
STANDARD BIDDING DOCUMENT
Procurement of Works
(Above Nu. 4Million)

**“Construction of 6-unit class room at
Damphu Central School”**
TD/DES-10/2018-19/260, Dated 15/02/2019
Royal Government of Bhutan
Dzongkhag Administration
Tsirang



Royal Government of Bhutan
Ministry of Finance

April 2011
(Revised July 2015)



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 DZONGKHAG ADMINISTRATION
 TSIRANG
 "Towards Quality Infrastructure"



DAT/DES-10/2018-2019/ 260

Date: 15th February 2019

Invitation for Bids

The Dzongkhag Administration, Tsirang invites sealed Bids from eligible and qualified Bidders for the execution of following work;

S.no	Name of Work	Estimate Amount(Mn)	Contract Duration	EMD (Nu)	Category	Sale Dates
1	Minor maintenance and conversion of Administrative block to Traditional Medicine Unit	Nu.0.497	3 Months	9,900	W3/S	18-27/2/2019
2	Construction of Water Reservoir tank at Shemjong BHU	Nu. 1.32	3 Months	26,500	W1/S	18-27/2/2019
3	Construction of 2 unit toilet and Renovation of old MPH at Shemjong Pry School	Nu. 4.378	9 months	88,000	W3/M	18-27/2/2019
4	Remodeling of cottage (Stone & Mud wall) & Conversion of old Generation House into Staff quater at Damphu Center School	Nu. 2.91	8 months	58,200	W3 /S	18-27/2/2019
5	Maintenance works at Dratsang	Nu.0.852	1.5 months	17,100	W4/S	18-27/2/2019
6	Construction of 4 Unit toilet at Tsiringtoed Central School.	Nu.1.086	3 Months	22,000	W3 /S	18-27/2/2019
7	Construction of 4units PF Toilet at Mendrelgang CS (Boys)	Nu.0.480	2 months	9,600	W3/S	18-27/2/2019
8	Development of playground and construction of approach road to sergithang PS under Sergithang Gewog	Nu 2.201	3 months	44,000	W1/S	18-27/2/2019
9	Maintenance of RNR staff Quarter drainage system at Sergithang under Sergithang Gewog	Nu.0.349	3 months	7,000	W3/S	18-27/2/2019
10	Site development work at patsaling BHU	Nu. 0.371	2 months	7,400	W1/S	18-27/2/2019
11	Installation of Compound light at DVH	Nu .0.633	1.5 months	13,000	W4/S	18-27/2/2019
12	Electrification & Maintenance of Dzong bacho	Nu.0.455	1.5 months	9,100	W4/S	18-27/2/2019
13	Development of playground at Tsholingkhar PS	Nu 2.68	3 months	54,000	W1/S	18-27/2/2019
14	Construction of 6 Unit Classroom at DCS	Nu 12.311	12 months	246,500	W3/M	18/2-19/3/2019
15	Electrification & Landscaping of Dzong area	Nu. 1.743	3 months	35,000	W4/S	18-27/2/2019
16	Re-electrification and maintenance of Mendralgang BHU and Staff Quarter	Nu.0.758	3 months	15,200	W3/S	18-27/2/2019
17	Construction of 4units PF Toilet at Mendrelgang CS (Girls)	Nu.0.669	2 months	13,300	W3/S	18-27/2/2019

- Bidding will be conducted through the limited Competitive Bidding procedures specified in the RGoB Procurement Manual, and are open to all Bidders from Countries as defined in Section III of the Bidding Documents.
- A complete set of Bidding Documents can be downloaded by interested bidders from the Dzongkhag website www.tsirang.gov.bt and www.cdb.gov.bt w.e.f_18th February 2019.



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DZONGKHAG ADMINISTRATION
TSIRANG

"Towards Quality Infrastructure"



3. Bids must be delivered to the *Procurement section, Dzongkhag Administration, Tsirang* on or before **10.00 AM on 27/02/ 2019**. Electronic bidding *"shall not"* be permitted. Late bids will be rejected. Bids will be opened physically in the presence of the bidders' representatives who choose to attend in person at *Dzongkhag Conference hall on 27/02/2019 at 10.30 AM*
4. All Bids shall be accompanied by a Bid Security of **as mentioned above** drawn in favors of **Dasho Dzongda, Administration, Tsirang** and will have to be in any one of the forms as specified in the bidding document and should be valid for 30 days beyond bid validity.

(Pema)
DZONGDA

Copy to:

1. CDEO, Dzongkhag Adm. Tsirang for information
2. Planning Officer, Dzongkhag Adm. Tsirang for information
3. FO, Dzongkhag Adm. Tsirang for information
4. DE, Dzongkhag Adm. Tsirang for information.
5. DHO, Dzongkhag Adm. Tsirang for information.
6. DCO, Dzongkhag Adm. Tsirang for information.
7. ICTO, Dzongkhag Adm. Tsirang, for uploading the bidding documents in dzongkhag website
8. Procurement Officer, Dzongkhag Adm, Tsirang for Advertisement in kuensel
9. Office Copy

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Introduction

These Standard Bidding Documents are intended as a model for ad measurement (unit prices or unit rates in a Bill of Quantities) and lump sum types of Contract, which are the most common in Works contracting. Lump sum contracts are used in particular for buildings and other forms of construction where the Works are well defined and are unlikely to change in quantity or specifications, and where encountering difficult or unforeseen site conditions (for example, hidden foundation problems) is unlikely. The main text refers to ad measurement contracts. **Alternative clauses or texts are supplied for use with lump sum contracts.**¹

Care should be taken to check the relevance of the provisions of the standard documents against the requirements of the specific Works to be procured. The following directions should be observed when using the documents:

- (a) All the documents listed in the Table of Contents are normally required for the procurement of Works. However, they should be adapted as necessary to the circumstances of the particular Project.
 - (b) Before issuing these Bidding Documents the Employer shall prepare the Bidding Data Sheet (Section II), Special Conditions of Contract (Section VI), and Sections VII, VIII and IX which deal with Specifications and Performance Requirements, Drawings, and Bill of Quantities respectively. The Employer should read and/or provide the information specified in the italicized notes inside brackets. In the few instances where the Bidder is requested to provide information, the note specifies it. **The footnotes and notes for the Employer are not part of the text; they should not be incorporated in the Bidding Documents issued to the Bidders.**
 - (c) These Bidding Documents are intended to serve on a repetitive basis. Modifications for specific Project or Contract needs should be provided only in the Bidding Data Sheet and the Special Conditions of Contract, as amendments to the Instructions to Bidders and the General Conditions of Contract respectively.
 - (d) The notes inside unshaded boxes, as well as others intended as guidance for the Employer, are not part of the text, but rather contain instructions for the user, as do the Preface and this Introduction section. **They should not be incorporated in the Bidding Documents.** The cover (first) page should be modified as required to identify the Bidding Documents as to the names of the Project, Contract and Employer, in addition to date of issue.
 - (e) The notes inside boxes with a shaded background should be retained in the issued Bidding Documents, since these provide important guidance to Bidders.
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- (f) The standard documents have been prepared for bidding where post qualification applies. However, with relatively minor modifications they also can be used where prequalification applies. The process of prequalification of Bidders is not covered in these standard documents.

Section I. Instructions to Bidders (ITB)

Notes on the Instructions to Bidders

This section of the Bidding Documents should provide the information necessary for Bidders to prepare responsive Bids, in accordance with the requirements of the Employer. It should also give information on Bid submission, opening and evaluation, and on the award of Contract.

Matters governing the performance of the Contractor, payments under the Contract, or matters affecting the risks, rights and obligations of the parties under the Contract are not normally included in this Section, but rather under Section V, General Conditions of Contract and/or Section VI, Special Conditions of Contract. If duplication of a subject is inevitable in the different sections of the documents, care must be exercised to avoid contradictions between clauses dealing with the same matter.

These Instructions to Bidders shall not be part of the Contract and shall cease to have effect once the Contract is signed.

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Instructions to Bidders (ITB)

A. General

1. Scope of Bid and Source of Funds

- 1.1 The Employer as defined² in Section II, Bidding Data Sheet (BDS), invites Bids for the construction of Works, as described in the BDS and Section VI, Special Conditions of Contract (SCC). The name and identification number of the Contract is provided in the BDS and the SCC.
- 1.2 The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Special Conditions of Contract.
- 1.3 The Employer as defined in section II, Bidding Data Sheet (BDS) has received a budget from RGoB towards the cost of the Project defined in the BDS and intends to apply a part of the funds to cover eligible payments under the contract for this works.

2. Fraud and Corruption

- 2.1 It is RGoB's policy to require that Employers, Bidders, Suppliers, Contractors and their Subcontractors observe the highest standards of ethics during the procurement and execution of contracts.³ In pursuance of this policy, the RGoB:
 - (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice"⁴ is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value⁵ to influence improperly the actions of another party;
 - (ii) "fraudulent practice"⁶ 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;
 - (iii) "collusive practice"⁷ is an arrangement between two or more parties designed to achieve an improper purpose, including to influence

improperly the actions of another party;

- (iv) “coercive practice”⁸ is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (v) "obstructive practice" is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede any investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Employer or any organization or person appointed by the Employer and/or any relevant RGoB agency provided for under ITB Sub-Clause 2.1 (d) below.
 - (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.
 - (c) will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing contract;
 - (d) will have the right to require that a provision be included in Bidding Documents and in contracts, requiring Bidders, Suppliers, Contractors and their Subcontractors to permit the Employer, any
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organization or person appointed by the Employer and/or any relevant RGoB agency to inspect their accounts and records and other documents relating to the Bid submission and contract performance and to have them audited by auditors appointed by the Employer;

- (e) requires that Bidders, as a condition of admission to eligibility, execute and attach to their bids an Integrity Pact Statement in the form provided in Section IV, Bidding Forms. Failure to provide a duly executed Integrity Pact Statement shall result in disqualification of the Bid; and
- (f) will report any case of corrupt, fraudulent, collusive, coercive or obstructive practice to the relevant RGoB agencies, including but not limited to the Anti-Corruption Commission (ACC) of Bhutan, for necessary action in accordance with the statutes and provisions of the relevant agency.

2.2 Furthermore, Bidders shall be aware of the provision stated in GCC Sub-Clause 59.1

3. Eligible Bidders

3.1 A Bidder, and all parties constituting the Bidder, shall have the nationality as specified in the Section II Bid Data Sheet & subject to the provisions of Section III, Eligible Countries. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

3.2 A Bidder shall not have a conflict of interest. All Bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- (a) they have at least one controlling partner in common; or
- (b) they receive or have received any direct or indirect subsidy from either party; or
- (c) they have the same authorized legal representative for purposes of this Bid; or
- (d) they have a relationship with each other, directly or

through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or

- (e) a Bidder participates in more than one Bid in this bidding process. Participation by a Bidder in more than one Bid shall result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one Bid; or
 - (f) a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Works that are the subject of the Bid or in any other way provided consulting services in any aspect of the preparatory stages leading up to the issue of these Bidding Documents; or
 - (g) a Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Employer as Project Manager for the Contract implementation; or
 - (h) a Bidder or any of its affiliates employs or otherwise engages a close relative of a civil servant who either is employed by the Employer or has an authority over the bidder or its affiliates or over the bid. For the purposes of this Sub-Clause a close relative is defined as immediate family which includes father, mother, brother, sister, spouse and own children..
- 3.3 A Bidder that is determined to be ineligible pursuant to any of the provisions of this Bidding Document shall not be eligible to be awarded a Contract.
- 3.4 Government-owned enterprises in Bhutan shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Employer.
- 3.5 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer as the Employer shall reasonably request.
- 3.6 A firm shall be excluded if:
- (a) as a matter of law or official regulation, Bhutan prohibits commercial relations with the country in which the firm

is constituted, incorporated or registered; or

- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Bhutan prohibits any import of goods or contracting of Works or services from that country in which the firm is constituted, incorporated or registered or any payments to persons or entities in that country.

3.7 A Bidder shall also be excluded if:

- (a) he is insolvent or is in receivership or is a bankrupt or is in the process of being wound up, or has entered into an arrangement with his creditors; or
- (b) his affairs are being administered by a court, judicial officer or appointed liquidator; or
- (c) he has suspended business or is in any analogous situation arising from similar procedures under the laws and regulations of his country of establishment; or
- (d) he has been found guilty of professional misconduct by a recognized tribunal or professional body; or
- (e) he has not fulfilled his obligations with regard to the payment of taxes, social security or other payments due in accordance with the laws of the country in which he is established or of the Kingdom of Bhutan; or
- (f) he is or has been guilty of serious misrepresentation in supplying information required for any prior registration with the Employer or the Construction Development Board of Bhutan; or
- (g) he has been convicted of fraud and/or corruption by a competent authority; or
- (h) he has not fulfilled his contractual obligations with the Employer in the past; or
- (j) he has been debarred from participation in public procurement by any competent authority as per law.

4. Qualifications of the Bidder

- 4.1 All Bidders shall provide in Section IV, Forms of Bid, Qualification Information, Letter of Acceptance, Contract and Integrity Pact, a preliminary description of the proposed work method and schedule, including drawings and charts, as

necessary.

- 4.2 In the event that pre-qualification of potential Bidders has been undertaken, only Bids from pre-qualified Bidders shall be considered for award of Contract. These qualified Bidders should submit with their Bids any information updating their original pre-qualification applications or, alternatively, confirm in their Bids that the originally submitted pre-qualification information remains essentially correct as at the date of Bid submission. The update or confirmation should be provided in Section IV.
- 4.3 If the Employer has not undertaken pre-qualification of potential Bidders, all Bidders shall include the following information and documents with their Bids in Section IV, unless otherwise stated in the BDS:
- (a) **Legal status:** copies of original documents defining the constitution or legal status, place of registration, and principal place of business of the Bidder; written power of attorney of the signatory of the Bid to commit the Bidder;
 - (b) **General work experience:** annual turnover for each of the last three (3) calendar years for construction works;
 - (c) **Similar work experience:** experience in works of a similar nature and size for each of the last five (5) calendar years, and details of work under way or contractually committed; and clients who may be contacted for further information on those contracts;
 - (d) **Equipment:** list of construction equipment owned by the Contractor and those proposed to be hired to be used for implementation of the Contract;
 - (e) **Manpower:** qualifications and experience of key site management and technical personnel proposed for this Contract. A person having a valid contract license cannot be an employee of any bidder
 - (f) **Performance of previous work:** performance score card issued by the Procuring Agencies for works done in the last five (5) calendar years;
 - (g) **Financial capacity:** evidence of adequacy of working capital for this Contract (access to line(s) of credit);
 - (h) **References:** authority to seek references from the

Bidder's bankers;

- (i) **Litigation:** information regarding any litigation, current or during the last five (5) years, in which the Bidder was/is involved, the parties concerned, and the disputed amounts; and awards. A consistent history of litigation or arbitration awards against the Applicant or any partner of a JV/C/A may result in disqualification ;
- (j) **Subcontracting:** proposals for subcontracting components of the Works amounting to more than twenty percent (20%) of the Contract Price. The ceiling for subcontractors' participation is stated in the BDS.

4.4 Bids submitted by a Joint Venture, Consortium or Association (JV/C/A) of two or more firms as partners shall comply with the following requirements, unless otherwise stated in the BDS:

- (a) the Bid shall include all the information listed in ITB Sub-Clause 4.3 above for each JV/C/A partner;
- (b) the Bid shall be signed so as to be legally binding on all partners;
- (c) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
- (d) one of the partners shall be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the JV/C/A;
- (e) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge; and
- (f) a copy of the JV/C/A Agreement entered into by the partners shall be submitted with the Bid; or a Letter of Intent to execute a JV/C/A Agreement in the event of a successful Bid shall be signed by all partners and submitted with the Bid, together with a copy of the proposed Agreement.

4.5 To qualify for award of the Contract, Bidders shall be evaluated against the following technical qualifying criteria and scores awarded accordingly:

- (a) Similar works experience : aggregate size of similar

works (maximum three) or size of the largest similar work in the last five (5) calendar years;⁹

- (b) Access to adequate equipments: list of construction equipment owned by the Contractor and those proposed to be hired to be used for implementation of the Contract against the prescribed list specified in the BDS;
- (c) Availability of skilled manpower: availability of skilled and experienced manpower required for the timely and quality execution of the work against the list of manpower with the desired qualification and experience specified in the BDS in the BDS;
- (d) Average performance score from the previous works carried out in the last five (5) calendar years;
- (e) Bid capacity of the contractor against the quoted bid calculated using the following formula:

$$\text{Bid Capacity} = 2 * A * N - B$$

Where A= Average turnover of the Contractor over the last 3 calendar years

N= Estimated duration of the Project to be tendered

B= Portion of other ongoing Works to be completed in the period that overlaps with the current project's duration (that is N and

- (f) Access to or Availability of Credit Facilities: The amount of line of Credit is specified in BDS

4.6 In the case of joint ventures, the individual credentials of the joint venture partners need to be averaged using their stake in the JV for the purpose of evaluation under the parameters of Similar work experience, performance score from previous work, Bid Capacity and Credit line available. For the parameters of equipment, manpower, Status, Employment of VTI/skilled local labourer and Internship to VTI, the resources or information committed / provided by the JV as a single entity will be considered for award of points.

4.7 Domestic bidders and joint ventures, consortia or associations of domestic bidders who may be eligible for a margin of

preference in Bid evaluation shall supply all information to satisfy the criteria for eligibility as described in ITB Clause 3 of these Instructions to Bidders.

- 4.8 Financial bids of only those Bidders who meet the minimum technical score specified in the BDS will be considered for award of the work.
- 5. One Bid per Bidder** 5.1 Each Bidder shall submit only one Bid, either individually or as a partner in a JV/C/A. A Bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) shall cause all the proposals with the Bidder's participation to be disqualified.
- 6. Cost of Bidding** 6.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer shall in no case be responsible or liable for those costs.
- 7. Site Visit** 7.1 The Bidder, at the Bidder's own responsibility and risk, is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

B. Bidding Documents

- 8. Content of Bidding Documents** 8.1 The set of Bidding Documents comprises the documents listed in the table below and addenda issued in accordance with ITB Clause 10:
- Section I: Instructions to Bidders
 Section II: Bidding Data Sheet
 Section III: Eligible Countries
 Section IV: Forms of Bid, Qualification Information and Evaluation
 Table , Letter of Acceptance, and Contract
 Section V: General Conditions of Contract
 Section VI: Special Conditions of Contract
 Section VII: Specifications and Performance Requirements
 Section VIII: Drawings
 Section IX: Bill of Quantities¹⁰ - This (or the Activity Schedule in the
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case of lump sum Contracts) comprises a paper hard copy and an electronic copy on CD-ROM.

Section X: Forms of Securities and Invitation for Bids

9. Clarification of Bidding Documents

- 9.1 A prospective Bidder requiring any clarification of the Bidding Documents may notify the Employer in writing, including by cable, facsimile, telex or electronic mail, at the Employer's address indicated in the BDS. The Employer shall respond to any request for clarification received earlier than fifteen (15) days¹¹ prior to the deadline for submission of bids. Copies of the Employer's response shall be forwarded to all purchasers of the Bidding Documents, including a description of the inquiry, but without identifying its source. Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Documents, following the procedure in ITB Clause 10 and ITB Sub-Clause 20.2.
- 9.2 The bidder or his official representative is invited to attend a pre-bid meeting, which will take place at the place and time stated in BDS.
- 9.3 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 9.4 The bidder is requested to submit any questions in writing or by facsimile or email to reach the Employer not later than one week before the meeting.
- 9.5 Minutes of the meeting, including the text of the questions raised (without identifying the source of inquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in Sub-Clause 9.1 which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.
- 9.6 Non-attendance of the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

- 10.1 Before the deadline for submission of Bids, the Employer may modify the Bidding Documents by issuing addenda.
- 10.2 Any addendum thus issued shall be part of the Bidding

Documents, shall be binding on all Bidders and shall be communicated in writing, including by cable, facsimile, telex or electronic mail, to all purchasers of the Bidding Documents.¹² Prospective Bidders shall acknowledge receipt of each addendum in writing, including by electronic mail, to the Employer.

- 10.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer shall extend, as necessary, the deadline for submission of Bids, in accordance with ITB Sub-Clause 20.2 below.

C. Preparation of Bids

11. Language of Bid

- 11.1 All documents relating to the Bid shall be in the language specified in the BDS.

12. Documents Comprising the Bid¹³

- 12.1 The Bid submitted by the Bidder shall comprise the following:
- (a) The Bid form (in the format indicated in Section IV – Forms of Bid, Qualification Information, Letter of Acceptance, Contract and Integrity Pact);
 - (b) Bid Security in accordance with Clause 16;
 - (c) Priced Bill of Quantities¹⁴ - this must be submitted in paper form, signed by the duly authorized signatory of the Bidder, and also in electronic form on CD-ROM, if required by the Employer;
 - (d) Qualification Information Form and Documents;
 - (e) Alternative offers where invited;
- and any other materials required to be completed and submitted by Bidders, as specified in the BDS.

13. Bid Prices

- 13.1 The Contract shall be for the whole Works, as described in ITB Sub-Clause 1.1, based on the priced Bill of Quantities¹⁵ submitted by the Bidder.
- 13.2 The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities.¹⁶ Items for which no rate or price is entered by the Bidder shall not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if
-

any, shall be made by crossing out, initialing, dating and rewriting.

13.3 The Bidder shall quote its final all-inclusive net price, including all incidental costs, for carrying out the Contract. All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Bids, shall be included in the rates, prices and total Bid price submitted by the Bidder.¹⁷

13.4 The rates and prices¹⁸ quoted by the Bidder shall be subject to adjustment during the performance of the Contract¹⁹ if provided for in the BDS and the SCC and the provisions of GCC Clause 47 of the General Conditions of Contract. The Bidder shall submit with the Bid all the information required under the SCC and GCC Clause 47 of the General Conditions of Contract.

14. Currencies of Bid and Payment

14.1 The unit rates and prices²⁰ shall be quoted by the Bidder entirely in Ngultrum (Nu). Foreign currency requirements shall be indicated as a percentage of the Bid price (excluding provisional sums²¹) and shall be payable at the option of the Bidder in up to three foreign currencies.

14.2 The rates of exchange to be used by the Bidder in arriving at the local currency equivalent and the percentage(s) mentioned in ITB Sub-Clause 14.1 above shall be the selling rates for similar transactions established by the authority specified in the BDS prevailing on the date 30 days prior to the latest deadline for submission of Bids. These exchange rates shall apply for all payments so that no exchange risk shall be borne by the Bidder. If the Bidder uses other rates of exchange, the provisions of ITB Clause 28.1 shall apply. In any case, payments shall be computed using the rates quoted in the Bid.

14.3 Bidders shall indicate details of their expected foreign currency requirements in the Bid.

14.4 Bidders may be required by the Employer to clarify their foreign currency requirements and to substantiate that the amounts included in the rates and prices²², if required in the BDS, are reasonable and responsive to ITB Sub-Clause 14.1.

14.5 In case of International Procurement from countries other than India, the procuring agency may invite bids in convertible currencies. The bids shall however, be evaluated in accordance with Sub-Clause 14.2 above, but the payment shall be made in the currency of bid.

