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**NATIONAL HOUSING DEVELOPMENT CORPORATION LIMITED
THIMPHU BHUTAN**

Post Box No. 1439
"Towards Shelter For All"



Tender Document

FOR

Roofing and maintenance works for NHDCL Quarters in Tsirang Dzongkhag

March 2023

**INVITATION FOR BID
(IFB)**

Notice Inviting Tender

The National Housing Development Corporation Ltd. invites sealed item bids from the interested Bhutanese National **Class 'SMALL'** Contractors with **W3** qualification, having valid trade license and registered with CDB for the work given below;

Sl. No	Name of Work	Duration of Contract	Sale of Bids	Submission/Opening of Bids	Estimated Amount (Nu)	Bid Security
1	Roofing and maintenance works for NHDCL Quarters in Tsirang Dzongkhag	3 months	18/3/2023 to 17/4/2023	17/4/2023	3,999,106.90	Bid securing declaration

Interested eligible bidders may download the bidding document from NHDCL's website (www.nhdcl.bt) and CDB website www.cdb.gov.bt with effect from March 18, 2023.

The bids must be delivered in accordance with "Instruction to Bidders" to the office of the General Manager, Design & Planning Services on or before 12:00 Noon on above mentioned date. Bids shall be opened on the same day at 2:30 PM in the Conference Hall of the NHDCL, Thimphu in presence of the bidders' representatives who choose to attend.

Addendums (if any) will be uploaded on the NHDCL website (www.nhdcl.bt & www.cdb.gov.bt). Prospective bidders are advised to check the website till the last date of submission.

Bids must be accompanied by a bid securing declaration. The bid securing declaration shall have to be valid for 30 days beyond the validity of the bid.

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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. 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 money.
 - 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 money;

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 money.
 - 2.3. The Government defines, for the purposes of this provision, the terms set forth below as follows :
 - (a) **“corrupt practice”**¹ is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

¹ 'Another party' refers to a public official acting in relation to the procurement process or contract execution.

- (b) **“fraudulent practice”**² 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”**³ 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”**⁴ 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.

2.4. The bidder shall be aware of the provisions on fraud and corruption stated in GCC Clause 3 and GCC Sub-Clause 36.2(d).

2.5. 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.

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

² A ‘party’ refers to a public official; the term ‘benefit’ and ‘obligation’ relate to the procurement process or contract execution; and the ‘act or omission’ is intended to influence the procurement process or contract execution.

³ ‘parties’ refers to participations in the procurement process including public officials attempting to establish bid prices at artificial, non competitive levels.

⁴ A ‘party’ refers to a participant in the procurement in the procurement process or contract execution.

- 5.2. The Employer is not responsible for the completeness of the Bidding Document and any addendum, 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

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
- 11.1. The original and copy(ies) of Bid submitted by the Bidder shall comprise the following:
- (a) The Bid form (in the format indicated in Section 4);
 - (b) License and certificate
 - (c) Bid Securing Declaration in accordance with Clause 19;
 - (d) Priced Bill of Quantities;
 - (e) **Qualifications:** documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the Contract;
 - (f) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB sub-clause 20.2;
 - (g) Alternative offers where invited;

(h) and any other materials required to be completed and submitted by Bidders, as specified in the BDS.

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.

12. Form of Bid 12.1. The form of Bid, Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms in Section 4 (Bidding Forms). 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 14.1. The prices and discounts quoted by the Bidder in the form of Bid and in the Schedules shall confirm to the requirements specified below;

14.2. The bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section 4, Bidding Forms. In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.

14.3. The 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 applicable for the whole works described in the Drawings, Specifications and Schedule of Works.

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 up to the date **specified in the BDS**. Any Bids which does not meet the validity requirement shall be rejected by the Employer as non-responsive.
19. Bid Securing Declaration
- 19.1. The Bidder shall furnish as a part of its Bid, a Bid-Securing Declaration using the form included in Section 4, Bidding Forms.
- 19.2. The Bid Securing Declaration shall be valid for thirty (30) days beyond the bid validity period. 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 Securing Declaration shall be suitably extended.
- 19.3. Any bid not accompanied by a Bid-Securing Declaration in the prescribed format shall be rejected by the Employer as non-responsive.
- 19.4. The Bid-Securing Declaration shall be executed:
- (a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity.
 - (b) If the Bidder does not accept the correction of the Bid price, pursuant to ITB clause 30; 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.
- 19.5. In case Bid Securing Declaration is executed in pursuant to ITB sub-clause 19.4 the bidder shall deposit the bid security amount specified in the BDS within 14 days from date of notification by Employer.
- 19.6. In case the bidder fails to comply with ITB sub-clause 19.5, bidder shall be excluded from being eligible for Bidding or submitting Bid in any tender with the Employer for a period of two years.
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

21. Sealing and Marking of Bids
- 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.
- 21.2. The inner envelopes shall:
- (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.
- 21.3. The outer envelope shall;
- (a) Be sealed with adhesive or other sealant to prevent reopening;
 - (b) be addressed to the Employer at the address specified in the BDS; bear a statement "DO NOT OPEN BEFORE....." the time and date for Bid opening as specified in the BDS.
- 21.4. 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
22. Bid Submission Deadline
- 22.1.** Bids must be received by the Employer at the address and no later than the date and time **specified in the BDS.**
- 22.2. Bids may be hand delivered, posted by registered mail or sent by courier.
- 22.3. 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.
23. Late Bids
- 23.1. Late bids shall not be considered and shall be returned unopened.
24. Modification, Substitution or Withdrawal of Bids
- 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.
25. Bid Opening
- 25.1. The Employer shall open the Bids in the presence of the bidders 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.

- 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 Bid Securing Declaration, and such other details as the Employer, at its discretion, may consider appropriate, shall be read out aloud and recorded.
- 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 Securing Declaration, if required.

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 issuance of Letter of Intent to award the Contract. |
| 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 30. |
| 28. Bidder
Contacting the
Employer | 28.1. Following the opening of Bids and until the letter of Intent to award the Contract is issued 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 Responsive-
ness | <p>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 securing declaration; and (d) is substantially responsive to the requirements of the bidding documents.</p> <p>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:</p> <p style="margin-left: 40px;">(a) affects in any substantial way the scope, quality, or performance of the Works specified in the Contract; or</p> |

- (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.

30. Non Conformities, Errors and Omissions

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, 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.

30.2. 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:

- i. 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

31. Evaluation of Bids

31.1. The Employer shall evaluate and compare only those Bids determined to be substantially responsive to the requirements of the Bidding Document.

31.2. To evaluate a bid, the employer shall consider the following:

- (a) making appropriate adjustments to reflect discounts if any;
- (b) Correction of arithmetic errors, and
- (c) Where applicable, using the evaluation factors specified in Section 3, Evaluation and Qualification Criteria.

31.3. An affirmative determination of qualification shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the *Employer* may proceed to the next substantially responsive Bid which offers the lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.

32. Abnormally Low Bids

32.1. An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price. Before proceeding to further analysis, the Employer shall revisit their departmental estimate to ensure its realistic compared to the prevailing market rates.

32.2. Any bid price less than twenty percent (20%) from the employer's departmental estimate shall be scrutinized by seeking written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities, and any other requirements of the request for bidding document.

32.3. After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.

32.4. If the Procuring Agency decides to accept the abnormally low bid after considering the detailed price analysis, the Procuring Agency shall increase the performance security from ten percent (10%) upto maximum of 30% of the initial contract price; or

Alternatively, the procuring agency may ask the successful bidder to deposit the difference between departmental estimate and contract amount in the form of cash warrant in addition to 10% performance security. However, the total performance security amount shall be limited to maximum of 30% of initial contract price.

33. Seriously unbalanced Bids or Front Loaded

33.1. If the Bid that is evaluated as the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or front loaded the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.

33.2. After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may as appropriate:

- (a) accept the Bid and increase the performance security from ten percent (10%) up to maximum of 30% of the initial contract price; or

Alternatively, the procuring agency may ask the successful bidder to deposit the difference between departmental estimate and contract amount in the form of cash warrant in addition to 10% performance security. However, the total performance security amount shall be limited to maximum of 30% of initial contract price ; or

(b) reject the Bid.

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| 34. Employer's Right to Accept or Reject any or all | 34.1. 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. |
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F. Contract Award

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| 35. Award Criteria | 35.1. 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 and upon fulfillment of works in hand ceiling prescribed by CDB. |
| 36. Letter of Intent to Award the Contract/ Letter of Acceptance | <p>36.1. The Employer shall notify the concerned Bidder whose bid has been selected in accordance with ITB 35.1 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 copy of the letter of intent 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.</p> <p>36.2. If no bidder submits an application pursuant to ITB 38 within a period of ten (10) days of the notice provided under ITB 36.1, prior to the expiration 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 letter of acceptance shall constitute a binding Contract.</p> <p>36.3. Within fifteen (15) working days of the receipt of the letter of acceptance from the Employer, the successful Bidder shall furnish the Performance Security, in the amount specified in the BDS.</p> <p>36.4. Within fifteen (15) working days of receipt of the letter of acceptance, the successful Bidder shall sign the contract, date and return it to the Employer.</p> |

37. Debriefing by Employer

- 37.1. On receipt of the Employer's Notification of Intention to Award referred to in ITB 36.1, an unsuccessful Bidder has three (3) working Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.
- 37.2. Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) working days.
- 37.3. The Employer shall discuss only such Bid and not the bids of other competitors. The debriefing shall not include:
- (a) point-by-point comparisons with another Bid; and
 - (b) information that is confidential or commercially sensitive to other Bidders.
- 37.4. The Purpose of debriefing is to inform the aggrieved bidder of the reasons for lack of success, pointing out the specific shortcomings in its bid without disclosing contents of other bids.

38. Complaints

- 38.1. 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 36.1 to the Employer.
- 38.2. The head of agency shall, within 7 days after the submission of the complaint, issue a written decision.
- 38.3. The Bidder may appeal to the Independent Review Body within 5 days of the decision of the Head of the Procuring Agency or, where no such decision has been taken, within 15 days of the original complaint and the copy of the appeal shall be given to procuring agency on the same day.
- 38.4. Once the appeal copy is received by the procuring agency, it shall not proceed further with the procurement process until receipt of notification from the Independent Review Body Secretariat.

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
A. General	
ITB 1.1	The Employer is <i>National Housing Development Corporation Ltd.</i>
	The Name and Identification of the Contract is/are " <i>Roofing and maintenance works for NHDCL Quarters in Tsirang Dzongkhag</i> ".
	The Works are <i>Roofing and maintenance works</i>
ITB 3.1	The category of contractor is: [<i>National Class 'SMALL' Contractors with W3 qualification</i>]
B. Bidding Documents	
ITB 6.1	For <u>clarification of Tenders purposes</u> only, the Employer's address is: Attention: [<i>General Manager, D&PS</i>] Address: [<i>NHDCL, Thimphu</i>] Telephone: [<i>323147/332734/332735</i>] Facsimile number: [<i>331703/332733</i>] Electronic mail address: [<i>thinley.wangdi@nhdcl.bt</i>]
C. Preparation of Bids	
ITB 14.3	The bid price <i>shall not</i> be adjustable:
ITB 16.1	A simple bar chart is <i>not required</i>
ITB 18.1	The Bid shall be valid upto: <i>60 days</i>
ITB 19.1	The Bidder shall furnish a <i>Bid-Securing Declaration</i> using the form included in Section 4, Bidding Forms and shall be valid for <i>thirty (30) days</i> beyond the bid validity period.
ITB 19.5	The Bid Security Amount is <i>Nu. 79,982.00 (Seventy-Nine Thousand Nine Hundred Eighty-Two only)</i> in case Bid Securing Declaration is executed in pursuant to ITB sub- clause 19.4 the bidder shall deposit the bid security amount specified in the BDS within 14 days from date of notification by Employer. In case the bidder fails to comply with ITB sub-clause 19.5, bidder shall be excluded from being eligible for Bidding or submitting Bid in any tender with the Employer for a period of two years.

ITB 20.1	<p>In addition to the original, one copy shall be submitted (Original +One).</p> <p><i>The bidders can submit the copies of document as per ITB clause 11.1</i></p>
D. Submission and Opening of Bids	
ITB 21.3	<p>The outer envelopes shall be addressed to: Chief Executive Officer, NHDCL, Thimphu</p>
ITB 21.3(b)	<p>The Bid opening shall take place on the same day as the closing day of the bid submission at: Conference Hall of NHDCL, Thimphu</p> <p>Date: [April 17, 2023]; Time: [2:30 PM]</p>
ITB 22.1	<p>For <u>Bid submission purposes</u> only, the Employer's address is:</p> <p>Attention: Chief Executive Officer</p> <p>Address: NHDCL, Thimphu</p> <p>The deadline for the submission of Tenders is: April 17, 2023</p> <p>Time & Date: 12:00 Noon</p>
E. Award of Contract	
ITB 36.3	<p>The amount of Performance Security shall be [10 percent] of the Contract Price.</p>

SECTION 3 – EVALUATION AND QUALIFICATION CRITERIA

This section contains all the criteria that the Employer shall use to evaluate bids and qualify bidders. The Procuring Agency may apply basic minimum technical qualification requirement (key personnel and equipments) if there is a project specific need.

1. Evaluation

1.1. Evaluation shall be done to determine if the bidders meet the required qualifications to be considered for award of work.

2. Qualification Criteria

[Where applicable the following qualification criteria may be specified and delete if not required]

2.1. Key Personnel

[Procuring agency may specify requirements for each position as applicable]

No.	Position	Qualification	Number of years of relevant experience
1			
2			
3			
4			
5			

The Bidder shall provide details of the proposed key personnel and their relevant experience records in the relevant Forms included in Section 4, forms of Bid & Qualification information to fulfill the above requirements.

2.2. Equipment

[Procuring agency may specify requirements for each equipment as applicable]

No.	Equipment Type	Number required
1		
2		
3		
4		
5		

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section 4, forms of Bid & Qualification information to fulfill the above requirements.

2.3. Add any other criteria

SECTION 4: BIDDING FORMS

Table of Standard Forms

Standard Form: Form of Bid
Standard Form: Bid Securing Declaration
Standard Form: Qualification Information
Standard Form: Letter of Intent

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]

To _____

Address _____

We offer to execute the contract for construction of “_____” in accordance with the Conditions of Contract accompanying this Bid for the Contract Price of _____
_____ [amount in figures] (_____
_____) [amount in words] _____
_____ [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 Securing Declaration required by the bidding documents and specified in the Bidding Data Sheet.

Authorized Signature: _____

(Affix Legal Stamp)

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Form of Bid-Securing Declaration

Date: _____

IFB No.: _____

To: _____

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration.

We accept that we are required to pay the bid security amount specified in the Bidding Data Sheet within 14 days of your instruction and failure to do so will automatically exclude us from being eligible for Bidding or submitting Bid in any contract with the Employer for the period of two years if we are in breach of our obligation(s) under the Bid conditions, because we:

- (a) have withdrawn our Bid during the period of Bid validity specified by the Bidder in the Form of Bid; or
- (b) having not accepted the correction of errors in accordance with the Instructions to Bidders ITB 30.2; or
- (c) Having been notified of the acceptance of our Bid by the Employer during the period of Bid validity, (i) fail or refuse to furnish the performance security in accordance with the ITT, or (ii) fail or refuse to execute the Contract in accordance with the ITB 36.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) thirty(30) days after the expiration of our Bid.

(Affix Legal Stamp)

Signed: _____

In the capacity of _____

Name: _____

Duly authorized to sign the Bid for and on behalf of: _____

Dated on _____ day of _____, _____

Corporate Seal (where appropriate)

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. Forms for Key Personnel

Form – 1A: Proposed Key Personnel

Bidders should provide the names of suitably qualified key personnel to meet the specified requirements for each of the positions listed in Section 3(Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

1.	Title of position
	Name
2.	Title of position
	Name
3.	Title of position
	Name

Form -1B: CV of Proposed Manpower

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

Position*		
Personnel information	Name *	Date of birth
	Qualifications:	
Present employment	Name of Employer:	
	Address of Employer:	

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

Summarize experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Documents Required:

The Bidder shall provide following supporting documents for the above the proposed manpower:

1. Original signed CVs of technical manpower committed.
2. Copies of Citizenship ID Cards or work permit/ Passport/ Election/Voter ID cards (for foreign workers) of all manpower committed.
3. Copies of contract agreements with all personnel if they have been hired on contract by the contractor.

1.3. Forms for Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section 3 (Evaluation and Qualification Criteria).

SI.No	Equipment Name & Type	Owned	Hired	Total No.
1.				
2.				
3.				
4.				

Documents Required:

The Bidder shall provide following supporting documents for the above proposed equipments:

1. Copy of the registration certificate of each equipment committed
2. Copy of Insurance policy for each equipment where applicable
3. In case of hiring, copy of the lease agreement in addition to 1 & 2 above
4. In case of equipments that do not require registration with RSTA copy of cash memos stamped by RRCO if newly imported or copy of sale deeds or verification letter issued by a Government Engineer.

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 36 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]

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.
- (f) The **Contractor's Bid** is the completed Bid Document including the priced offer submitted by the Contractor to the Employer.
- (g) **Days** mean calendar days.
- (h) A **Defect** is any part of the Works not completed in accordance with the Contract.
- (i) The **Employer** is the party named in the SCC who employs the Contractor to carry out the Works.
- (j) The **Engineer** is the person named in the SCC, who is responsible for supervising the execution of the works and administering the Contract.
- (k) 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.
- (l) The **Site** is the area defined as such in the SCC.
- (m) A **Variation** is an instruction given by the Project Manager which varies the Works.
- (n) 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 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.
- (h) any other document listed in the SCC 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 money.

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 money;

If 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 money.

3.3. The Government defines, for the purposes of this provision, the terms set forth below as follows:

- (a) corrupt practice⁵ is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value⁶ to influence improperly the actions of another party;

5 "another party" refers to a public official acting in relation to the procurement process or contract execution. In this context, "public official" includes staff and employees of any organizations (including any institutions providing finance for the Works) taking or reviewing procurement decisions.

6 "anything of value" includes, but is not limited to, any gift, loan, fee, commission, valuable security or other asset or interest in an asset; any office, employment or contract; any payment, discharge or liquidation of any loan, obligation or other liability whatsoever, whether in whole or in part; any other services, favour or advantage, including protection from any penalty or disability incurred or apprehended or from any action or proceeding of a disciplinary or penal nature, whether or not already instituted and including the exercise or the forbearance from the exercise of any right or any official power or duty.

- (b) “fraudulent practice”⁷ 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”⁸ 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”⁹ 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.

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|---------------------------------------|---|
| 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 & Equipment | 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. Similarly, the contractor shall deploy all committed equipments at site as and when required by the employer. |

⁷ a “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

⁸ “parties” refers to participants in the procurement process (including public officials) and an “improper purpose” includes attempting to establish bid prices at artificial, non competitive levels.

⁹ a “party” refers to a participant in the procurement process or contract execution.

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|--|---|
| 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> <ul style="list-style-type: none"> (a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site and the Works in an orderly state; (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 (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. |
| 12. Access to the Site | <p>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.</p> |
| 13. Documents & Information. | <p>13.1. The Contractor shall furnish to the Engineer all information, schedules, calculations and supporting documents that may be requested.</p> |
| 14. Property | <p>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.</p> |
| 15. Insurance | <p>15.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the SCC for the following events which are due to the Contractor's risks:</p> <ul style="list-style-type: none"> (a) loss of or damage to the Works, Plant and Materials to be built into the works. |

- 15.2. The Contractor shall deliver policies and certificates of insurance to the Engineer, for the Engineer's approval, before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred. Payments received from insurers shall be used for the rectification of loss or damage.
- 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.
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 may use the proceeds of the Performance Security to compensate for any losses thereof, 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 clause 16; 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 latest by 30 working days from the date of receipt of contractor's monthly statement in correct and complete form.
- 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
- 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. The mobilization advance shall be backed up by equivalent amount of 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 recovered by deducting proportionate amounts from payments 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. Changes in Quantities¹⁰

26.1. If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than twenty percent (20%), provided the cost of variation beyond twenty percent (20%) limit exceeds one percent (1%) of the Initial Contract Value the Employer shall adjust the quoted rate up or down to allow for the change. Only when both conditions are met then the quoted rate shall be changed.

(a) If the quantity of work executed exceeds the quantity of the item in BOQ beyond the higher specified limit the Employer shall fix the market rate (which may be lower or higher than the quoted rate) to be applied for the additional quantity of the work executed.

(b) If the quantity of work executed is less than the quantity of the item in BOQ lesser than the lower specified limit, the Employer shall fix the market rate based on the submission of the contractor (which may be lower/higher than the quoted rate) to be applied for whole of the quantity of the work so executed for that particular item.

26.2. The rates shall not be adjusted from changes in quantities if thereby the Initial Contract Price is exceeded by more than five percent (5%), except with the prior approval of the Employer in consultation with the Tender Committee.

26.3. For works up to Nu. 50M, when quantity deviation exceeds twenty percent (20%) from the quantity in BOQ and the total cost of such deviations exceeds twenty percent (20%) of the initial contract price, the procuring agency shall seek prior approval of the Competent Authority (Finance Committee constituted in their respective agency)

26.4. If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

¹⁰ In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule," and replace entire Clause 26 with new Sub-Clause 26.1, as follows:

26.1 The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

27. Variations

- 27.1. The Project Manager shall order any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary. Each variation may include, but is not limited to, any of the following:
- (a) increase or decrease in the quantity of any work included in the Contract,
 - (b) omission of any item of work,
 - (c) change in the character or quality or kind of any such work,
 - (d) change in the levels, lines, position and dimensions of any part of the works,
 - (e) additional work of any kind (not exceeding twenty percent (20%) of the original contract amount, or the maximum threshold value for the use of Limited Tender whichever is lower), or
 - (f) change in any specified sequence or timing of construction activities.
- 27.2. All Variations shall be included in updated Programs produced by the Contractor.
- 27.3. The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 27.4. If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 27.5. If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 27.6. The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

- 27.7. If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 26.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.
- 27.8. For works up to Nu. 50 Million, if the value of additional work exceeds twenty percent (20%) of the initial contract price, the procuring agency shall seek prior approval of the Competent Authority (Finance Committee Constituted in respective agencies).
28. Retention
- 28.1. 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.
- 28.2. 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.
29. Liquidated Damages
- 29.1. 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.
30. Performance Security
- 30.1. Upon receipt of letter of acceptance, 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.
- 30.2. 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.
31. Price Adjustment
- 31.1. Prices may be adjusted for fluctuations in the cost of materials only if contract duration exceeds 12 months and if so **provided for in the SCC.**

31.2. The adjustment shall be based on the cost of materials as reflected by the Material Index Numbers published by the National Statistical Bureau¹¹ (NSB), calculated for every successive period of 3 months after the 12th month of the Contract using the following formulae.

$$V = W \times 0.80 \times 0.75 \times (M - M_0) / M_0$$

Where:

V = amount of variation for materials payable to/recoverable from the contractor for the period under review;

W = value of the work done during the period under review minus (amount of secured advance recovered in the same period + value of works executed under variations for which the variations are paid in the new rate);

M₀ = Material Index for the month in which the tender was submitted;

M = the average value of the above Index Number for the 3 months period under review;

31.3. Price Adjustment shall apply only for work carried out within the stipulated time or extensions granted by the Procuring Agency and shall not apply to work carried out beyond the stipulated time for reasons attributable to the Contractor.

