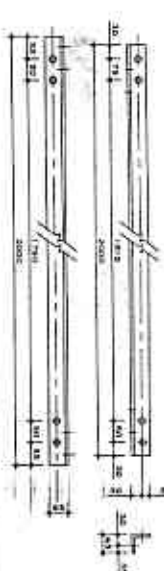
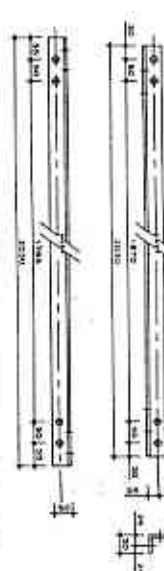
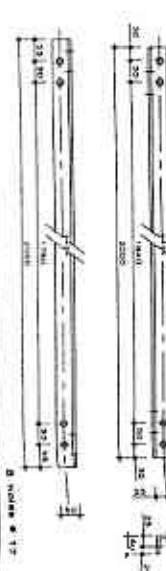















































STEEL PARTS LIST

Part No.	Section mm	Quantity	Working Drawing	Length		Weight		Surface to be painted		Weight calculated	Remarks
				Spigot/sec (cm)	Total (cm)	Spigot/sec (kg)	Total (kg)	Spigot/sec (cm ²)	Total (cm ²)		
19	Plate 290x275x11	8	<p>Plate is cut by 2 holes x 17</p>	-	-	3.553	30.824	0.122	0.976	31.419	
20	Plate 265x245x8	20	<p>Plate is cut by 2 holes x 17</p>	-	-	3.287	65.740	0.104	2.090	67.009	
21	Plate 300x225x8	2	<p>Plate is cut by 2 holes x 17</p>	-	-	3.440	6.880	0.109	0.218	7.013	
22	Plate 450x175x12	60	<p>Plate is 12</p>	320	31.20	1.306	78.360	0.050	3.000	80.190	
23	Plate 450x175x12	2	<p>Same as part no. 22 except dimension x = 180</p> <p>Plate is 12</p>	492	3.94	1.235	9.860	0.05	0.40	10.124	

STEEL PARTS LIST

Part no.	Section mm	Quantity	Working Drawing	L. weight		Weight		Surface to be painted		Weight of material (kg)	Remarks
				Net (kg)	Total (kg)	Net (kg)	Total (kg)	Net (sq. m)	Total (sq. m)		
24	d	Angle 60x60x5 2520		2720	28.38	13.185	105.460	0.703	3.634	108.110	2520 length of 2520 mm
	b	Plate 110x100x8		-	-	0.318	8.208	0.092	0.332	8.503	
	c	Pipe 100x20x8		-	-	0.132	2.008	0.004	0.064	3.039	Part no. 24 to be used as per drawing
25	Angle 60x60x5 2520	8		2820	32.30	14.308	114.464	0.758	6.072	119.156	Part no. 25 to be used as per drawing
26	Angle 60x60x5 2520	1		2820	29.34	14.308	214.778	0.758	18.888	324.082	
27	Angle 60x60x5 2520	4		2916	13.44	16.448	68.652	0.874	3.408	68.068	
28	Angle 60x60x5 2520	8		3388	28.02	16.428	121.904	0.874	6.982	128.188	
29	Angle 60x60x5 2520	20		3388	67.80	12.796	230.740	0.873	13.460	282.89	
30	Angle 60x60x5 2520	8		6020	16.38	8.132	124.080	0.487	3.888	78.437	
b	Plate 110x100x8	12		-	-	0.318	6.216	0.028	3.384	8.378	
c	Plate 100x20x8	12		-	-	0.132	1.584	0.004	0.048	1.508	