15. Bid Validity

15.1 Bids shall remain valid for the period specified in the BDS.

15.2 In exceptional circumstances, the Employer may request that the Bidders extend the period of validity for a specified additional period. The request and the Bidders' responses shall be made in writing or by electronic mail. The Bid Security required pursuant to ITB Clause 16 shall be extended to 30 days after the deadline of the extended Bid validity period. A Bidder may refuse the request without forfeiting the Bid Security. The refusal to extend the bid by the bidder will make the bid invalid and shall not be further considered for evaluation and award, A Bidder agreeing to the request shall not be required or permitted to modify its Bid, except as provided for in ITB Clause 16.

15.3 In the case of contracts in which the Contract Price is fixed (not subject to price adjustment), if the period of Bid validity is extended beyond 60 days, the amounts payable in local and foreign currency to the Bidder selected for award shall be adjusted as specified in the request for extension. Bid evaluation shall be based on the Bid Price without taking the above correction into consideration.

16. Bid Security

16.1 The Bidder shall furnish, as part of the Bid, a Bid Security as specified in the BDS.

16.2 The Bid Security shall be in fixed amount as specified in BDS and denominated in Ngultrum (Nu) or the currency of the Bid or in another freely convertible currency, and shall:

(a) at the Bidder's option, be in any of the following forms:

(i) a demand unconditional bank guarantee; or

(ii) a account payee demand draft; or

(iii) a account payee cash warrant.

(b) be issued by a financial institution in Bhutan acceptable to the Employer & selected by the Bidder.

(c) in the case of a bank guarantee, be substantially in accordance with the form of Bid Security included in Section X, Security Forms, or other form approved by the

Employer prior to Bid submission;

- (d) be payable promptly upon written demand by the Employer in case the conditions listed in ITB Sub-Clause 16.5 are invoked;
- (e) be submitted in its original form; copies shall not be accepted;
- (f) remain valid for a period of 30 days beyond the validity period of the Bids, as extended, if applicable, in accordance with ITB Sub-Clause 15.2.

16.3 Any Bid not accompanied by a responsive Bid Security shall be Rejected by the Employer as non-responsive.

16.4 The Bid Securities of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder furnishing the Performance Security and in any event not later than 30 days after the expiration of the validity of the unsuccessful Bidder's Bid.

16.5 The Bid Security may be forfeited

- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Bid Submission Sheet, except as provided for in ITB Sub-Clause 15.2; or
- (b) if the Bidder that submitted the lowest evaluated Bid does not accept the correction of the Bid price pursuant to Clause 27; or
- (c) if the successful Bidder fails within the specified time limit to
 - (i) sign the Contract; or
 - (ii) furnish the required Performance Security

16.6 The Bid Security of a JV/C/A must be in the name of the JV/C/A that submits the Bid. If the JV/C/A has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners as named in the letter of intent.

17. Alternative Proposals by Bidders

17.1 Alternatives shall not be considered, unless specifically allowed in the BDS. If so allowed, ITB Sub-Clauses 17.1 and 17.2 shall govern, and the BDS shall specify which of the following options shall be allowed:

- (a) Option One. A Bidder may submit alternative Bids with the base Bid and the Employer shall only consider the

alternative Bids offered by the Bidder whose Bid for the base case was determined to be the lowest-evaluated Bid, or

- (b) Option Two. A Bidder may submit an alternative Bid with or without a Bid for the base case. All Bids received for the base case, as well as alternative Bids meeting the Technical Specifications and Performance Requirements pursuant to Section VII, shall be evaluated on their own merits.

17.2 Alternative Bids shall provide all information necessary for a complete evaluation of the alternative by the Employer, including design calculations, technical specifications, breakdown of prices, proposed construction methods and other relevant details.

18. Format and Signing of Bid

18.1 The Bidder shall prepare one original of the documents comprising the Bid as described in **ITB Clause 12**, bound with the volume containing the Form of Bid, and clearly marked "ORIGINAL." In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS, and clearly marked as "COPIES." In the event of any discrepancy between the original and any copies, or between the original paper form of the Bill of Quantities (or Activity Schedule in the case of lump sum Contracts) and the electronic version on CD-ROM, the original shall prevail.

18.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to ITB Sub-Clause 4.3 (a). Unsigned Form of Bid & BOQ shall make the bid non-responsive. All pages of the Bid where entries or amendments have been made shall be initialed by the person or persons signing the Bid.

18.3 The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

18.4 The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.

D. Submission of Bids

19. Sealing and

19.1 Bidders may always submit their Bids by mail or by hand. When

Marking of Bids²³

so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the procedures specified in the BDS. The Bidder shall seal the original and all copies of the Bid, including alternative Bids if permitted in accordance with ITB Clause 17, in separate inner envelopes contained within one outer envelope. All envelopes shall be sealed with adhesive or other sealant to prevent reopening.

19.2 The inner envelopes shall

- (a) be signed across their seals by the person authorized to sign the Bid on behalf of the Bidder; and
- (b) be marked “ORIGINAL”, “ALTERNATIVE” (if any) and “COPIES”;

19.3 The outer envelope shall:

- (a) be sealed with adhesive or other sealant to prevent reopening,
- (b) be marked “Confidential”;
- (c) be addressed to the Employer at the address²⁴ provided in the BDS;
- (d) bear the name and identification number of the Contract as defined in the BDS and SCC; and
- (e) provide a warning not to open before the specified time and date for Bid opening as defined in the BDS.

19.4 In addition to the identification required in ITB Sub-Clause 19.2, the inner envelopes shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared late pursuant to ITB Clause 21.

19.5 If the outer envelope is not sealed and marked as above, the Employer shall assume no responsibility for the misplacement or premature opening of the Bid.

20. Deadline for Submission of Bids

- 20.1 Bids shall be delivered to the Employer at the address specified above no later than the time and date specified in the BDS.
- 20.2 The Employer may extend the deadline for submission of Bids by issuing an amendment in accordance with ITB Clause 10, in which

case all rights and obligations of the Employer and the Bidders previously subject to the original deadline shall then be subject to the new deadline.

- 21. Late Bids** 21.1 Any Bid received by the Employer after the deadline prescribed in ITB Clause 20 shall be returned unopened to the Bidder.
- 22. Withdrawal, Substitution and Modification of Bids** 22.1 Bidders may withdraw, substitute or modify their Bids by giving notice in writing before the deadline prescribed in ITB Clause 20.
- 22.2 Each Bidder's withdrawal, substitution or modification notice shall be prepared, sealed, marked and delivered in accordance with ITB Clauses 18 and 19, with the outer and inner envelopes additionally marked "WITHDRAWAL", "SUBSTITUTION" or "MODIFICATION" as appropriate.
- 22.3 No Bid may be substituted or modified after the deadline for submission of Bids.
- 22.4 Withdrawal of a Bid between the deadline for submission of Bids and the expiration of the period of Bid validity specified in the BDS or as extended pursuant to ITB Sub-Clause 15.2 may result in the forfeiture of the Bid Security pursuant to ITB Clause 16. If the lowest or the lowest evaluated bidder withdraws his bid between the periods specified pursuant to clause 22.4, the bid security of the bidder shall be forfeited and in addition the bidder shall pay to the Employer the positive difference of sum, if any with the next lowest Bidder within 14 days of his withdrawal. If the bidder fails to pay the difference within the said date, the bidder shall be debarred by a Competent Authority as per law.
- 22.5 Bidders may only offer discounts to, or otherwise modify the prices of their Bids, by submitting Bid modifications in accordance with this clause or included in the initial Bid submission.

E. Bid Opening and Evaluation

- 23. Bid Opening** 23.1 The Employer shall open the Bids, including modifications made pursuant to ITB Clause 22, in the presence of the Bidders' representatives who choose to attend at the time and in the place specified in the BDS. Any specific opening procedures required if electronic bidding is permitted in accordance with ITB Sub-Clause 20.1 shall be as specified in the BDS.

- 23.2 Envelopes marked “WITHDRAWAL” shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to ITB Clause 22 shall not be opened.
- 23.3 The Original & Copies will be opened at the bid opening. The Bidders’ names, the Bid prices, the total amount of each Bid and of any alternative Bid (if alternatives have been requested or permitted), any discounts, Bid withdrawals, substitutions or modifications, the presence or absence of Bid Security (and any other details the Employer may consider appropriate) responses to any Bidding Documents addenda; fulfillment of any such other specific formal requirements as are prescribed in the Bidding Documents; and such other details as the Employer may consider appropriate, shall be announced by the Employer at the opening. This information also shall be written on a notice board for the public to copy. Any Bid price, discount or alternative Bid price not announced and recorded shall not be taken into account in Bid evaluation.

The bid form including appendices to bid form, bill of quantities, price schedules, bid securities, any discounts offered, and any other important documents shall be initialed by all members of the Bid Opening Committee. All corrections/overwriting will be noted and recorded on each page of the Bill of Quantities. The bid evaluation will be done using the Copies while the Original will be kept in safe custody. If there are any discrepancies between the Original & Copies, the Original shall prevail.

No Bid shall be rejected at Bid opening except for late Bids pursuant to ITB Clause 21. Substitution Bids and modifications submitted pursuant to ITB Clause 22 that are not opened and read out at Bid opening shall not be considered for further evaluation regardless of the circumstances. Late, withdrawn and substituted Bids shall be returned unopened to Bidders.

- 23.4 The Employer shall prepare Minutes of the Bid opening, including the information disclosed to those present in accordance with ITB Sub-Clause 23.3. The Minutes shall include, as a minimum:
- (a) the Contract title and reference number;
 - (b) the Bid number;
 - (c) the Bid deadline date and time;

- (d) the date, time and place of Bid opening;
- (e) Bid prices, per lot if applicable, offered by the Bidders, including any discounts and alternative offers;
- (f) the presence or absence of Bid security and, if present, its amount and validity;
- (g) name and nationality of each Bidder, and whether there is a withdrawal, substitution or modification;
- (h) the names of attendees at the Bid opening, and of the Bidders they represent (if any);
- (i) details of any complaints or other comments made by attendees/representatives attending the Bid opening, including the names and signatures of the attendees/representatives making the complaint(s) and/or comment(s); and
- (j) the names, designations and signatures of the members of the Bid Opening Committee.

The Bidders' representatives and attendees who are present shall be requested to sign the record. The omission of a Bidder's or other attendee's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

24. Confidentiality 24.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until publication of the award to the successful Bidder has been announced pursuant to ITB Sub-Clause 33.4. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid. Notwithstanding the above, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the Bidding process, it should do so in writing, including by electronic mail.

25. Clarification of Bids 25.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at the Employer's discretion, ask any Bidder for clarification of the Bidder's Bid, including breakdowns of unit rates.²⁵ The request for clarification and the

response shall be in writing, including by electronic mail, but no change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with ITB Clause 27.

26. Examination of Bids and Determination of Responsiveness

26.1 Prior to the detailed evaluation of Bids, the Employer shall determine whether each Bid (a) meets the eligibility criteria defined in ITB Clause 3; (b) has been properly signed; (c) is accompanied by the Bid Security; and (d) is substantially responsive to the requirements of the Bidding Documents.

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

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

27. Correction of Errors

27.1 Bids determined to be substantially responsive shall be checked by the Employer for any arithmetic errors. Errors shall be corrected by the Employer as follows:²⁶

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

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

27.2 The corrections will be notified in writing to the individual bidder with a request for written acceptance of the corrections

within the specified period as made in the notification. The amount stated in the Bid shall be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid shall be rejected, and the Bid Security may be forfeited in accordance with ITB Sub-Clause 16.5 (b).

28. Currency for Bid Evaluation

28.1 Bids shall be evaluated as quoted in Ngultrum (NU) in accordance with ITB Sub-Clause 14.1, unless a Bidder has used different exchange rates than those prescribed in ITB Sub-Clause 14.2, in which case the Bid shall be first converted into the amounts payable in different currencies using the rates quoted in the Bid and then reconverted to Ngultrum (NU) using the exchange rates prescribed in ITB Sub-Clause 14.2.

29. Evaluation and Comparison of Bids

29.1 The Employer shall evaluate and compare only the Bids determined to be substantially responsive in accordance with ITB Clause 26.

29.2 In evaluating the Bids, the Employer shall determine for each Bid the evaluated Bid price by adjusting the Bid price as follows:

- (a) making any correction for errors pursuant to ITB Clause 27;
- (b) excluding provisional sums and the provision (unless no rates have been asked from the bidders), if any, for contingencies in the Bill of Quantities,²⁷ but including Daywork,²⁸ where priced competitively;
- (c) making an appropriate adjustment for any other acceptable variations, deviations or alternative offers submitted in accordance with ITB Clause 17; and
- (d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with ITB Sub-Clause 22.5.

29.3 The bids shall be evaluated by applying the evaluation criteria, sub criteria and points system specified in the BDS. Each responsive bid will be given a technical score. Financial bids of only those bidders who score the minimum technical score specified in the BDS will be considered to for the 2nd stage of

bid evaluation to obtain an overall price preference -financial score. Work will be awarded to the Bidder obtaining the highest overall price preference -financial score which will be obtained using the following formula:

$90 \% X (\text{Lowest quoted bid among qualifying tenders/ financial bid quoted by } x) + 10\% X \text{ Price preference score for } x.$

- 29.4 The Employer reserves the right to accept or reject any variation, deviation or alternative offer. Variations, deviations and alternative offers and other factors which are in excess of the requirements of the Bidding Documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.
- 29.5 The estimated effect of any price adjustment conditions under GCC Clause 47, during the period of implementation of the Contract, shall not be taken into account in Bid evaluation.
- 29.6 If the Bid which results in the lowest evaluated Bid price is abnormally low, seriously unbalanced and/or front loaded in the opinion of the Employer, the Employer shall require the Bidder to produce written explanations of, justifications and detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. Such explanations, justifications and analyses may also include, but are not limited to, details of the technical solutions chosen, exceptionally favorable conditions available to the Bidder for the execution of the Contract, and the originality of the Works proposed by the Bidder. After objective evaluation of the explanations, justifications and price analyses, taking into consideration the schedule of estimated Contract payments, if the Procuring Agency decides to accept the abnormally low, seriously unbalanced and/ or front loaded price, the bidder shall be required to provide additional differential security equivalent to the difference between the estimated amount and the quoted price in addition to the performance security.

30. Preference for Domestic Bidders

- 30.1 As indicated in the BDS, domestic contractors may receive a margin of preference in Bid evaluation, for which this clause shall apply.
- 30.2 A domestic Bidder shall provide all evidence necessary to prove that it meets the following criteria to be eligible for a margin of preference in the comparison of its Bid with those of

Bidders who do not qualify for the preference. A domestic Bidder shall:

- (a) be registered within Bhutan, constituted under and governed by the civil, commercial or public law of Bhutan, and have its statutory office, central administration or principal place of business there;
- (b) have majority ownership by nationals of Bhutan;
- (c) not subcontract more than twenty percent (20) percent of the Contract Price, excluding provisional sums, to foreign contractors, suppliers and/or consultants.

30.3 Joint Ventures, Consortia and Associations of domestic firms may be eligible for the margin of preference provided that:

- (a) the individual partners satisfy the criteria of eligibility of ITB Sub-Clauses 30.2 (a) and (b);
- (b) the JV/C/A is registered in Bhutan;
- (c) the JV/C/A does not subcontract more than ten percent (10%) of the Contract Price, excluding provisional sums, to foreign firms; and
- (d) the JV/C/A satisfies any other criteria specified for the purpose of domestic preference eligibility, as specified in the BDS.

30.4 The procedure used to apply the margin of preference shall be as stipulated in the BDS.

F. Award of Contract

31. Award Criteria

31.1 Subject to ITB Clause 32, the Employer shall award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding Documents and who has scored the highest in the price preference – financial score of 100, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of ITB Clause 3, and (b) qualified in accordance with the provisions of ITB Clause 4.

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

32.1 Notwithstanding ITB Clause 31, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or

Bidders of the grounds for the Employer's action.²⁹

33. Letter of Intent to Award /Notification of Award and Signing of Contract

- 33.1 The Employer shall notify the concerned Bidder whose bid has been selected in accordance with ITB 31.1 in writing (using the format in section IV-hereafter called the "Letter of Intent to Award") that the Employer has intention to accept its bid and the copy of this information 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
- 33.2 If no bidder submits complaint pursuant to ITB 37 within a period of ten (10) days of the notice provided under ITB 33.1, the Bidder who's Bid has been accepted shall be notified in writing of the award by the Employer prior to expiration of the Bid validity period. This notification letter (hereinafter and in the General Conditions of Contract called the "Letter of Acceptance") shall state the sum that the Employer shall pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 33.3 The Letter of Acceptance shall constitute the formation of the Contract, subject to the Bidder furnishing the Performance Security in accordance with ITB Clause 34 and signing the Contract in accordance with ITB Sub-Clause 33.3. It shall be accompanied by two originals of the Contract in the form provided for in Section IV – Forms of Bid, Qualification Information, Letter of Acceptance, and Contract.
- 33.4 The Contract shall incorporate all agreements between the Employer and the successful Bidder. It shall be signed by the Employer and sent to the successful Bidder with the Letter of Acceptance. Within 15 days of receipt, the successful Bidder shall sign the Contract and deliver it to the Employer.
- 33.5 Upon the furnishing by the successful Bidder of the Performance Security, the Employer shall notify all other Bidders of the results of the bidding and shall publish a notification of award on the Employer's website. The notifications to all other Bidders as well as the notification posted on the

²⁹ Employers should not reject bids or annul bidding processes, except as permitted in the Procurement Manual and these Bidding Documents.

Employer's website shall include the following information:

- (i) the Bid and lot numbers
- (ii) name of the winning Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded; and
- (iii) the date of the award decision.

34. Performance Security

- 34.1 Within fifteen (15) working days after receipt of the Letter of Acceptance the successful Bidder shall deliver to the Employer a Performance Security in the amount stipulated in the GCC and in the form stipulated in the BDS, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the GCC.
- 34.2 If the Performance Security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued, at the Bidder's option, by a financial institution located in Bhutan.
- 34.3 Failure of the successful Bidder to comply with the requirements of ITB Sub-Clauses 33.3 and 34.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security. If the lowest evaluated bidder fails to produce the performance guarantee & sign the contract then apart from forfeiture of Bid Security, the bidder will also be required to bear the positive difference in contract amount between his bid and the bidder to whom the work has been awarded.
- 34.4 Upon the successful Bidder's signing of the Contract and furnishing of the Performance Security pursuant to ITB Sub-Clause 34.1, the Employer shall promptly notify the name of the winning Bidder to each unsuccessful Bidder in accordance with ITB Sub-Clause 33.4 and shall discharge the Bid Securities of the unsuccessful Bidders pursuant to ITB Sub-Clause 16.4.

35. Advance Payment and Security

- 35.1 The Employer shall provide an Advance Payment on the Contract Price as stipulated in the GCC, subject to a maximum amount, as stated in the BDS. The advance payment shall be guaranteed by a Security in the form provided for in Section X, Security Forms.

36. Adjudicator

- 36.1 The Employer may propose the person named in the BDS to be appointed as Adjudicator under the Contract. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If, in the Letter of Acceptance, the Employer has not agreed on the bidder's nomination of the Adjudicator, the Adjudicator may be appointed by mutual consent.

37. Complaint and

- 37.1 If the Bidder has or is likely to suffer, loss or injury due to

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breach of a duty imposed on the Employer by the provisions of this bidding document, the bidder shall submit the complaint in writing to the Employer within ten (10) days from the date of letter of intent to award the contract pursuant to ITB 33.1

37.2 The Bidder may appeal to the Independent Review Body only if the Employer has not delivered the decision within the specified time, or the complainant is not satisfied with the decision of the Employer in accordance with rules and procedures of Independent Review Body.