32. Completion

32.1. 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.

33. Correction of Defects

33.1. 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.

33.2. 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.

34. Taking Over

34.1. The Employer shall take over the Site and the Works within seven (7) days of the Engineer issuing a Certificate of Completion.

¹¹ Until NSB comes up with the Material Index for the Royal Government of Bhutan, the Wholesale Price- Index (all commodities) for Materials shall be used for the purpose of this clause. Visit www.eaindustry.nic.in for the Wholesale Price Index.

35. Final Account
- 35.1. 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.
- 35.2. The Employer shall effect payment of the final account within thirty (30) days from the date of certification by the Engineer.
36. Termination
- 36.1. 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.
- 36.2. 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.
- 36.3. 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.
- 36.4. Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 36.5. 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.

37. Payment upon Termination

37.1. 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. 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.

37.2. 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.

38. Release from Performance

38.1. 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.

39. Force Majeure

39.1. 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.

39.2. 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.

39.3. However, force majeure shall not include the following;

- (a) rainfall
- (b) snowfall
- (c) strikes in other countries
- (d) non-availability of labourer and materials such as timbers, boulders, sand, and other materials
- (e) difficulty and risky terrain and remoteness of site.

40. Settlement of Disputes

40.1. 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.

40.2. 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.

40.3. The Arbitration shall be conducted in accordance with the Arbitration Rules of the Kingdom of Bhutan in force.

SECTION 6. SPECIAL CONDITIONS OF CONTRACT

Instructions for completing the Special Conditions of Contract are provided, as needed, in the notes in italics mentioned for the relevant GCC Clauses.3

Clause Ref	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1(d)	The Contractor is <i>[name, address and name of authorised representative]</i> .
GCC 1.1(i)	The Employer is Chief Executive Officer, NHDCL .
GCC 1.1(j)	The Engineer will be specified in the letter of award .
GCC 1.1(k)	The Intended Completion Date for the whole of the Works shall be Three Months .
GCC 1.1(l)	The Site is located at Tsirang Dzongkhag
GCC 1.1(m)	The Works are Roofing and maintenance works for NHDCL Quarters in Tsirang Dzongkhag
GCC 2.2(h)	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: For the Employer: Chief Executive Officer, NHDCL, Thimphu For the Contractor: <i>[insert name, address and contact details]</i> .
GCC 9.1	The Key Personnel of the Contractor are: NA The equipments are: NA
GCC 15.1	For insurance purposes the type of cover required shall be: The contractor shall be responsible for the insurance [“As per the RICBL/BIL Norms” .]
GCC 16.1	Possession of the site shall be specified in the work order
GCC 17.1	Commencement of work shall be specified in the work order
GCC 18.1	Completion of works shall be within 90[Ninety] days from the date of commencing the works on the site.
GCC 19.1	The Contractor shall submit the first work plan as per the requirement of the Site Engineer
GCC 22.1	“The rates for non-scheduled items of works shall be determined by the Engineer” .

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 28.1	The Retention shall be [10] % of the Contract Price.
GCC 29.1	The liquidated damages for the whole of the Works are 0.08% per day of the initial Contract Price. The maximum amount of liquidated damages for the whole of the Works is 10% of the initial Contract Price..
GCC 31.1	The Contract " is not " subject to price adjustment in accordance with GCC Clause 31.
GCC 33.1	The Defects Liability Period shall be Twelve (12) months
GCC 37.1	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]

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 - 1 Letter of Acceptance
- Form - 2 Contract Agreement
- Form - 3 Bank Guarantee for Performance Security
- Form - 4 Bank Guarantee for Advance Payment

Letter of Acceptance

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 letter of acceptance shall constitute the formation of a Contract, which shall become binding upon furnishing a Performance Security and signing the Contract Agreement within fifteen (15) working days, in accordance with ITB Clause 36.

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

Bank Guarantee for Performance Security

[this is the format for the Performance Security to be issued by any financial institution in Bhutan in accordance with ITB Clause 36]

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 9. DRAWINGS

Notes on Drawings

Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section or annexed in a separate folder. The Drawings shall be dated, numbered and show the revision number.

BILL OF QUANTITIES

Name of Work : Roofing and maintenance works for NHDCL Quarters

Project Location : Tsirang Dzongkhag

Ref.No.	Item Description	Unit	Quantity	Rate (Nu.)		Amount
				in figure	in words	
A	Roofing & Painting Works (For Six Buildings)					
A1	Providing & laying 15mm cement plaster on rough side of single or half-brick wall in CM 1:4	sqm	1070.10			
A2	Surface preparation removing by scraping, sand papering, including scratch repairs	sqm	2140.20			
A3	Providing and applying of Acrylic washable distemper, two coats on new work, including cement primer coat	sqm	2140.20			
A4	Providing and applying finishing coats Synthetic enamel, for steel & wood work, two coats on new work	sqm	275.40			
A5	Providing, preparing and applying Sumdang Washable painting - Ding	sqm	143.40			
A6	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and appl. priming coat of red lead paint in Tubular sections	kg	15305.16			
A7	Providing & fixing Pre-Painted Galvanised Iron (PPGI) sheets, including bolts, hooks and nuts 8mm dia. With bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses.-25g (0.5mm)	sqm	1068.93			

BILL OF QUANTITIES

Name of Work : Roofing and maintenance works for NHDCL Quarters

Project Location : Tsirang Dzongkhag

Ref.No.	Item Description	Unit	Quantity	Rate (Nu.)		Amount
				in figure	in words	
A8	Providing & fixing 600mm ridges or hips in Pre-Painted Galvanised Iron (PPGI) sheets, ncluding bolts, hooks and nuts 8mmdia G.Iimpet and bitumen washers for connection.-25g (0.5mm)	mtr	99.90			
A9	Providing & fixing M.S. round hold-down bolts with nuts and washer plates for clamping the RHS on the slabs as per drawings .	kg	528.00			
A10	Providing, making and fixing M.S. straps, flats, sole plates etc - Base plate for resting RHS- 44/2. assumed weight for 0.15x0.15,6mm thk plate	kg	264.00			
Total Amount for Roofing & Painting works (A)Nu.						
B	Rain Water Pipe & Gutter (For 4 Buildings)					
B1	Providing & fixing 600mm overall width Pre-Painted Galvanised Iron (PPGI) gutter, including brackets, bolts, nuts, washers & rainwater pipes connections, excluding the cost of pipes - 25 g sheet	mtr	218.80			
B2	Providing and fixing on wall face single socketed rigid PVC (Working Pressure 4kgf per sq.cm) rainwater pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete- 110mm dia	mtr	28.00			
Total Amount for Rain water pipe & Gutter (B).....Nu.						

BILL OF QUANTITIES

Name of Work : Roofing and maintenance works for NHDCL Quarters

Project Location : Tsirang Dzongkhag

Ref.No.	Item Description	Unit	Quantity	Rate (Nu.)		Amount
				in figure	in words	
<i>C</i>	<i>Demolishing Works & OHS</i>					
C1	Demolishing cement concrete 1:3:6 & richer,including disposal of materials within 50m lead in cement mortar	cum	1.08			
C2	Demolishing brick work including stacking useful materials & disposal of rubbish within 50m lead	cum	7.50			
	Incorporation of Occupational Health and Safety measures and temporary living accommodation for labours at construction site. All OHS items will remain as the property of the bidder upon completion of the project.	Lumpsum				
<i>Total Amount for Demolishing & OHS (C).....Nu.</i>						
Total Quoted Amount (A+B+C)Nu.:						
Rebate If Any:						
Total Quoted Amount after Rebate.....Nu.:						





STRUCTURAL DRAWING

PROJECT:- PROPOSED ROOFING WORKS ON THE
EXISTING NHDCL QUARTERS IN TSIRANG TOWN

Office copy.





LISTS OF STRUCTURAL DRAWINGS FOR THE PROPOSED ROOFING WORKS ON NHDCL QUARTERS IN TSIRANG

DWG. NO.	DRAWING TITLE	DATE OF ISSUE
S-01	List of Structural Drawings	February 2016
S-02	General Notes on Structural Drawings	February 2016
S-03	Roof Plan Block 1	February 2016
S-04	Roof Truss Layout Plan Block 1	February 2016
S-05	Roof Truss Elevation Block 1	February 2016
S-06	Roof Plan Block 2	February 2016
S-07	Roof Truss Layout Plan Block 2	February 2016
S-08	Roof Truss Elevation Block 2	February 2016
S-09	Roof Plan Block 3	February 2016
S-10	Roof Truss Layout Plan Block 3	February 2016
S-11	Roof Truss Elevation Block 3	February 2016
S-12	Roof Plan Block 4	February 2016
S-13	Roof Truss Layout Plan Block 4	February 2016
S-14	Roof Truss Elevation Block 4	February 2016
S-15	Roof Plan Block 5	February 2016
S-16	Roof Truss Layout Plan Block 5	February 2016
S-17	Roof Truss Elevation Block 5	February 2016
S-18	Roof Plan Block 6	February 2016
S-19	Roof Truss Layout Plan Block 6	February 2016
S-20	Roof Truss Elevation Block 6	February 2016
S-21	Roof Plan Block 7	February 2016
S-22	Roof Truss Layout Plan Block 7	February 2016
S-23	Roof Truss Elevation Block 7	February 2016
S-24	Roof Plan Block 8	February 2016
S-25	Roof Truss Layout Plan Block 8	February 2016
S-26	Roof Truss Elevation Block 8	February 2016
S-27	Typical Truss Member Schedule (All)	February 2016
S-28	Typical Truss Connection	February 2016

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN			NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHODEN	G.M. (D&PS)	- ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS			- DO NOT MEASURE FROM THIS DRAWING.			
	TITLE: LIST OF STRUCTURAL DRAWINGS			- REPORT ANY DISCREPANCIES TO THE			

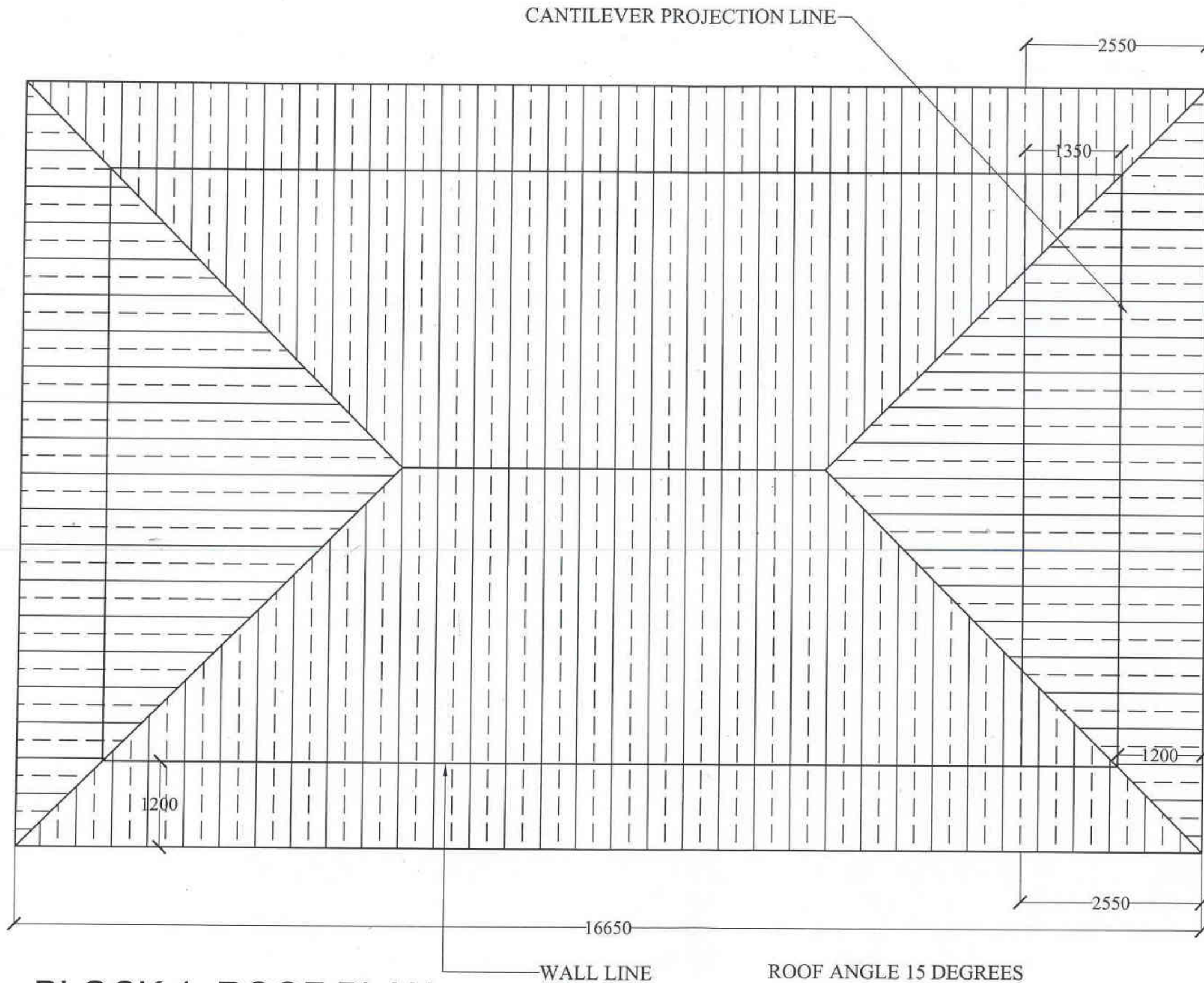
A. GENERAL

1. READ THIS DRAWINGS IN CONJUNCTION WITH ARCHITECTS' AND OTHER ENGINEERS' DRAWINGS AND SPECIFICATIONS, AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.
2. ALL DIMENSIONS ARE IN MILIMETRE UNLESS STATED OTHERWISE.
3. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.
4. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING WITH THE WORK
5. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE SPECIFICATIONS FOR BUILDING AND ROAD WORKS TOGETHER WITH THE REQUIREMENTS OF ALL RELEVANT CODES OF PRACTICE REFERRED TO HEREIN AND THE REQUIREMENTS OF ALL STATUTORY AUTHORITIES
6. RECTANGULAR HOLLOW SECTIONS OF SIZE 75mmX100mm SHALL BE USED TO SUPPORT THE TRUSS. RHS SHALL REST DIRECTLY ON THE SLAB. THE RHS SHALL BE CONNECTED TO THE ROOF SLAB BY CLAMPING WITH MS FLATS AND BY BOLTING IT ONTO THE SLAB. SUCH CLAMPING SHALL BE PROVIDED @2000MM c/c
7. ALL WELDING SHOULD BE FILLET WELD OF MINIMUM 6 MM THICK. SIZE OF COMPLETE PENETRATION BUTT WELD GREATER THAN EQUAL TO MEMBER THICKNESS
8. STEEL GRADE ST35 (Yst 22 GRADE)
9. UNLESS OTHERWISE INDICATED, DETAILS SHOWN ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS.
10. REFER ANY DISCREPANCY TO ENGINEER/ARCHITECT BEFORE PROCEEDING WITH THE WORK. ALWAYS REFER ADDITIONAL NOTES PROVIDED IN THE DRAWINGS.

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN				NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS		DESIGNED - SONAM CHODEN	G.M (D&PS)	-ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS	TITLE: GENERAL NOTES ON STRUCTURAL DRAWINGS			-DO NOT MEASURE FROM THIS DRAWING.			
DATE:-	Feb 2018	DRAWING NO.:- STR/02			-REPORT ANY DISCREPANCIES TO THE ARCHITECT			

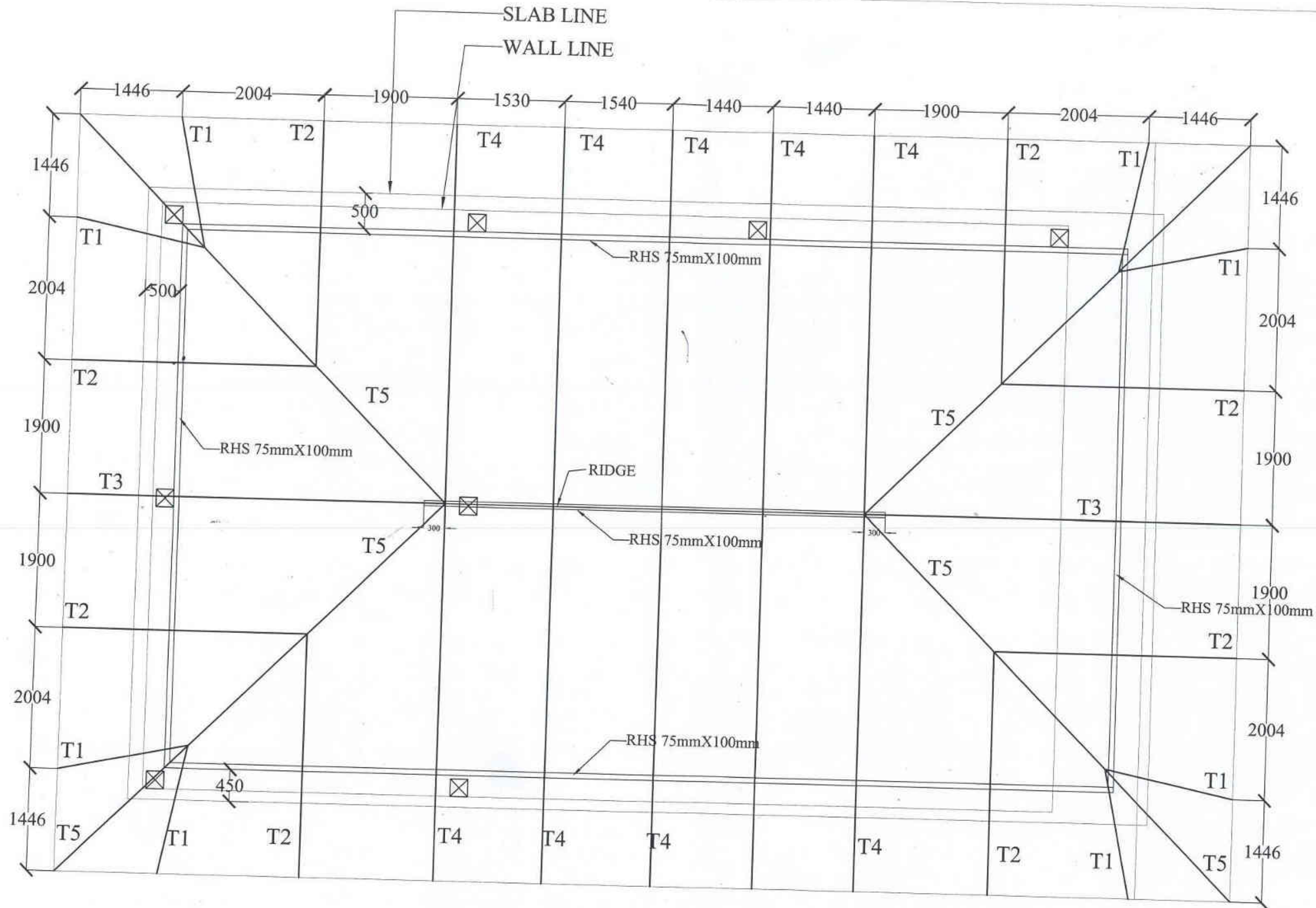
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National Housing Development Corporation Ltd.
Design & Planning Services,
PO Box 1439



BLOCK 1 ROOF PLAN

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN	H		NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHODEN	G.M (D&PS)	- ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS	H		- DO NOT MEASURE FROM THIS DRAWING.			
DATE:-	Feb 2016			- REPORT ANY DISCREPANCIES TO THE ARCHITECT.			
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	DRAWING NO.: STR/03						



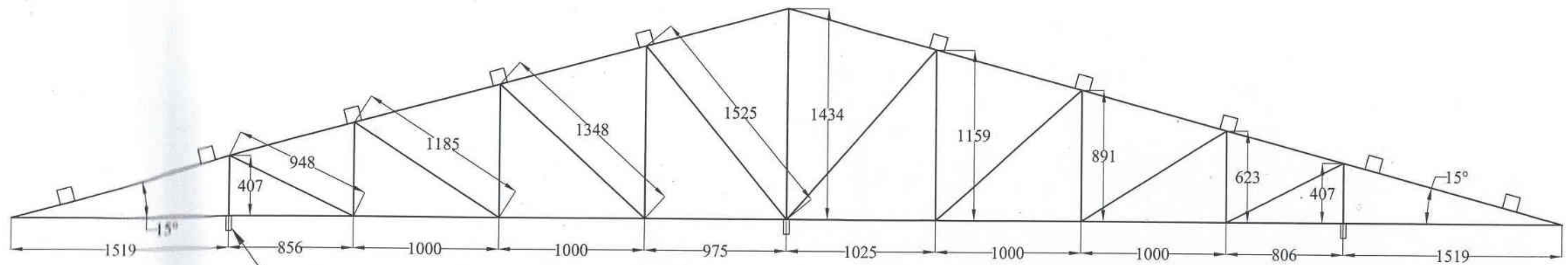
ROOF TRUSS LAYOUT PLAN (BLOCK 1)

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN
TYPE OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS
SCALE:-	NTS
DATE:-	Feb 2016
TITLE:-	ROOF TRUSS LAYOUT PLAN BLOCK 1
DRAWING NO.:-	STR/04

DESIGNED: SONAM CHODEN	G.M. (D&PS)
Drawn By: SONAM CHODEN	CEO (NHDC)

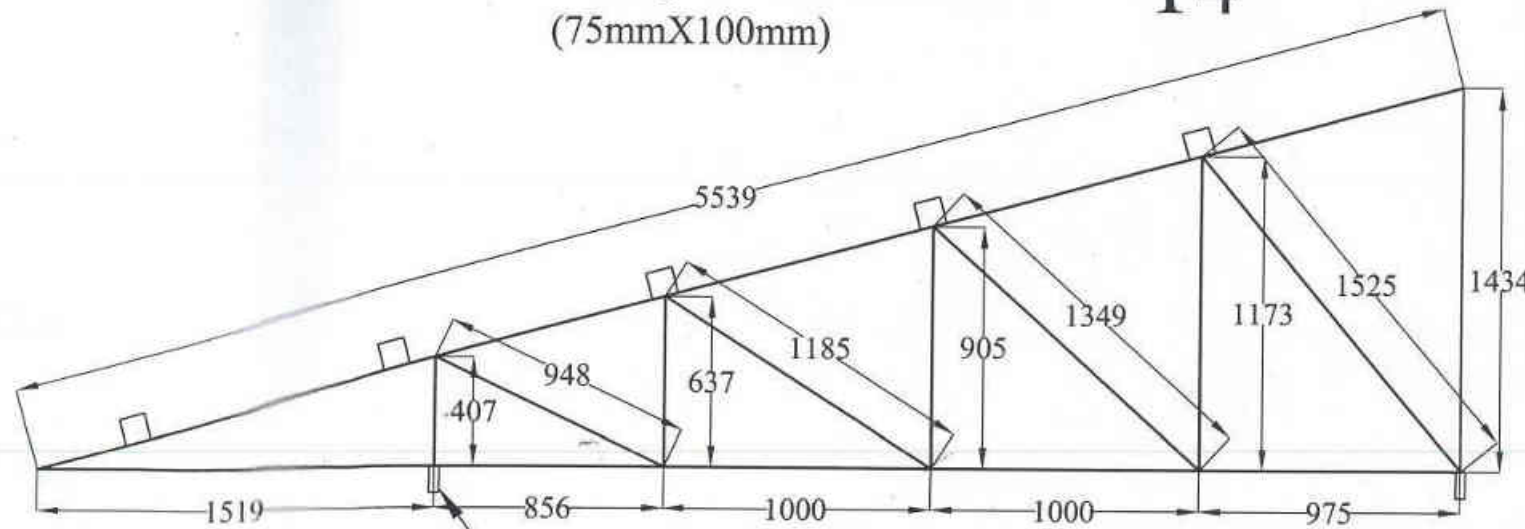
NOTE:-
 -ALL DIMENSIONS IN MILLIMETERS.
 -DO NOT MEASURE FROM THIS DRAWING.
 -REPORT ANY DISCREPANCIES TO THE ARCHITECT.