STEEL PARTS LIST

Part no.	Section mm	Quantity	Working Drawing	Length		Weight		Surface to be painted		Weight of paint (kg)	Remarks
				Spigot/sec (m)	Total (m)	Spigot/sec (kg)	Total (kg)	Spigot/sec (m ²)	Total (m ²)		
31	Angle 60x60x5 L = 2000	24		2000	48.00	9.00	216.00	0.450	11.520	253.03	
32	Angle 60x60x5 L = 2000	32		2000	64.00	11.600	371.20	0.510	16.640	387.350	
33	Angle 60x60x5 L = 2000	8		2000	16.24	3.714	81.712	0.408	3.248	85.883	
34	Angle 60x60x5 L = 2000	24		2000	48.00	9.000	182.40	0.400	8.640	191.04	
35	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
36	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
37	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
38	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
39	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
40	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
41	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
42	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
43	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
44	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
45	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
46	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
47	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
48	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
49	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
50	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
51	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
52	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
53	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
54	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
55	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
56	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
57	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
58	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
59	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
60	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
61	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
62	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
63	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
64	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
65	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
66	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
67	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
68	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
69	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
70	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
71	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
72	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
73	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
74	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
75	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
76	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
77	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
78	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
79	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
80	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248	85.883	
81	Angle 60x60x5 L = 2000	4		2000	16.24	3.714	81.712	0.408	3.248		

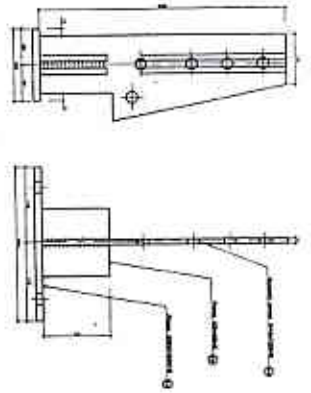
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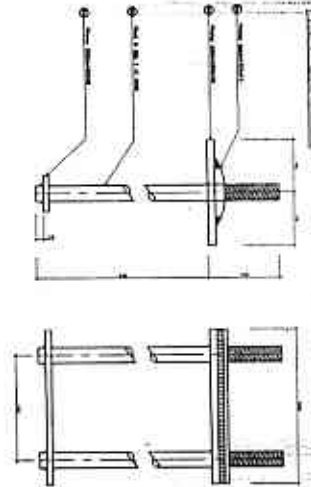
STEEL PARTS LIST

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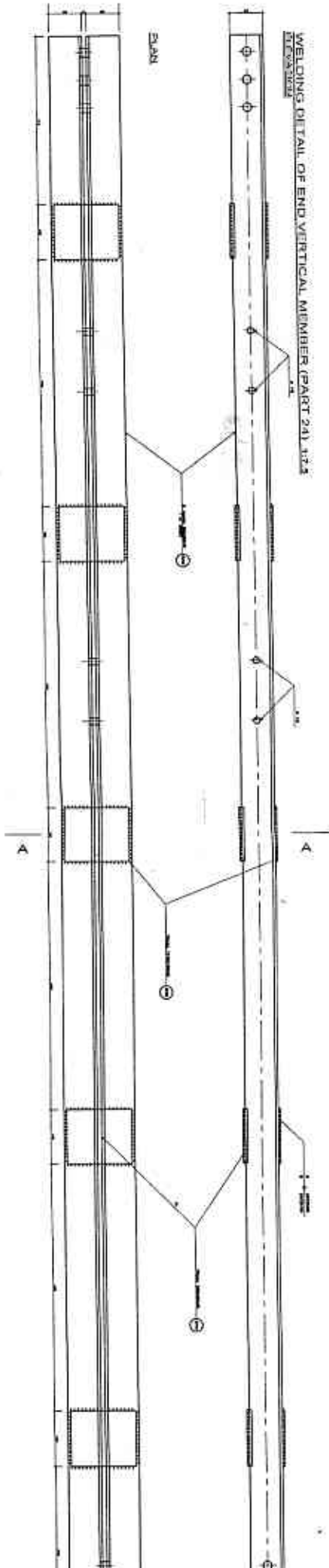
WELDING DETAIL OF PART 1, 172
ELEVATION