Section II. Bidding Data Sheet³⁰

A. General	
ITB 1.1	<p>The Employer: Dasho Dzongdag, Dzongkhag Administration, Tsirang</p> <p>Name of Work: <i>Construction of 6-unit class room at Damphu central School.</i></p> <p>Identification: <i>TD/DES-10/2018-169/260, Dated 15/02/2019</i></p> <p>The Works are: <i>Earthwork, stone soling, PCC, RRM,RCC,ROOFING & ETC as per the Bill of quantity.</i></p>
ITB 1.2	The Intended Completion Date is <i>12 Months</i>
ITB 4.3³¹	<p>The information required from Bidders in ITB Sub-Clause 4.3 is modified as follows:</p> <p>Valid Trade Licence, CDB Certificate, Tax Clearance & Power of Attorney if any.</p>
ITB 4.3 (j)	The ceiling for sub contractor's participation and conditions are: <i>Not Applicable</i>
ITB 4.4	The qualification data required from Bidders in ITB Sub-Clause 4.4 is modified as follows: <i>As per Requirement specified</i>
ITB 4.5	The qualification criteria in ITB Sub-Clause 4.5 are modified as follows: <i>As per Requirement specified</i>

<p>ITB 4.5 (b)</p>	<p>The essential equipment to be made available for the Contract by the successful Bidder shall be³²:</p> <table border="1" data-bbox="391 289 1317 653"> <thead> <tr> <th data-bbox="391 289 691 390">Equipment</th> <th data-bbox="691 289 846 390">Tier</th> <th data-bbox="846 289 1036 390">Number required</th> <th data-bbox="1036 289 1317 390">Maximum Marks</th> </tr> </thead> <tbody> <tr> <td data-bbox="391 390 691 457">Tripper Truck</td> <td data-bbox="691 390 846 457">T1</td> <td data-bbox="846 390 1036 457">1</td> <td data-bbox="1036 390 1317 457">50</td> </tr> <tr> <td data-bbox="391 457 691 525">Concrete Mixer</td> <td data-bbox="691 457 846 525">T2</td> <td data-bbox="846 457 1036 525">1</td> <td data-bbox="1036 457 1317 525">30</td> </tr> <tr> <td data-bbox="391 525 691 592">Backhoe</td> <td data-bbox="691 525 846 592">T-3</td> <td data-bbox="846 525 1036 592">1</td> <td data-bbox="1036 525 1317 592">20</td> </tr> <tr> <td colspan="3" data-bbox="391 592 1036 653">TOTAL</td> <td data-bbox="1036 592 1317 653">100.00</td> </tr> </tbody> </table>	Equipment	Tier	Number required	Maximum Marks	Tripper Truck	T1	1	50	Concrete Mixer	T2	1	30	Backhoe	T-3	1	20	TOTAL			100.00
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TOTAL			100.00																		
<p>ITB 4.5 (c)</p>	<p>The skilled and experienced manpower required for the timely and quality execution of the work to be made available for the Contract by the successful Bidder shall be³³:</p> <table border="1" data-bbox="391 852 1344 1560"> <thead> <tr> <th data-bbox="391 852 524 919">Tier</th> <th data-bbox="524 852 716 919">Position</th> <th data-bbox="716 852 1206 919">Qualification</th> <th data-bbox="1206 852 1344 919">Score</th> </tr> </thead> <tbody> <tr> <td data-bbox="391 919 524 1255" rowspan="3">Tier I</td> <td data-bbox="524 919 716 1255" rowspan="3">Site Engineer</td> <td data-bbox="716 919 1206 1056">Diploma in civil Engineering with more than 5 years experience or degree fresh.</td> <td data-bbox="1206 919 1344 1056">50</td> </tr> <tr> <td data-bbox="716 1056 1206 1157">Diploma in civil Engineering with 3 - 5 years experience</td> <td data-bbox="1206 1056 1344 1157">30</td> </tr> <tr> <td data-bbox="716 1157 1206 1255">Diploma in civil Engineering with less than 3 years experience</td> <td data-bbox="1206 1157 1344 1255">20</td> </tr> <tr> <td data-bbox="391 1255 524 1560" rowspan="3">Tier II</td> <td data-bbox="524 1255 716 1560" rowspan="3">Site Supervisor</td> <td data-bbox="716 1255 1206 1356">VTI Graduate with more than 5 years experience</td> <td data-bbox="1206 1255 1344 1356">30</td> </tr> <tr> <td data-bbox="716 1356 1206 1457">VTI Graduate with 5-3 years experience</td> <td data-bbox="1206 1356 1344 1457">20</td> </tr> <tr> <td data-bbox="716 1457 1206 1560">VTI Graduate with less than 3 years experience</td> <td data-bbox="1206 1457 1344 1560">10</td> </tr> </tbody> </table>	Tier	Position	Qualification	Score	Tier I	Site Engineer	Diploma in civil Engineering with more than 5 years experience or degree fresh.	50	Diploma in civil Engineering with 3 - 5 years experience	30	Diploma in civil Engineering with less than 3 years experience	20	Tier II	Site Supervisor	VTI Graduate with more than 5 years experience	30	VTI Graduate with 5-3 years experience	20	VTI Graduate with less than 3 years experience	10
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<p>ITB 4.5(f)</p>	<p>The Credit Line amount is Nu 3.08 million</p>																				
<p>ITB 4.6</p>	<p>Subcontractors' experience and resources [<i>shall not</i>"] be taken into account</p>																				

B. Bidding Documents	
ITB 9.1	The Employer's address for clarification is: DE, Dzongkhag Administration Tsirang Gyembo Dorji (Site Engineer), BM# 17641360
ITB 9.2	Pre-bid Meeting shall be held on ...Not Applicable
C. Preparation of Bids	
ITB 11.1	The language of the bid is: English
ITB 12.1	Any additional materials required to be completed and submitted by the Bidders are [<i>none</i>].
ITB 13.4	The Contract (<i>"is not"</i>) subject to price adjustment in accordance with GCC Clause 47.
ITB 14.2	The authority for establishing the rates of exchange shall be the Royal Monetary Authority of Bhutan.
ITB 14.4	Bidders [<i>are not</i>] required to substantiate the rates and prices.
ITB 15.1	The Bid shall be valid for 60 Days from the deadline for submission of Bids stipulated in ITB Clause 20.1
ITB 16.1 & 16.2	The Bid Security amount is Nu 246,500.00 & should be valid for 30 days beyond the validity of Bid.
ITB 17.1	Alternative Bids [<i>shall not be</i>] considered.
ITB 18.1	In addition to the original Bid, the number of copies is [<i>one copies</i>]
D. Submission of Bids	
ITB 19.1	Bidders may submit their Bids electronically: [<i>No</i>].
ITB 19.3 (c)	The Employer's address for the purpose of Bid submission is; Dzongkhag Procurement Section, Dzongkhag Administration, Tsirang

ITB 19.3 (d)	The name and Identification number of the contract as given in ITB 1.1 above in this sheet.
ITB 19.3 (e)	The warning shall read <i>“DO NOT OPEN BEFORE 10:30 AM on 19/03/2019”</i>
ITB 20.1	The deadline for submission of Bids shall be <i>10:00 AM, 19/03/2019</i>
E. Bid Opening and Evaluation	
ITB 23.1	<p>The Bid opening shall take place on the same day as the closing day of the bid submission at: <i>Dzongkhag Conference Hall</i></p> <p>Date: <i>19/03/2019</i> Time: <i>10:30AM</i></p> <p>If electronic bidding is permitted, the specific opening procedures are: <i>None</i></p>
ITB 30.1	Margin of domestic preference of five percent (5%) [<i>“shall not”</i>] apply
ITB 30.3 (d)	Other criteria to be used for the purpose of assessing domestic preference eligibility are: <i>[“none”]</i>
ITB 30.4	<p>The procedure used to apply the margin of preference shall be:</p> <p>In the case of procurements in which any Bids are received from foreign (i.e. non-Bhutanese) Bidders:</p> <ul style="list-style-type: none"> (i) if two or more Bids are evaluated as equivalent in accordance with the evaluation methods and factors laid down in the Bidding Documents, and (ii) one or more of the Bids is from a domestic Bidder, as defined in ITB Sub-Clause 30.2, and (iii) the total price of the domestic Bid does not exceed by more than five percent (5%) the total price of the lowest priced foreign Bid evaluated as equivalent, then the Contract shall be awarded to the domestic Bid.
F. Award of Contract	
ITB 34.1	<p>The Performance Security shall be 10% of the Contract amount must be provided in any one of the following forms:</p> <ul style="list-style-type: none"> (a) Demand guarantee in the form provided for in Section X, Security Forms, or (b) Banker’s certified cheque/cash warrant, or Demand draft.

	<p><i>The lowest evaluated bidder whose bid is considered abnormally low or unbalanced, following prescribed evaluation procedures, the bids shall be required to provide differential security in the form of “cash warrant” in addition to performance security. The cash warrant shall be valid for at least 6 months, and thereafter can be converted into bank guarantee. The payment has to be made within 15 working days after receipt of the letter of acceptance by the bidder.</i></p> <p><i>The additional security amount to be provided by the bidders, in the form of cash warrant shall be the difference between departmentally estimated amount and the amount quoted by the successful bidder.</i></p>
ITB 35.1	The Advance Payment shall be limited to ten percent (10%) of the Contract Price.
ITB 36.1	Disputes arising from the implementation of the provisions of the Contract shall be settled first by negotiations between the Contractor and the Employer in order to arrive at an amicable settlement. If negotiations fail between the parties, the dispute shall be referred to the CDB and finally resolved by Arbitration in accordance with rules and procedures of CDB enforced at the time of submission through its National Arbitration Committee. Either party can take the case to the court in Bhutan if the Arbitration award is not acceptable to them. If the case is taken to the court, all the decisions made by the Arbitration committee will be null & void.

Section III. Eligible Countries

Eligibility for the Provision of Goods, Works and Services in RGoB-financed Procurement

1. The RGoB permits firms and individuals from all countries to offer goods, works and services for RGoB-financed projects. As an exception, firms of a Country, goods manufactured in a Country or services provided from or by a Country may be excluded if:
 - 1.1 As a matter of law or official regulation, the RGoB prohibits commercial relations with that Country, or
 - 1.2 By an Act of Compliance with a Decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the RGoB prohibits any import of goods from that Country or any payments to persons or entities in that Country.
2. For the information of Bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:
 - (a) With reference to Paragraph 1.1 above:
[insert list of countries prohibited under the law or official regulations of Bhutan]
 - (b) With reference to Paragraph 1.2 above:
[insert list of countries which are barred under UN Security Council Chapter VII]

Section IV. Forms of Bid, Qualification Information, Letter of Acceptance, Contract, Integrity Pact and Letter of Intent
1. Contractor's Bid

Notes on Form of Contractor's Bid

The Bidder shall fill in and submit this Bid form with the Bid.

Date:.....

Identification No.:.....

Title of Contract:.....

To:

Having examined the all the Bidding Documents (with reference ITB 8), including addenda
[as listed], we offer to execute the
.....

..... in accordance with the Conditions of Contract accompanying this Bid for
the Contract Price of *Nu*.....(*Amount in*
words).....

..... (*Name of currency*).....

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

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

We, including any subcontractors or suppliers for any part of the Contract, have nationalities
from eligible countries in accordance with ITB Sub-Clause 3.1;

We have no conflict of interest in accordance with ITB Sub-Clause 3.2;

Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the Contract—has not been declared ineligible under the laws or official regulations of Bhutan, in accordance with ITB Sub-Clause 3.3.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity
_____	_____	_____
_____	_____	_____
_____	_____	_____

(if none, state “none”).”

In case if I withdraw my bid after opening for whatsoever reasons, *I agree to the forfeiture of the EMD/Bid Security and also I shall be bound to pay the cost difference (positive) between my bid with that of the next lowest evaluated bidder and failure on my part to do so within a month, will authorize the client to debar my firm for a period of 2 years.*

Our duly executed Integrity Pact Statement is attached herewith as Appendix A.

Authorized Signature: _____

(Affix Legal Stamp)

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

2. Qualification Information and Evaluation Table

Notes on Form of Qualification Information

The information to be filled in by Bidders in the following pages will be used for purposes of post qualification/ evaluation or for verification of prequalification as provided for in Clause 4 of the Instructions to Bidders. Attach additional pages as necessary. Pertinent sections of attached documents should be translated into the Language of the Bid, as specified in BDS ITB 11.1. If used for prequalification verification, the Bidder should fill in updated information only.]

1. CAPABILITY (70 MARKS): list all information requested below.

1.1 Similar work Experience

Value of single largest work of similar size and nature:

Sl. No	Name of Work	Start & Completion Dates	Value of Work	Name of Employer

OR

Value of 3 works of similar size and nature:

Sl. No	Name of Work	Start & Completion Dates	Value of Work	Name of Employer
1.				
2.				
3.				

The bidder shall submit the following supporting documents for the above:

- Copies of completion certificate of the single largest work of similar size and nature executed in the last 5 calendar years.

OR

- Copies of completion certificates of no more than 3 works of similar size and nature executed in the last 5 calendar years (works whose completion date is within the last 5 calendar years including the current one).
- Partial completion will not be considered.

1.2 Access to adequate equipment (owned or hired):

Equipment	Owned(No)	Hired (No)	Total (No)

The bidder shall submit the following supporting documents for the above:

- Copy of the registration certificate of each equipment committed where applicable.
- In case of hiring, copy of the lease agreement with the leaser.
- In case of ownership, copy of the insurance policy for each equipment where applicable.

1.3 Availability of skilled manpower:

Personnel	Name of the comitted personnel	Number	Qualification	Number of years of experience

The bidder shall submit the following supporting documents for the above:

- Original signed copies of the CVs of technical manpower committed.
- Copies of Citizenship ID Cards or Passport/ Election ID cards (for foreign workers) of all manpower committed.
- Copies of contract agreements with all personnel if they have been hired on contract by the contractor.
- Copies of Provident Fund Account Documents of all personnel if they have been recruited on permanent pay rolls by the Contractor.

1.4 Average Performance Score from previous work

The bidder shall submit Performance score card issued by the Procuring Agencies for previous works.

2. CAPACITY (30 MARKS): list all information requested below.

2.1 Bid Capacity

$$BC = 2 * A * N - B$$

Where A= Average turnover of the contractor over the last 3 calendar years

N = Estimated duration of the project to be tendered

B= Portion of other ongoing works to be completed in the period that overlaps with the current project's duration (N)

Name of the Project completed (in the last 3 calendar years)	Start & Completion Dates	Value of Contract	Name of Employer

Name of the ongoing Project	Start & Completion Dates	Value of Contract	Name of Employer

The bidder shall submit the following supporting documents for the above:

- Completion certificates for all works having their completion dates in the last 3 calendar years (including the current year)
- Award letter certificates for all works having their start dates in the last 3 calendar years (including the current year)

2.2 Access to or Availability of Credit Line

The bidder shall submit the following supporting documents for the above:

- The Bidder shall submit in the following format from the bank or financial institutions in Bhutan showing evidence of access to or availability of credit line for the project.

[The **Bank/Bidder** shall fill in this Bank Certificate form in accordance with the instructions indicated in brackets.]

(Bank Letter Head)

BANK CERTIFICATE

This is to certify that Mr./Mrs.....Promoter of M/s.....is one of our valued Clients and Maintaining account with..... Branch Office,.....their dealing with bank has been satisfactory as on date.

This certificate is issued at the request of M/s..... for the purpose of participating in bidding for tender works(*insert name of works*).The Client can be considered good for line of credit to the extent of Nu.....to meet their working capital requirements for executing the work namely subject to fulfillment of lending norms.

[insert signature(s) of authorized representative(s) of bank]
Address of the Bank

[The **Bank/Bidder** shall fill in this Bank Certificate form in accordance with the instructions indicated in brackets.]

❖ *For joint venture change the text as follows*

(Bank Letter Head)

BANK CERTIFICATE

This is to certify that Mr./Mrs.....
Promoter of M/s..... who has formed a
Joint Venture with M/s.....
for participating in this bid is one of our valued Clients and Maintaining account with
.....
.....Branch Office,..... their dealing with bank has been
satisfactory as on date.

This certificate is issued at the request of M/s.....
for the purpose of participating in bidding for tender works(*insert name of works*).The
Client can be considered good for line of credit to the extent of Nu.....
.....to meet their working capital requirements for executing the
work namely.....subject to fulfillment of
lending norms

[insert signature(s) of authorized representative(s) of bank]
Address of the Bank

[This should be given by each JV members]

3. PRICE PREFERENCE PARAMETERS: list all information requested below.

3.1 Status (Incorporated, JV, proprietorship)

Constitution or legal status of Bidder:

Place of registration:

Principal place of business:

Power of attorney of signatory of Bid:

The bidder shall submit the following supporting documents for the above:

- Copy of the certificate of incorporation issued by the registrar of companies for the bidder in case an incorporated company is bidding alone.
- Joint-venture agreement between the contractor involved, and copy of the certificate of incorporation issued by the registrar of companies for the incorporated partner in case two or more contractors are bidding together in a joint venture.
- Letter of Power of Attorney.

3.2 Employment of VTI Graduates

Total Number of workforce committed for the project:

Number of VTI graduates committed for the project:

The bidder shall submit a letter of commitment to employ VTI Graduates for the execution of the project.

3.3 Commitment for internships to VTI graduates

The bidder shall submit a letter of commitment for internship to VTI graduates.

Notes on Evaluation Table

The following information is provided for the Bidder's information on the scores that shall be awarded to the bidders based on the qualification information submitted by the Bidders.

1st Stage

Sl.No	Parameters	Level of Achievement	Score
1	BIDDER QUALIFICATION		
1.1	CAPACITY		
a)	<p>Similar Work Experience(0-10)</p> <p>Aggregate size of similar contracts (max 3) in the last 5 calendar yrs</p> <p style="text-align: center;">OR</p> <p>Size of the largest similar contract executed in the last 5 calendar yrs</p>	<ul style="list-style-type: none"> ▪ $\geq 175\%$ of current project size ▪ 125 – 175% of current project size ▪ 75 – 125% of current project size ▪ $< 75\%$ of current project size ▪ $\geq 100\%$ of current project size ▪ 70 – 100% of current project size ▪ 50 – 70% of current project size ▪ $< 50\%$ of current project size 	<ul style="list-style-type: none"> ▪ 10 ▪ 8 ▪ 4 ▪ 0 ▪ 10 ▪ 8 ▪ 4 ▪ 0
b)	Access to equipment (0-25)	Total score for equipments out of a score of 100 to be scaled down to 25	
c)	Availability of skilled manpower	Total score for skilled manpower out	

	(0-25)	of a score of 100 to be scaled down to 25	
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Sl.No	Parameters	Level of Achievement	Score
d)	Average performance score from previous work (past 5 calendar years)	<ul style="list-style-type: none"> ▪ 100% ▪ 1 mark lesser for every 5% point decrease in score rounded off to lower 5% ▪ < 50% 	<ul style="list-style-type: none"> ▪ 10 ▪ 0
1.2	CAPABILITY		
a)	Bid Capacity (0-10) $*BC = 2 * A * N - B$	<ul style="list-style-type: none"> ▪ Bid Capacity \geq quoted bid ▪ Bid Capacity is between 80 – 100% quoted bid ▪ Bid Capacity is between 60 – 80% quoted bid ▪ Bid Capacity is between 40 – 60% quoted bid ▪ Bid Capacity < 40% quoted bid 	<ul style="list-style-type: none"> ▪ 10 ▪ 8 ▪ 6 ▪ 4 ▪ 0
b)	Credit line available (0-20)	<ul style="list-style-type: none"> ▪ \geq 100% of estimated 3 month project cash flow ▪ 80 – 100% of estimated 3 month project cash flow ▪ 60 – 80% of estimated 3 month project cash flow ▪ <60% of estimated 3 month project cash flow 	<ul style="list-style-type: none"> ▪ 20 ▪ 16 ▪ 8 ▪ 0
		END OF STAGE 1 out of a score of 100	

- * Where A = Average turnover of the contractor over the last 3 calendar years
 N = Estimated duration of the project to be tendered
 B = Portion of other ongoing works to be completed in the period that overlaps with the current project's duration (that is, N)

A bidder needs to obtain a score of at least 65 points out of 100 on these parameters in order to qualify for the next stage.

2nd Stage

Sl.No	Parameters	Level of Achievement	Score
2	BID EVALUATION		
a)	Status (incorporated, JV, proprietorship)	<ul style="list-style-type: none"> ▪ Incorporated company bidding alone ▪ Incorporated company as the lead partner (>50% stake) in a bid by a joint venture ▪ Incorporated company as a non-lead partner (<50% stake) in a bid by a joint venture ▪ Any other (proprietorship, partnership etc.) 	<ul style="list-style-type: none"> ▪ 40 ▪ 20 ▪ 10 ▪ 0
b)	Employment of VTI Graduates/local skilled labourers	<ul style="list-style-type: none"> ▪ ≥ 50% project skilled workforce to be VTI ▪ 30 – 50% project skilled workforce to be VTI ▪ 15 – 30% project skilled workforce to be VTI ▪ ≤ 15% project skilled workforce to be VTI 	<ul style="list-style-type: none"> ▪ 40 ▪ 30 ▪ 15 ▪ 0

c)	Commitment for internships to VTI Graduates	<ul style="list-style-type: none"> ▪ Internship opportunities for VTI graduates equivalent to $\geq 10\%$ of project workforce ▪ Internship opportunities for VTI graduates equivalent to 5-10% of project workforce ▪ Internship opportunities for VTI graduates $\leq 5\%$ project skilled workforce 	<ul style="list-style-type: none"> ▪ 20 ▪ 10 ▪ 0
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The overall price preference – financial score is obtained by using the following formula for any qualified contractor (x):-

$$90 X \frac{\textit{(Lowest quoted bid among qualifying bids)}}{\textit{Financial bid quoted by x}} + 10\% \textit{ of the Preference Score of x}$$

The contractor getting the highest overall price preference-financial score is awarded the work.

Letter of Acceptance
[Letterhead paper of the Employer]

Notes on Standard Form of Letter of Acceptance

The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clauses 33 and 34 of the Instructions to Bidders. This Standard Form of Letter of Acceptance shall be filled in and sent to the successful Bidder only after evaluation of Bids has been completed.

[Insert date]

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

This is to notify you that your Bid dated *[insert date]* for execution of the *[insert name of the Contract and identification number, as given in the SCC]* for the Contract Price of the equivalent³⁴ of *[insert amount in numbers and words] [insert name of currency]*, as corrected and modified³⁵ in accordance with the Instructions to Bidders is hereby accepted by our Agency.

[Insert one of the following (x) or (y) options if applicable]

- (x) We accept that *[insert name proposed by Bidder]* be appointed as the Adjudicator.³⁶
- (y) We do not accept that *[insert name proposed by Bidder]* be appointed as Adjudicator, and by sending a copy of this Letter of Acceptance to *[insert name of the Appointing Authority]* we are hereby requesting *[insert name]*, the Appointing Authority, to appoint the Adjudicator in accordance with ITB Clause 36.1.³⁷

The Contract in duplicate is attached hereto. You are hereby instructed to:

- (a) confirm your acceptance of this Letter of Acceptance by signing and dating both copies of it, and returning one copy to us no later than 15 days from the date hereof;
- (b) proceed with the execution of the said Works in accordance with the Contract;
- (c) sign and date both copies of the attached Contract and return one copy to us within 15 days of the date hereof; and
- (d) forward the Performance Security pursuant to ITB Sub-Clause 34.1, i.e., within 15 days after receipt of this Letter of Acceptance, and pursuant to GCC Sub-Clause 51.1

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Contract

Contract

This Contract is made the *[insert day]* day of *[insert month]*, *[insert year]* between *[insert name and address of Employer]* (hereinafter called “the Employer”) and *[insert name and address of Contractor]* (hereinafter called “the Contractor”) of the other part.

Whereas the Employer is desirous that the Contractor execute *[name and identification number of Contract]* (hereinafter called “the Works”) and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

Now this Contract witnesseth as follows:

1. In this Contract, words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Contract.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects 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 Contract to be executed the day and year first before written.

The Common Seal of *[Witness entity]* _____
was hereunto affixed in the presence of: _____

Signed, Sealed, and Delivered by the said _____
in the presence of: _____

Binding Signature of Employer *[signature of an authorized representative of the Employer]*

Binding Signature of Contractor *[signature of an authorized representative of the Contractor]*

INTEGRITY PACT

1 General:

Whereas *Dasho Dzongdag* representing the *Dzongkhag Administration, Tsirang* Royal Government of Bhutan, hereinafter referred to as the “**Employer**” on one part, and

Mr/Mrs..... representing *M/s*.
(....., hereinafter referred to as the “**Bidder**” on the other part hereby execute this agreement as follows:

This agreement shall be a part of the standard bidding document, which shall be signed by both the parties at the time of purchase of bidding documents and submitted along with the tender document. This IP is applicable only to “**large**” scale works, goods and services, the threshold of which will be announced by the government from time to time. The signing of the IP shall not apply to framework contracting such as annual office supplies etc.

2 Objectives:

Whereas, the Employer and the Bidder agree to enter into this agreement, hereinafter referred to as IP, to avoid all forms of corruption or deceptive practice by following a system that is fair, transparent and free from any influence/unprejudiced dealings in the **bidding process**³⁸ and **contract administration**³⁹, with a view to:

- 2.1 Enabling the Employer to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works or goods or services; and
- 2.2 Enabling bidders to abstain from bribing or any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also refrain from bribing and other corrupt practices.

3. Scope:

The validity of this IP shall cover the bidding process and contract administration period.

4. Commitments of the Employer:

The Employer Commits itself to the following:-

- 4.1 The Employer hereby undertakes that no officials of the Employer, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or

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immaterial benefit or any other advantage from the Bidder, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process and contract administration.

- 4.2 The Employer further confirms that its officials shall not favor any prospective bidder in any form that could afford an undue advantage to that particular bidder in the bidding process and contract administration and will treat all Bidders alike.
- 4.3 Officials of the Employer, who may have observed or noticed or have reasonable suspicion shall report to the head of the employing agency or an appropriate government office any violation or attempted violation of clauses 4.1 and 4.2.
- 4.4 Following report on violation of clauses 4.1 and 4.2 by official (s), through any source, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings shall be initiated by the Employer and such a person shall be debarred from further dealings related to the bidding process and contract administration.