REVISION	DATE:-	CONTENT:-



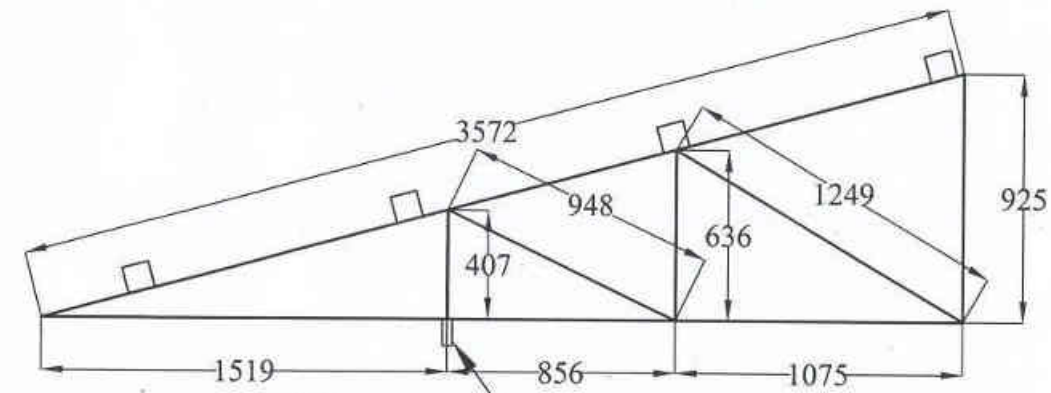
Rectangular Hollow Section
(75mmX100mm)

T4



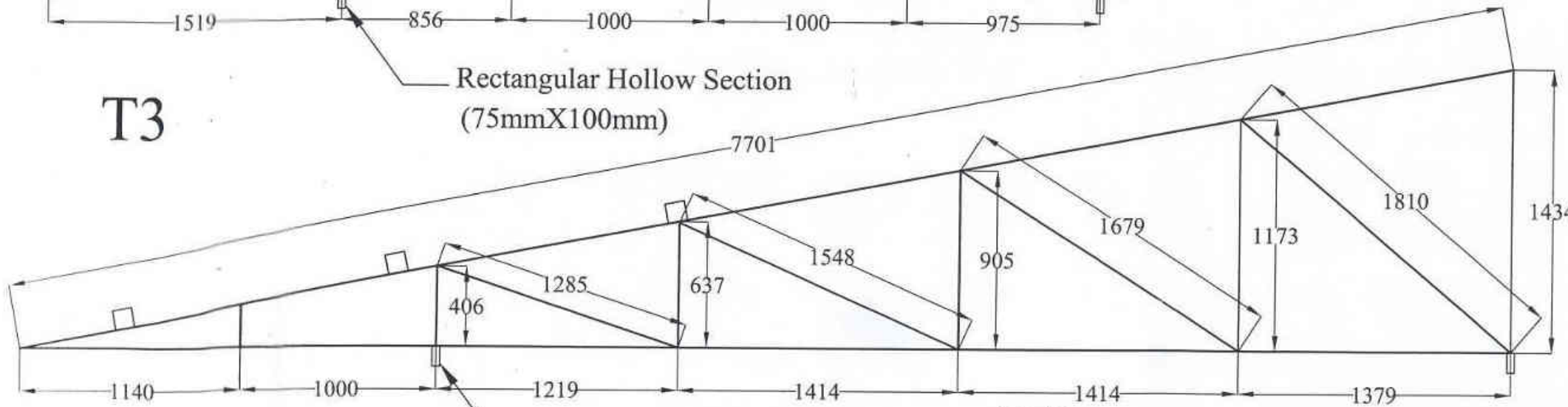
Rectangular Hollow Section
(75mmX100mm)

T3



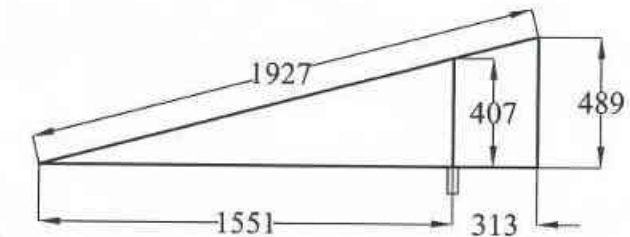
Rectangular Hollow Section
(75mmX100mm)

T2







Rectangular Hollow Section
(75mmX100mm)

T5

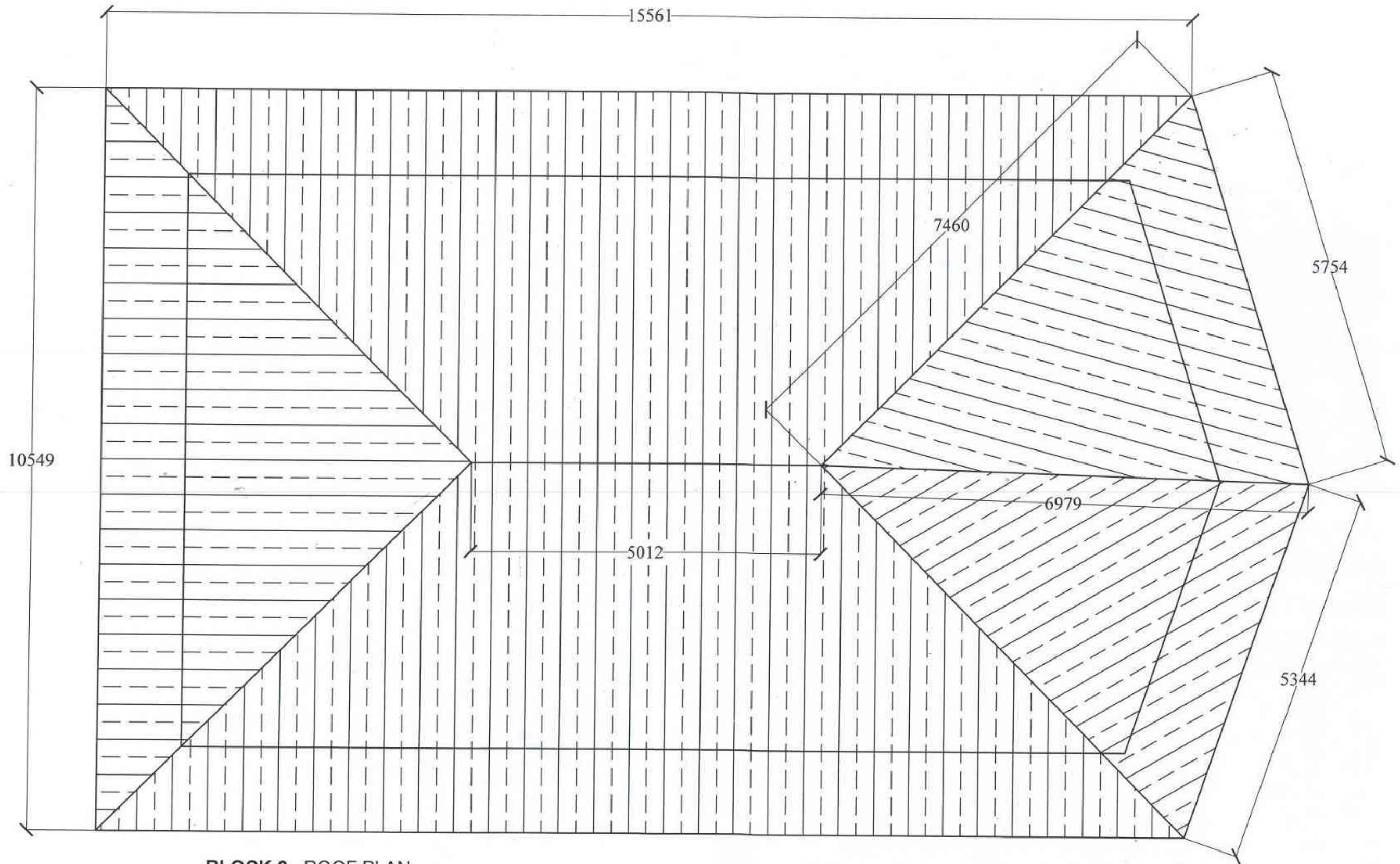


T1

TRUSS ELEVATION (BLOCK 1)

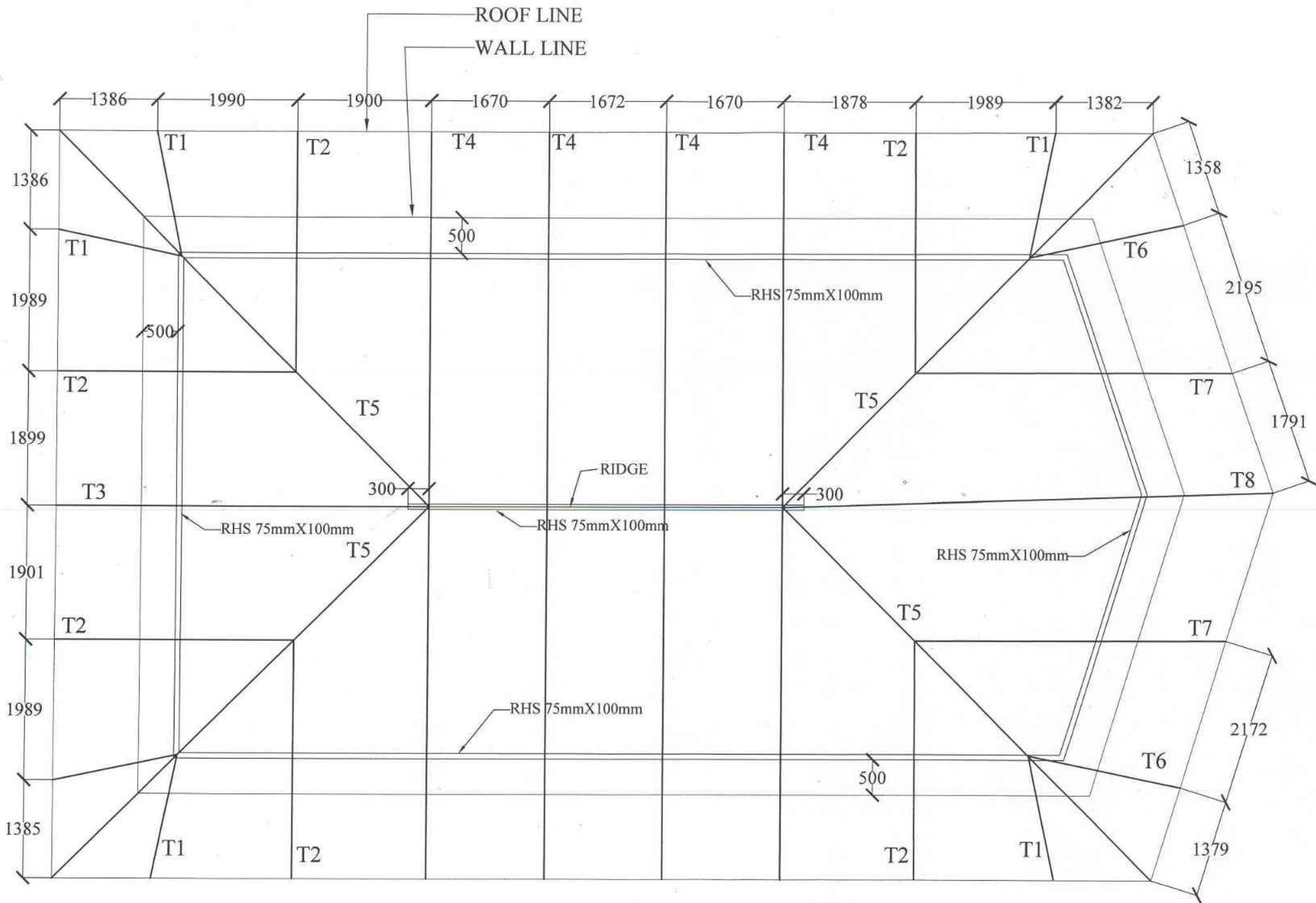
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED:-SONAM CHODEN		 G.M (D&PS)		NOTE:-			REVISION		DATE:-		CONTENT:-	
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		 Drawn By:-SONAM CHODEN		 CEO (NHDC)		-ALL DIMENSIONS IN MILLIMETERS. -DO NOT MEASURE FROM THIS DRAWING. -REPORT ANY DISCREPANCIES TO THE ARCHITECT.								
SCALE:-	NTS	TITLE:- ROOF TRUSS ELEVATION BLOCK 1														
DATE:-	Feb 2016	DRAWING NO.:- STR/05														

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BLOCK 2 ROOF PLAN

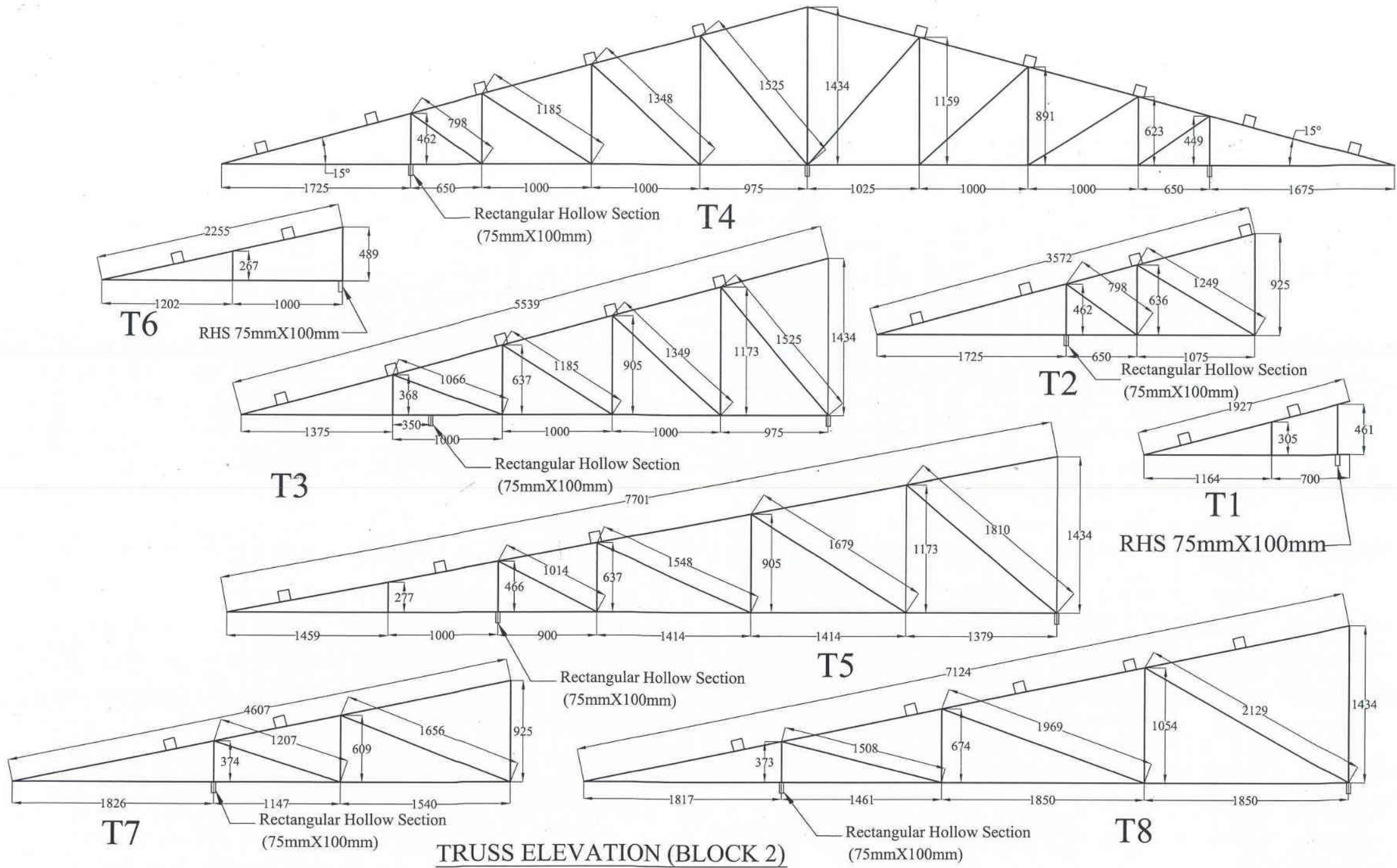
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		DESIGNED: SONAM CHODEN		G.M (D&PS)		NOTE:-			REVISION			DATE:-			CONTENT:-		
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		DRAWING NO. 07/2023		DATE: 15/08/2023		- ALL DIMENSIONS IN MILLIMETERS.											
SCALE:-		NTS		TITLE: ROOF PLAN BLOCK 2				- DO NOT MEASURE FROM THIS DRAWING.											
								- REPORT ANY DISCREPANCIES TO THE											



ROOF TRUSS LAYOUT PLAN (BLOCK 2)

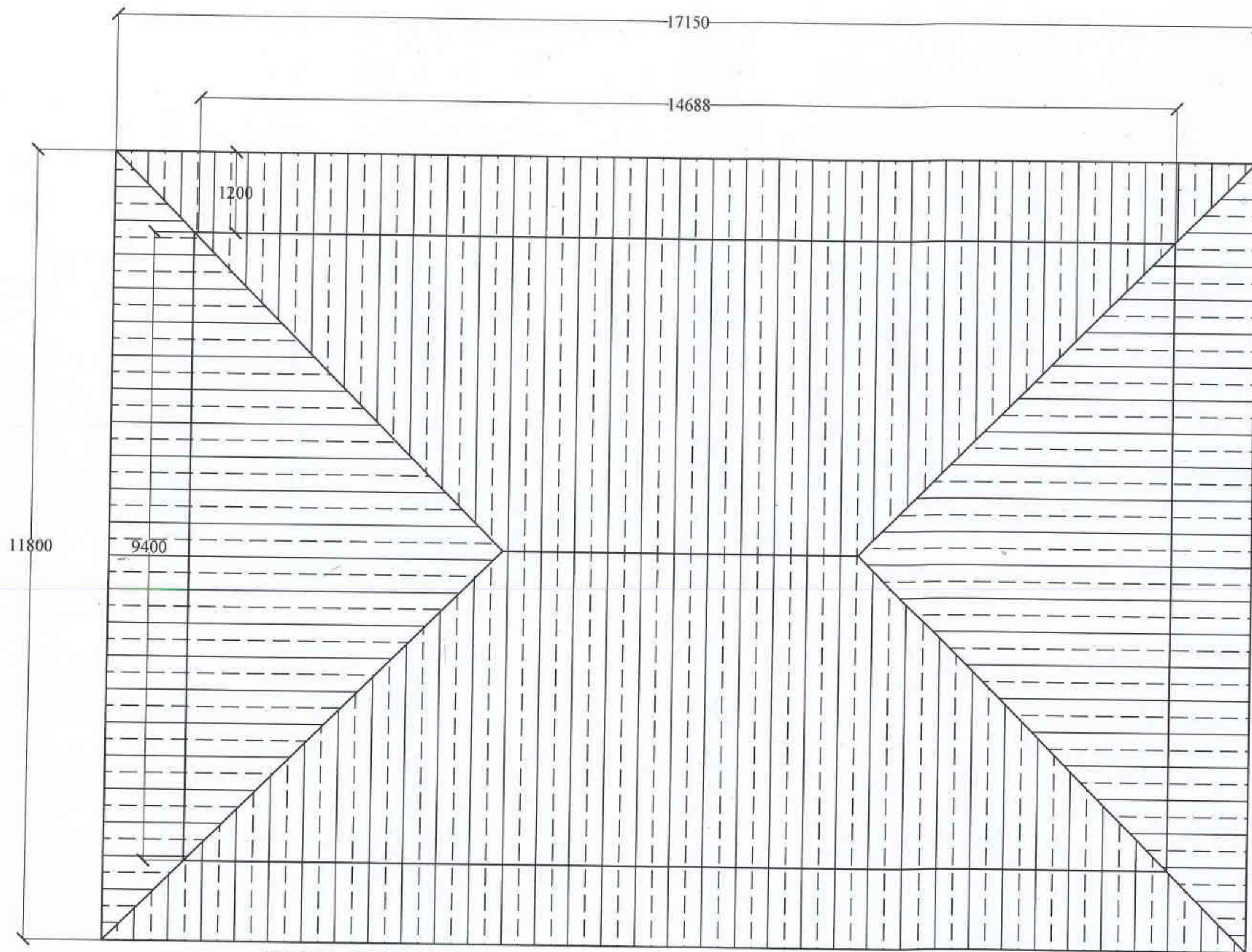
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		DESIGNED: SONAM CHODEN		G.M (D&PS)		NOTE:-			REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		TITLE: ROOF TRUSS LAYOUT PLAN BLOCK 2		DRAWING NO. - STR/07		-ALL DIMENSIONS IN MILLIMETERS.					
SCALE:-		NTS						-DO NOT MEASURE FROM THIS DRAWING.					
								-REPORT ANY DISCREPANCIES TO THE ARCHITECT					

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Design & Planning Services,
PO Box 1439



PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		NOTE:-		REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		-ALL DIMENSIONS IN MILLIMETERS.				
SCALE:-	NTS	TITLE: ROOF TRUSS ELEVATION BLOCK 2.	DESIGNED: SONAM CHODEN	G.M (D&PS)	-DO NOT MEASURE FROM THIS DRAWING.			
DATE:-	Feb 2016	DRAWING NO.:- STR/08	Drawn By: SONAM CHODEN	CEO (HDDCL)	-REPORT ANY DISCREPANCIES TO THE ARCHITECT.			