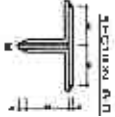
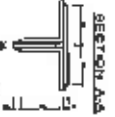
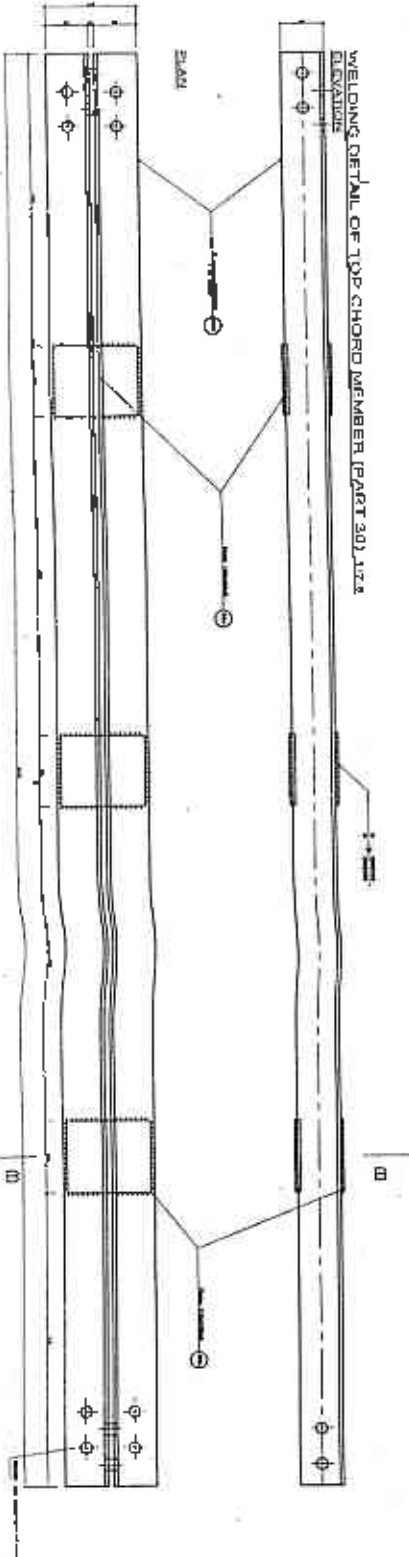
WELDING DETAIL OF PART 2, 173
FRONT ELEVATION



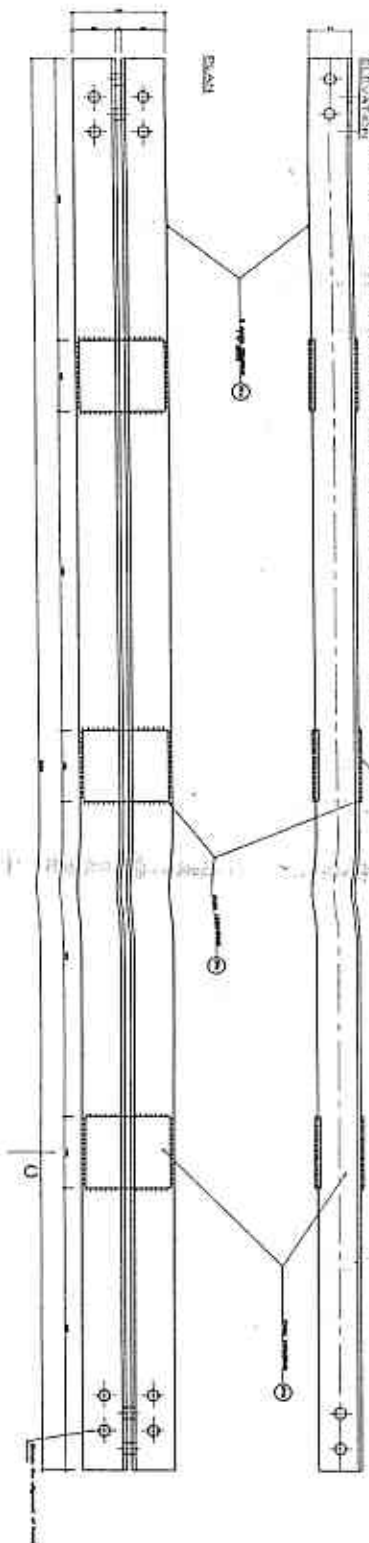
WELDING DETAIL OF END VERTICAL MEMBER (PART 24) 172
ELEVATION