5. Commitments of Bidders

The Bidder commits himself/herself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of the bidding process and contract administration in order to secure the contract or in furtherance to secure it and in particular commits himself/herself to the following :-

- 5.1 The Bidder shall not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Employer, connected directly or indirectly with the bidding process and contract administration, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding process and contract administration.
- 5.2 The Bidder shall not collude with other parties interested in the contract to manipulate in whatsoever form or manner, the bidding process and contract administration.
- 5.3 If the bidder(s) have observed or noticed or have reasonable suspicion that the provisions of the IP have been violated by the procuring agency or other bidders, the bidder shall report such violations to the head of the procuring agency.

6. Sanctions for Violation:

The breach of any of the aforesaid provisions shall result in administrative charges or penal actions as per the relevant rules and laws.

- 6.1 The breach of the IP or commission of any offence (forgery, providing false information, mis-representation, providing false/fake documents, bid rigging, bid

steering or coercion) by the Bidder, or any one employed by him, or acting on his/her behalf (whether with or without the knowledge of the Bidder), shall be dealt with as per the terms and conditions of the contract and other provisions of the relevant laws, including De-barment Rules.

6.2 The breach of the IP or commission of any offence by the officials of the procuring agency shall be dealt with as per the rules and laws of the land in vogue.

7. Monitoring and Administration:

7.1 The respective procuring agency shall be responsible for administration and monitoring of the IP as per the relevant laws.

7.2 The bidder shall have the right to appeal as per the arbitration mechanism contained in the relevant rules.

We, hereby declare that we have read and understood the clauses of this agreement and shall abide by it.

The parties hereby sign this Integrity Pact at (place) _____ on (date) _____



[Handwritten signature]

Affix
Legal
Stamp

EMPLOYER

BIDDER/REPRESENTATIVE

CID :

CID :

Witness:

Tashi Penjor

Witness: _____

Name:

Name: _____

CID :

CID :

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 33.2 between this letter of intent and letter of acceptance to allow aggrieved bidders to complain the 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 & 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 V. General Conditions of Contract (GCC)

Notes on General Conditions of Contract

The General Conditions of Contract (GCC), read in conjunction with the Special Conditions of Contract and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

The form of General Conditions of Contract that follows has been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The form can be used directly for smaller ad measurement (unit prices or unit rates in a Bill of Quantities) contracts and, with the modifications noted in the footnotes, it can be adapted for lump sum contracts.

The use of standard General Conditions of Contract for building and civil works will promote comprehensiveness of coverage, general acceptability of its provisions, savings in cost and time in Bid preparation and review, and the development of a solid background of legal case histories.

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General Conditions of Contract

A. General

1. Definitions

1.1 Boldface type is used to identify defined terms.

(a) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC Clauses 25 and 26 hereunder.

(b) **Bill of Quantities** summary of the units and unit prices of the items proposed under the contract.

(c) **Compensation Events** are those defined in GCC Clause 44 hereunder.

(d) The **Completion Date** is the date of completion of the Works as certified by the Employer, in accordance with GCC Sub-Clause 55.1.

(e) The **Contract** is a formal agreement in writing entered into between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.

(f) The **Contractor** is an individual or legal entity entering into a contract after its Bid to carry out the Works has been accepted by the Employer.

(g) The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer.

(h) The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

(i) **Days** are calendar days; months are calendar months.

(j) **Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

(k) A **Defect** is any part of the Works not completed in accordance with the Contract.

(l) The **Defects Liability Certificate** is the certificate issued by the Employer upon correction of defects by the Contractor.

(m) The **Defects Liability Period** is the period named in SCC Sub-Clause 35.1 and calculated from the Completion Date.

- (n) **Drawings** include calculations and other information provided or approved by the Employer for the execution of the Contract.
- (o) The **Employer** is the Government Agency which enters into a Contract with a Contractor to carry out the Works, as specified in the SCC. The terms “Procuring Agency”, “Purchaser”, or “Employer” is synonymous.
- (p) **Equipment** is the Contractor’s machinery and vehicles brought temporarily to the Site to construct the Works.
- (q) The **Initial Contract Price** is the Contract Price listed in the Employer’s Letter of Acceptance.
- (r) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the SCC. The Intended Completion Date may be revised only by the Employer by issuing an extension of time or an acceleration order.
- (s) **In writing** is in any written form, including electronic mail.
- (t) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (u) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical or biological function.
- (v) The **Project Manager** is the person named in the SCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Employer) who is responsible for supervising the execution of the Works and administering the Contract.
- (w) **SCC** is the Special Conditions of Contract.
- (x) **Secured Advance:** Secured advance can be given for non-perishable materials only. Materials such as cement/bamboo cannot be eligible for the secured advance. No secured advance shall be given on account of plants & machineries.
- (y) The **Site** is the area defined as such in the SCC.
- (z) **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (aa) **Specifications** mean the Specifications of the Works included in the Contract and any modification or addition made

or approved by the Project Manager.

(bb) The **Start Date** is given in the SCC. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

(cc) A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

(dd) **Temporary Works** are works designed, constructed, installed and removed by the Contractor that are needed for construction or installation of the Works.

(ee) A **Variation** is an instruction given by the Project Manager which varies the Works.

(ff) The **Works** are what the Contract requires the Contractor to construct, install and turn over to the Employer, as defined in the SCC.

- 2. Interpretation**
- 2.1 In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (1) Contract,
 - (2) Letter of Acceptance,
 - (3) Contractor's Bid,
 - (4) Special Conditions of Contract,
 - (5) General Conditions of Contract,
 - (6) Specifications,
 - (7) Drawings,

- (8) Bill of Quantities,⁴⁰ and
- (9) any other document listed in the SCC as forming part of the Contract.
- 3. Language and Law** 3.1 The language of the Contract and the law governing the Contract are stated in the SCC.
- 4. Project Manager's Decisions** 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer..
- 5. Delegation** 5.1 The Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.
- 6. Communications** 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission. A notice shall be effective only when it is delivered.
- 7. Subcontracting** 7.1 The Contractor may subcontract with the approval of the Employer provided such provisions exist in contract document, but shall not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.
- 8. Setting Out** 8.1 The Contractor shall be responsible for setting out the Works and for ensuring the correctness of the positions, levels, dimensions and alignment of the Works. At any time during the execution of the Works, he shall correct any error at his own expense when required to do so by the Employer. Boreholes, exploratory excavations or soil testing may be done if instructed by the Employer. In case, cost of boreholes or exploratory excavations or soil testing is not included in the Contract Price, the cost shall be borne by the Employer. The contractor shall provide all facilities like labour and instruments, and shall cooperate with the Engineer-in-Charge to check all alignments, grades, levels and dimensions. Such checking shall not relieve the contractor of his own responsibility of maintaining the accuracy of the work.
- 9. Other Contractors** 9.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities and the Employer
-

between the dates given in the Schedule of Other Contractors, as referred to in the SCC. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

10. Personnel

10.1 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 Project Manager. The Project Manager shall approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule. If the Contractor fails to deploy the personnel as committed in the Bid document, the employer shall stop the work if the quality of work is going to suffer or otherwise deduct the salaries of such personnel at a rate stipulated in the Special Condition of Contract per month per personnel for every month of absence of such personnel from the site. Such deductions shall continue till such time that the Contractor deploys the key personnel acceptable to the employer. If the Contractor fails to deploy such key personnel within one to four months⁴¹, the deductions shall be discontinued and the contractor's failure to deploy such personnel shall be treated as a fundamental breach of contract.

This shall also apply to the commitment of employment to Vocational Training Institute Graduates (VTI)/skilled local labourers and commitment to provide internship to VTI graduates. However in this case Contract may not be terminated but wage rates as mentioned in the SCC shall be deducted for the duration of the contract.

Similarly, if the committed equipments are not available at site, the hiring charges of such equipments shall be deducted at a rate stipulated in the SCC per month for every month of absence for a period of one to four months after which the deductions shall be discontinued and the contractor's failure to produce such equipments at site shall be treated as a fundamental breach of contract..

10.2 The Contractor shall pay rates of wages and observe conditions of labour which are not lower than the general level of wages and conditions in Bhutan. The Contractor shall provide and maintain

all necessary accommodation and welfare facilities for the Contractor's personnel. The Contractor shall comply with all relevant labour laws applicable to the Contractor's personnel, including their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor is required, to the extent practicable and reasonable, to employ national staff and labour with appropriate qualifications and experience.

10.3 The Contractor shall not engage child labour and shall conform to the labour laws/acts, rules and regulations of Bhutan in the execution of Contract work. A child who has not attained the age of 18 years shall not be employed in any work as a labourer. During the continuance of the Contract the Contractor and his Subcontractors shall abide at all times with the labour laws/acts, rules and regulations, including child labour, related enactment and rules made there under.

**11. Employer's
and
Contractor's
Risks**

11.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

**12. Employer's
Risks**

12.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials and Equipment), which are due to:
 - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - (ii) Negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting Bhutan.

**13. Contractor's
Risks**

13.1 From the Start Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or

damage to property (including, without limitation, the Works, Plant, Materials and Equipment) which are not Employer's risks are Contractor's risks.

14. Insurance

14.1 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:

(a) loss of or damage to the Works, Plant and Materials to be built into the works.

14.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

14.3 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 from the Contractor to the Employer.

14.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.

14.5 Both parties shall comply with any conditions of the insurance policies.

15. Queries about the Special Conditions of Contract

15.1 The Project Manager shall clarify queries on the SCC.

16. Contractor to Construct the Works

16.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

17. The Works to Be Completed by the Intended Completion Date

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

18. Approval by the Project Manager

- 18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings.
- 18.2 The Contractor shall be responsible for design of Temporary Works.
- 18.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 18.4 The Contractor shall obtain approval of third parties to design the Temporary Works, where required.
- 18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works are subject to prior approval by the Project Manager before use.

19. Safety

- 19.1 The Contractor shall be responsible for the safety of all activities on the Site.
- 19.2 The Contractor shall assume full responsibility and comply with all applicable safety regulations for the adequacy and safety of site operations and methods of construction and he shall adopt measures to prevent injuries to persons or damage to properties or utilities. He shall hold the Employer harmless from any liability for loss or damage resulting from his failures to take the necessary precautions. He shall avoid undue interference with private business, public travel, or with the work of other contractors. He shall take steps to protect the environment and to minimize noise, pollution or other undesirable effects resulting from his method of operation.

20. Discoveries

- 20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Employer's instructions for dealing with them.
- 20.2 All materials obtained during excavation from the site and that have not been accounted for in the bid shall be the property of the Employer and the contractor shall take care of useful materials obtained during the execution of the Works and stack at place designated by the Employer. An arrangement shall be made between the Contractor and the Employer for the use and disposal of such materials according to the laws of the kingdom

of Bhutan.

- 21. Possession of the Site** 21.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the SCC, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.
- 22. Access to the Site** 22.1 The Contractor shall allow the Project Manager and any person authorized by the Employer 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.
- 23. Instructions, Inspections and Audits** 23.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 23.2 The Contractor shall give notice to the Project Manager whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Project Manager shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that he does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Project Manager, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.
- 23.3 The Contractor shall permit the Employer and/or persons appointed by the Employer to inspect the Site and/or the accounts and records of the Contractor and its Subcontractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Employer if so required by the Employer. The Contractor's attention is drawn to GCC Sub-Clause 59.1 [Corrupt or Fraudulent Practices] which provides, inter alia, that acts intended materially to impede the exercise of the Employer's inspection and audit rights provided for under GCC Sub-Clause 23.3 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to ITB Sub-Clause 2.1 (c) of the Instructions to Bidders within the Bidding Documents that preceded the placement of the Contract of which these GCC form a part).
- 24. Disputes** 24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator or Arbitrator within 14 days of the notification of the Project Manager's

decision.

- 25. Procedure for Disputes**
- 25.1 The Adjudicator shall give a decision in writing within 30 days of receipt of a notification of a dispute.
- 25.2 The Adjudicator shall be paid by the hour at the rate specified in the BDS and the SCC, together with reimbursable expenses of the types specified in the SCC, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 30 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 30 days, the Adjudicator's decision shall be final and binding.
- 25.3 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in the place specified in the SCC.
- 26. Replacement of Adjudicator**
- 26.1 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the SCC at the request of either party, within 14 days of receipt of such request.

B. Time Control

- 27. Program**
- 27.1 Within the time stated in the SCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order and timing for all the activities in the Works.
- 27.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 27.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after

the date on which the overdue Program has been submitted.

27.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Employer again at any time. A revised Program shall show the effect of Variations.

27.5 An on-time completion out of a total of thirty (30) % scoring shall be done by the Program Manager. The contractor shall be penalized under this component if he fails to deliver the project as per the initial time-lines committed in the Program. The site engineer shall penalize the contractor to an extent of 30%. The quantum of penalty could vary as following:

- (i) 10% for a minor default
(if the final completion of the project is delayed by 10 - 15% as compared to original project duration)
- (ii) 20% for a medium default
(if the final completion of the project is delayed by 15 - 25% as compared to original project duration)
- (iii) 30% for a major default
(if the final completion of the project is delayed by 25% or more as compared to original project duration.

28. Extension of the Intended Completion Date

28.1 The Project Manager shall extend the Intended Completion Date if a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

28.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

29. Acceleration

29.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and

confirmed by both the Employer and the Contractor.

29.2 If the Contractor's priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

**30. Delays
Ordered by the
Project
Manager**

30.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

**31. Management
Meetings**

31.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

31.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

32. Early Warning

32.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

32.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

32.3 If the Contractor considers himself to be entitled to any extension of Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.

- 32.4 If the Contractor fails to give notice of a claim within such period of 30 days, the Employer shall be discharged from all liability in connection with the claim.

C. Quality Control

33. Identifying Defects

- 33.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities to ensure the quality of works executed. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect. The Project Manager at the end of the Contract shall issue a Performance score on Quality out of a total of 70 points based on the guidelines issued by the Standard and Quality Control Authority (SQCA).

34. Tests

- 34.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

35. Correction of Defects

- 35.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 35.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

36. Uncorrected Defects

- 36.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount to the Employer. At the option of the Employer, payment of such costs may be made in whole or in part by the Employer deducting and keeping for itself appropriate amounts from the Retention Money and/or claiming against any bank guarantee provided by the Contractor pursuant

to GCC Sub-Clause 48.3.

D. Cost Control

37. Bill of Quantities⁴²

37.1 The Bill of Quantities shall contain items for the construction, installation, testing and commissioning work to be done by the Contractor.

37.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

38. Changes in the Quantities⁴³

38.1 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.

38.2 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.

38.3 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.

39. Variations

39.1 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 or insertion 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, or
- (f) change in any specified sequence or timing of construction activities.

39.2 The Project Manager shall make any such variation by issuing written instructions to the Contractor and ensure that such variations are duly noted in the Site Order Register. A variation made shall not, in any way, vitiate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with GCC Clause 40.

39.3 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Project Manager stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence of the progress of the Works. Upon receiving this notice, the Project Manager shall cancel, confirm or vary the instruction.

39.4 All Variations shall be included in updated Programs⁴⁴ produced by the Contractor.

40. Payments for Variations

40.1 The Contractor shall provide the Project Manager analysed rate for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the analysed rates, which shall be given within seven days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

- 40.2 If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of Project Manager, the quantity of work above the limit stated in GCC Sub-Clause 38.1 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.⁴⁵
- 40.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 40.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 40.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

41. Cash Flow Forecasts

- 41.1 When the Program⁴⁶ is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

42. Payment Certificates

- 42.1 The Contractor shall submit to the Project Manager monthly statements of the value of the work executed, based on the Contractor's records, less the cumulative amount certified previously.
- 42.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 42.3 The value of work executed shall be determined by the Project Manager.
- 42.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed⁴⁷ and measurement thereof shall be carried out jointly by the Project
-

Manager, or his Representative, and the Contractor. The Project Manager, or his Representative, shall record the value of the work executed in a measurement book for the purposes of verifying the Contractor's monthly statements. The measurement book shall be signed by the Project Manager or his Representative, and countersigned by the Contractor.

42.5 The value of work executed shall include the valuation of Variations and Compensation Events.

42.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

43. Payments

43.1 Payments shall be adjusted for deductions for advance payments, taxes, retention money and any other dues.. The Employer shall pay the Contractor within 30 working days from the date of receipt of correct and verified bills/invoices in complete form by the Finance Section.

43.2 If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the rate of ten percent (10 %) per annum.

43.3 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall not be paid interest upon the delayed payment as set out in this clause.

43.4 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

43.5 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

44. Compensation Events for allowing time extension

44.1 The following shall be Compensation Events allowing for time extension:

- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 21.1.
- (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

- (c) The Project Manager orders a delay or does not issue Drawings, Specifications or instructions required for execution of the Works on time.
- (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- (e) The Project Manager unreasonably does not approve a subcontract to be let if provided in SCC.
- (f) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (g) Other contractors, public authorities, utilities or the Employer do not work within the dates and other constraints stated in the Contract, and they cause delay.
- (h) Other Compensation Events described in the SCC or determined
 - by the Employer and force majeure. “Force Majeure” means an exceptional event or circumstance:
 - (i) which is beyond a Party’s control,
 - (ii) which such Party could not reasonably have provided against before entering into the Contract,
 - (iii) which, having arisen, such Party could not reasonably have avoided or overcome, and
 - (iv) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (i) to (iv) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, terrorism, sabotage by persons other than the Contractor’s Personnel, revolution, insurrection, military or usurped power, or civil war,
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor’s Personnel,
- (iv) 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
- (v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

However, force majeure shall not include the following;

- i. rainfall
- ii. snowfall
- iii. strikes in other countries
- iv. non-availability of labourer and materials such as timbers, boulders, sand, and other materials
- v. difficulty and risky terrain and remoteness of site

44.2 If a Compensation Event would prevent the work being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Intended Completion Date shall be extended.

44.3 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning.

45. Tax

45.1 The prices bid by the contractor shall include all duties, taxes and levies that may be levied in accordance with the laws and regulations in being as of the date 30 days prior to the closing date for submission of bids.

46. Currencies

46.1 Where payments are made in currencies other than Ngultrum (NU), the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

47. Price Adjustment

47.1 If during the contract, there is an increase or decrease in the cost of materials as reflected by the Material Index Numbers published by the National Statistical Bureau⁴⁸(NSB), a corresponding increase or decrease in the payment to the contractor or recoverable from the Contractor shall be effected on the basis of the following formulae, such calculation being done for every successive period of 3 months after the 12th month of the Contract duration:

Adjustment for variation of material prices:

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

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;

47.2 For the applications of the above formulae, the appropriate Index Numbers published by the National Statistical Bureau shall be adopted.

47.3 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

47.4 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.

48. Retention

48.1 The Employer shall retain⁴⁹ ten percent (10%) from each payment due to the Contractor the proportion stated in the SCC until Completion of the whole of the Works as retention money.

48.2 On completion of the whole of the works, half the total amount retained shall be repaid to the Contractor and half when 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.

48.3 On completion of the whole of the works, the contractor may substitute the balance half of retention money by an unconditional bank guarantee. In the case of contracts beyond duration of 12 months, substitution of retention money by such a bank guarantee may be allowed on completion of 50% of the value of contract and duly certified by the Project Manager. The bank guarantee shall be valid until the issue of No Defects Liability Certificates by the Project Manager that all defects

notified by the Project Manger to the Contractor have been rectified to his satisfaction before the end of this period. If the Contractor fails to remedy any reported defect within the Defect Liability Period, the Employer shall withhold the payment or realize claims from the bank guarantee of an amount which in the opinion of the Employer represents the cost of the defect to be remedied.

49. Liquidated Damages

49.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the ten percent (10%) of the Initial Contract Price. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

50. Advance Payment

50.1 The Employer shall make advance payment to the Contractor of the amount stated in the SCC (mobilization and secured advances) by the date stated in the SCC, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

50.2 The secured advances shall be paid to the contractor as specified in SCC on the following conditions:

- a. The materials shall be in accordance with the specifications and shall not be in excess of the requirements;
- b. The materials shall be delivered at the site of the works, properly stored and protected against loss, damage or deterioration;
- c. A declaration shall be given by the contractor passing on the lien on the rights of the materials to the Procuring Agency.
- d. The amount of the secured advance shall not be more than seventy five percent (75%) of the cost of materials delivered at the site of works which shall be supported by the original invoices/bills from the suppliers. All materials imported from other countries shall be supported by Bhutan Sales Tax Receipts or Customs Clearance. In case of fabrication works off site, secured advance may be paid to the Contractor after site inspection is carried out by the Procuring Agency at the cost of the contractor, submission of proof of payment (work

order) and submission of supply order.

The secured advance shall be recovered from the interim progress payments in the months in which these materials are used in the works.

50.3 The Contractor is to use the advance payment only to pay for, Plant, Materials and mobilization expenses required specifically for execution of the Contract.

50.4 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. All advances shall be recovered when eighty percent (80%) of the contract is executed. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses or Liquidated Damages.

51. Securities

51.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the SCC by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 30 days from the date of issue of the Certificate of Completion.

51.2 Following the successful completion of the Contract, the Employer shall return the Performance Security to the Contractor within 14 days of receipt of the Certificate of Completion.

51.3 The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled under the Contract in the event of:

- (a) failure by the Contractor to extend the validity of the Performance Security as described in the preceding paragraph, in which event the Employer may claim the full amount of the Performance Security.
- (b) failure by the Contractor to pay the Employer an amount due, as either agreed by the Contractor or determined under Clause 43 [*payments*] or Clause 62 [*payment upon Termination*], within 42 days after this agreement or determination,
- (c) circumstances which entitle the Employer to terminate the contract under Clause 58 [*Termination*], irrespective of whether notice of termination has been given.

- 52. Dayworks**
- 52.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
- 52.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within 2 days of the work being done.
- 52.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms and at the rate quoted for Dayworks.
- 53. Cost of Repairs**
- 53.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Completion of the Contract

- 54. Completion**
- 54.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed.
- 55. Taking Over**
- 55.1 The Employer shall take over the Site and the Works and shall issue the completion Certificate within 7 days of taking over. The completion certificate shall include the following mandatory information:
- i. Name of Contract firm
 - ii. Name of Proprietor
 - iii. CDB Registration No.
 - iv. Trade License No.
 - v. Contract Amount
 - vi. Year of Completion
 - vii. Award order No. with Date.
- 56. Final Account**
- 56.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 30 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager

shall decide on the amount payable to the Contractor and issue a payment certificate.

57. Operating and Maintenance Manuals

57.1 If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

57.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC, or they do not receive the Project Manager’s approval, the Project Manager shall withhold the amount stated in the SCC from payments due to the Contractor.

58. Termination

58.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

58.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- (a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
- (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) The Contractor fails to employ the personnel proposed in the Bid document pursuant to Qualification Information Paragraph 1.5,
- (e) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager’s certificate;
- (f) the Project Manager gives notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- (g) the Contractor does not maintain a security, which is required;
- (h) the Contractor subcontracts any or whole of the Works without the approval of the Employer;
- (i) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of

liquidated damages can be paid, as defined in the SCC; and

- (k) in case of joint venture any or all parties fail to fulfill the contractual obligations.

58.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 58.2 above, the Project Manager shall decide whether the breach is fundamental or not.

58.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

58.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

59. Corrupt or Fraudulent Practices

59.1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for or in executing the Contract then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of GCC Sub-Clause 59.5 shall apply.