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BLOCK 3 ROOF PLAN

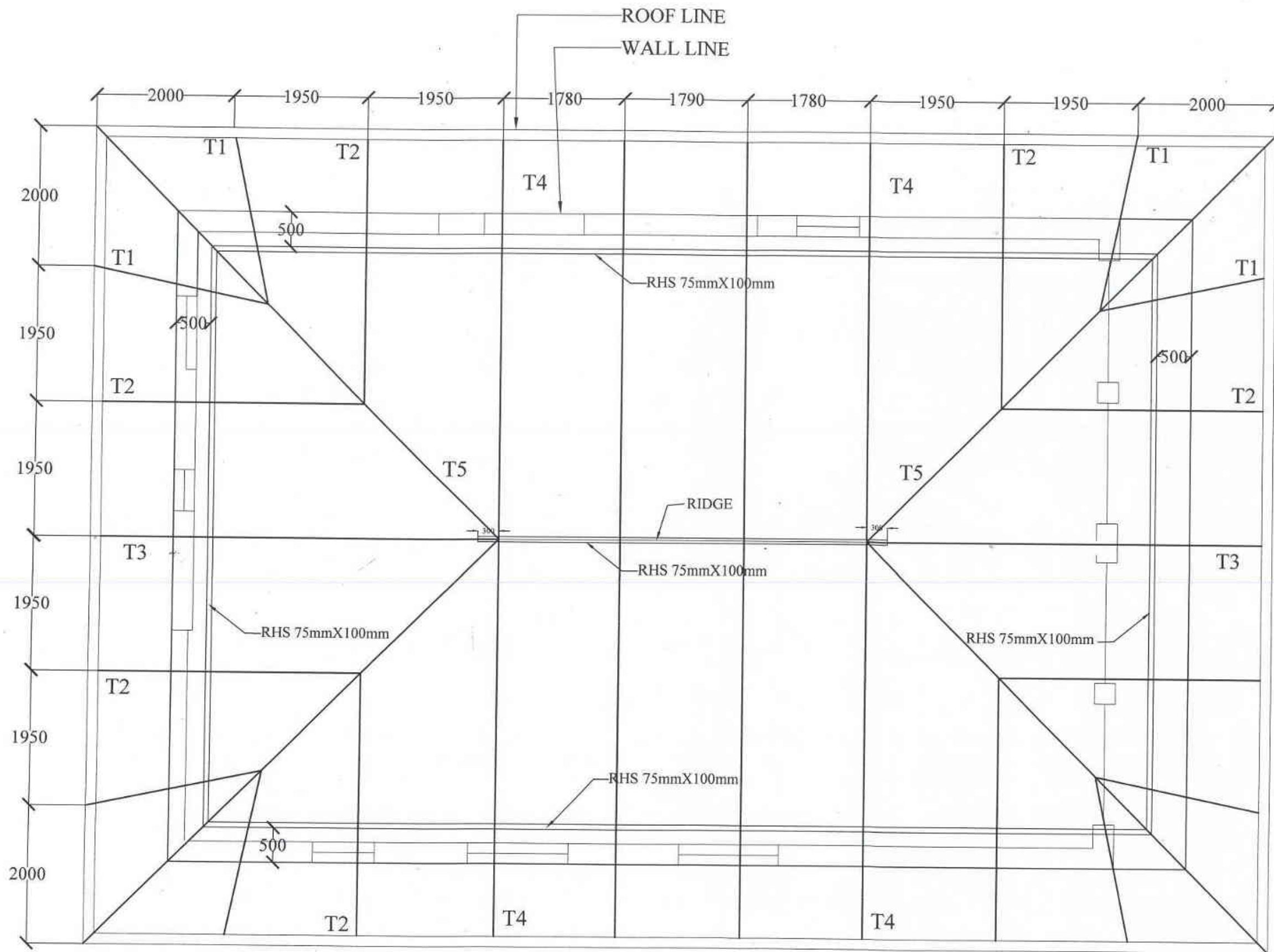
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS
SCALE:-	NTS	TITLE: ROOF PLAN BLOCK 3
DATE:-	Feb 2016	DRAWING NO.:- STR/09

<i>lc</i>	<i>[Signature]</i>
DESIGNED :SONAM CHODEN	G.M (D&PS)
<i>lf</i>	<i>[Signature]</i>

NOTE:-
 -ALL DIMENSIONS IN MILLIMETERS.
 -DO NOT MEASURE FROM THIS DRAWING.
 -REPORT ANY DISCREPANCIES TO THE ARCHITECT

REVISION	DATE:-	CONTENT:-

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 National Housing Development Corporation Ltd.
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 PO Box 1439

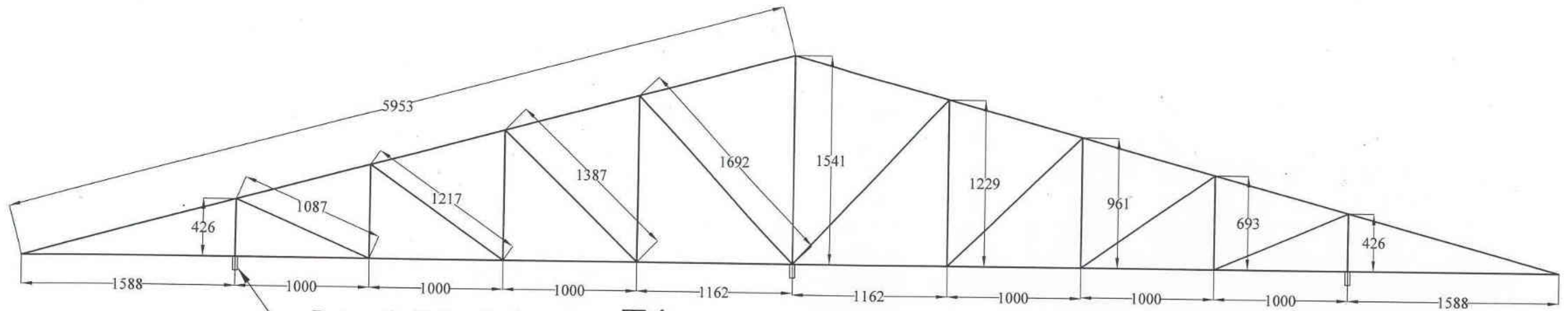


ROOF TRUSS LAYOUT PLAN (BLOCK 3)

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN	<i>HL</i>	<i>[Signature]</i>	NOTE:- -ALL DIMENSIONS IN MILLIMETERS. -DO NOT MEASURE FROM THIS DRAWING. -REPORT ANY DISCREPANCIES TO THE ARCHITECT.	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED :SONAM CHOEN	G.M (D&PS)				
SCALE:-	NTS	TITLE: ROOF TRUSS LAYOUT PLAN BLOCK 3	<i>[Signature]</i>				
DATE:-	Feb 2016	DRAWING NO.:- STR/10	<i>[Signature]</i>				

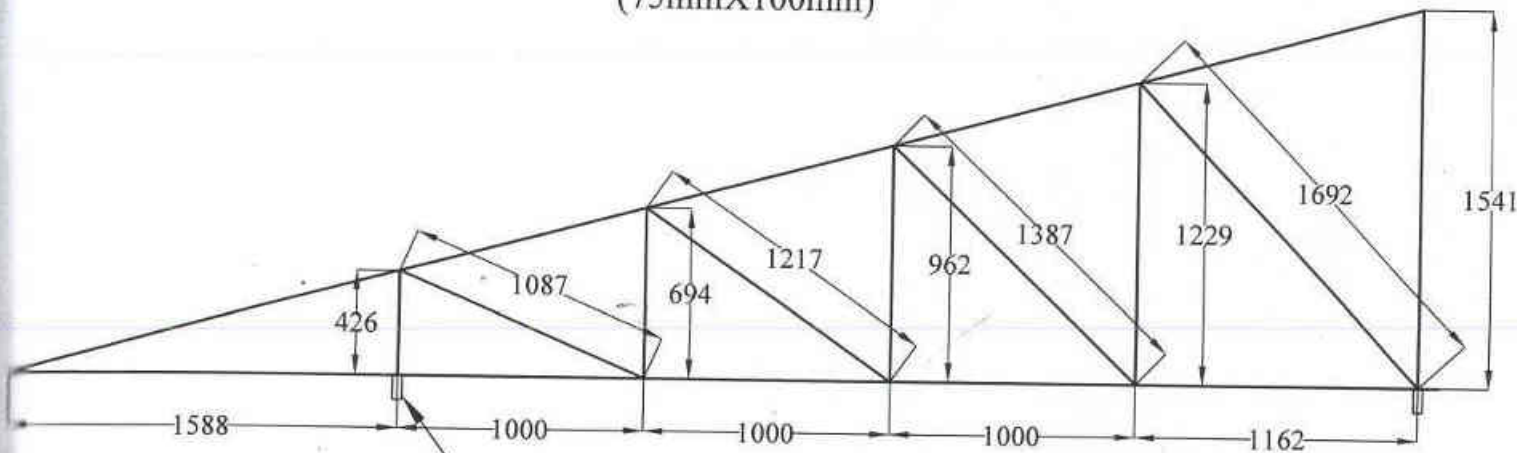
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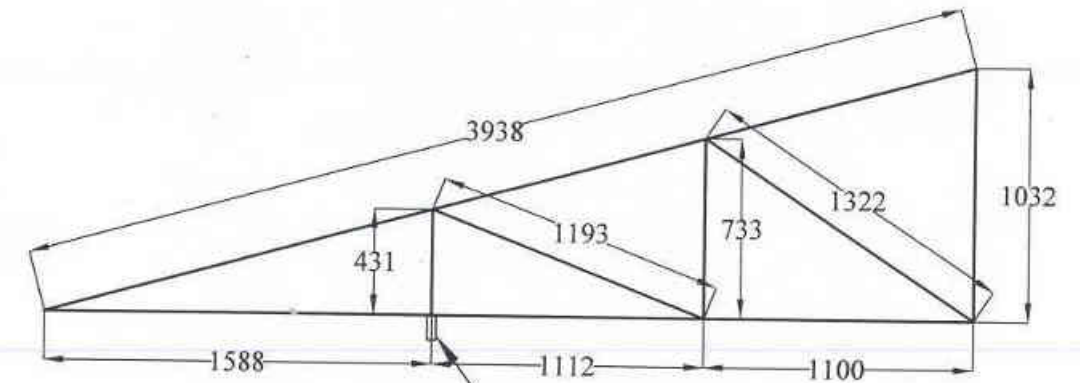
Rectangular Hollow Section
(75mmX100mm)

T4



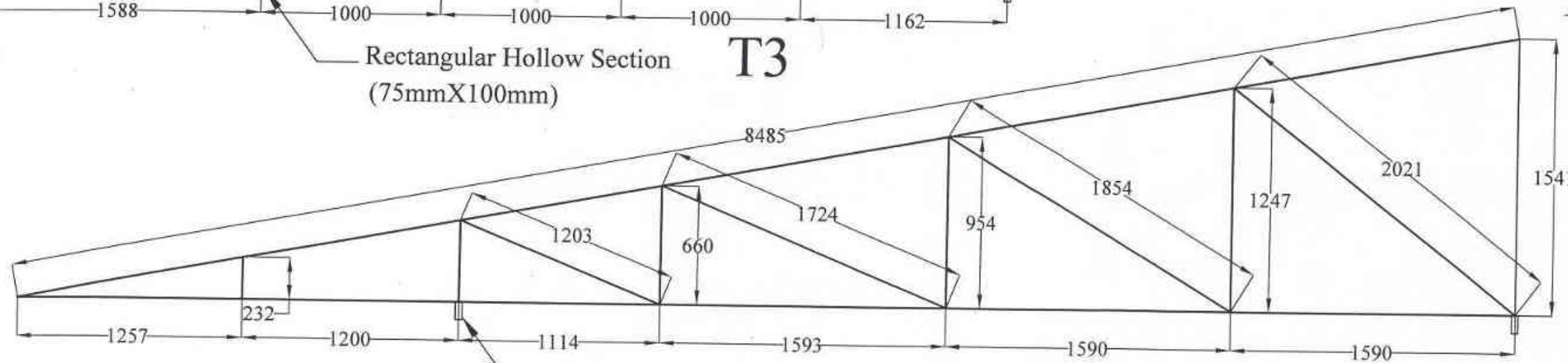
Rectangular Hollow Section
(75mmX100mm)

T3



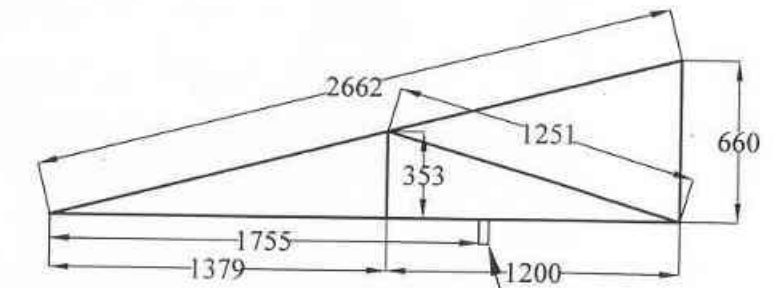
Rectangular Hollow Section
(75mmX100mm)

T2



Rectangular Hollow Section
(75mmX100mm)

T5



Rectangular Hollow Section
(75mmX100mm)

T1

TRUSS ELEVATION (BLOCK 3)

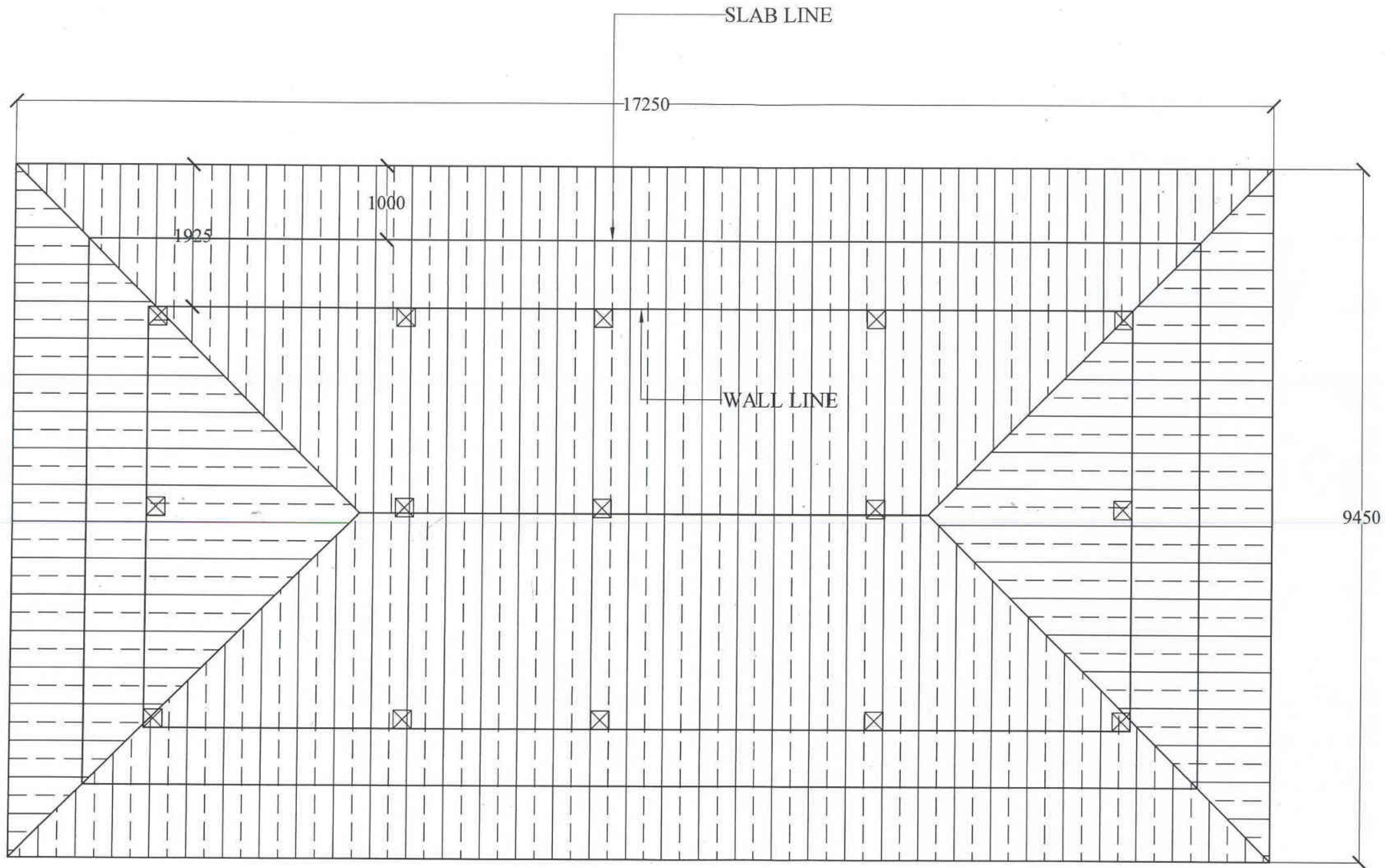
PROJECT:-	ROOFING WORKS AT DAMPHU TOWN
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS
SCALE:-	NTS
DATE:-	Feb 2016
TITLE:-	ROOF TRUSS ELEVATION BLOCK 3
DRAWING NO.:-	STR/11

DESIGNED:- SONAM CHOEN	G.M (D&PS)
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NOTE:-
-ALL DIMENSIONS IN MILLIMETERS.
-DO NOT MEASURE FROM THIS DRAWING.
-REPORT ANY DISCREPANCIES TO THE ARCHITECT.

REVISION	DATE:-	CONTENT:-

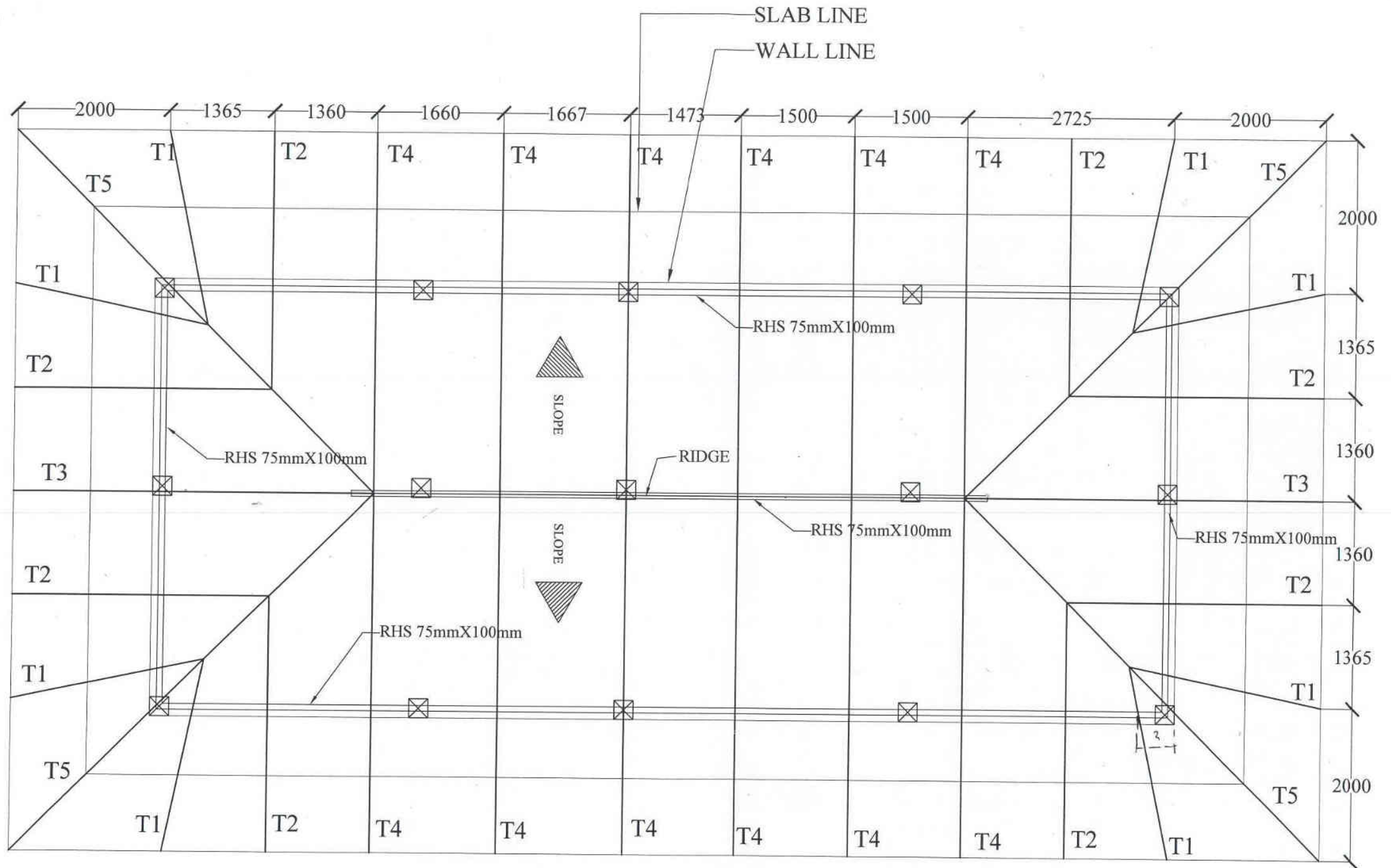
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BLOCK 4 ROOF PLAN

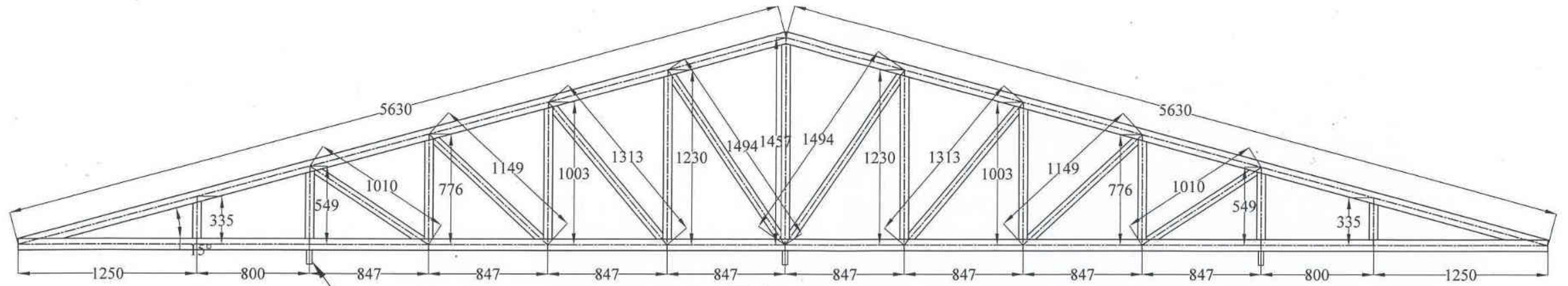
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		NOTE:-		REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		-ALL DIMENSIONS IN MILLIMETERS.				
SCALE:-		NTS		-DO NOT MEASURE FROM THIS DRAWING.				
DRAWING NO.:-		ST/140		-REPORT ANY DISCREPANCIES TO THE				
		DESIGNED: SONAM CHODEN		G.M (D&PS)				