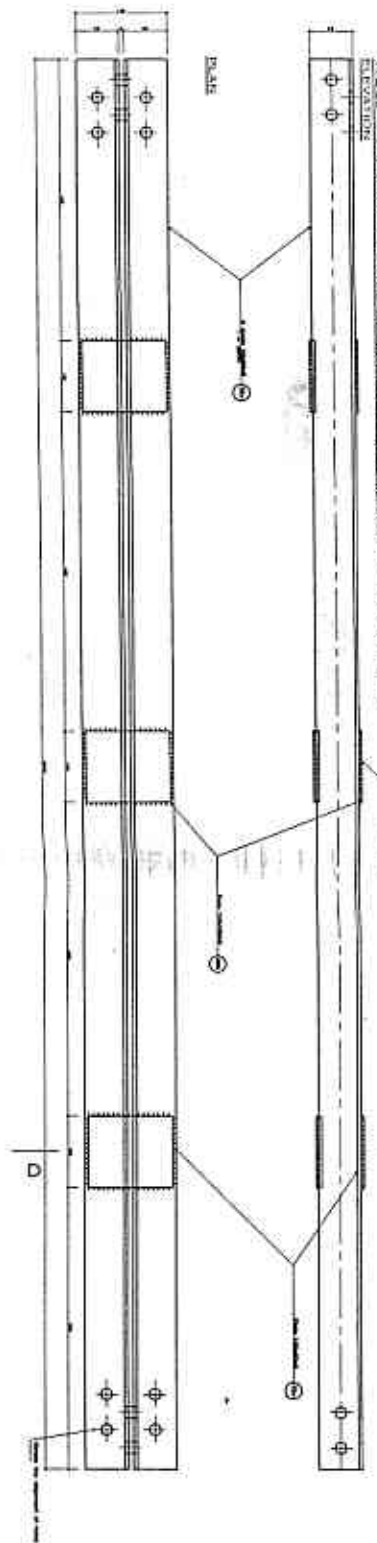
WELDING DETAIL OF TOP CHORD MEMBER (PART 30) 172
ELEVATION



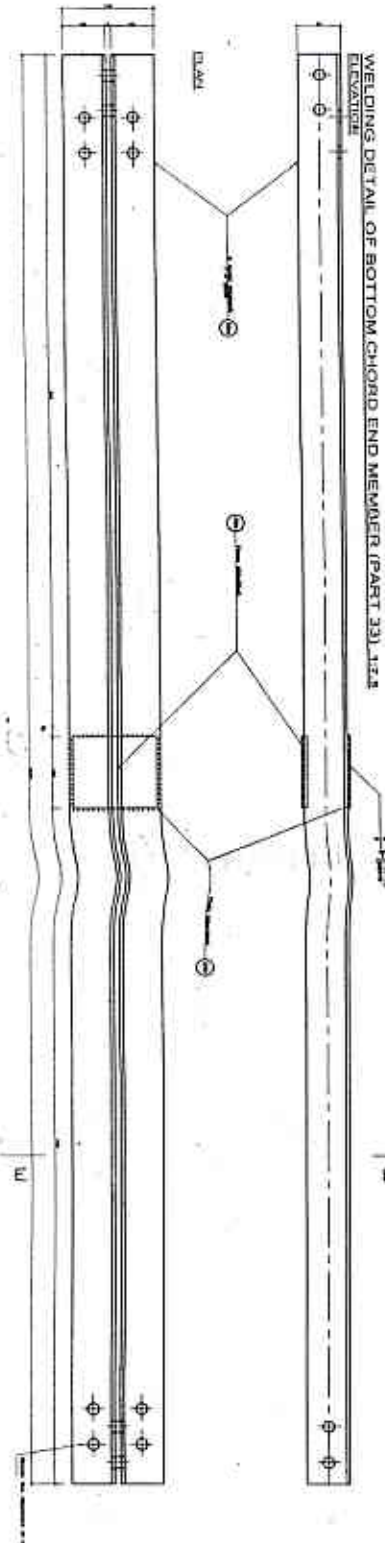
WELDING DETAIL OF TOP CHORD INTERIOR MEMBER (PART 31) 1/24
ELEVATION