59.2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with GCC Sub-Clause 10.2

59.3 For the purposes of this Sub-Clause:

- (a) “corrupt practice”⁵⁰ is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value⁵¹ to influence improperly the actions of another party;
- (b) “fraudulent practice”⁵² is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- (c) “collusive practice”⁵³ 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”⁵⁴ 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;
- (e) “obstructive practice” is
 - (i) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order materially to impede any investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (ii) acts intended materially to impede the exercise of the inspection and audit rights of the Employer and/or any other relevant RGoB agency provided for under GCC Clause 23.

60. Payment upon Termination

60.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable by the Contractor to the Employer.

60.2 If the Contract is terminated for the Employer’s convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor’s personnel employed solely on the Works, and the Contractor’s costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

61. Property

61.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer if the

contract is terminated because of a Contractors default.

**62. Release from
Performance**

62.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

Section VI. Special Conditions of Contract

A. General	
GCC 1.1 (o)	The Employer is <i>Dasho Dzongdag, Dzongkhag Administration, Tsirang</i>
GCC 1.1 (r)	The Intended Completion Date for the whole of the Works shall be 12 Months
GCC 1.1 (v)	The Project Manager is Project Manager: <i>Dasho Dzongdag</i> Proejct Engineer: <i>District Engineer</i> Site Engineer: Gyembo Dorji (<i>17641360</i>)
GCC 1.1 (y)	The Site is located at <i>Damphu Central School under Tsirang Dzongkhag.</i>
GCC 1.1 (bb)	The Start Date shall be <i>5 days after the issuance of work order</i>
GCC 1.1 (ff)	The Works consist of: <i>Earth work, stone soling, RRM,PCC, RCC and as per the BoQ</i>
GCC 2.2	Sectional Completions are: <i>None</i>
GCC 2.3 (9)	The following documents also form part of the Contract: <i>Valid Trade License, Valid Tax Clearance and CDB Certificate</i>
GCC 3.1	The language of the contract is <i>English</i> The law that applies to the Contract is the law of the Kingdom of Bhutan.
GCC 9.1	Schedule of other contractors: <i>not Applicable</i>
GCC 10.1	Key Personnel: <i>Site Engineer</i> The amount to be deducted for the key personnel not employed by the contractor for each personnel is Nu. <i>17000.00 per month</i> <i>Site Supervisor</i> The amount to be deducted for the key personnel not employed by the contractor for each personnel is Nu. <i>9000.00 per month</i>

	<p>The amount to be deducted for the equipments not available at site is as follows:</p> <table border="1"> <thead> <tr> <th><i>S.no</i></th> <th><i>Type of Equipment</i></th> <th><i>Number</i></th> <th><i>Amount deductible</i></th> <th><i>Remarks</i></th> </tr> </thead> <tbody> <tr> <td><i>1</i></td> <td><i>Tripper Truck</i></td> <td><i>1</i></td> <td><i>1000 per day</i></td> <td></td> </tr> <tr> <td><i>2</i></td> <td><i>Concrete Mixer</i></td> <td><i>1</i></td> <td><i>10000 per month</i></td> <td></td> </tr> <tr> <td><i>3</i></td> <td><i>Backhoe</i></td> <td><i>1</i></td> <td><i>90,000 per month.</i></td> <td></td> </tr> </tbody> </table> <p>The amount to be deducted for the VTI/local skilled labourers not employed by the contractor for each personnel is Nu. 5000 per month</p> <p>The amount to be deducted for the VTI graduates not employed by the contractor as interns for the contract for each personnel is Nu. 3000 per month</p>	<i>S.no</i>	<i>Type of Equipment</i>	<i>Number</i>	<i>Amount deductible</i>	<i>Remarks</i>	<i>1</i>	<i>Tripper Truck</i>	<i>1</i>	<i>1000 per day</i>		<i>2</i>	<i>Concrete Mixer</i>	<i>1</i>	<i>10000 per month</i>		<i>3</i>	<i>Backhoe</i>	<i>1</i>	<i>90,000 per month.</i>	
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GCC 14.1	<p>The minimum insurance amounts and deductibles shall be:</p> <p>(a) loss of or damage to the Works, Plant and Materials to be built into the works: <i>the contractor shall be responsible for insuring the work and the procuring agency shall not bear the risk for any unforeseen happenings</i></p>																				
GCC 15.1	Queries. <i>District Engineer, Dzongkhag Engineering Section, Tsirang</i>																				
GCC 21.1	The Site Possession Date(s) shall be: <i>5 days after the issuance of work order</i>																				
GCC 25.2	Fees and types of reimbursable expenses to be paid to the Adjudicator: <i>Not Applicable</i>																				
GCC 25.3	GCC Sub-Clause 24.3—All disputes arising in connection with the present Contract shall be for finally resolved by arbitration in accordance with the rules and procedures of the CDB or any other independent agency that has been appropriately mandated at the time of submission of the dispute through its National Arbitration Committee. The arbitration award shall be final on the parties who shall be deemed to have accepted to carry out the resulting award without delay and to have waived their right to any form of appeal insofar as such waiver can validly be made.																				
GCC 26.1	Appointing Authority for the Adjudicator: <i>Not Applicable</i>																				
B. Time Control																					
GCC 27.1	The Contractor shall submit for approval a Program for the Works within <i>15 days</i> from the date of the Letter of Acceptance.																				

	<p>The Program shall include, but not be limited to, the following elements under the conditions stipulated:</p> <p>(a) Quality Assurance Plan (QAP)</p> <p>The Quality Assurance Plan shall specify the work methodology, quality control tests and intervals for such tests in accordance with the work specifications for each item of the Works. If in the opinion of the Project Manager the QAP submitted by the Contractor does not fully represent the spirit of the General Conditions of Contract or the Specifications he may seek further clarification from the Contractor before his approval. The Contractor shall strictly follow the QAP in the execution of the Works. If the Contractor does not comply with the QAP, he shall not be allowed to proceed further with the Works. Details of all procedures and compliance documents shall be submitted to the Project Manager for information before each execution stage is commenced. Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the contract.</p>
GCC 27.3	<p>The period between Program updates is 45 days.</p> <p>The amount to be withheld for late submission of an updated Program is [Nu 5000].</p>
C. Quality Control	
GCC 35.1	The Defects Liability Period is: 360 days.
D. Cost Control	
GCC 44.1 (l)	Other Compensation Events are: None
GCC 45.1	In case of certain Tax exemptions, such as in foreign assistance projects, this specific exemption(s) should be clearly specified in this clause.
GCC 47.1	The Contract “is not” subject to price adjustment in accordance with GCC Clause 47
GCC 48.1	The proportion of payments retained is: 10% of every payment
GCC 49.1	The liquidated damages for the whole of the Works are .05% per day of its final price of the contract. The maximum amount of liquidated damages for the whole of the Works is 10% of the final Contract Price.
GCC 50.1	The Mobilization Advance Payment shall be ten percent (10%) of the Contract Price and shall be paid to the Contractor no later than 30 days after receipt by the Employer of an acceptable Advance Payment Guarantee.

GCC 50.2	The secured advance is 75% of total cost of the materials brought at site
GCC 51.1	The Performance Security amount is 10% of the Contract Price of the contract.
E. Finishing the Contract	
GCC 57.1	The date by which operating and maintenance manuals are required is Not Applicable
GCC 57.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC Sub-Clause 57.1, or failing to obtain the Project Manager’s approval of them by the said date, is None
GCC 58.2 (i)	The maximum number of days is: 200 days
GCC 60.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is 20% up to a maximum of 10% of the initial contract price

Section VIII. Drawng

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.

Form of Bid Security (Bank Guarantee)

*[The **Bank/Bidder** shall fill in this Bank Guarantee form in accordance with the instructions indicated in brackets .]*

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

Beneficiary: _____ *[Name and Address of Employer]*

Date: _____

BID GUARANTEE No.: _____

We have been informed that *[name of the Bidder]* (hereinafter called "the Bidder") has submitted to you its Bid dated (hereinafter called "the Bid") for the execution of *[name of contract]* under Invitation for Bids No. *[IFB number]* ("the IFB").

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

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

- (a) has withdrawn its Bid during the period of Bid validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Employer during the period of Bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder; or (ii) 30 days after the expiration of the Bidder's Bid.

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

[signature(s)]

Performance Demand Bank Guarantee
(Unconditional)

[The **bank/successful Bidder** providing the Guarantee shall fill in this form in accordance with the instructions indicated in brackets.]

[bank's name, and address of issuing branch or office]

Beneficiary: *[name and address of Employer]*

Date: *[date]*

PERFORMANCE GUARANTEE No.: *[Performance Guarantee number]*

We have been informed that *[name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. *[reference number of the Contract]* dated *[date of Contract]* with you, for the execution of *[name of Contract and brief description of Works]* (hereinafter called "the Contract").

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

At the request of the Contractor, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in figures]* (*[amount in words]*),⁵⁵ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without you needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire no later than 30 days from the date of issuance of the Certificate of Completion, calculated based on a copy of such Certificate which shall be provided to us, or on the *[number]* day of *[month]*, *[year]*,⁵⁶ whichever occurs first. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date. The Guarantor agrees to a one-time extension of this Guarantee for a period not to exceed [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the Guarantee.

[signature(s) of an authorized representative(s) of the bank]

Bank Guarantee for Advance Payment

*The **bank/successful Bidder** providing the Guarantee shall fill in this form in accordance with the instructions indicated in brackets.*

[bank's name, and address of issuing branch or office]

Beneficiary: *[name and address of Employer]*

Date: *[date]*

ADVANCE PAYMENT GUARANTEE No.: *[number]*

We have been informed that *[name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. *[reference number of the contract]* dated *[date of Contract]* with you, for the execution of *[name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment is to be made against an advance payment guarantee in the sum or sums indicated below.

At the request of the Contractor, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in figures]* (*[amount in words]*⁵⁷) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the Advance Payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the Advance Payment referred to above must have been received by the Contractor in its account number *[account number]* at *[name and address of Bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the Advance Payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the Interim Payment Certificate indicating that eighty percent (80%) of the Contract Price has been certified for payment, or on the *[number]* day of *[month]*, *[year]*,⁵⁸ whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date. We agree to a one-time extension of this guarantee for a period not to exceed *[6 months]**[1 year]*, in response to the

.

Employer's written request for such extension, such request to be presented to us before the expiry of the guarantee.

[insert signature(s) of authorized representative(s) of bank]

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
Civil Bill of Quantity							
1	EW0106	Excavation in foundation trenches or drains not exceeding 1.5m width or area 10 sq.m on plan including dressing, ramming and disposal of surplus soil within 50m lead and 1.5m lift in Hard soil.	56.85	Cu.m			
2	CW0005	Providing and laying in position P.C.C -1:3:6,20mm aggregate excluding the cost of centering and shuttering. All work upto plinth level. Retaining wall Foundation	5.03	Cu.m			
3	SM0006	Providing and laying Random Rubble Masonary with hard stone in foundation and plinth: In cement mortar 1:5 (Foundation)	103.97	Cu.m			
4	PL0030	Providing and laying 15mm cement plaster on rough side of the brick wall in cement mortar 1:3	18.00	Sq.m			
5	A/R	Demolishing of old classroom block measuring (24.8m over all length 7.9m width and 2.95m height) constructed with RCC column and bricks in cement mortar in extrenal/partition walls. plywood sheet ceiling, timber trusses covered with CGI sheet including stacking usefull materials and disposal of rubbish within 1000m lead (Visit site for the structure even photo attached).	1.00	L/s			
6	A/R	Demolishing of old water tank and stand constructed with stone in cement mortar including stacking usefull materials and disposal of rubbish within 1000m lead (Visit site for the structure even photo attached).	1.00	L/s			
7	EW0030	Earth work excavation over areas, depth >300mm, width >1.5m, area >10sq.m on plan,including disposal of excavated earth within 50m lead and 1.5m lift and disposed soil to be neatly dressed in ordinary soil.	450.00	Cu.m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
8	EW0106	Excavation in foundation trenches or drains not exceeding 1.5m width or area 10 sq.m on plan including dressing, ramming and disposal of surplus soil within 50m lead and 1.5m lift in Hard soil.	216.51	Cu.m			
9	SM0072	Providing and laying Hand Packed stone filling or soling with stomes	23.80	Cu.m			
10	CW0005	Providing and laying in position P.C.C -1:3:6,20mm aggregate excluding the cost of centering and shuttering. All work upto plinth level. Foundation and footing	19.06	Cu.m			
11	RC0002	Providing and laying in position reinforced cement concrete in 1:1.5:3, 20mm aggregate excluding the cost of centering and shuttering work- all work upto plinth level.	46.91	Cu.m			
12	SM0006	Providing and laying Random Rubble Masonary with hard stone in foundation and plinth: In cement mortar 1:5 (Foundation)	69.59	Cu.m			
13	EW0195	Filling of trenches, side of foundations etc in layers <200mm using selected excavated earth, ramming etc within 50m lead and 1.5m lift.	338.25	Cu.m			
14	DP0015	Applying and laying of hot bitumen (maxphalt) 80/100 of equivalent using 1.7kg per square meter including the surface cleaning	50.77	Sq.m			
15	DP0030	Providing and laying Bitumen felt type 3 in wall base etc Grade 2	50.77	Sq.m			
16	RC0010	Providing and laying in position reinforced cement concrete in 1:1.5:3, 20mm aggregate excluding the cost of centering and shuttering work in plinth, skirting courses, fillets, columns, post and struts upto floor 5 level.	41.63	Cu.m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
17	RC0014	Providing and laying in position reinforced cement concrete work-1:1.5:3,20mm aggregate in floor slab, suspended floor, landings, balconies and chajas excluding the cost centering and shuttering.	65.79	Cu.m			
18	RC0018	Providing and laying in position reinforced cement concrete in 1:1.5:3, 20mm aggregate excluding the cost of centering and shuttering work in beams, lintel bands, roof bands etc..	65.20	Cu.m			
19	RC0083	Providing and fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500MPa) for R.C.C work including cutting, bending, binding and placing position complete: (8mm,10mm,12mm,16mm & 20mm) Lintel beam	26198.19	Kg			
20	BW0141	Providing and laying concrete bricks work (compressive strength min. 100kg/sq.cm) masonry 250mm in superstructure above the plinth upto floor three level. In cement mortar 1:4	97.38	Cu.m			
21	RC0090	Providing and fixing centering and shuttering(formwork) including strutting, propping and removable of formwork : -In foundation & plinth	455.48	Sq.m			
22	RC0092	Providing and fixing centering and shuttering(formwork) including strutting, propping and removable of formwork : -In lintels, beams, girders, cantilevers etc.	452.62	Sq.m			
23	RC0095	Providing and fixing centering and shuttering(formwork) including strutting, propping and removable of formwork : -Suspended floors, landings, balconies, slab, chajas etc.	349.52	Sq.m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
24	RC0093	Providing and fixing centering and shuttering(formwork) including strutting, propping and removal of formwork : -Columns, Pillars, Post, struts etc.	404.35	Sq.m			
25	AR	Providing and Fixing RCC ZHU over column	8.00	Each			
26	SM0006+SM0015	Providing and laying Random Rubble Masonary with hard stone in foundation and plinth: In cement mortar 1:5 + Extra for random rubble masonry with hard stone in super structure above plinth and including floor 2 level	64.86	Cu.m			
27	SW0022	Providing and fixing with top MS Steel rail 50mm and hollow bars (25x25)mm with necessary accessories including 2 coat of aluminium paint and primer etc. All complete as per drawing.	1341.13	Kg			
28	WW0003	Providing and fixing in position dressed wood work in frames of doors, windows and other wrought frames in mixed conifer.	0.55	Cu.m			
29	WW0011	Provide and fixing dressed wood work in timber nailing strip 50x25 including finishing with two coats of touch wood polish	144.48	m			
30	EW0197	Providing and laying dry earth bedding including consolidationg each deposited layer by watering ramming and dressing	49.11	Cu.m			
31	SM0072	Providing and laying hand packed stone soling or filling with stones .	39.34	Cu.m			
32	EW0196	Providing and laying sand bedding, including watering ramming and dressing	9.83	Cu.m			
33	DP0020	Providing and laying moisture barrier using plastic sheeting underlay -100 micro-meter	258.78	Sq.m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
34	CW0003	Providing and laying in position plain cement concrete 1:2:4 20mm crushed rock excluding the cost of centering and shuttering - all work up to plinth level	19.67	Cu.m			
35	FL0106	P/l 40mm thick marble chips flooring top layer 10mm thick with white, black or black and white marble chips of size 6mm in proportion 1:2 on 30mm cement concrete 1:2:4, 12.5mm aggregate:In white cement.	567.22	Sq.m			
36	FL0115	extra for providing and fixing glass strips in joints of tarrozo floors	907.43	m			
7	FL0141	Providing and tarrazo or marble chips skirting ,300mm height top layer 6mm thick with white or black , black nad white marble chips size 4mm in pro. 1:2 in white cement.	77.49	Sq.m			
38	SW0080	Providing and Fixing M.S hold down bolts with nuts and washer plates - 16 dia. nnecting props to the base plate of bottom chord.	130.82	Kg			
39	SW0090	Providing ,making and fixing M.S straps flats sole plates stc	532.36	Kg			
40	DR-06-01	Providing and fixing PVC semicircular gutter 180mm dia including fittings, MS clamps etc complete	77.62	m			
41	FN-10-01	Prividing and fixing 6mm plain fiber cement E-board Gable ceiling	144.00	Sq.m			
42	FN-12-01	Providing and fixing heavy Duty cement fiber board 225 width x 12mm thick	82.42	m			
43	RF0003	Providing and fixing CRIL (Cloured Roof India) trapezoids Prepainted Iron(PPI) sheet incl bolts hooks and nuts 8mm dia. With bitumen washers and GI lempet washer filled with white lead for connection, excl the cost of rafter and purlin -0.60mm	398.42	Sq.m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
44	RF0007	Providing and fixing CRIL(coloured roof India)- 600mm ridges or hips including all necessary fittings complete-0.60mm	53.00	m			
45	RF0192	Providing and fixing on wall face single socketed rigid PVC pressure class 4kgf/sq.cm rain water pipe including jointing with seal ring leaving 10mm gap for thermal expansion complete 110mm	28.00	m			
46	SW0003	Steel work in single section including cutting hoisting fixing and applying priming coat of red lead paint. In Tees, angle and channels complete	3199.32	Kg			
47	SW0022	Steel work welded, in built of section, trusses, frame-work including cutting hoisting, fixing and applying priming coat of red led paint in tubular section.	3919.13	kg			
48.00	PI0033	Providing & fixing plastic tank including all accessories complete 2000 litre capacity with 3 nos. of Brass Bibcock including fittings.	2.00	Each			
49.00	CS-01-01	Providing & fixing Aluminium frame & shutter Window type W3 & W3R, incl. all necessary fittings, complete.	22.00	Each			
50.00	CS-04-26	Providing & fixing GRC cornice to Door type D-1200	8.00	Each			
51.00	CS-14-02	Providing & fixing Glass reinforced concrete Window frames - Window type W3 with sill & all the cornices.	22.00	Each			
52.00	CS-15-08	Providing & fixing Glass reinforced concrete Rabsay frames without cornice & sill - Rabsay type W3R	4.00	Each			
53.00	CS-09-03	Providing & fixing GRC Chechu Khanim below Verandah front & half in shorter side as per the drawing.	30.5	m			
54.00	CS-09-08	Providing and fixing GRC Chechu Khanim below Rabsey W3R at Rear Elevation.	12.32	m			
55.00	CS-11-02	Providing & fixing GRC Zhu over Kachen (Full size)	7.00	Each			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
56.00	CS-11-03	Providing and Fixing of Traditional Bhutanese style GRC Zhu over Kachen Corner Half Component (Single way) as per Drg	2.00	Each			
57.00	CS-12-03	Providing and fixing GRC cornice at top level -Two layer Bho+Phana	14.97	m			
58.00	WW0506	Providing and fixing 150x12mm, with 25mm dia wooden curtain rod and bracked including M.S flat 25x3x100.. And plugs etc complet mixed conifer	41.68	m			
59.00	WW-22-01	Providing and fixing timber door frames and block board shutter door type D-1200	8.00	Each			
60.00	WW-23-02	Providing and fixing timber teaching platform complete as per drawing	8.00	Each			
61.00	WW-24-01	Providing and fixing classroom pinup boards complete as per drawing	12.00	Each			
62.00	FN-11-01	Provide and fix Acoustic panel ceiling(595x595),12mm thick including GI powder coated grid system with all accessories	199.15	Sq.m			
63	RC0034	Providing and laying Bhutan type Traditional Cornices in R.C.C 1:1.5:3, 20mm aggregate including cost of formwork, finishing with 6mm thick cement plaster 1:3 on exposed surface excluding reinforcement and decorative painting.	43.24	m			
64	PL0010	Providing and laying 6mm cement plaster in ceiling (in C.M 1:3)	481.81	Sq.m			
65	PL0030	Providing and laying 15mm cement plaster on rough side of the brick wall in cement mortar 1:3	407.82	Sq.m			
66	PL0095	Providing and laying 12mm cement plaster on fair side of the brick work mix with 1:1:6 finished even and smooth and curing etc complete.	674.24	Sq.m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
67	PT0010	Providing and applying one coat of primer. Cement primer	1563.88	Sq.m			
68	PT0013	Providing and applying one coat of primers wood works white primer ceiling	12.00	Sq.m			
69	PT0042	Providing and applying finishing coats - Acrylic washable Distemper two coats on new work including cement primer coats.	674.24	Sq.m			
70	PT0047	Providing and applying finishing coats Synthetic enamel for steel and wood work, two coats on new work,	407.82	Sq.m			
71	PT0062	Providing and applying wood stains, varnices & polishes, synthetic vernices (clear) two coats, including coat of wood filter on new work.	38.40	Sq.m			
72	PT0052	Providing and applying finishing coats on external walls-plastic emulsion exterior ASIAN paint two coats on new works.	407.82	Sq.m			
73	WW-13-03	Providing and fixing 8mm plyboard to ceiling, partition etc complete.	199.96	Sq.m			
74	AR	Providing and fixing Ceiling Hatch	2.00	Each			
75	DR0031	Construction of storm water drain (150x200)	69.05	m			
76	AR	Providing & laying RCC plinth protection with broom or brush finish including drain complete	113.65	Sq.m			
77	AR	Synthetic enamel mixed withmud paint for painting to Six Classroom Blocks - Verandah cornice	1.00	L/s			
78	PL0075	Providing & laying cement plaster, finished with floating coat of neat cement:20mm plaster in C.M 1:4	56.10	Sq.m			
Total Amount for civil work (A) Nu.							