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PO Box 1439



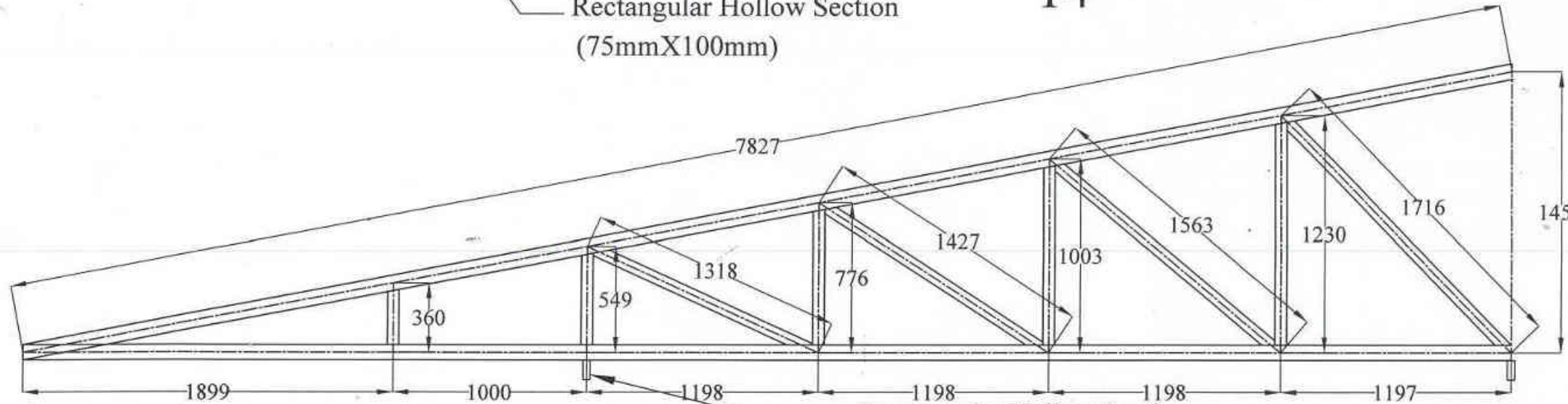
ROOF TRUSS LAYOUT PLAN (BLOCK 4)

PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHODEN	 G.M (D&PS)	NOTE:- -ALL DIMENSIONS IN MILLIMETERS. -DO NOT MEASURE FROM THIS DRAWING. -REPORT ANY DISCREPANCIES TO THE ARCHITECT.	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS					REVISION	DATE:-	CONTENT:-
SCALE:-	NTS	TITLE: ROOF TRUSS LAYOUT PLAN (BLOCK 4)		 (CERTIFIED)					
DATE:-	Feb 2016	DRAWING NO.:- STR/13							



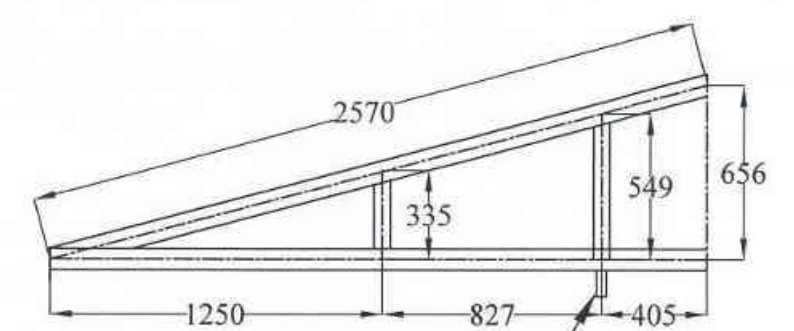
Rectangular Hollow Section
(75mmX100mm)

T4



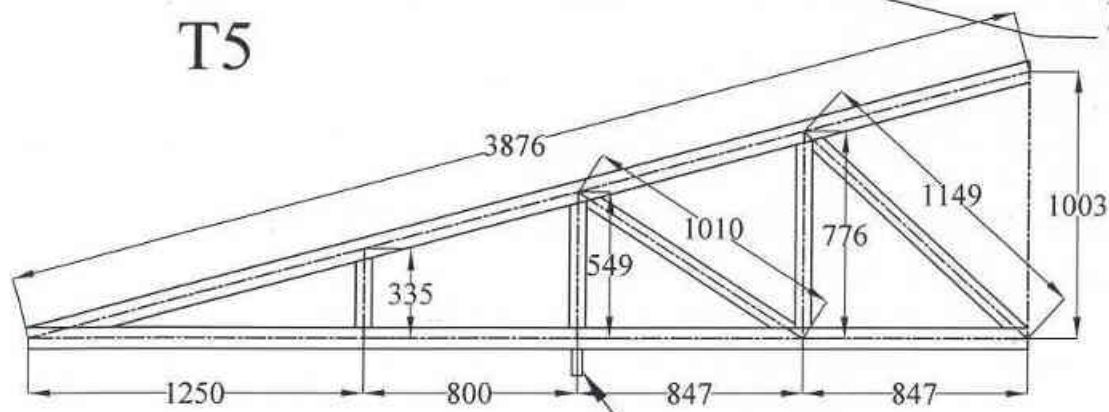
Rectangular Hollow Section
(75mmX100mm)

T5



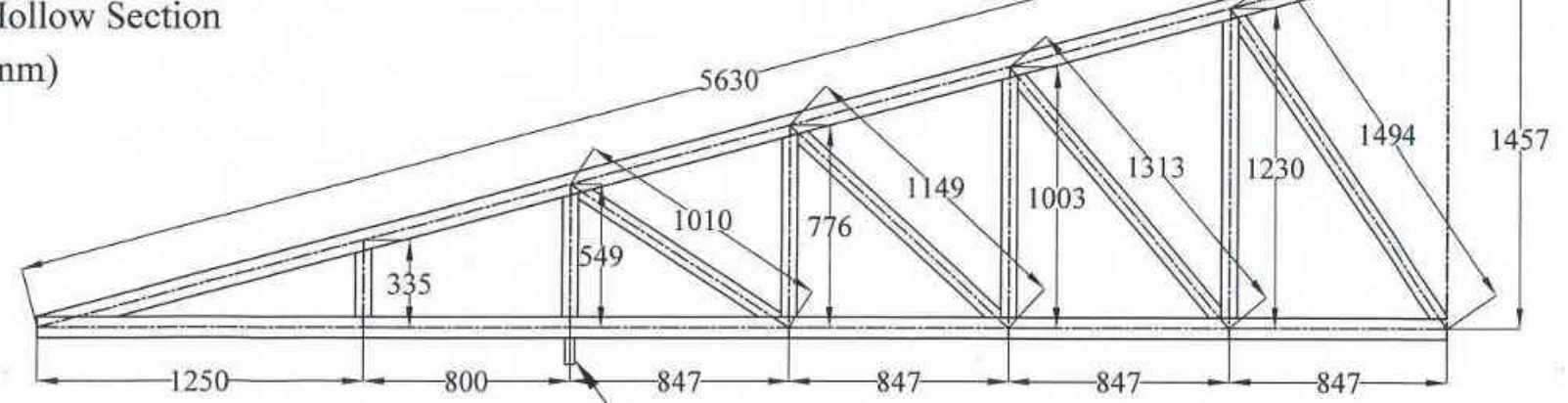
Rectangular Hollow Section
(75mmX100mm)

T1



Rectangular Hollow Section
(75mmX100mm)

T2



Rectangular Hollow Section
(75mmX100mm)

T3

TRUSS ELEVATION (BLOCK 4)

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN	<i>hl</i>	<i>hl</i>
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHODEN	G.M (D&PS)
SCALE:-	NTS	<i>hl</i>	<i>hl</i>
TITLE: ROOF TRUSS ELEVATIONS (BLOCK 4)			

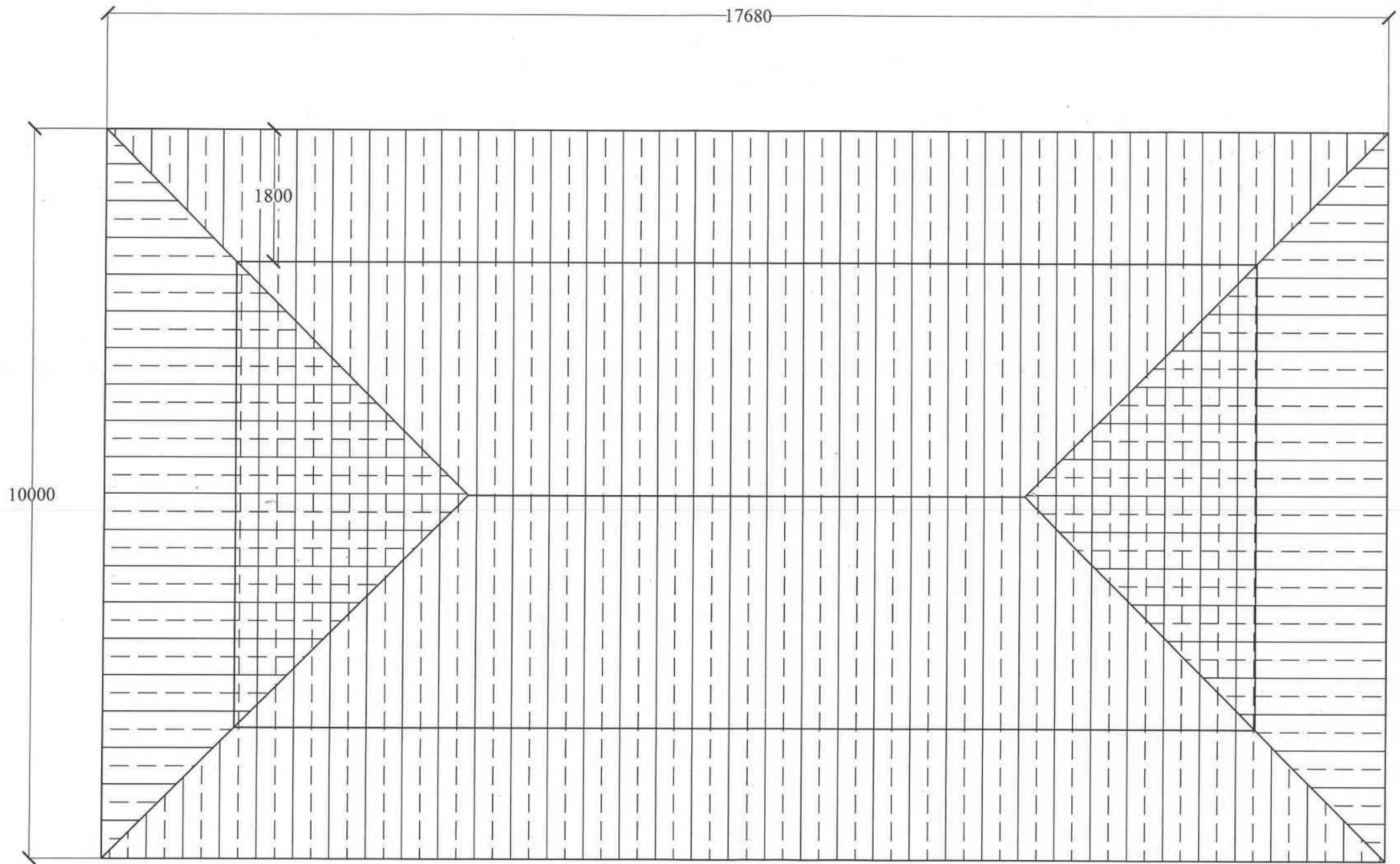
NOTE:-

- ALL DIMENSIONS IN MILLIMETERS.
- DO NOT MEASURE FROM THIS DRAWING.
- REPORT ANY DISCREPANCIES TO THE





REVISION	DATE:-	CONTENT:-

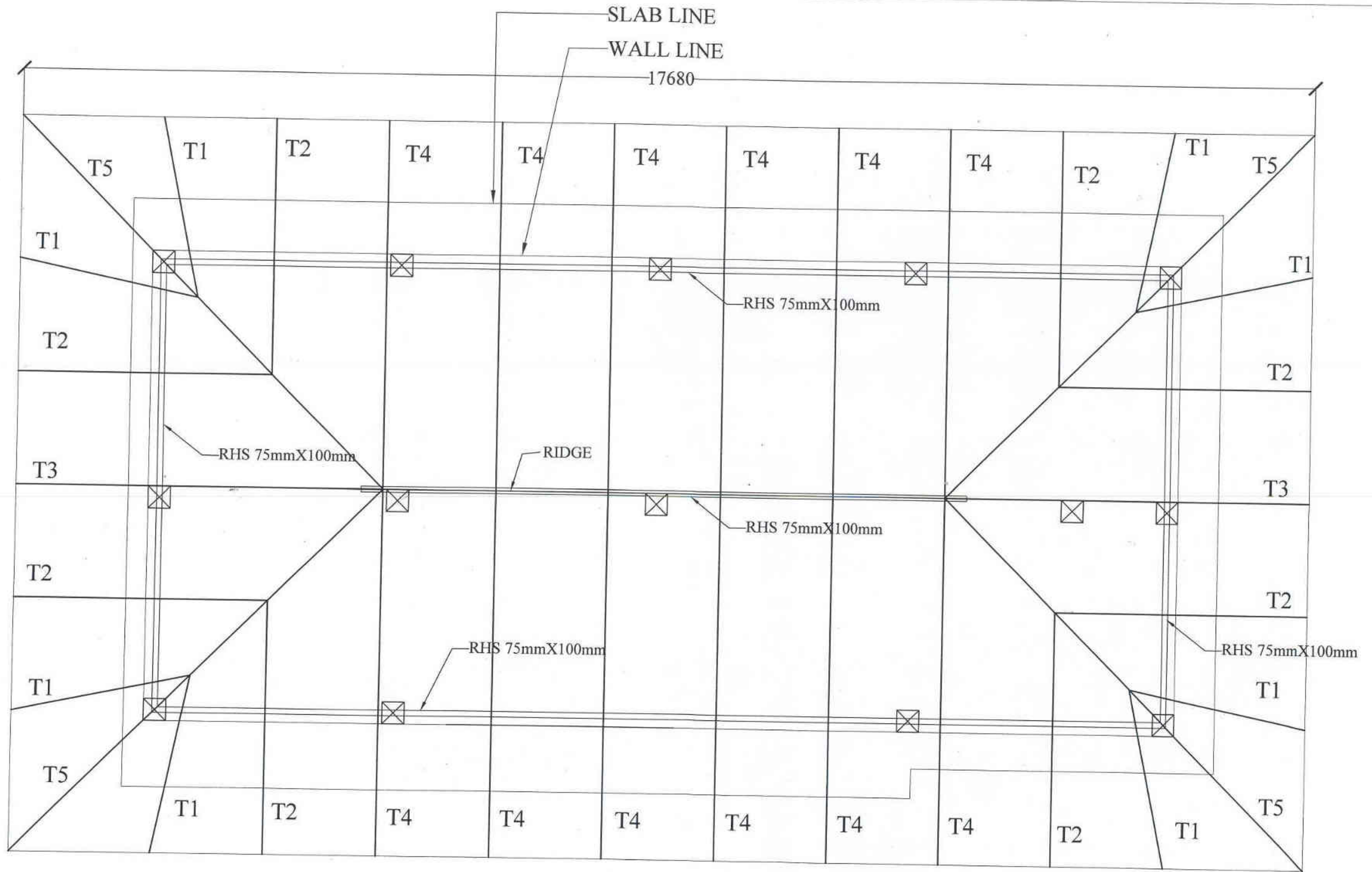
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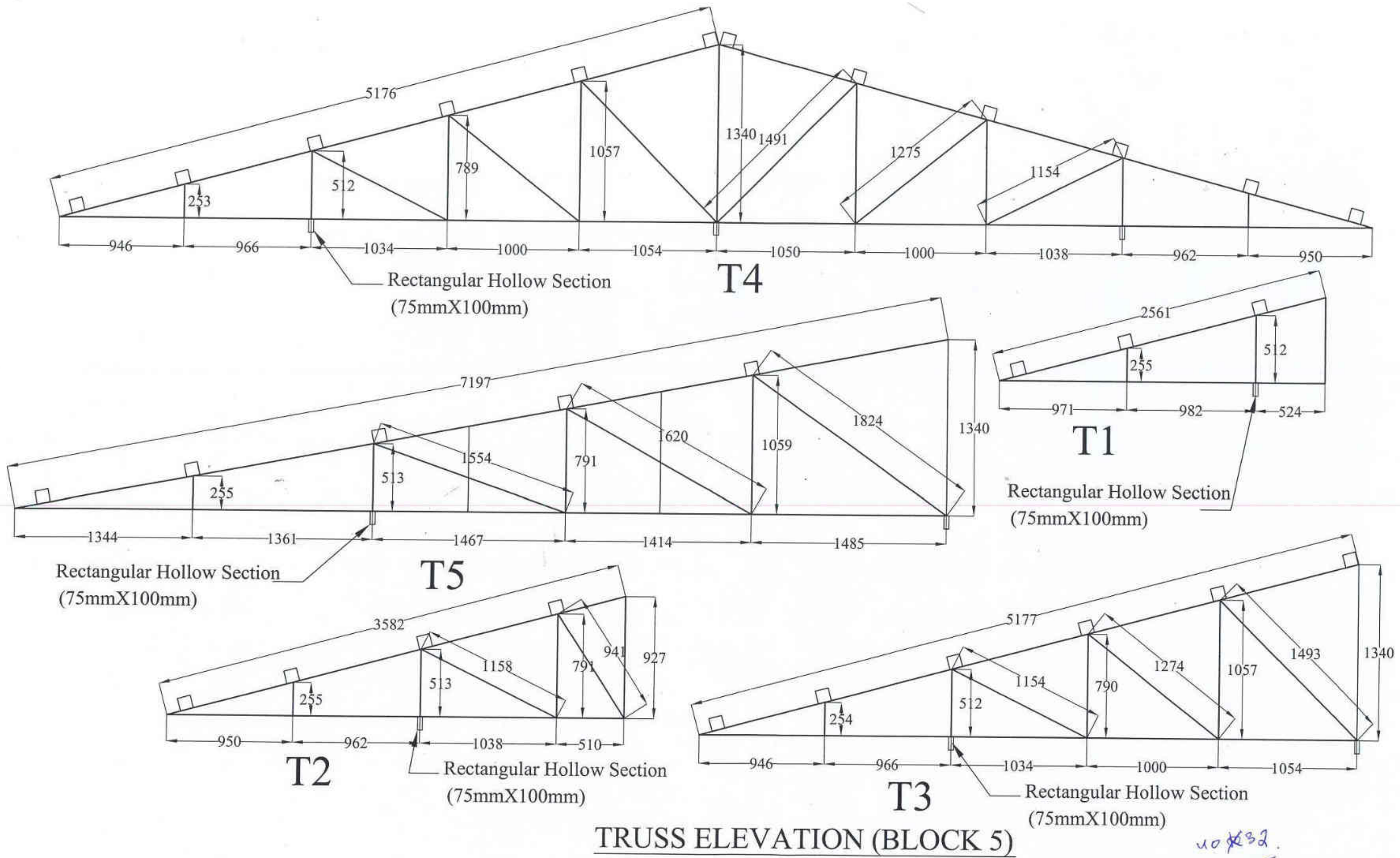
BLOCK 5 ROOF PLAN

PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHODEN	 G.M. (D&PS)	NOTE:- -ALL DIMENSIONS IN MILLIMETERS. -DO NOT MEASURE FROM THIS DRAWING. -REPORT ANY DISCREPANCIES TO THE	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS					1		
SCALE:-	NTS	TITLE: ROOF PLAN BLOCK 5							
DRAWING NO: 07/14/15						ROYAL GOVERNMENT OF BHUTAN National Housing Development Corporation Ltd. Design & Planning Services, PO Box 1439			



ROOF TRUSS LAYOUT PLAN (BLOCK 5)

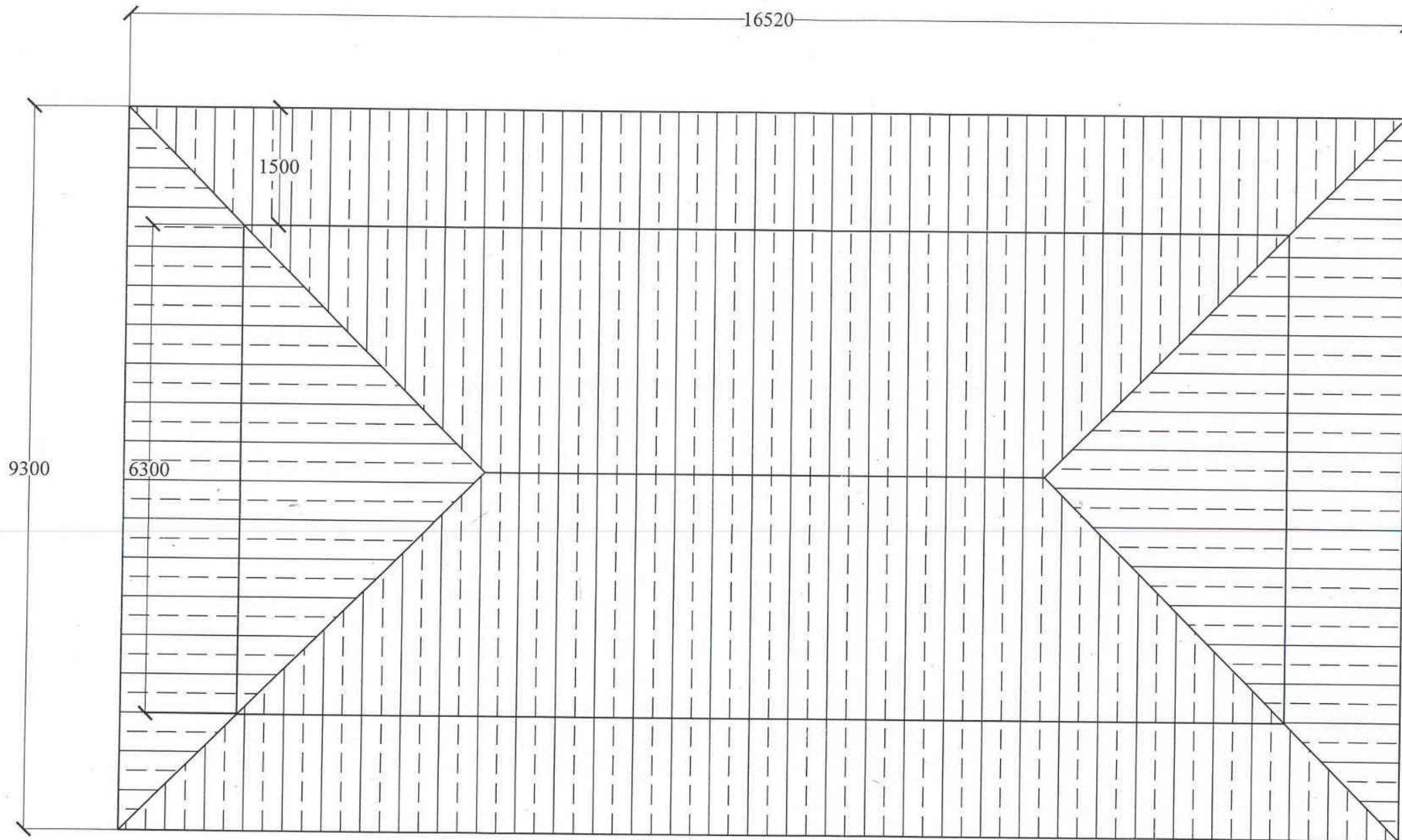
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHOEN		 G.M (D&PS)		NOTE:-			REVISION			DATE:-			CONTENT:-		
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS						-ALL DIMENSIONS IN MILLIMETERS.											
SCALE:-		NTS		TITLE: ROOF TRUSS LAYOUT PLAN (BLOCK 5)				-DO NOT MEASURE FROM THIS DRAWING.											
DATE:-		Feb 2016		DRAWING NO.:- STR/16				-REPORT ANY DISCREPANCIES TO THE ARCHITECT											





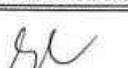

TRUSS ELEVATION (BLOCK 5)

no 32.