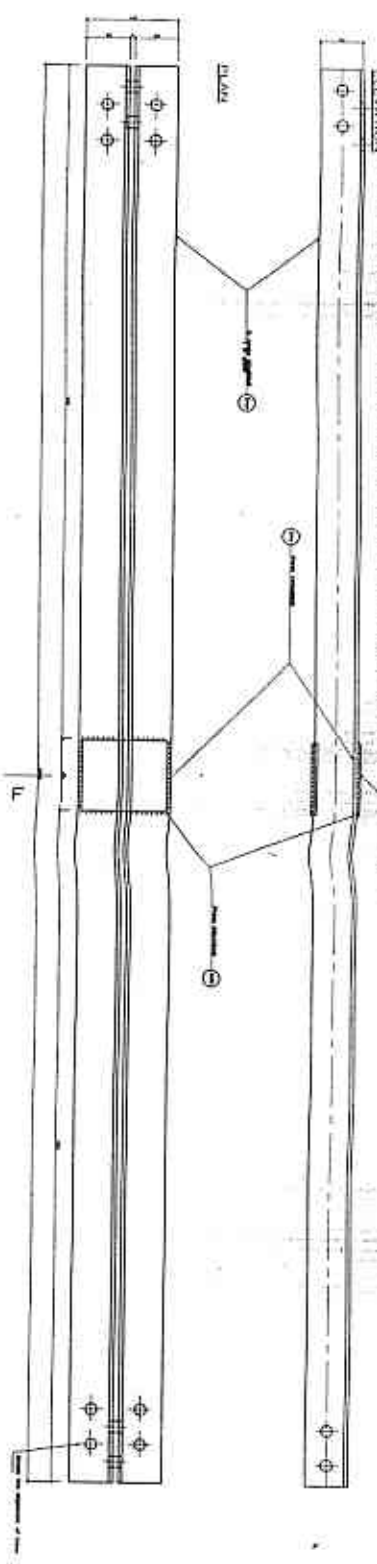
WELDING DETAIL OF TOP CHORD INTERIOR MEMBER (PART 32) 1/24
ELEVATION



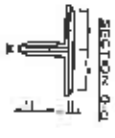
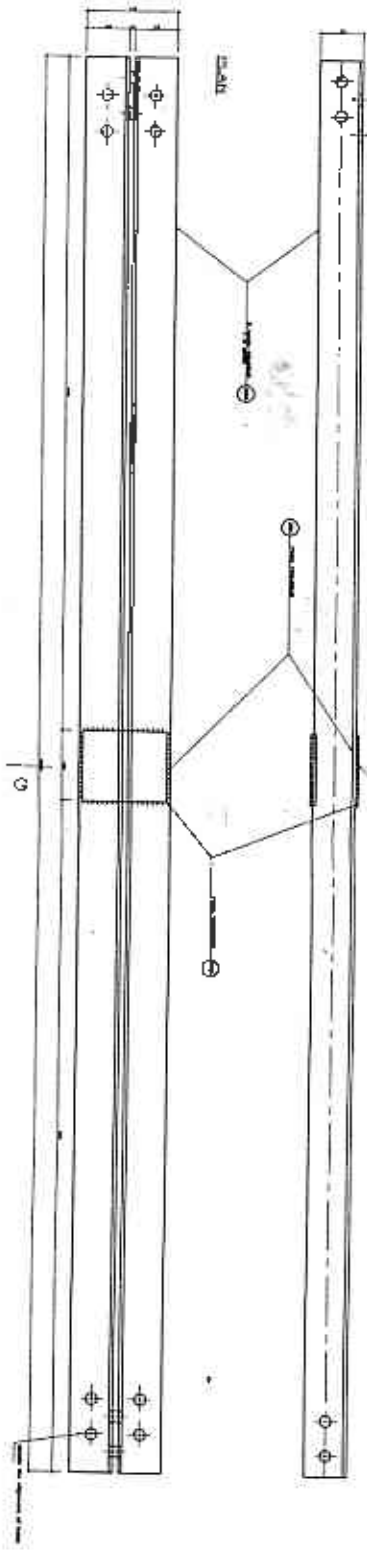
WELDING DETAIL OF BOTTOM CHORD END MEMBER (PART 33) 1/24
ELEVATION