Electrical Bill of Quantity

1		Supplying and fixing of PVC & HDPE pipe on recessed including all accessories such as screws, bends, elbows, Tees, corners, etc. complete as required					
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Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
	CD0221	25mm HDPE	502.00	mtr			
	CD0223	40mm HDPE	18.00	mtr			
2		Provide & Draw Single Core 1.1KV grade PVC insulated copper conductor cable in existing HDPE concealed pipe					
	WC0104	2x1.5 sq.mm	710.00	mtr			
	WC0116	2x2.5 sq.mm	288.00	mtr			
	WC0121	2x4 sq.mm	360.00	mtr			
	WC0095	1x1sq.mm	360.00	mtr			
3		Supplying & fixing of modular metal boxes for switch/socket outlet/switch socket combined/ gang switches with fibre sheet cover including painting etc as required					
	BX0051	Modular metal box 2 way	1.00	each			
	BX0052	Modular metal box 3way <i>including</i> for <i>power socket</i>	26.00	each			
	BX0054	Modular metal box 6 way	9.00	each			
	BX0055	Modular metal box(Linear) 8 way	6.00	each			
4		Supplying & fixing of 6A switch/socket on existing PVC /metal/ moulded tough surface box metal box (recessed or surface) with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc. as required					
	SS0205	3-pin 6A switch/socket combined, shuttered	12.00	each			
5		Supplying & fixing of 10A switch on existing metal box (recessed or surface) including necessary cutting, connection testing etc. as required.PVC/metal / moulded tough					
	SS0060	10A switch SP 1-way	86.00	each			
	SS0075	Dimmer/regulator 300W	18.00	each			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
	SS0107	Ceiling Rose, 2 plate (PVC) 6A	86.00	each			
	MR	Square box	86.00	each			
6		Supplying & fixing of socket outlet on existing PVC /metal/ moulded tough surface box/ metal box (recessed or surface) including necessary cutting, connection testing etc. as required					
	SS0187	5/6-pin, 20A socket outlet, shuttered	24.00	each			
7		Supplying & fixing of switch/socket on existing PVC /metal/ moulded tough surface box, metal box (recessed or surface)/ junction box (PVC/metal) including necessary cutting, connection testing etc as required.					
	SS0185	20A switch SP 1 way	24.00	each			
		INDOOR LUMINIARIES (Category A)					
8		Supplying of prewired indoor fluorescent lamp luminaires housing of CRCA sheet steel rail, end with lamp holders, electronic ballast, starter, starter holder, terminal block etc. but without lamp, LPF suitable for wall and ceiling					
	IL0170	Mounting Box 1x36/40 watt	38.00	each			
	IL0171	Mounting Box 2x36/40 watt	6.00	each			
9		Supplying of fluorescent lamps 250 volts A.C					
	LS0126	TL lamp 36/40 watt	50.00	each			
10		Supplying of prewired indoor surface/ceiling mounted luminaires suitable for LED lamp for maximum wattage upto 1x12 watts complete with all accessories such as base, holder, glass globe etc. but without lamp					
	IL0001	Globe dia 150, projection 215mm, finish-painted	18.00	each			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
11		Supplying of prewired indoor rails and wall brackets on surface / ceiling mounted luminaires suitable for GLS,CFL & LED lamps for maximum wattage upto 1x60 watts complete with all accessories such as base, holder, reflector, rails, glass globe, etc etc. but without lamp					
12	IL0065	Wall bracket upward projection 230mm, height 225mm finish-painted globe 360/400mm dia.. glass milky/ frosted	6.00	each			
13	MR	LED Bulb 12watt	24.00	each			
		POWER CABLE					
14		Supplying of 2 Core 1.1KV grade PVC insulated and sheathed aluminium conductor armoured power cables:					
	PC0124	16 sq.mm 2 core armoured	50.00	mtr			
15		Laying of 1 number PVC insulated sheathed power cable copper/aluminium, armoured/un-armoured 1.1KV grade from single core to four core direct in the ground including excavation,sand cushioning,protective covering,and refilling the trenches etc. as required					
	CL0002	Above 6sq.mm to 25sq.mm	50.00	mtr			
		FAN(supply)					
16		Supplying of ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos., canopy 2 No., condenser and fan body etc. complete as required:					
	FN0002	1200mm sweep 1400rpm	12.00	each			
	FN0003	1400mm sweep 1400rpm	6.00	each			
17	MR	Supplying & Fixing of Fan Hook 10mm rod	18.00	each			
18	MR	Supplying & Fixing of wall fan including all the accessories	12.00	each			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
		CONTROL GEAR					
19		Supply of loadkontak isolator double pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required					
	GB0381	MCB DP 63A	1.00	each			
20		Supply of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required					
	GB0270	SP MCB 6A	12.00	each			
	GB0272	SP MCB 16A	24.00	each			
21		Supply of residual current circuit breaker (RCCB) 2 pole, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required:					
	GB0428	ELCB/RCCB 40A 30mA	3.00	each			
22		Supply of miniature circuit breaker (MCB) DP, 230 volt A.C complete with all accessories suitable to fix on a din-bar etc. as required					
	GB0316	DP 40A	3.00	each			
23		Supply of SPN distribution board (DIN type) without door, 230 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required					
	MR	2 way	6.00	each			
	GB0518	12 way	3.00	each			
24		Providing & fixing of mixed conifer seasoned wood in recessed 550x300x200mm deep with locking arrangement and cover with chicken mess wire including all necessary required					
	MR	Wooden DB Box 550x 400x 200mm	3.00	each			
		Erection/installation					

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
25		Installation, testing and commissioning of prewired fluorescent fittings of all recessed type complete with all accessories and tubes including on ceiling including connection with PVC insulated copper conductor					
	EI0081	1.5 sq.mm single core cable 1.1 KV grade	68.00	each			
26		Installation, testing and commissioning of SPN DB (DIN type) with no door or archylic door complete with all accessories to accommodate incoming RCCB DP 63A sensitivity 30/100/300mA and outgoing SP MCB 6/10/16A prefabricated MS surface / MS cubical control panel b					
	EI0515	12 way	3.00	each			
27		Installation,testing and commissioning of all size ceiling fan and regulator including wiring the down rod of standard length upto 300mm with PVC insulated copper conductor					
	EI0096	1.5sqmm single core cable 1.1 kV grade	18.00	each			
		Earthing					
28		Providing and fixing of maintenance free Chemical earthing of 70mm dia 2.5m length earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, refilling work including mixed compound t complete as required as per standard earthing					
	MR	Copper earth electrode 70mm 2500mm length	1.00	each			
29		Providing and laying of earth connection from electrode in 4.06mm dia copper earth electrode					
	ET0046	with 4.06mm dia 8 SWG copper . Wire	25.00	m			

Name of work: Construction of 6(S ix) Units Class Room Block.

Location: Damphu Central School.

Subject : - Bill of Quantity

Sl.No	BSR Code	Description of an items	Qty	Unit	Rate in		Amount
					Figure	Words	
30		Supplying and fixing of Digital Energy meter 20 -40 A from ESD recomodation including security money and thimble connection as required complete including IPC etc.					
	MR	SP 10-60A Digital Energy Meter	1.00	set			
Total Amount for Electrical works (B) Nu.							

<i>Total for Civil Work (A)</i>	<i>Nu.....</i>
<i>Total for Electrical Work(B)</i>	<i>Nu.....</i>
<i>Total Amount for the Project (A+B)</i>	<i>Nu.....</i>

Amount in words: - Nu.....

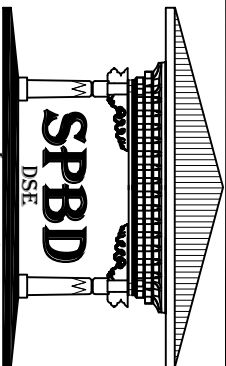
.....

.....only.

Sign & Seal

**6 CLASSROOM BLOCK
ARCHITECTURAL DRAWINGS**

SL NO	DRAWING TITLE	SHEET NO
01	FINISHING SCHEDULE	6CL-AR-00
02	GROUND FLOOR PLAN	6CL-AR-01
03	FIRST FLOOR PLAN	6CL-AR-02
04	ROOF PERIPHERY WALL PLAN	6CL-AR-03
05	ROOF PLAN	6CL-AR-04
06	FRONT & REAR ELEVATION	6CL-AR-05
07	SIDE ELEVATION	6CL-AR-06
08	SECTION A-A (TROPICAL)	6CL-AR-07A
09	SECTION A-A (TEMPERATE)	6CL-AR-07B
10	FLOORING LAYOUT (TROPICAL)	6CL-AR-08A
11	FLOORING LAYOUT (TEMPERATE)	6CL-AR-08B
12	STAIRCASE DETAIL	6CL-AR-09
13	RAILING DETAILS	6CL-AR-10

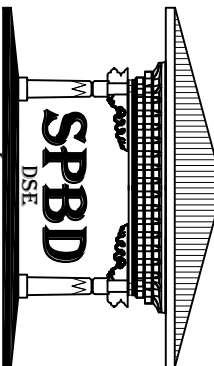
 <p>SPBD DSE MINISTRY OF EDUCATION</p>	PROJECT		BUILDING: SIX CLASSROOM BLOCK		<p>NOTES: -ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. - ANY DISCREPANCIES IN DRAWINGS SHOULD IMMEDIATELY BE BROUGHT TO THE NOTICE OF THE SPBD DESIGN TEAM</p>	REVISION		DATE	DRAWING NO: 6CL-AR-LIST
	HON'BLE SECRETARY MOE DIRECTOR GENERAL DSE	TITLE: COVER PAGE Karma Sornam CHIEF ENGINEER Pema Chozom DRAWN BY	Tshering Choden ARCHITECT SCALE 1:75	ENGINEER DATE 02/12/2011					

FINISHING SCHEDULE

EXTERNAL FINISHING					
PLINTH PROTECTION	PLINTH WALL	WALL	ROOFING	OVERHANG ROOF CEILING	MS RAILING
75mm RCC 1:2:4 with TMT 10Ø@200mm/c/both ways with brush/broom finish over 150mm stone soiling.	20mm Cement plaster (1:4)	20mm Cement plaster (1:4)	Trapezoidal (PPGI) Roofing Sheets with PPGI ridge/hips	6mm thick cement board	2 or more coats of synthetic enamel paint (BLACK) over red oxide primer.
	Plastic emulsion exterior grade paint two or more coats over cement primer.	Plastic emulsion exterior grade paint two or more coats over cement primer.			

INTERNAL FINISHING									
BUILDING TYPE	ROOM TYPE	FLOOR FINISH	SKIRTING/DADO	WALL	CEILING FINISH	REMARKS			
6 CLASSROOM BLOCK	CLASSROOM	TEMPERATE REGION: 45mm T&G Timber Planks with lapped joints on 50 x 65mm Battens @ 450mm c/c	TEMPERATE REGION: 40mm thick Terrazzo flooring with glass strips in square grid of 1000x1000 mm	TEMPERATE REGION: 150mm high 25mm thk timber plank skirting	TROPICAL REGION: 150mm high mosaic skirting	15mm thick lime cement plaster with 2 or more coats of acrylic washable distemper over cement primer.	For ground floor 6mm thick cement plaster (1:4) with 2 or more coats of Acrylic washable distemper over cement primer.	For Double ceiling 12mm acoustic panels in square grid of 600x600mm under 6mm cement board.	
	STAIRCASE/PASSAGE	Terrazzo flooring with glass strips in square grid of 1000x1000mm for both Trop & Temp.	150mm high mosaic skirting for both Trop & Temp.	15mm thick lime cement plaster with 2 or more coats of acrylic washable distemper over cement primer.	For ground floor 6mm thick cement plaster (1:4) with 2 or more coats of Acrylic washable distemper over cement primer.	For Double ceiling 12mm acoustic panels in square grid of 600x600mm under 6mm cement board.			

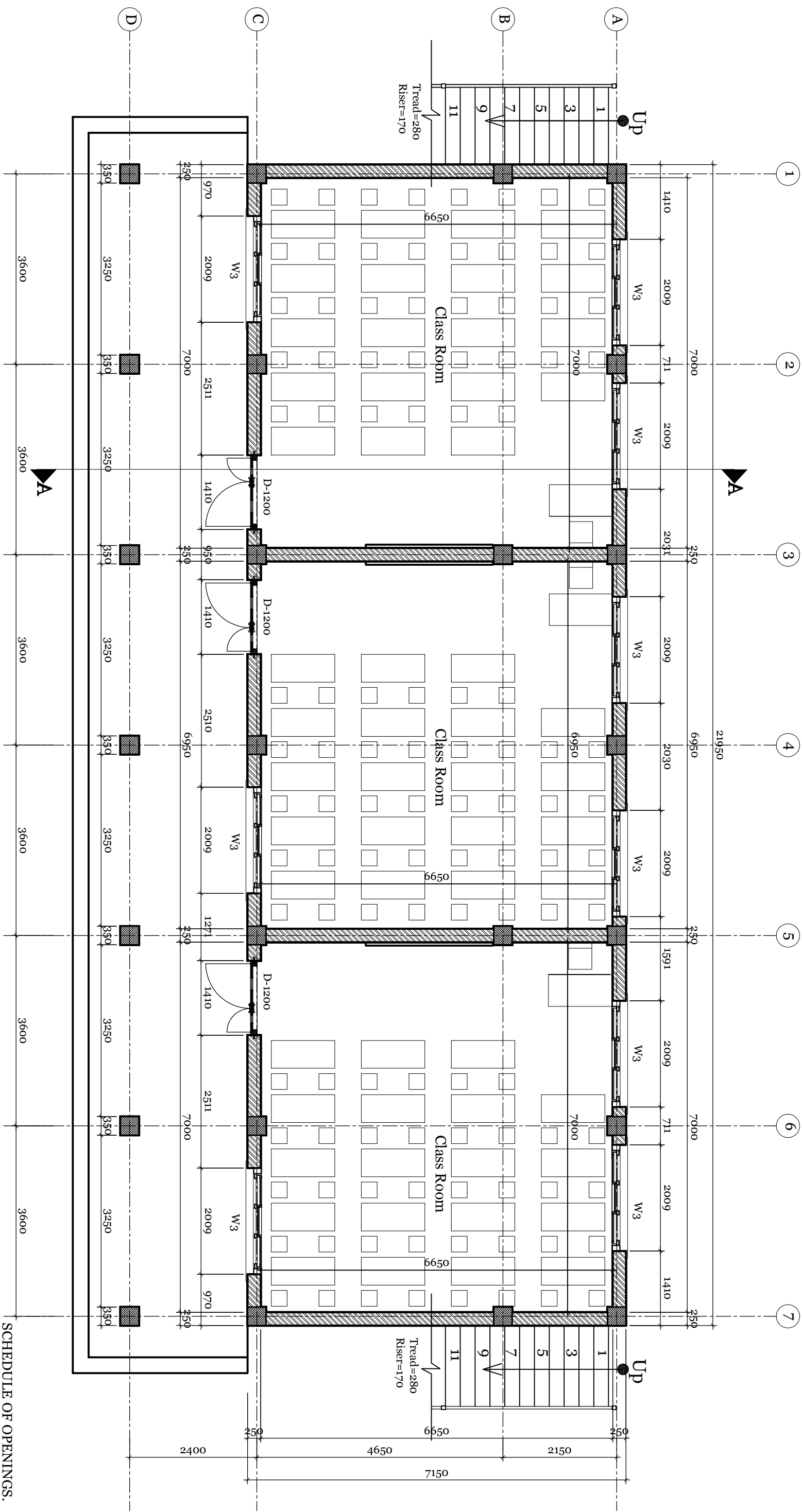
***In case there are discrepancies between the specifications provided in the drawing and the BoQ, the one in the BoQ will always supersede the other.



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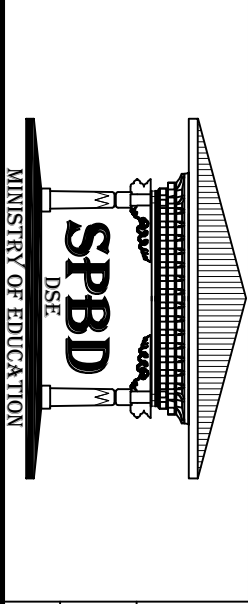
PROJECT		BUILDING: SIX CLASSROOM BLOCK		<p>NOTES:</p> <p>-ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED OTHERWISE.</p> <p>-ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.</p> <p>-ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF.</p> <p>- ANY DISCREPANCIES IN DRAWINGS SHOULD IMMEDIATELY BE BROUGHT TO THE NOTICE OF THE SPBD DESIGN TEAM</p>	
HON'BLE SECRETARY MOE		<p>TITLE: FINISHING SCHEDULE</p> <p>Karma Sornam CHIEF ENGINEER</p>			
DIRECTOR GENERAL DSE		<p>Tshering Choden ARCHITECT</p> <p>SCALE 1:75</p> <p>ENGINEER</p> <p>DATE 02/12/2011</p>			
				<p>REVISION</p> <p>DATE</p>	
				<p>DRAWING NO:</p> <p>6CL-AR-00</p>	



Ground Floor Plan

SCHEDULE OF OPENINGS.

NAME	SIZE	NOS
W3	2009 x 1885	9
ED-1200	1200 x 2270	3

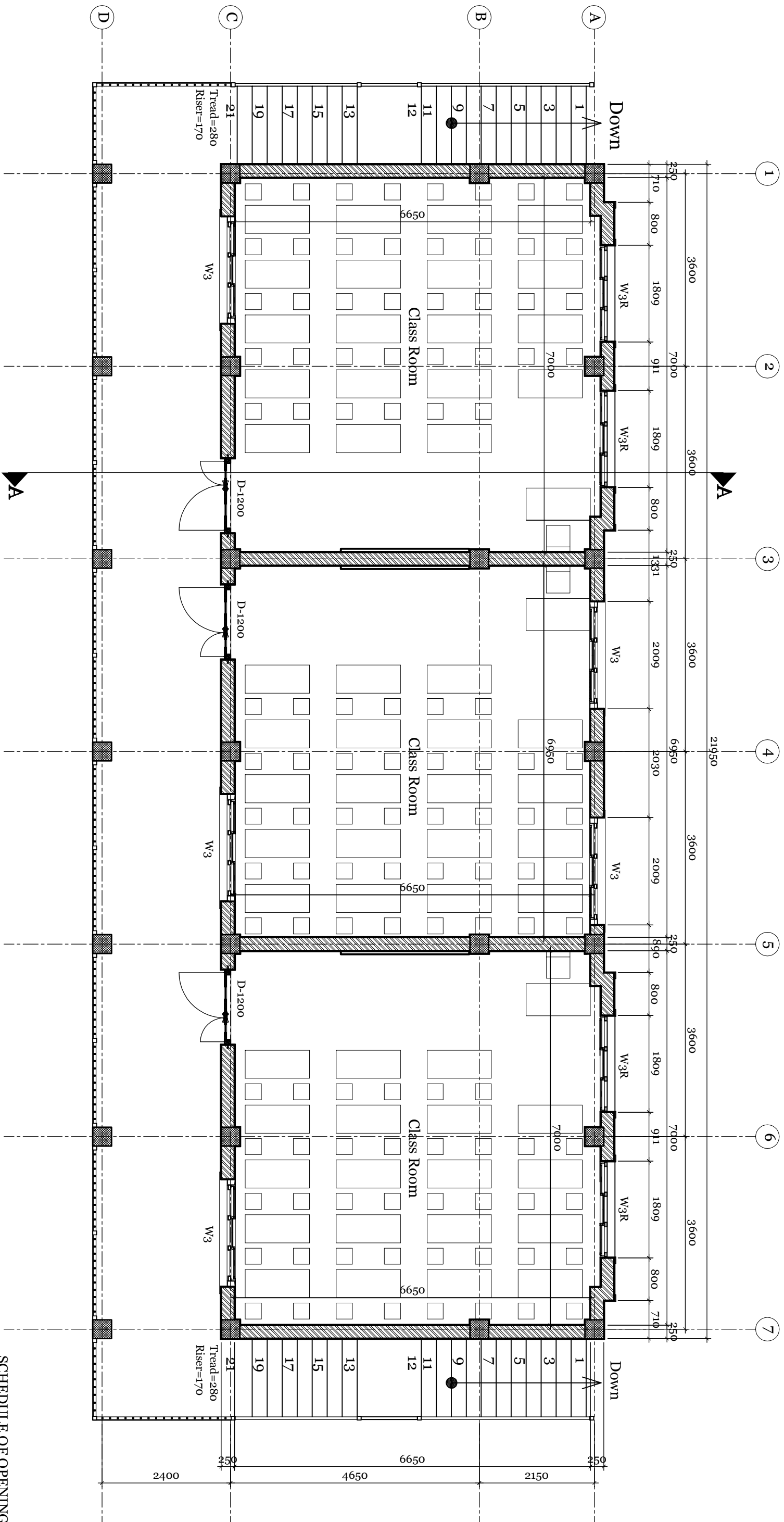


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HONBLE SECRETARY MOE	DIRECTOR GENERAL DSE	TITLE: GROUND FLOOR PLAN	
Karma Sornam	CHIEF ENGINEER	Tshering Choden	ARCHITECT
Pema Chozom	SCALE 1:75	DATE	5/9/2011

NOTES:
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REVISION	DATE

DRAWING NO: 6CL-AR-01



First Floor Plan

SCHEDULE OF OPENINGS.