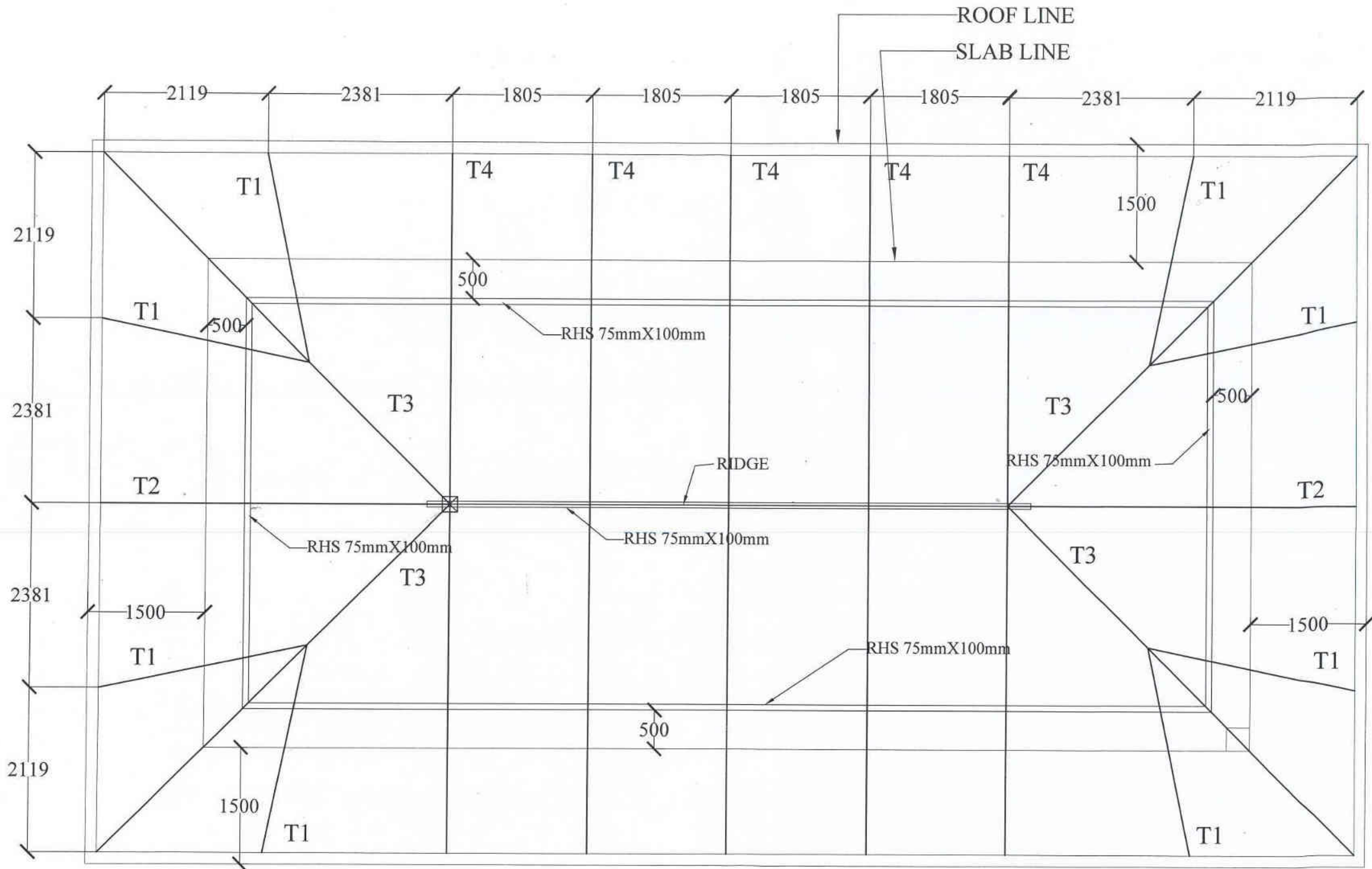
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHODEN	 G.M (D&PS)	NOTE:-	REVISION	DATE:-	CONTENT:-	 ROYAL GOVERNMENT OF BHUTAN National Housing Development Corporation Ltd. Design & Planning Services, PO Box 1439 Thimphu
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS								
SCALE:-	NTS	TITLE: ROOF TRUSS ELEVATIONS (BLOCK 5)				-DO NOT MEASURE FROM THIS DRAWING.				
DATE:-	Feb 2016	DRAWING NO.:- STR/17				-REPORT ANY DISCREPANCIES TO THE ARCHITECT.				



BLOCK 6 ROOF PLAN

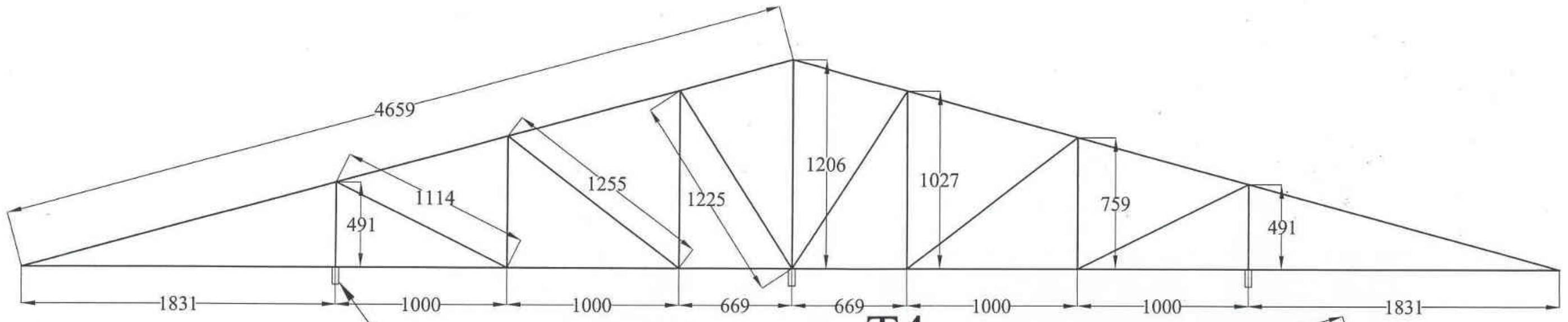
PROJECT:-	ROOFING WORKS AT DAMPHU TOWN			NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED :SONAM CHODEN	G.M (D&PS)	- ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS			- DO NOT MEASURE FROM THIS DRAWING.			
DATE:-	Feb 2016			- REPORT ANY DISCREPANCIES TO THE ARCHITECT.			
	DRAWING NO.:- STR/18	Drawn By :SONAM CHODEN	CEO (NHDC)				

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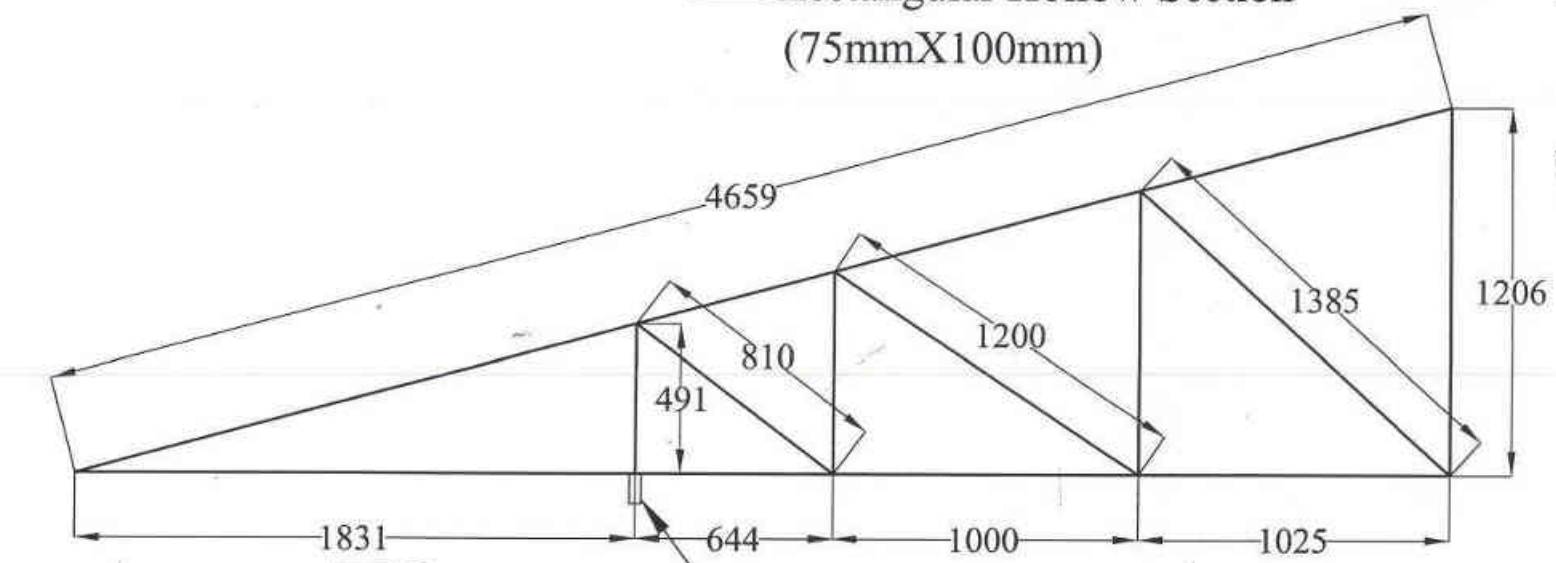
ROOF TRUSS LAYOUT PLAN (BLOCK 6)

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN	<i>SC</i>	<i>GM</i>	NOTE:-	REVISION	DATE:-	CONTENT:-	ROYAL GOVERNMENT OF BHUTAN National Housing Development Corporation Ltd. Design & Planning Services, PO Box 1439 Thimphu
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHODEN	G.M (D&PS)	-ALL DIMENSIONS IN MILLIMETERS.				
SCALE:-	NTS	<i>SC</i>	<i>GM</i>	-DO NOT MEASURE FROM THIS DRAWING.				
DATE:-	Feb 2016		CEO (NHDC)	-REPORT ANY DISCREPANCIES TO THE ARCHITECT.				



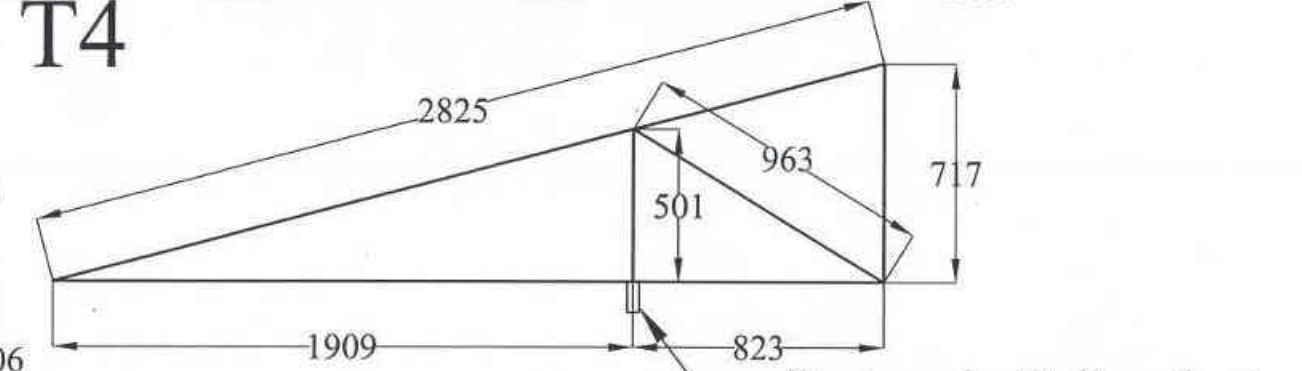
T4

Rectangular Hollow Section
(75mmX100mm)



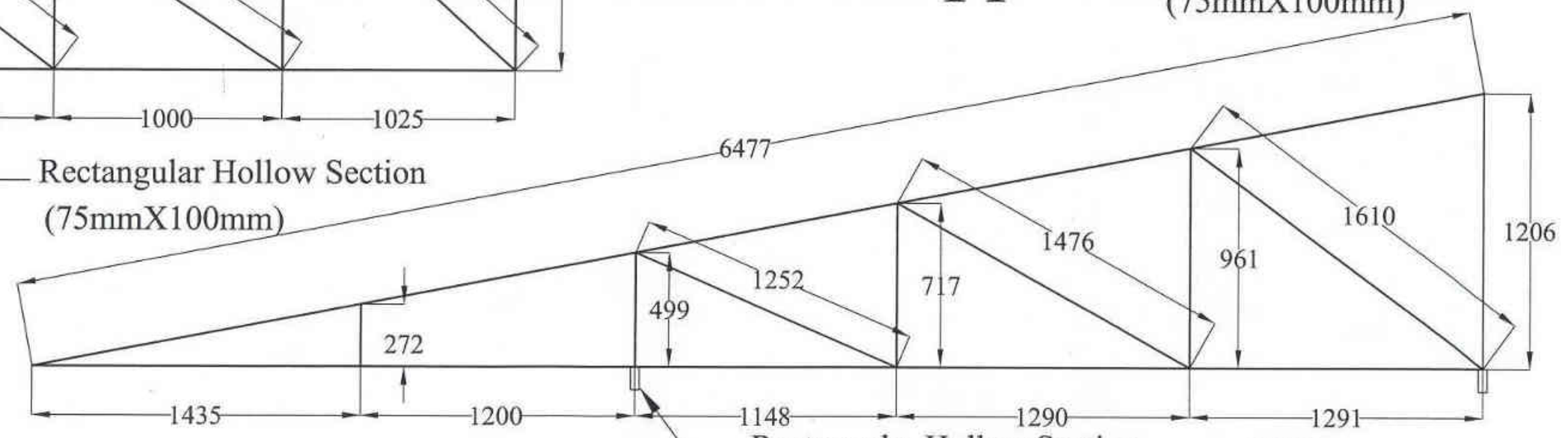
T2

Rectangular Hollow Section
(75mmX100mm)



T1


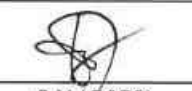
Rectangular Hollow Section
(75mmX100mm)



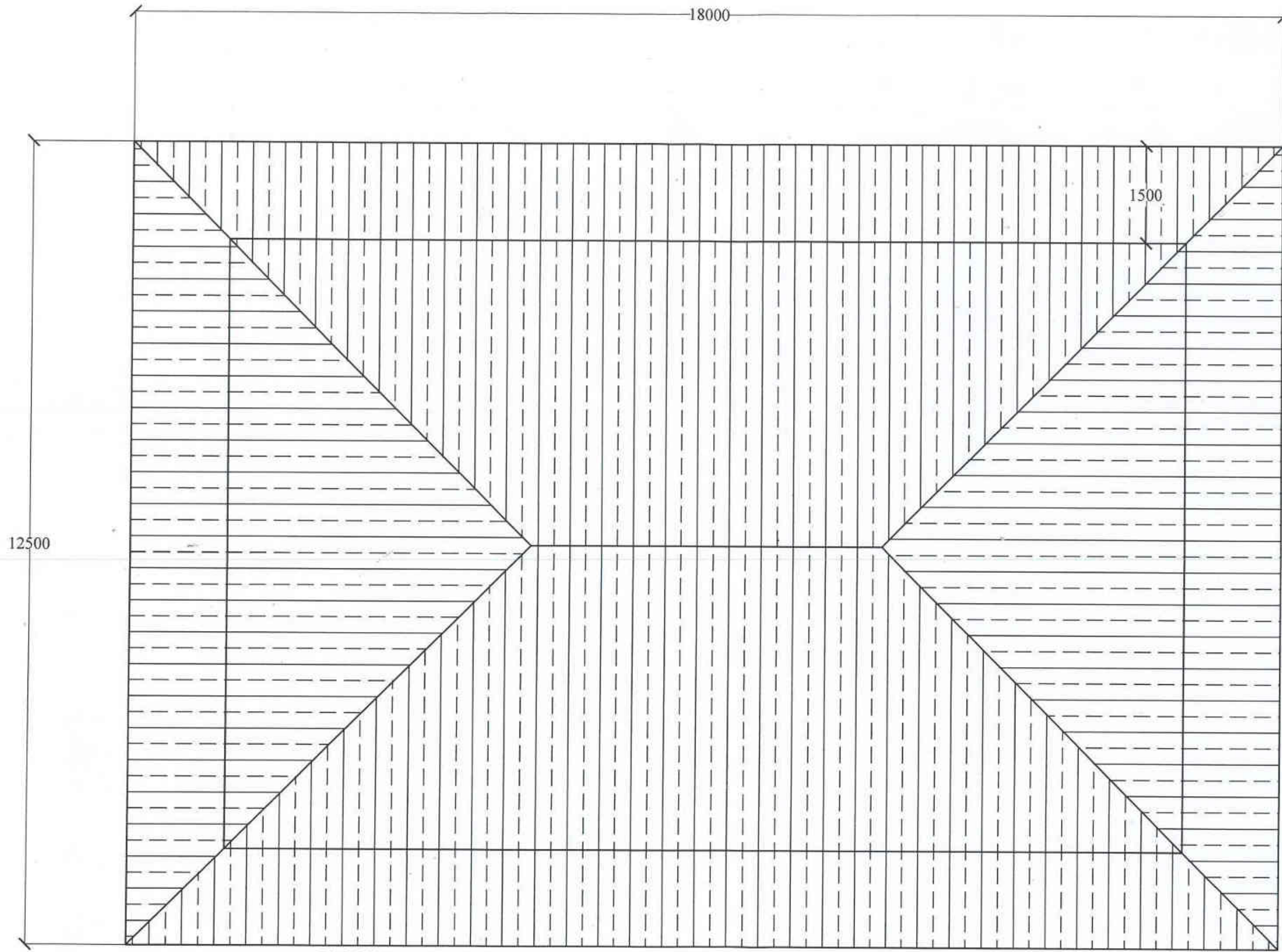
T3

Rectangular Hollow Section
(75mmX100mm)

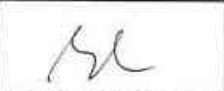

TRUSS ELEVATION (BLOCK 6)

PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED - SONAM CHODEN		 G.M (D&PS)		NOTE:-			REVISION		DATE:-		CONTENT:-	
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS						- ALL DIMENSIONS IN MILLIMETERS.								
SCALE:-		NTS		TITLE: ROOF TRUSS ELEVATION BLOCK 6				- DO NOT MEASURE FROM THIS DRAWING.								
DATE:-		Feb 2016		DRAWING NO.:- STR/20				- REPORT ANY DISCREPANCIES TO THE ARCHITECT.								

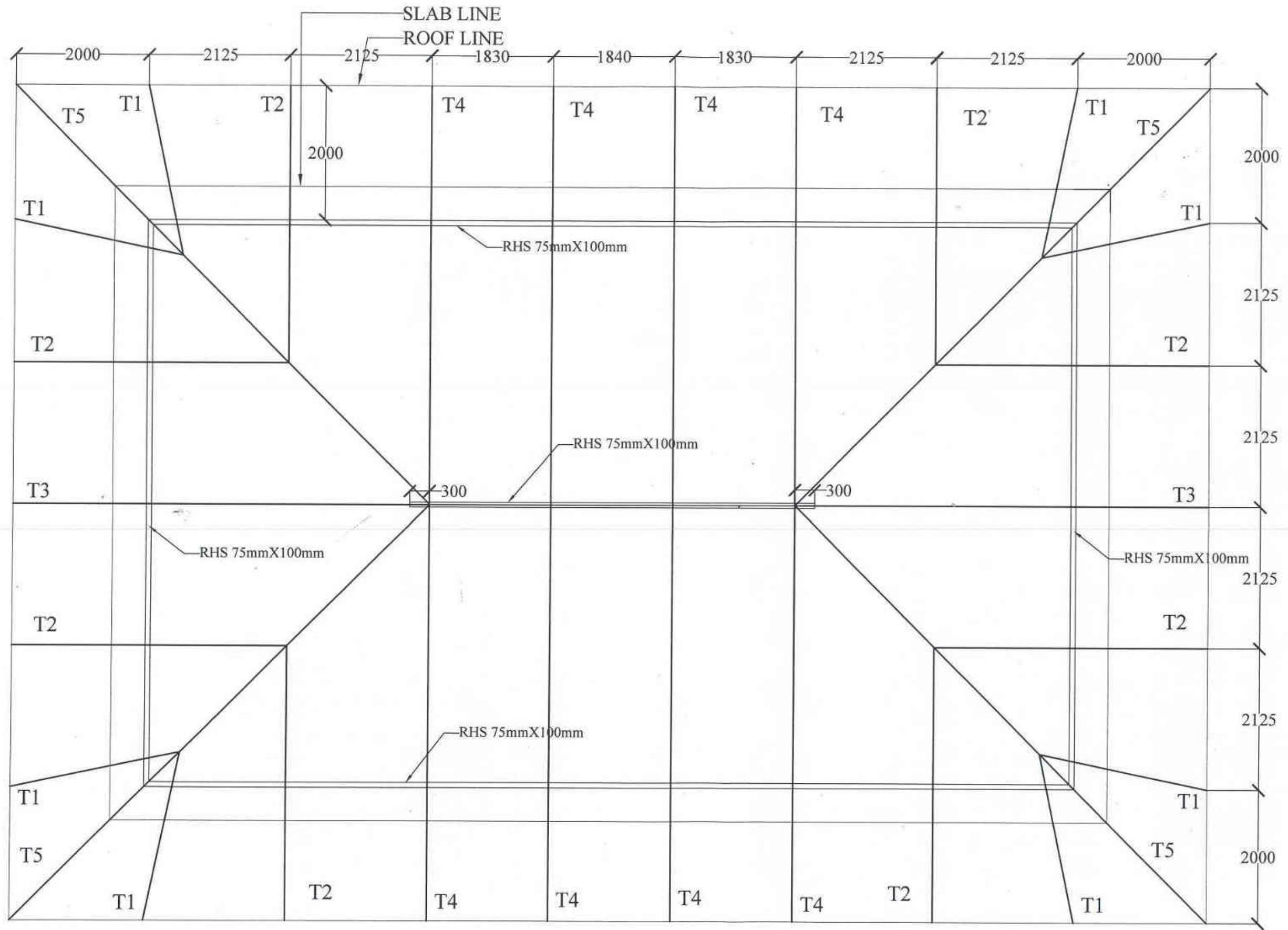
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Thimphu