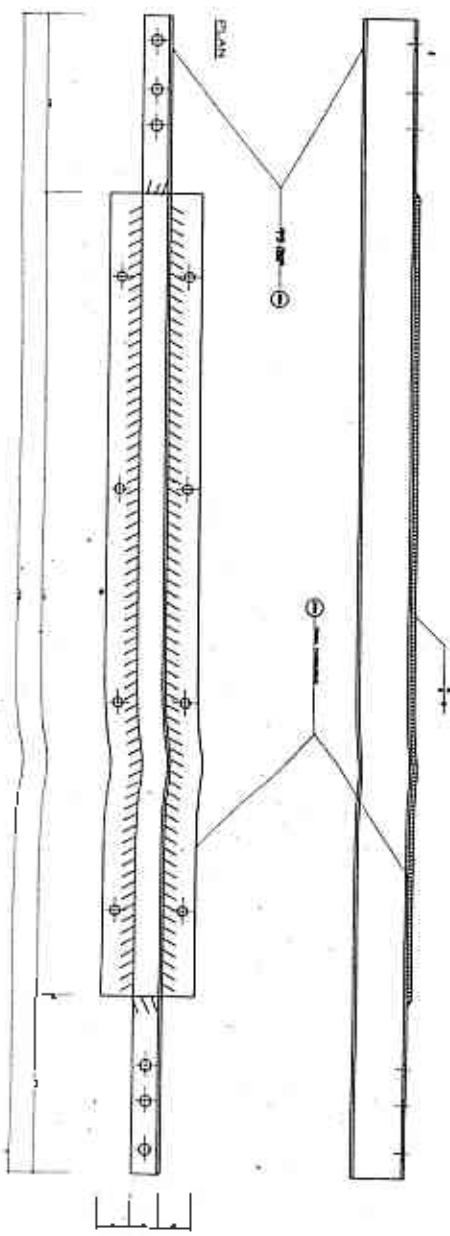
WELDING DETAIL OF BOTTOM CHORD INTERIOR MEMBER (PART 3A) 1/28



WELDING DETAIL OF BOTTOM CHORD INTERIOR MEMBER (PART 3B) 1/28



WELDING DETAIL OF PART NO. 30 1/28



NOTES

- 1) All nuts have to be retightened after erection.
- 2) All steel parts have to be painted with final coat after bridge erection, only if not galvanized.
- 3) To obtain uniformity, use of templates and jigs as mandatory for holding, bending and welding of assembly.
- 4) All parts or bundles and packages with identical parts have to be labelled or marked with the respective parts number by the workshop.

SUMMARY

Para no.	Item	Weight
211	Structural steel	4196,088 kg
243	Screws, bolts, nuts & washers Standard parts	301,049 kg
251	Rust Prevention by Galvanizing	3715,086
-	Reinforcement Part no. 48 & 49	19,36
410	Transportation	4516,495



ROYAL GOVERNMENT OF BHUTAN
SUSPENSION BRIDGE PROJECT

TRAIL SUSPENSION BRIDGE

STANDARD DESIGN

BRIDGE NAME : *Singayachu Bhu*

NO. 35

SPAN : 31,00m

Working & Assembly Drawing

Steel Truss bridge Structural Drawings

Units : 1 unit = Standard for 1000

Designed by : <i>BD</i>	Drawing No. : 18212	Scale : 1/100
Checked by : <i>BD</i>	Drawn by : <i>BD</i>	Drawn date : 1/1
Approved by : <i>BD</i>		Date : 1/1

DECK

104.135 kg

HOL Discharge=Injection Ref 3 2028, C
Design = Zinc Coat ERI mg/m²

- Page 1 of 4(Drawing no. T32-3) 10.10.201