NAME	SIZE	NOS
W3	2009 x 1885	5
W3R	1809 x 1575	4
ED-1200	1200 x 2270	3

PROJECT

BUILDING: SIX CLASSROOM BLOCK

TITLE: FIRST FLOOR PLAN

HON'BLE SECRETARY MOE DSE	Karma Sornam CHIEF ENGINEER	Tshering Choden ARCHITECT	ENGINEER
DIRECTOR GENERAL DSE	DRAWN BY Pema Chozom	SCALE 1:75	DATE 5/9/2011

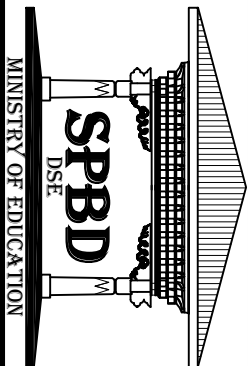
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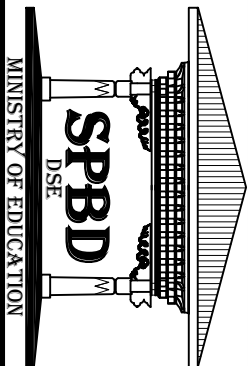
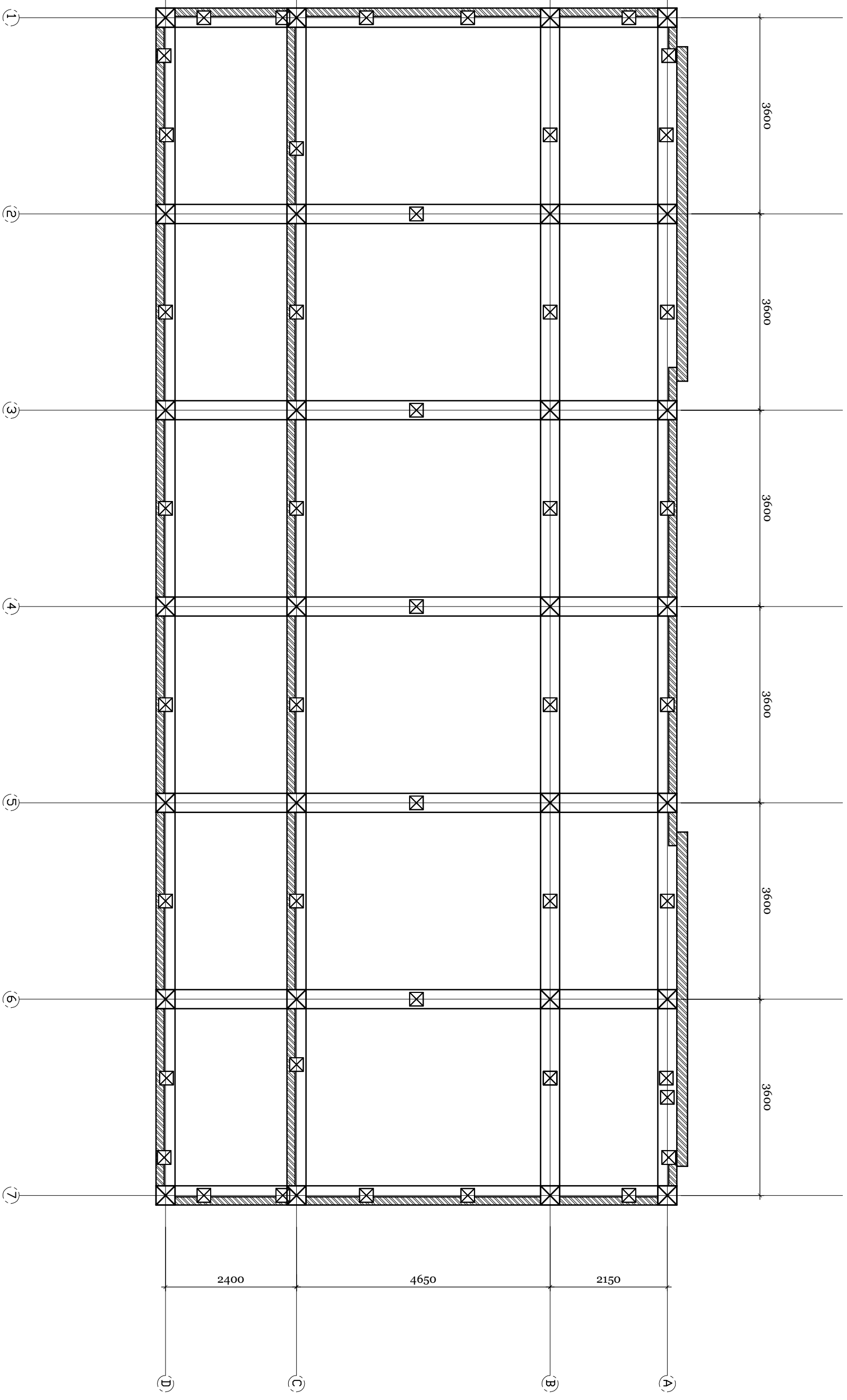
REVISION

DATE

DRAWING NO:

6CL-AR-02



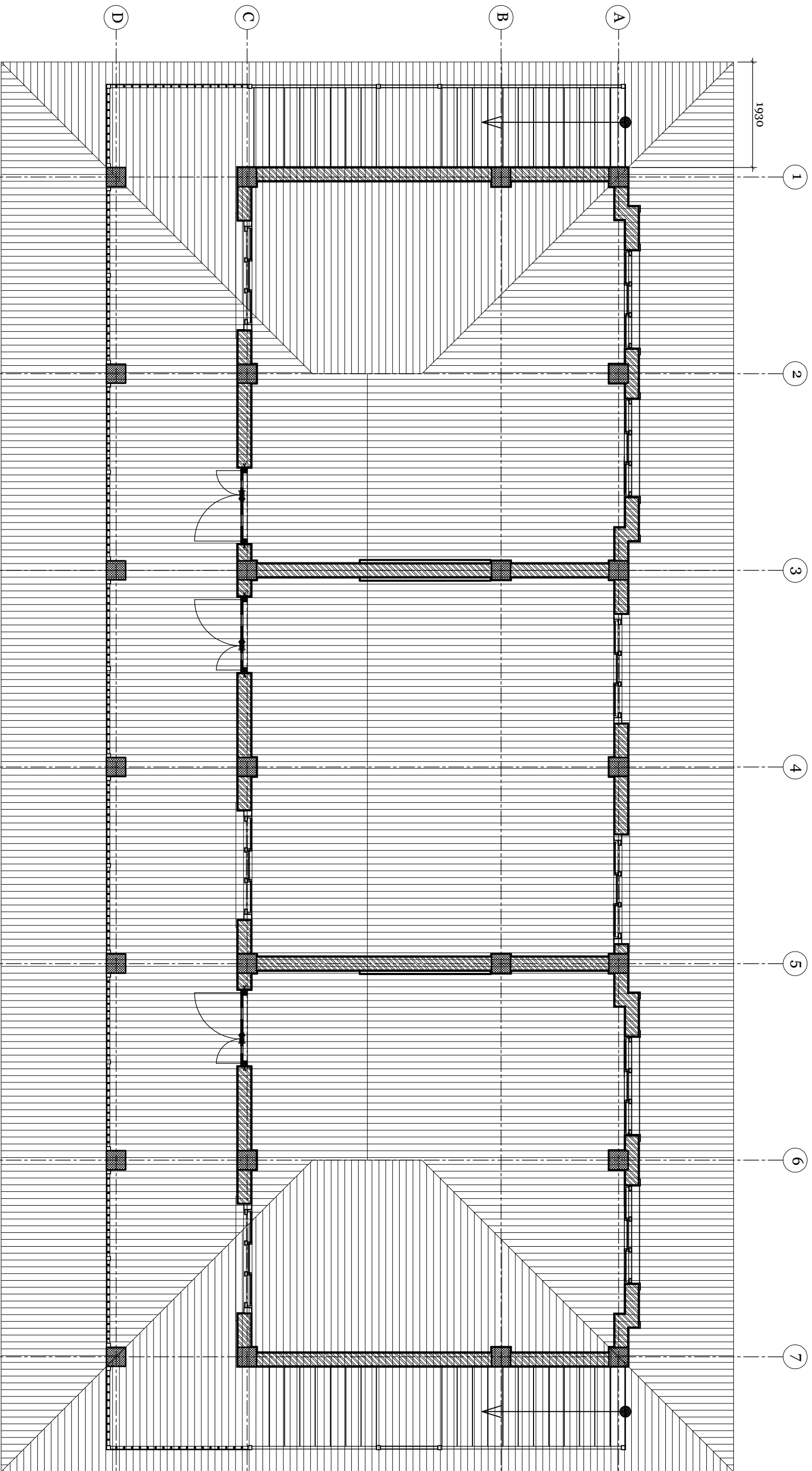


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Sonam	TITLE: ROOF PERIPHERY WALL PLAN	
DIRECTOR GENERAL DSE	CHIEF ENGINEER Pema Chozom	ARCHITECT Tshering Choden	ENGINEER
	SCALE 1:75	DATE 10/9/2011	

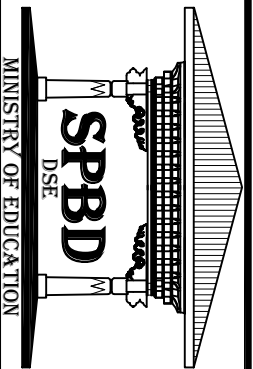
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REVISION	DATE

DRAWING NO:
6CL-AR-03



Roof Layout Plan



MINISTRY OF EDUCATION

PROJECT

HON'BLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

BUILDING: SIX CLASSROOM BLOCK

TITLE: ROOF LAYOUT

Karma Sornam
CHIEF ENGINEER
DRAWN BY Pema Chozom

Tshering Choden
ARCHITECT
SCALE 1:75

ENGINEER
DATE 10/9/2011

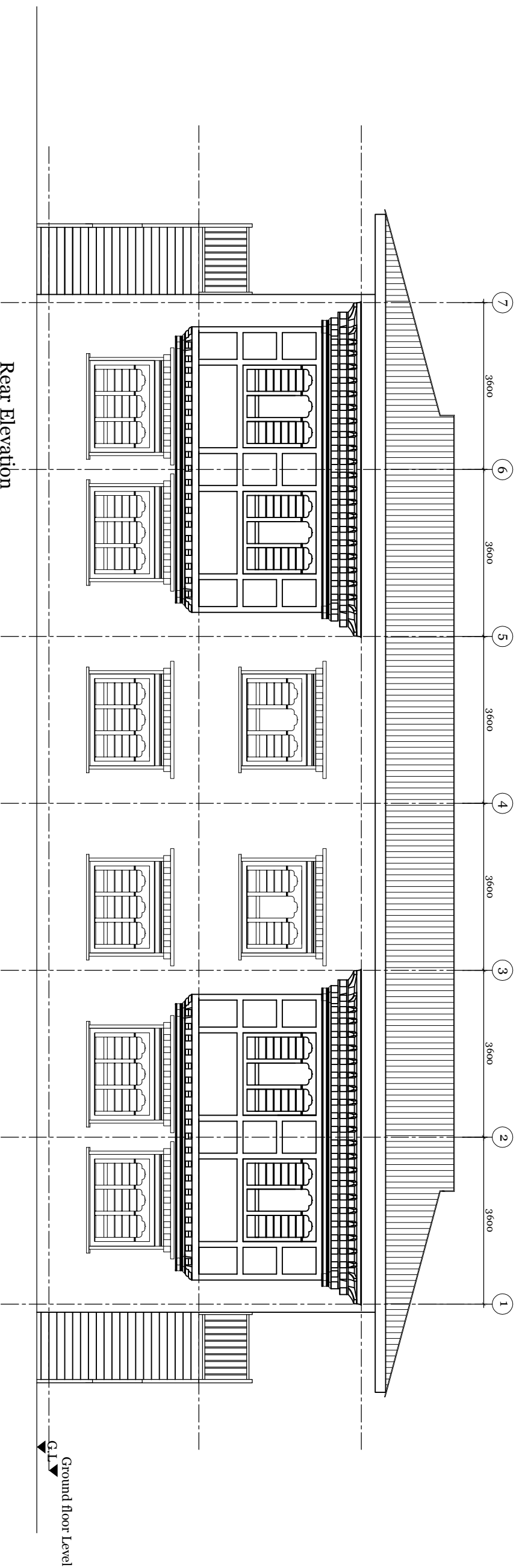
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REVISION

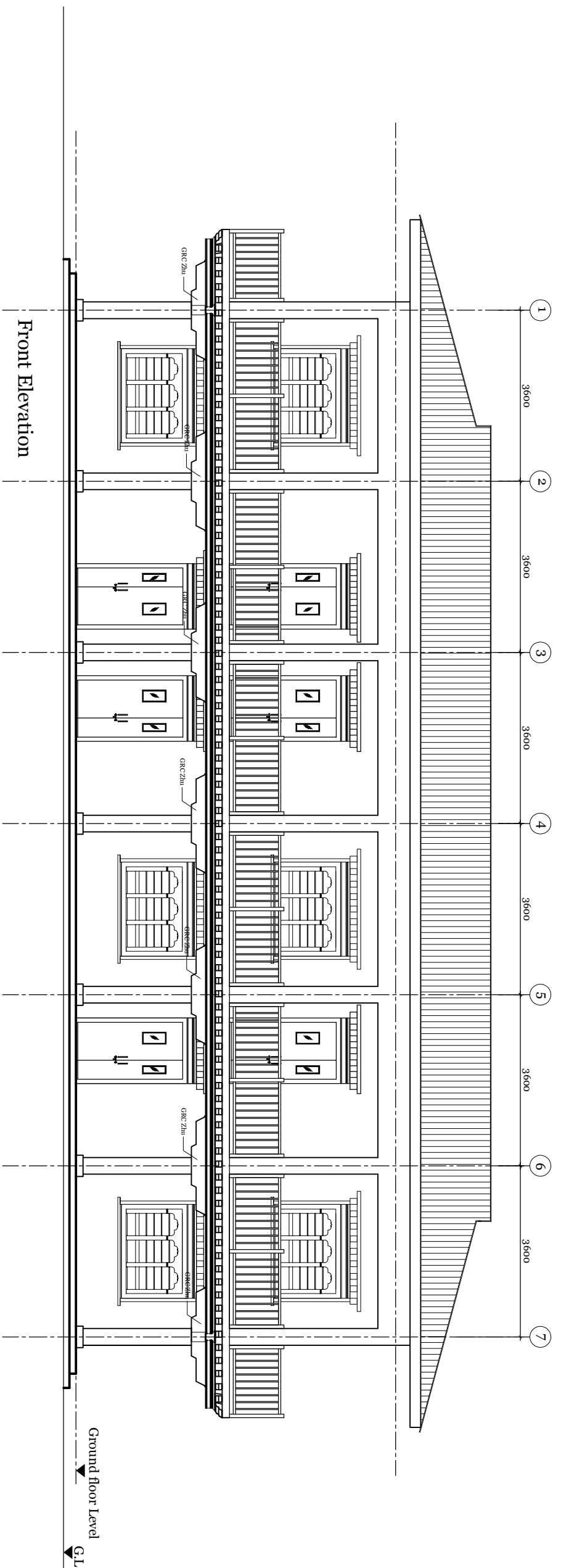
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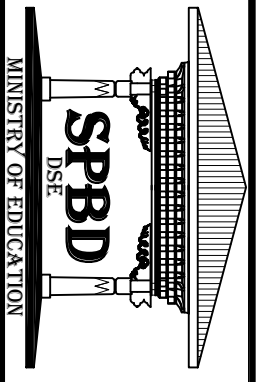
6CL-AR-04



Rear Elevation



Front Elevation



MINISTRY OF EDUCATION

PROJECT

HONBLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

BUILDING: SIX CLASSROOM BLOCK

TITLE: FRONT ELEVATION AND REAR ELEVATION

Karma Sornam
CHIEF ENGINEER
DRAWN BY Pema Chozom

Tshering Choden
ARCHITECT
SCALE 1:100

ENGINEER
DATE 5/9/2011

NOTES:

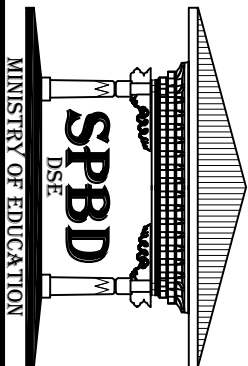
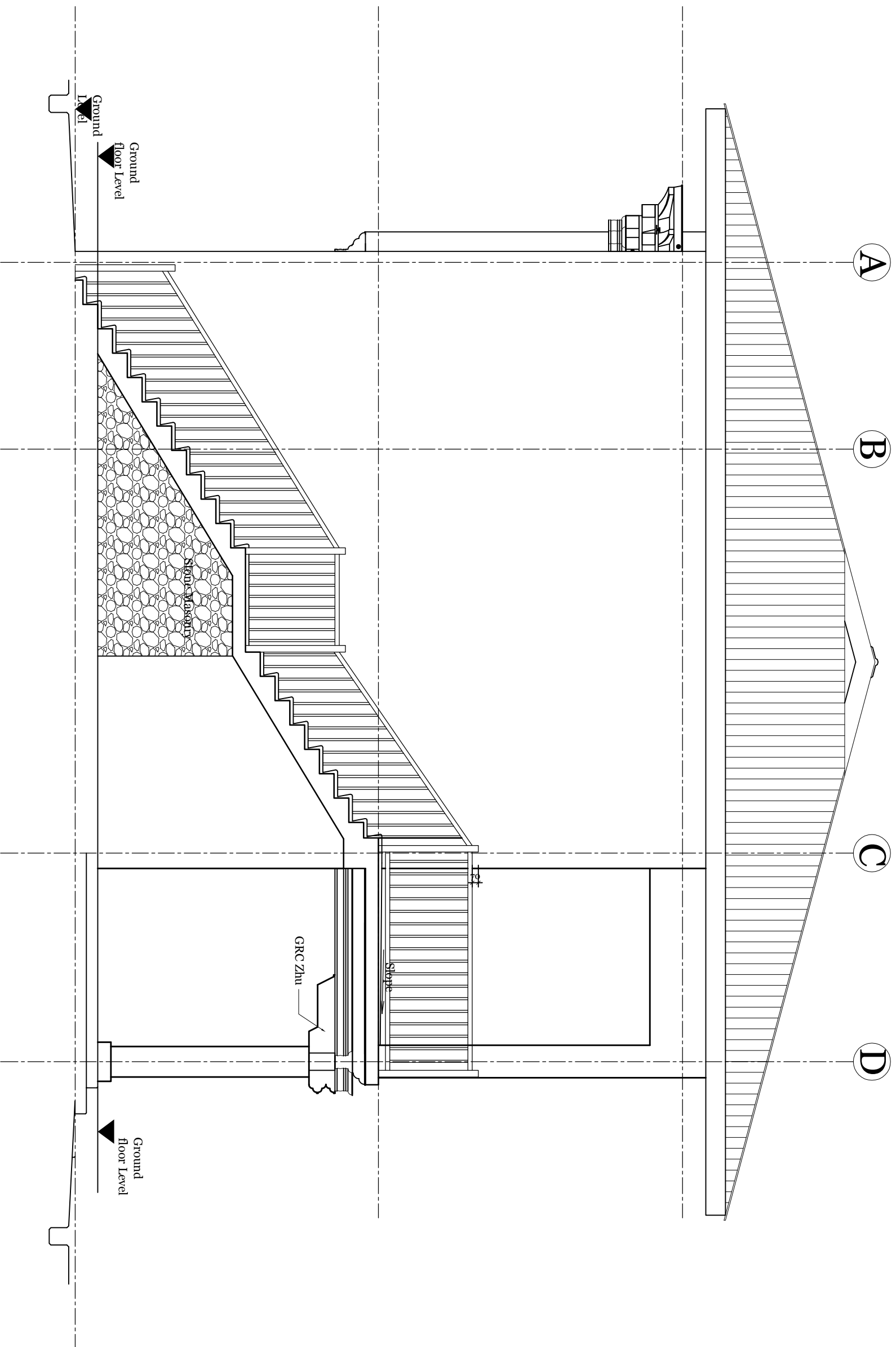
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REVISION

DATE

DRAWING NO:

6CL-AR-05

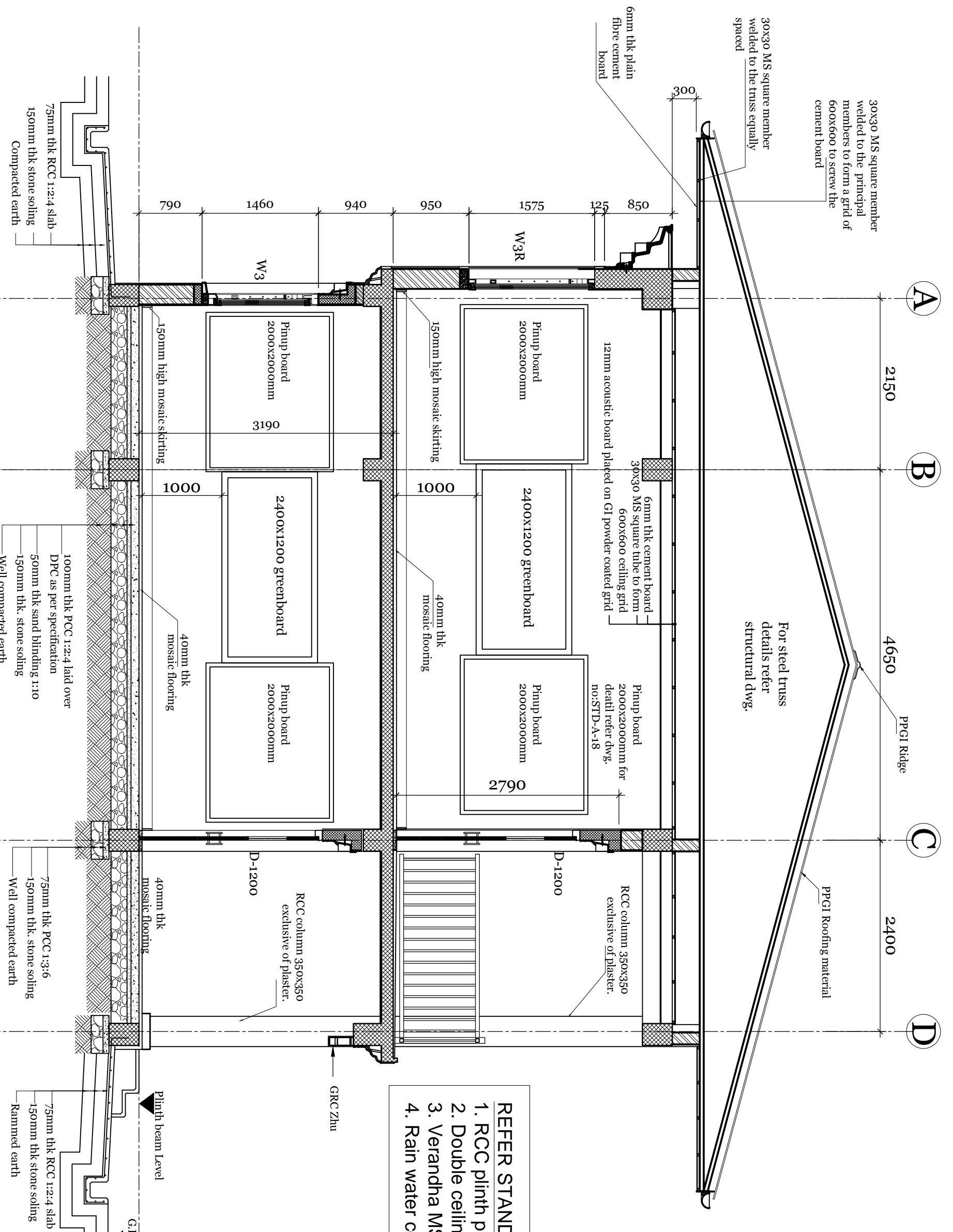


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Sornam	TITLE: SIDE ELEVATION	
DIRECTOR GENERAL DSE	CHIEF ENGINEER Pema Chozom	ARCHITECT Tshering Choden	ENGINEER
	SCALE 1:50	DATE 5/9/2011	

NOTES:
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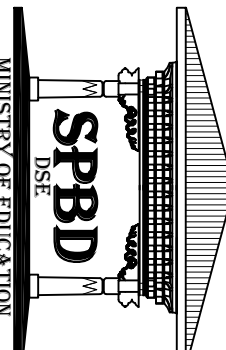
REVISION	DATE

DRAWING NO:
6CL-AR-06



REFER STANDARD DRAWING FOR:-

1. RCC plinth protection detail STD-A-01.
2. Double ceiling and soffit lining detail STD-A-11B
3. Verandha MS railing detail STD-A-16.
4. Rain water collection detail STD-A-19.