BLOCK 8 ROOF PLAN

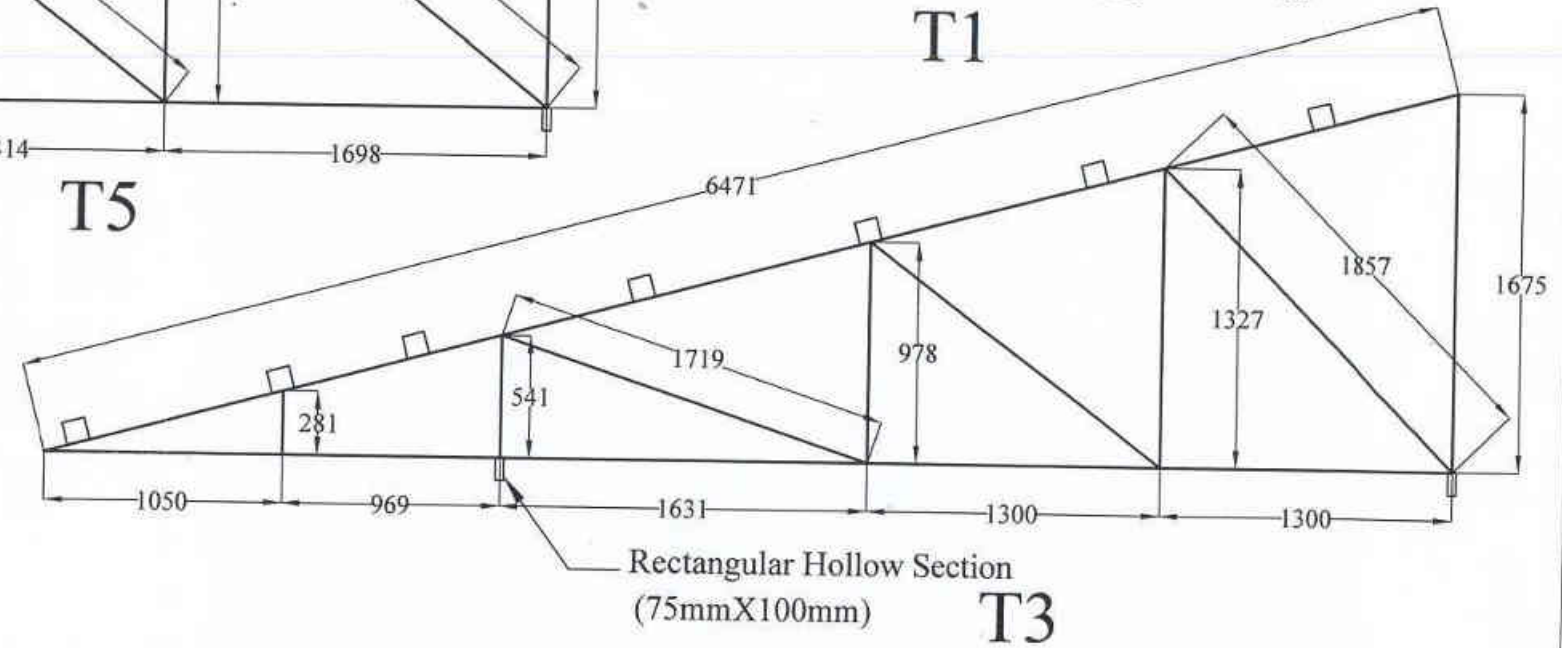
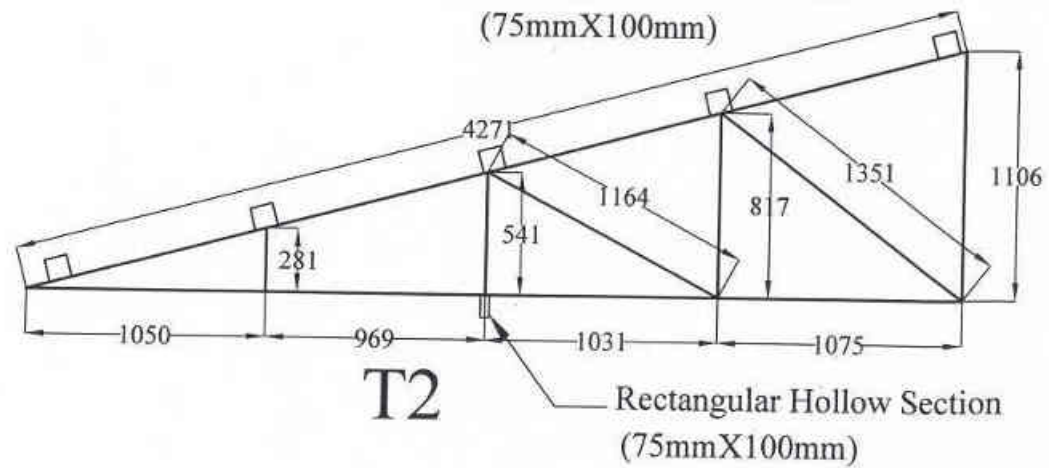
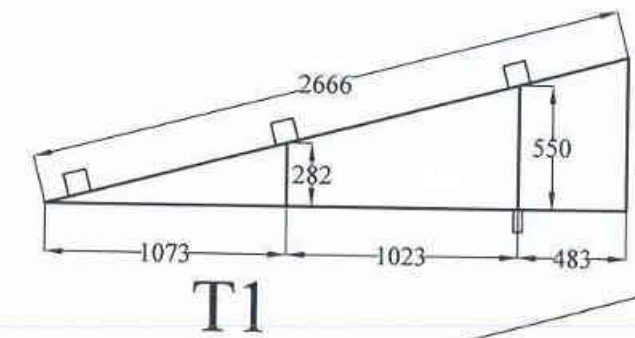
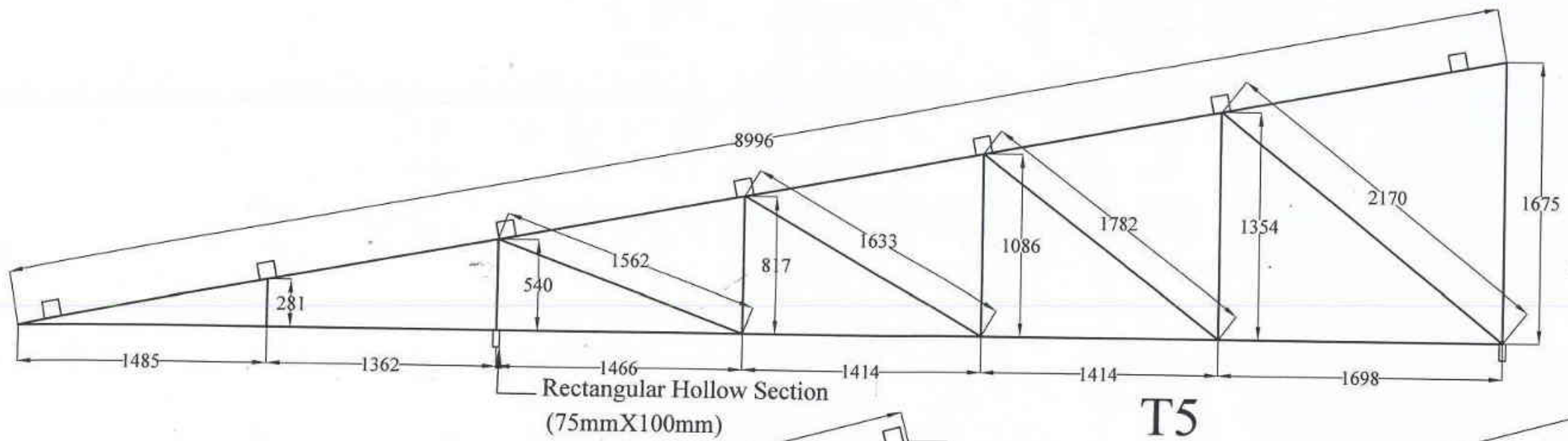
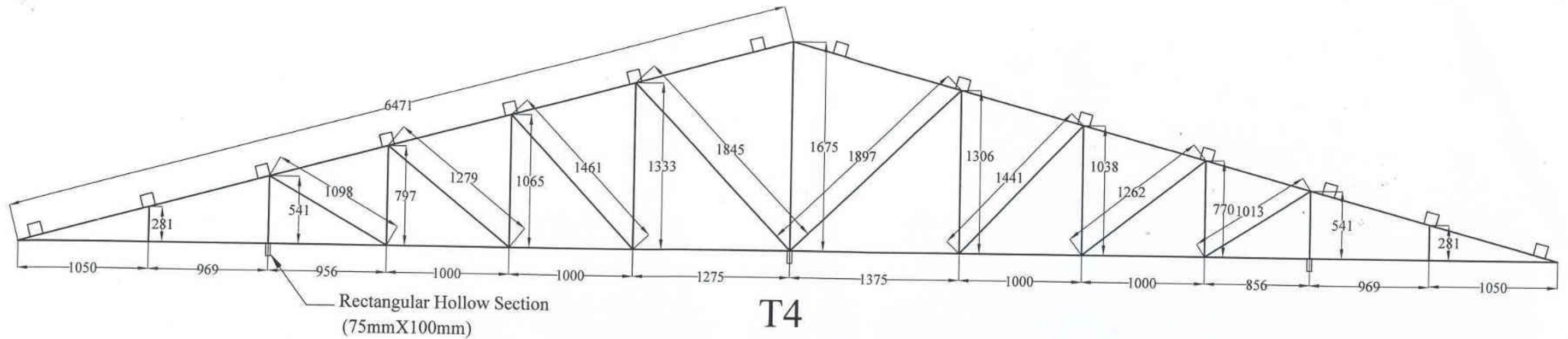
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHODEN	 G.M. (D&PS)	NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS							
SCALE:-	NTS	TITLE: ROOF PLAN BLOCK 8		-DO NOT MEASURE FROM THIS DRAWING.	-	-	-	-	
DATE:-	Feb 2016	DRAWING NO.:- STR/21							-REPORT ANY DISCREPANCIES TO THE ARCHITECT.

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ROOF TRUSS LAYOUT PLAN (BLOCK 8)

PROJECT:-	ROOFING WORKS AT DAMPHU TOWN	<i>SL</i>	<i>[Signature]</i>	NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHODEN	G.M (D&PS)	- ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS	<i>SL</i>	<i>[Signature]</i>	- DO NOT MEASURE FROM THIS DRAWING.			
	TITLE: ROOF TRUSS LAYOUT PLAN (BLOCK 8)			- REPORT ANY DISCREPANCIES TO THE			



TRUSS ELEVATION (BLOCK 8)

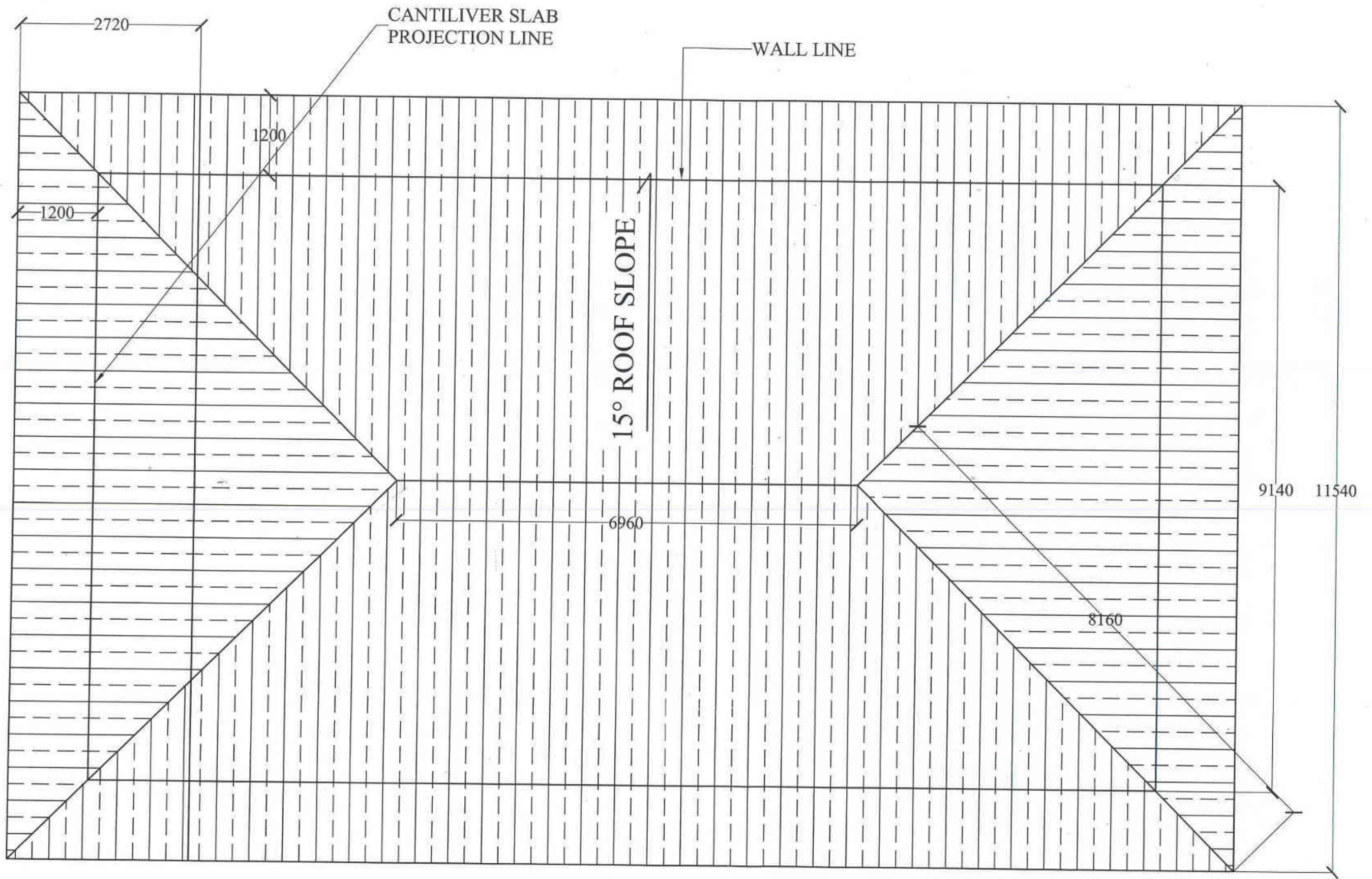
PROJECT:-	ROOFING WORKS AT DAMPHU TOWN
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS
SCALE:-	NTS
	TITLE: ROOF TRUSS ELEVATIONS (BLOCK 8)
	DRAWING NO. :- STR/23

DESIGNED :SONAM CHODEN	G.M (D&PS)





NOTE:-
 -ALL DIMENSIONS IN MILLIMETERS.
 -DO NOT MEASURE FROM THIS DRAWING.
 -REPORT ANY DISCREPANCIES TO THE ARCHITECT

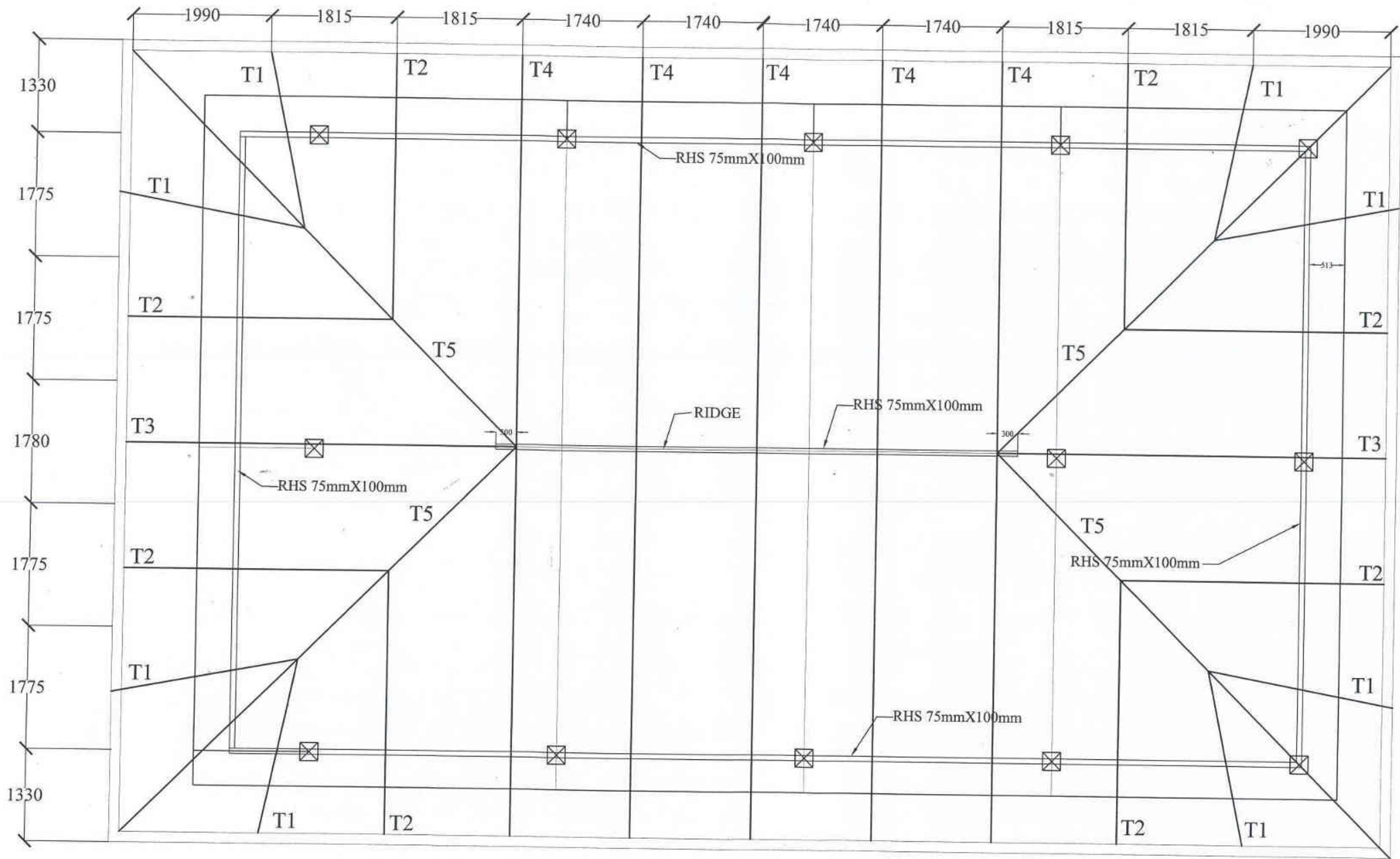
REVISION	DATE:-	CONTENT:-

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ROOF PLAN (BLOCK 9)

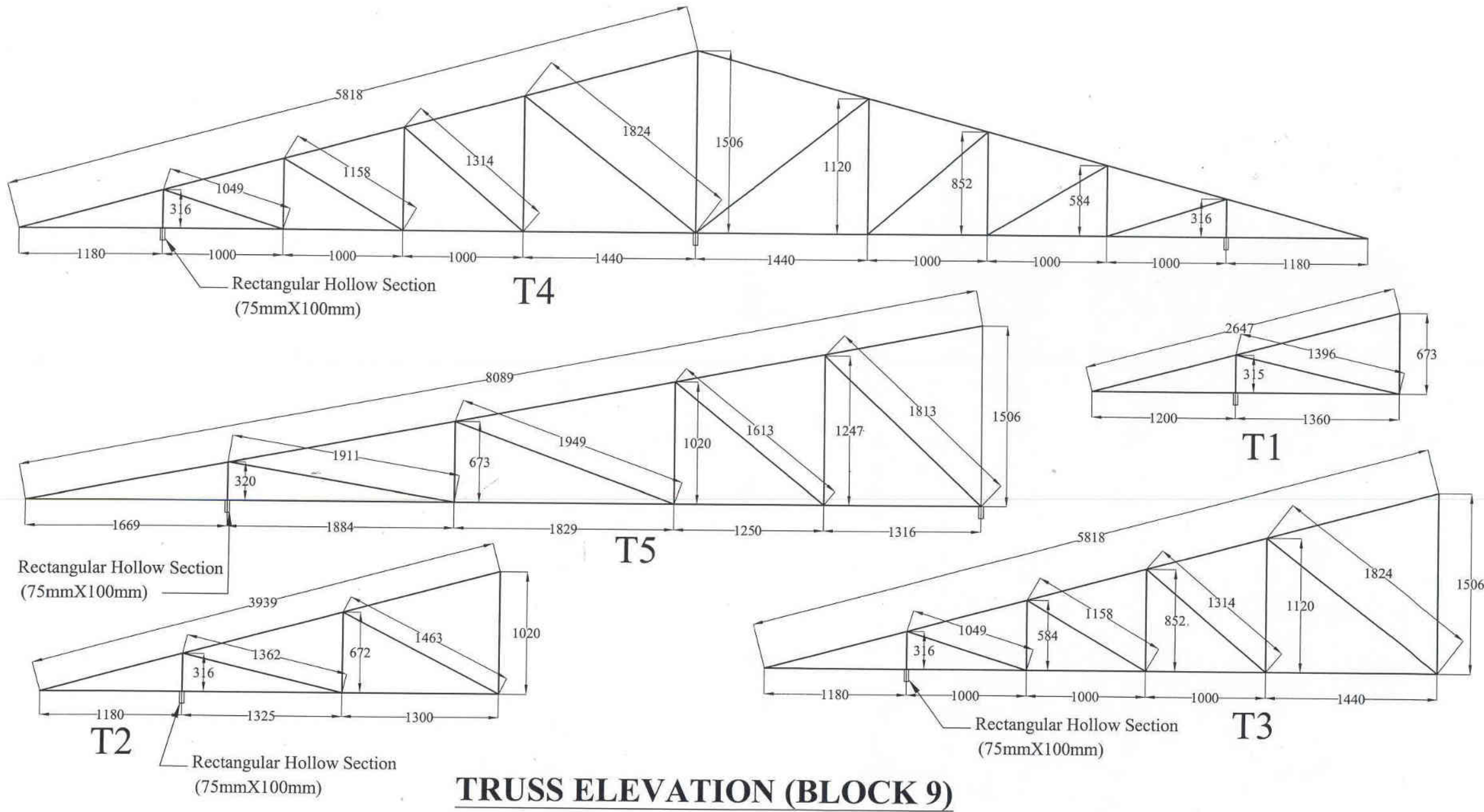
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHODEN		 G.M (D&PS)		NOTE:-			REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS						-ALL DIMENSIONS IN MILLIMETERS.					
SCALE:-		NTS		 TITLE: ROOF PLAN BLOCK 9		 DRAWING NO.: ST/01/		-DO NOT MEASURE FROM THIS DRAWING.					
								-REPORT ANY DISCREPANCIES TO THE					





ROOF TRUSS LAYOUT PLAN (BLOCK 9)

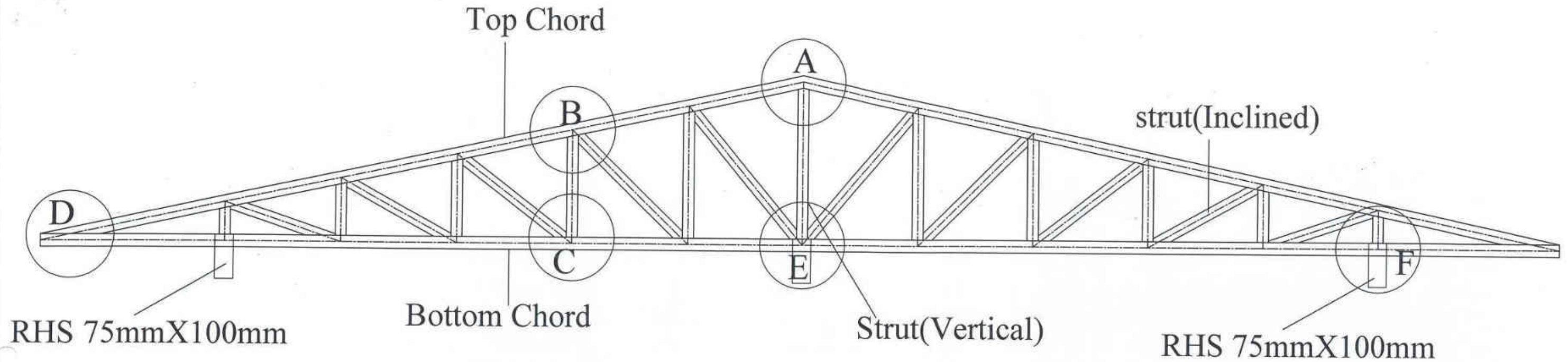
PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		DESIGNED: SONAM CHODEN		G.M (D&PS)		NOTE:-			REVISION			DATE:-			CONTENT:-		
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		22		22		- ALL DIMENSIONS IN MILLIMETERS.											
SCALE:-		NTS		TITLE: ROOF TRUSS LAYOUT PLAN BLOCK 9				- DO NOT MEASURE FROM THIS DRAWING.											
								- REPORT ANY DISCREPANCIES TO THE											

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 PO Box 1439



PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		 DESIGNED: SONAM CHODEN		 G.M. (D&PS)		NOTE:-		REVISION		DATE:-		CONTENT:-	
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS						-ALL DIMENSIONS IN MILLIMETERS.							
SCALE:-		NTS		TITLE: ROOF TRUSS ELEVATION BLOCK 9				-DO NOT MEASURE FROM THIS DRAWING.							
DATE:-		Feb 2016		DRAWING NO.:- STR/26				-REPORT ANY DISCREPANCIES TO THE ARCHITECT.							

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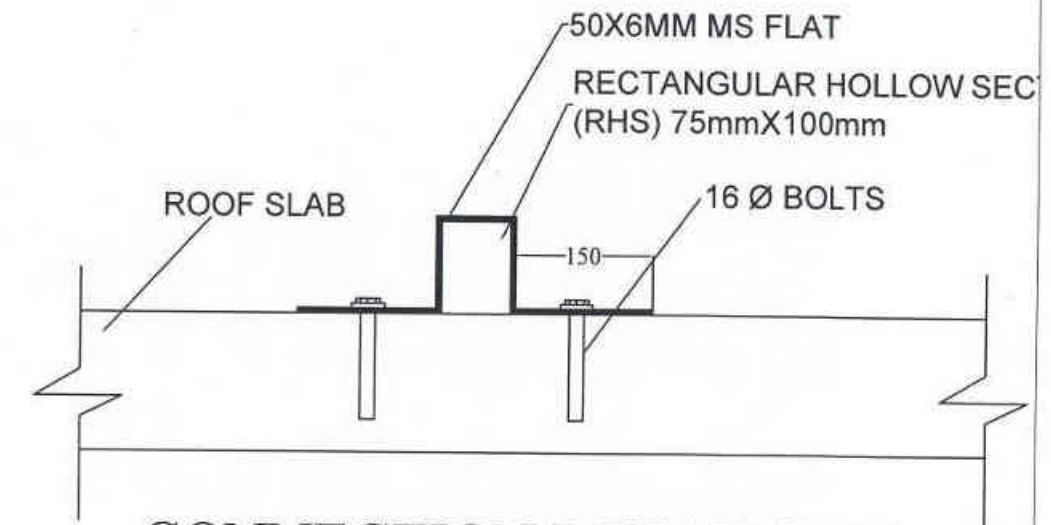
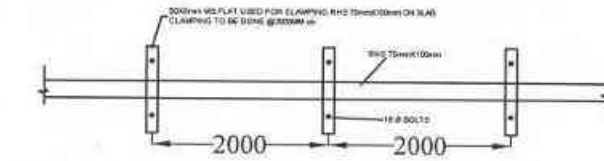
TRUSS MEMBER SCHEDULE

MEMBER	STEEL TUBES SIZE	SECTION THICKNESS, (mm)
TOP & BOTTOM CHORD	49.3 60.03 ODM, 5.070 Kg/m	3.60
STRUT (INCLINED)	42.40 48.3 ODM, 3.61 Kg/m	3.25
STRUT (VERTICAL)	42.4 48.3 ODM, 3.61 Kg/m	3.25
PURLIN	49.3 60.03 ODM, 5.070 Kg/m	3.60

OD- Outer Diameter, M- medium

NOTES:

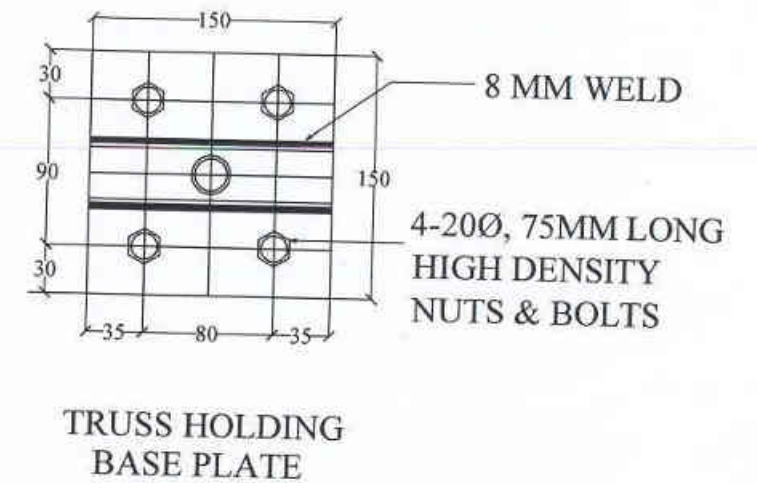
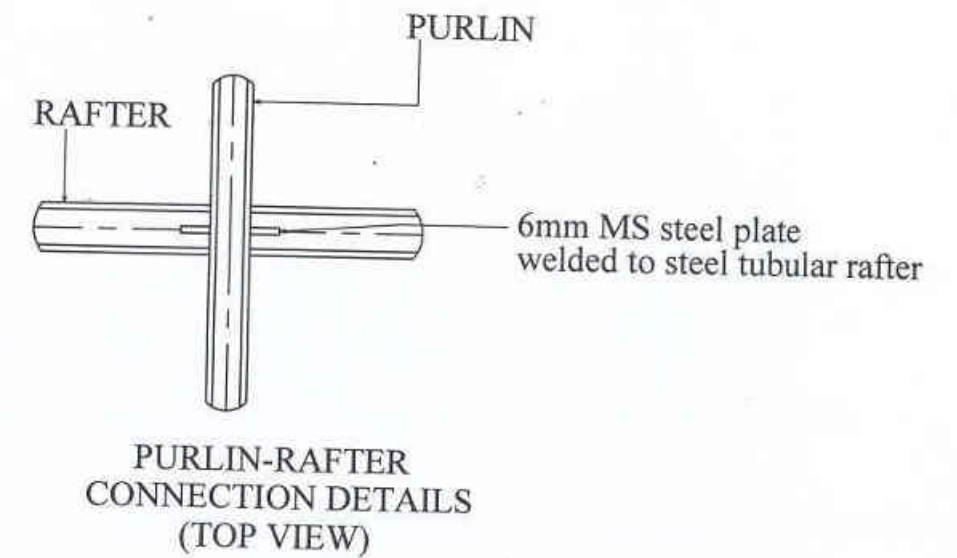
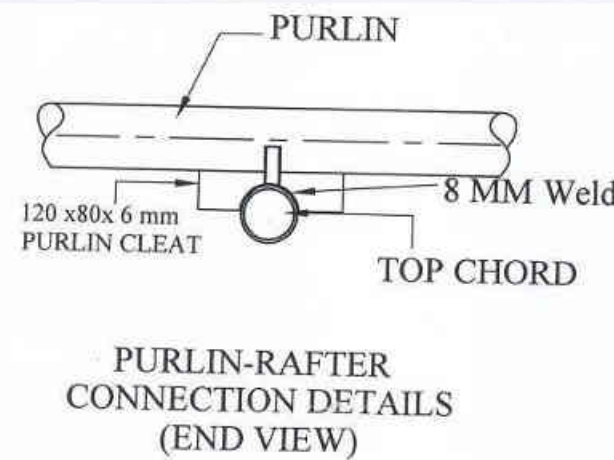
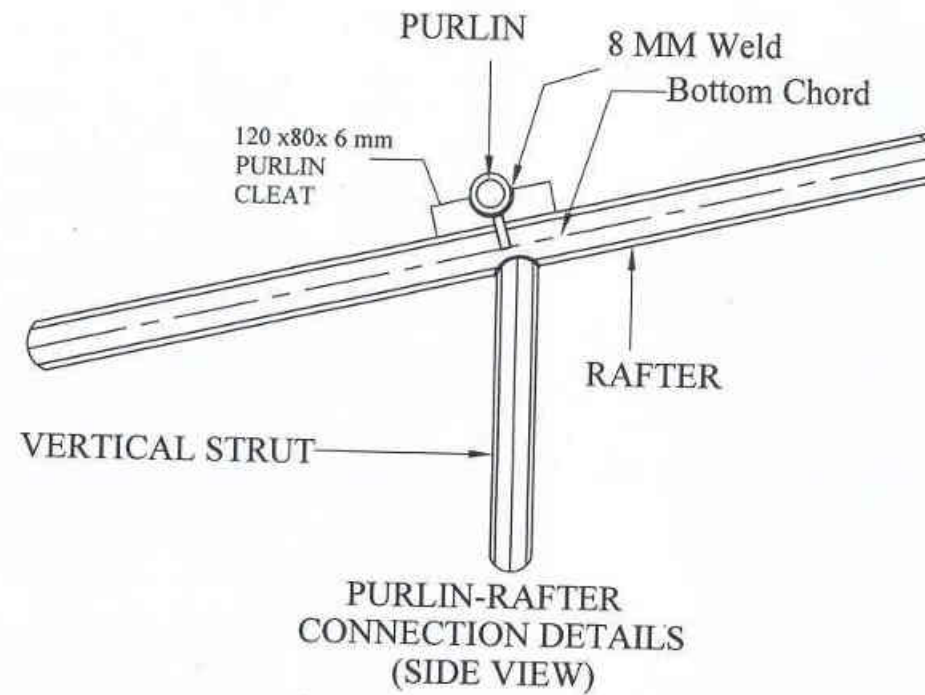
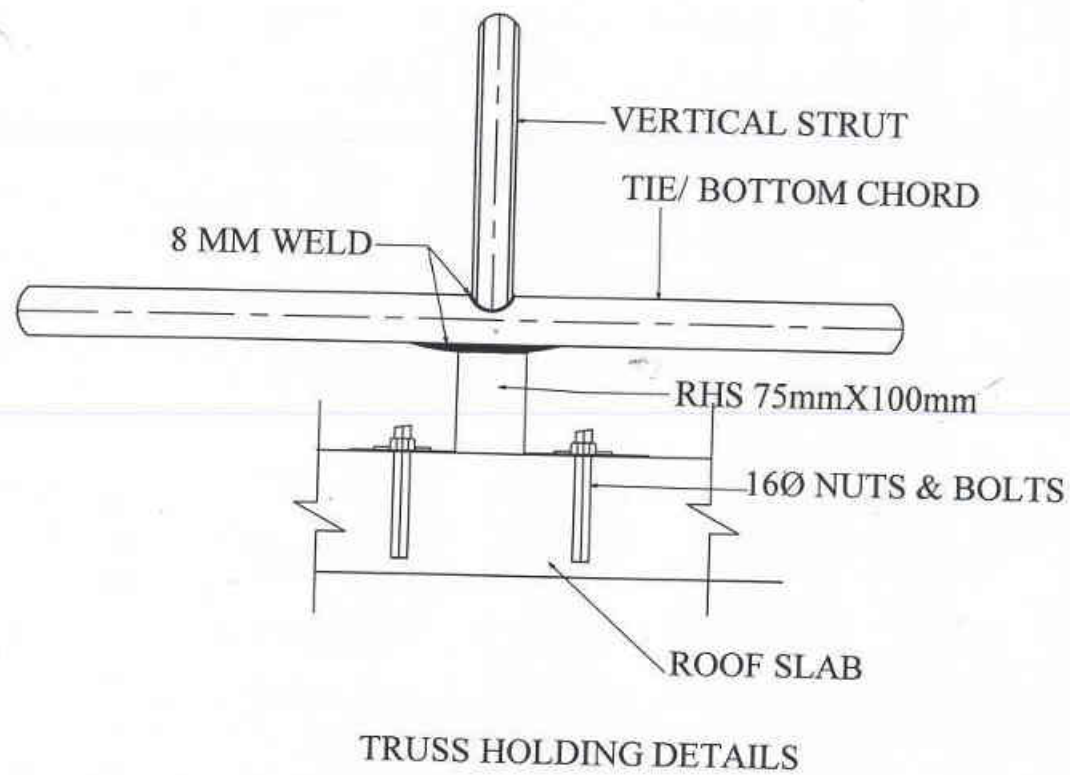
1. ALL WELDING SHOULD BE FILLET WELD OF MINIMUM 6 MM THICK
2. SIZE OF COMPLETE PENETRATION BUTT WELD GREATER THAN EQUAL TO MEMBER THICKNESS
3. STEEL GRADE ST35 (Yst 22 GRADE)
4. TRUSS SHALL REST ON RECTANGULAR HOLLOW SECTION OF 75mmX100mm WHICH SHALL BE PLACED ON THE SLAB BY CLAMPING IT WITH MS FLATS USING 16Ø BOLTS.
5. THE CLAMPING WITH MS FLATS SHALL BE DONE @2000M c/c



CONNECTION DETAILS OF RHS ON SLAB

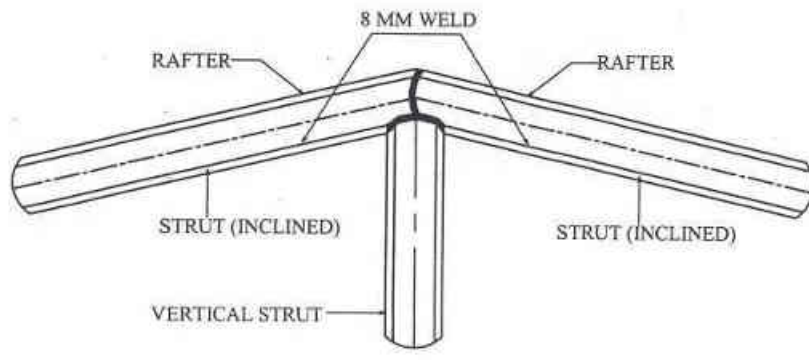
PROJECT:-	ROOFING WORKS AT DAMPHU TOWN			NOTE:-	REVISION	DATE:-	CONTENT:-
NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHODEN	G.M (D&PS)	- ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS			- DO NOT MEASURE FROM THIS DRAWING.			
DATE:-	Feb 2016			- REPORT ANY DISCREPANCIES TO THE ARCHITECT.			
	DRAWING NO.:- STR/27						

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Design & Planning Services,
PO Box 1439
Thimphu

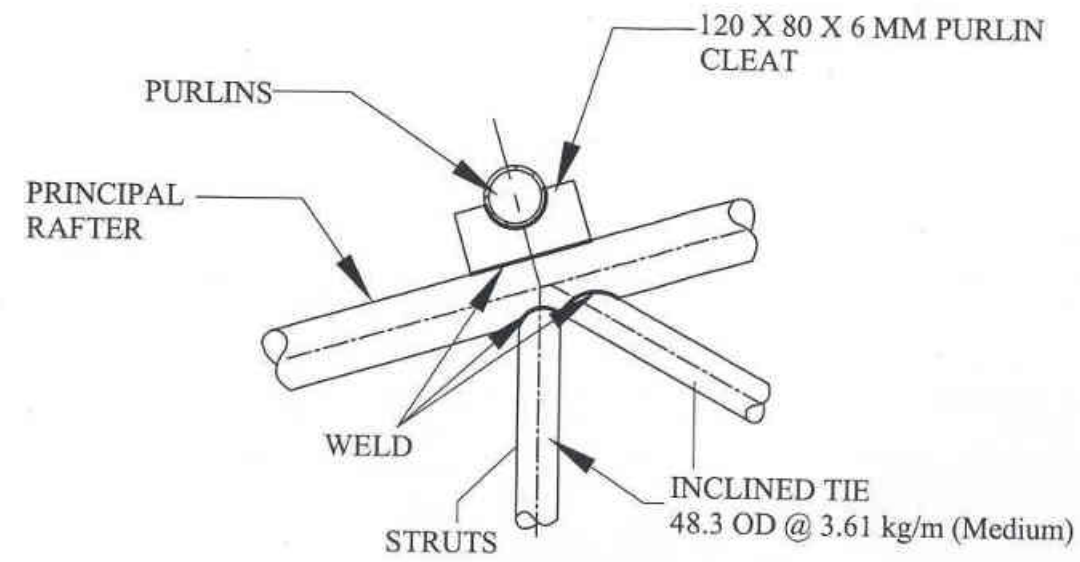


NOTES:
1. SAME TRUSS CONNECTION DETAILS SHALL BE ADOPTED IN ALL CONNECTIONS.

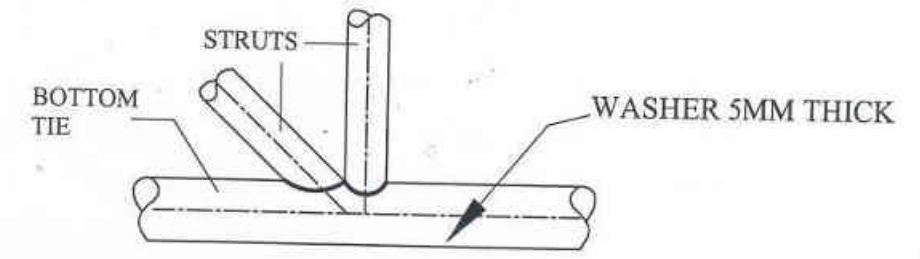
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NAME OF THE DRAWING:-	STRUCTURAL DRAWING FOR ROOFING WORKS	DESIGNED: SONAM CHOEN	G.M (D&PS)	- ALL DIMENSIONS IN MILLIMETERS.			
SCALE:-	NTS	<i>2/1</i>	<i>[Signature]</i>	- DO NOT MEASURE FROM THIS DRAWING.			
	TITLE: TRUSS CONNECTION DETAILS			- REPORT ANY DISCREPANCIES TO THE			



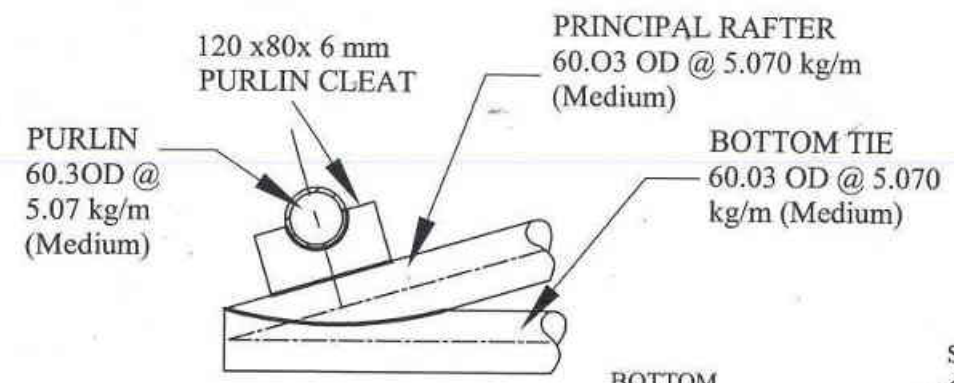
DETAIL - A



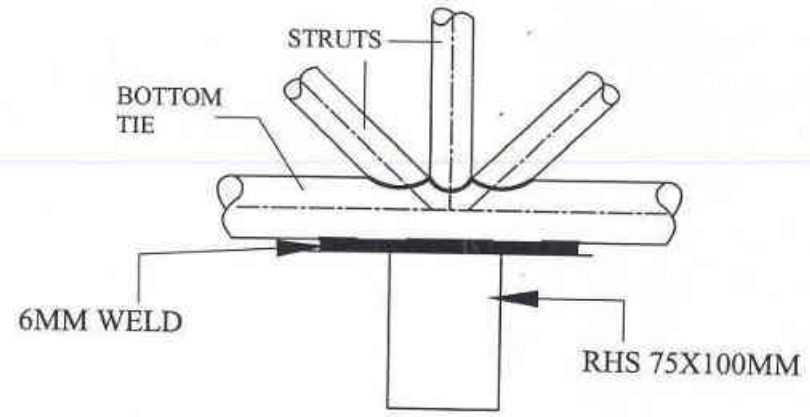
DETAIL B



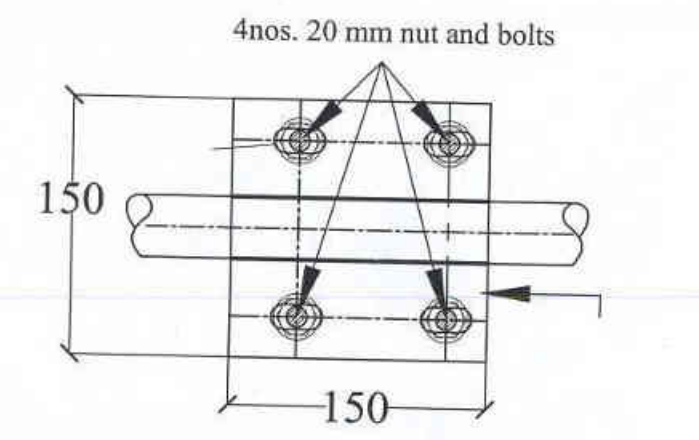
DETAIL C



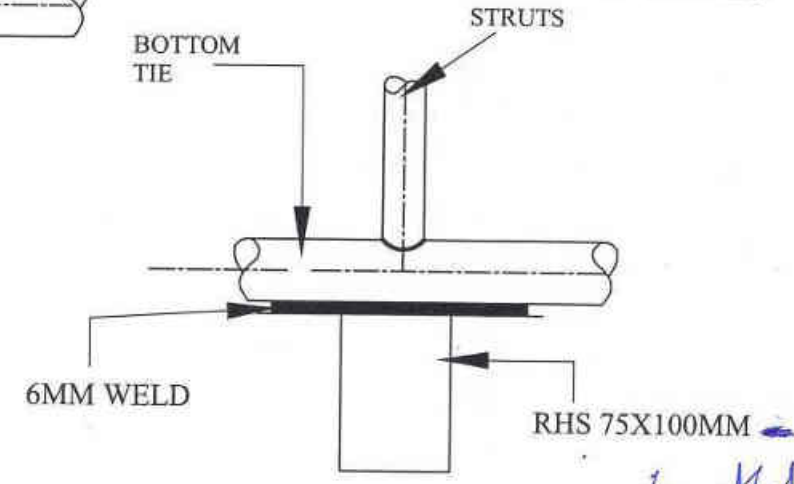
DETAIL D



DETAIL E



TOP VIEW OF JOINT B & C & ANCHORAGE JOINTS



DETAIL F

TRUSS CONNECTION DETAILS

122x61x4.50 - 11.88

PROJECT:-		ROOFING WORKS AT DAMPHU TOWN		DESIGNED: SONAM CHODEN		G.M (D&PS)		NOTE:-		REVISION		DATE:-		CONTENT:-	
NAME OF THE DRAWING:-		STRUCTURAL DRAWING FOR ROOFING WORKS		DATE:-		FEB 2016		- ALL DIMENSIONS IN MILLIMETERS.							
SCALE:-		NTS		TITLE: TRUSS CONNECTION DETAILS				- DO NOT MEASURE FROM THIS DRAWING.							
DRAWING NO.:-		STR/29						- REPORT ANY DISCREPANCIES TO THE ARCHITECT.							