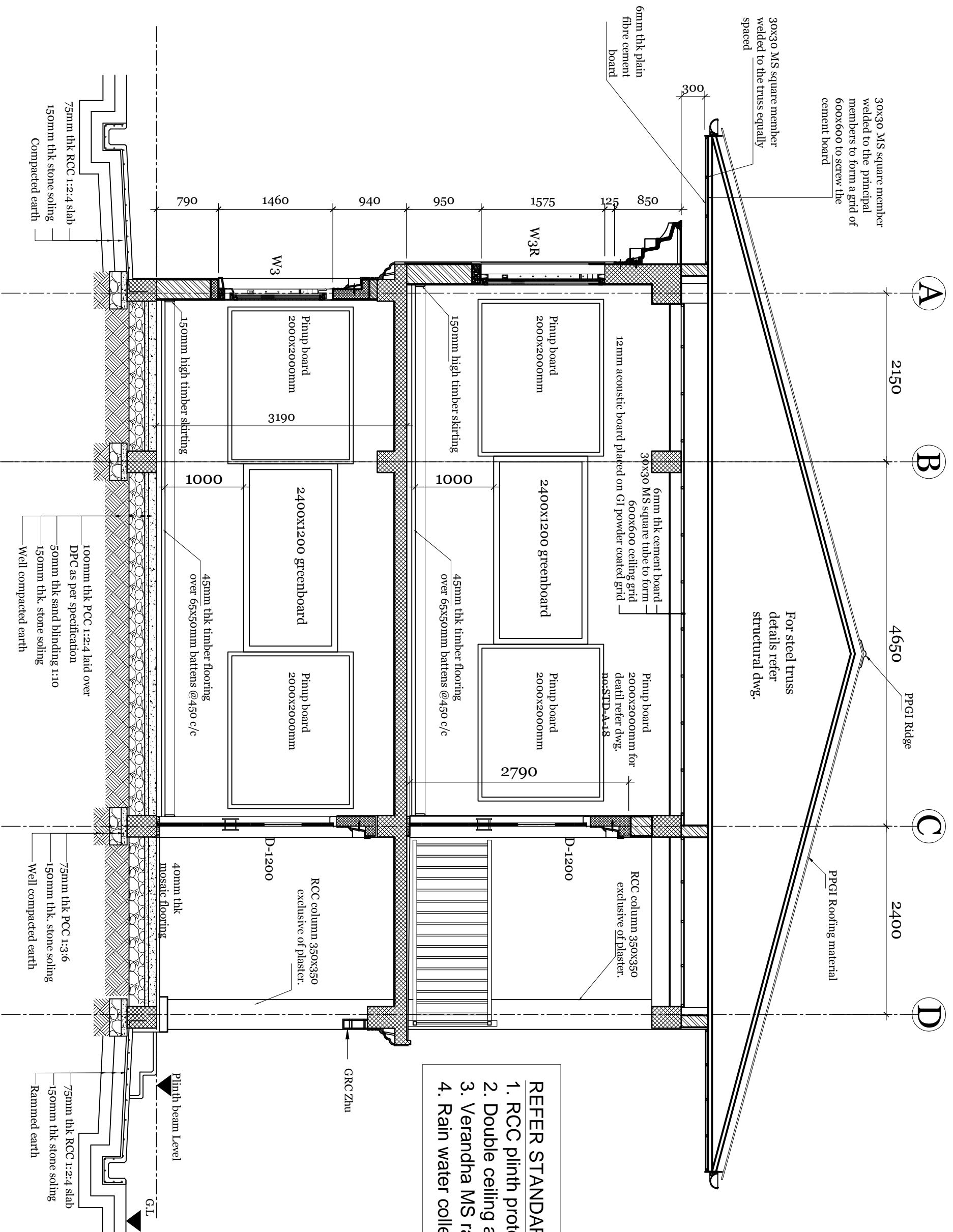
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PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE DSE	Karma Soram CHIEF ENGINEER	Tshering Choden ARCHITECT	ENGINEER
DIRECTOR GENERAL DSE	Pema Chozom DRAWN BY	SCALE 1:50	DATE 5/9/2011

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REVISION	DATE

DRAWING NO:
6CL-AR-07A



REFER STANDARD DRAWING FOR:-

1. RCC plinth protection detail STD-A-01.
2. Double ceiling and soffit lining detail STD-A-11B
3. Verandha MS railing detail STD-A-16.
4. Rain water collection detail STD-A-19.

- 100mm thk PCC 1:2:4 laid over DPC as per specification
- 50mm thk sand blinding 1:1:0
- 150mm thk. stone soling
- Well compacted earth

- 40mm thk mosaic flooring
- RCC column 350x350 exclusive of plaster.
- D-1200
- Well compacted earth

- 75mm thk RCC 1:2:4 slab
- 150mm thk stone soling
- Rammed earth

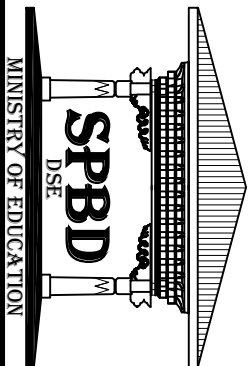
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MINISTRY OF EDUCATION

PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HONBLE SECRETARY MOE DSE	Karma Soram CHIEF ENGINEER	Tshering Choden ARCHITECT	ENGINEER
DIRECTOR GENERAL DSE	Pema Chozom DRAWN BY	SCALE 1:50	DATE 5/9/2011

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REVISION	DATE

DRAWING NO:
6CL-AR-07B



PROJECT
 HON'BLE SECRETARY
 MOE
 DIRECTOR GENERAL
 DSE

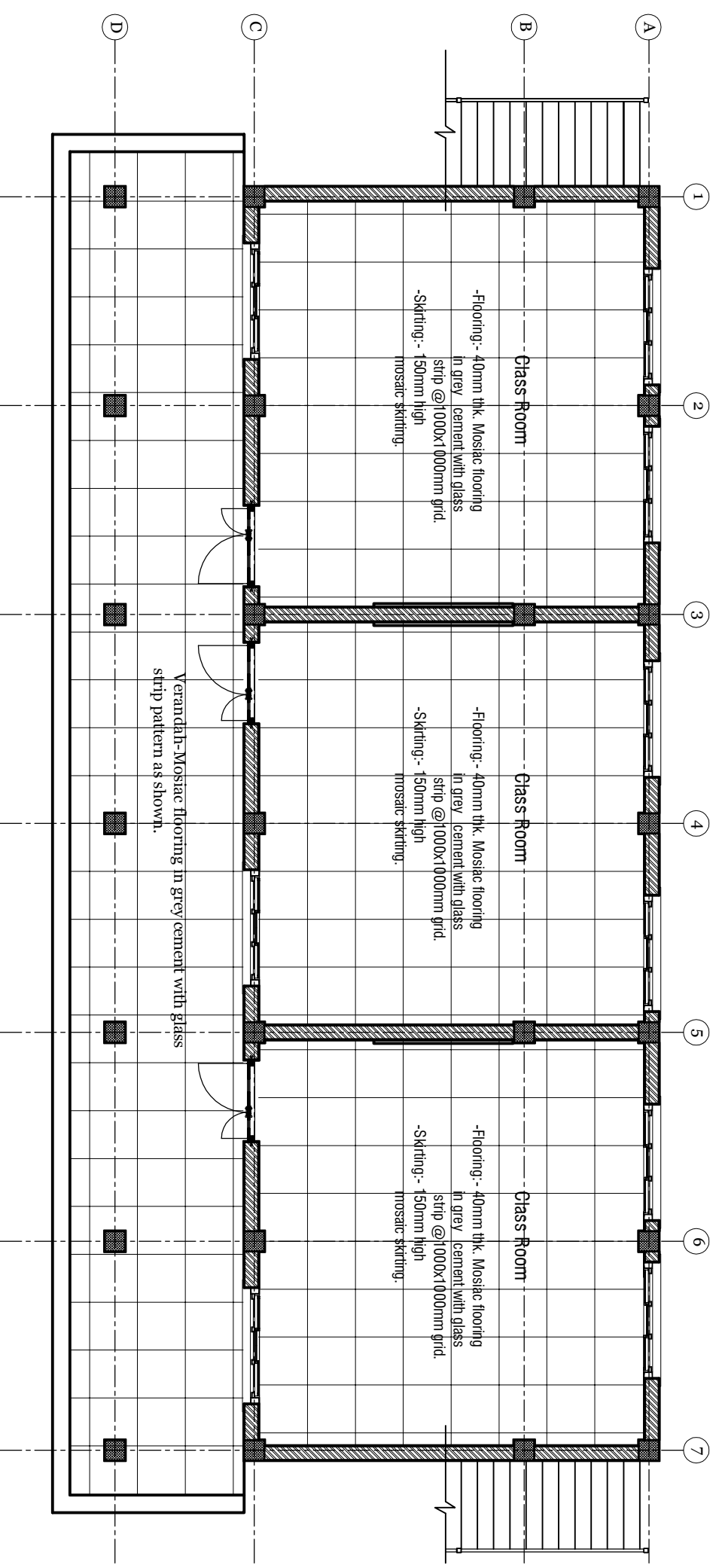
BUILDING: SIX CLASSROOM BLOCK
TITLE: FLOORING LAYOUT (TROPICAL)
 Karma Sornam
 CHIEF ENGINEER
 Tshering Choden
 ARCHITECT
 SCALE 1:100
 DATE 5/9/2011

NOTES:
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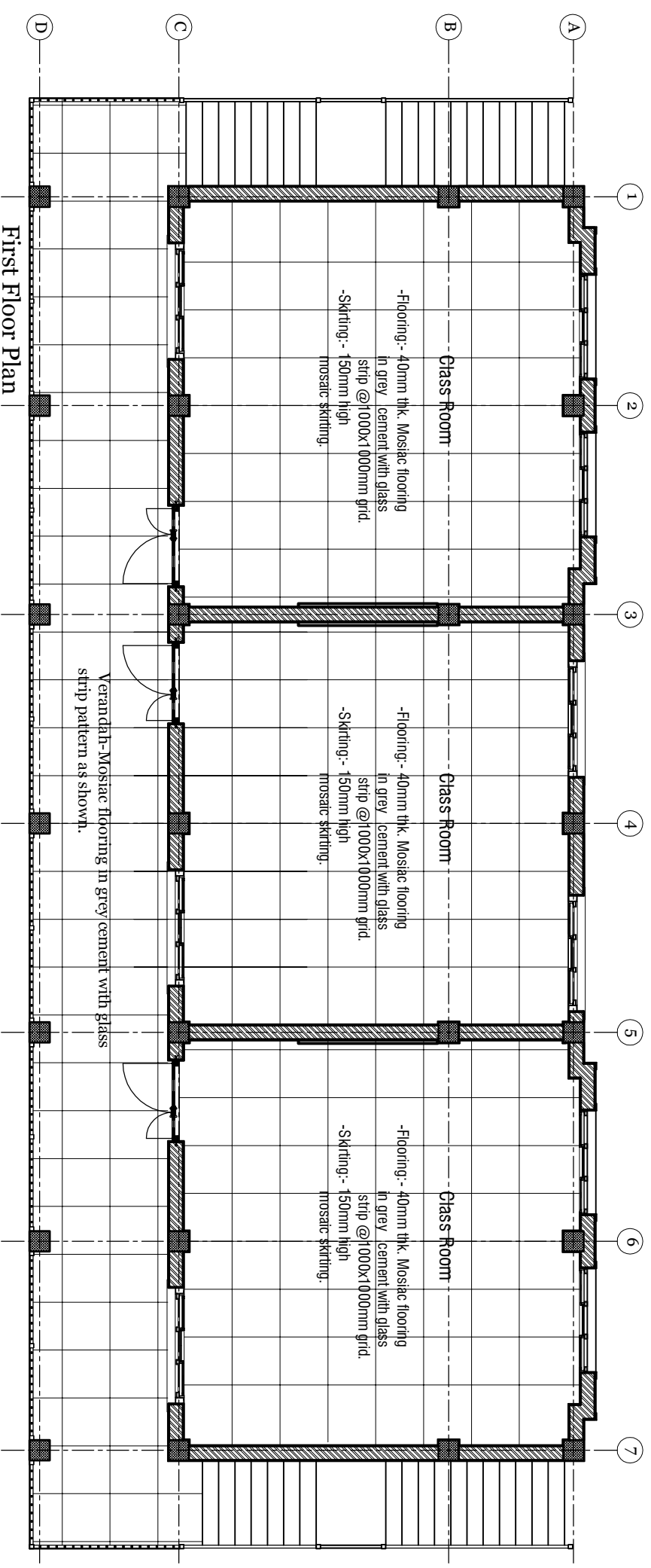
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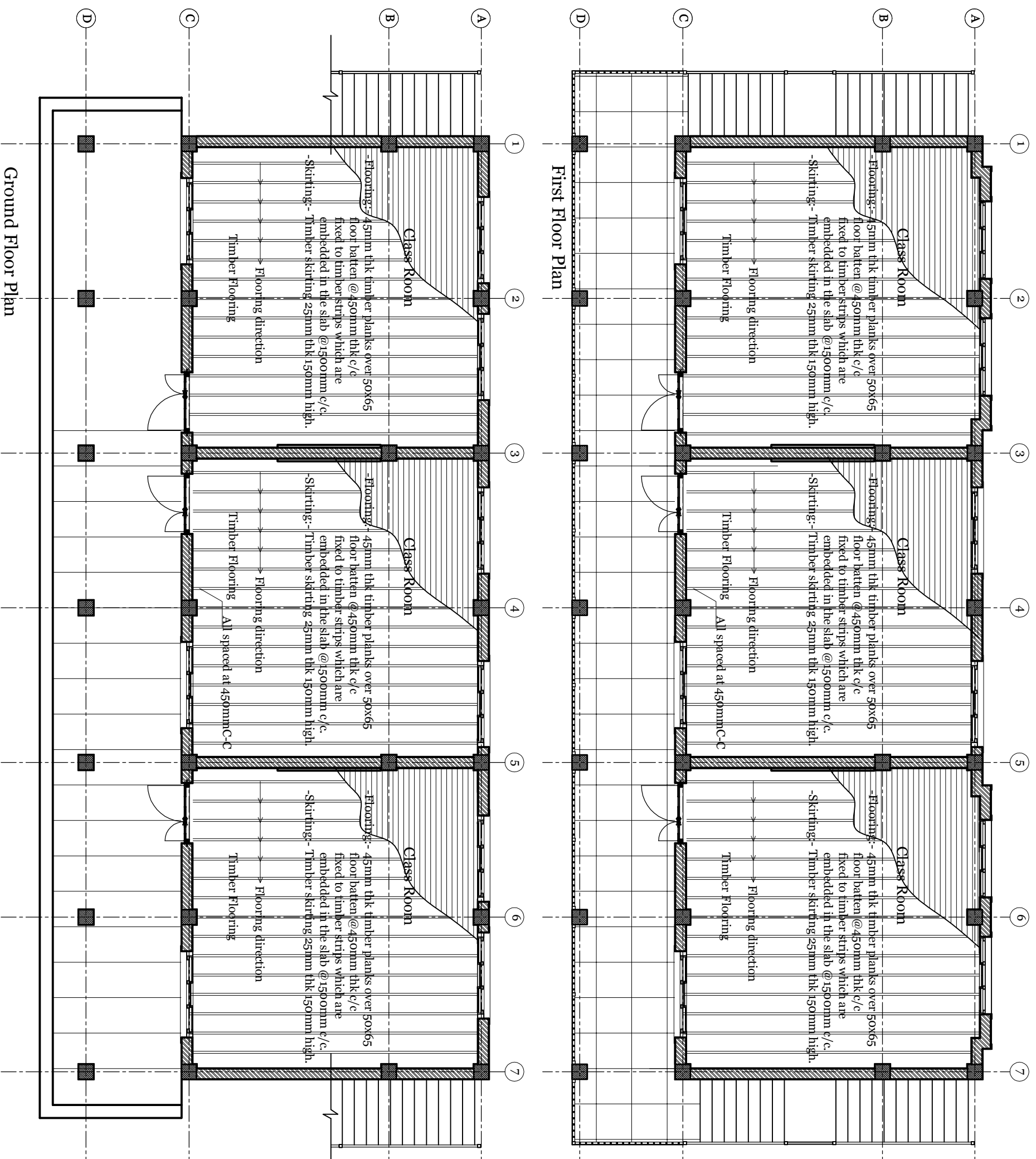
DRAWING NO:
6CL-AR-08A

Ground Floor Plan



First Floor Plan





Ground Floor Plan

First Floor Plan

PROJECT

BUILDING: SIX CLASSROOM BLOCK

TITLE: FLOORING LAYOUT (TEMPERATE)

HON'BLE SECRETARY
MOE
DSE
DIRECTOR GENERAL

Karma Sornam
CHIEF ENGINEER

Tshering Choden
ARCHITECT

ENGINEER

DRAWN BY Pema Chozom

SCALE 1:100

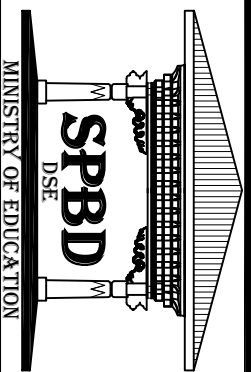
DATE 5/9/2011

REVISION

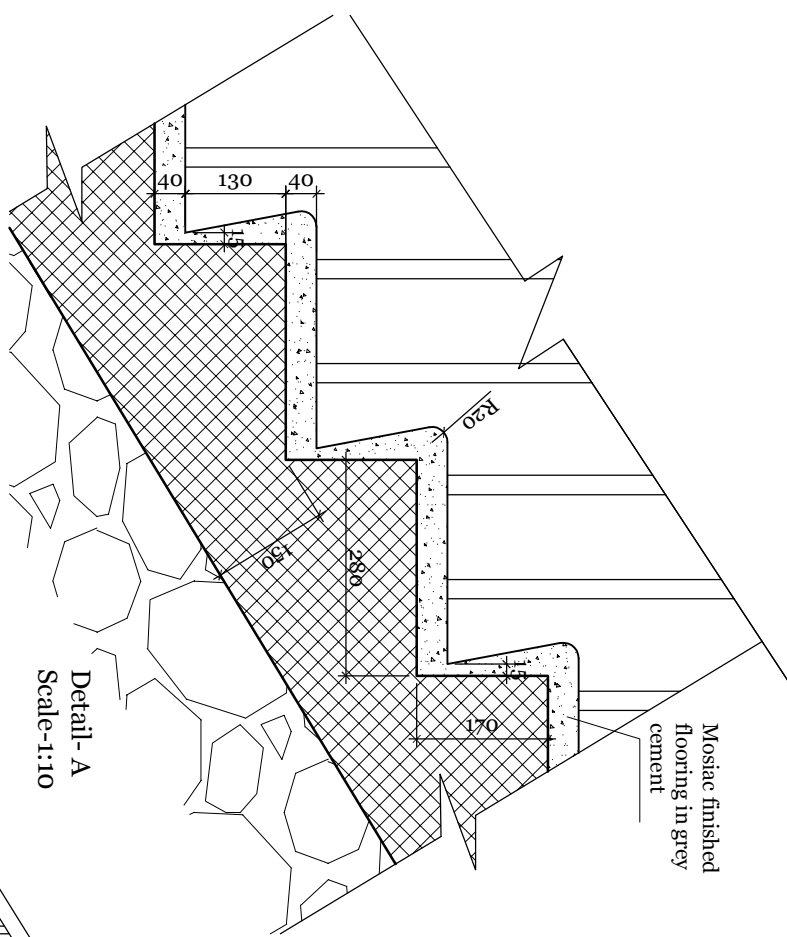
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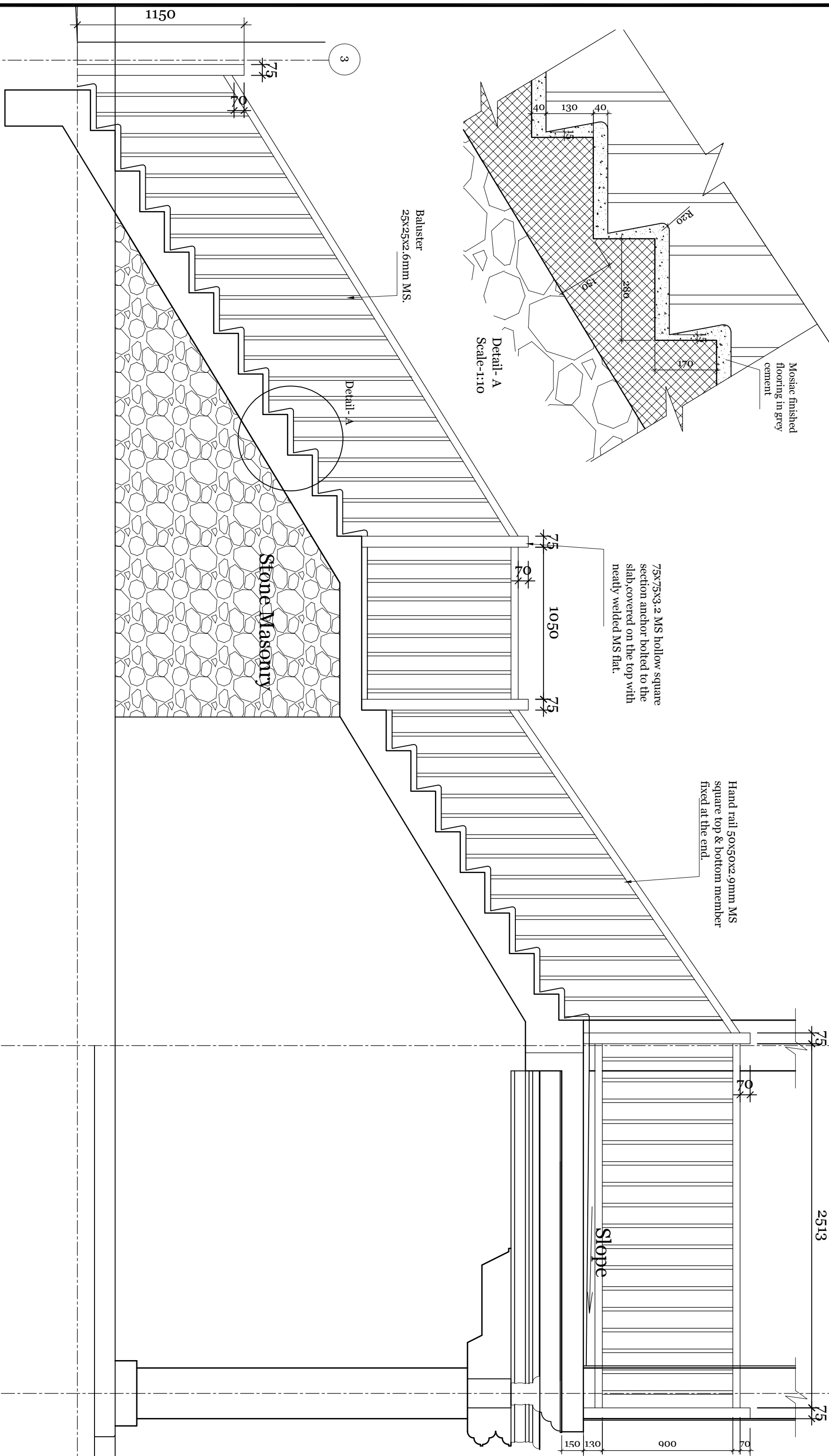
6CL-AR-08B



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Detail- A
Scale-1:10



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HON'BLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

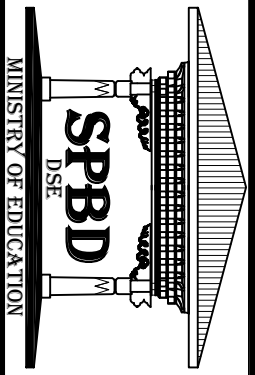
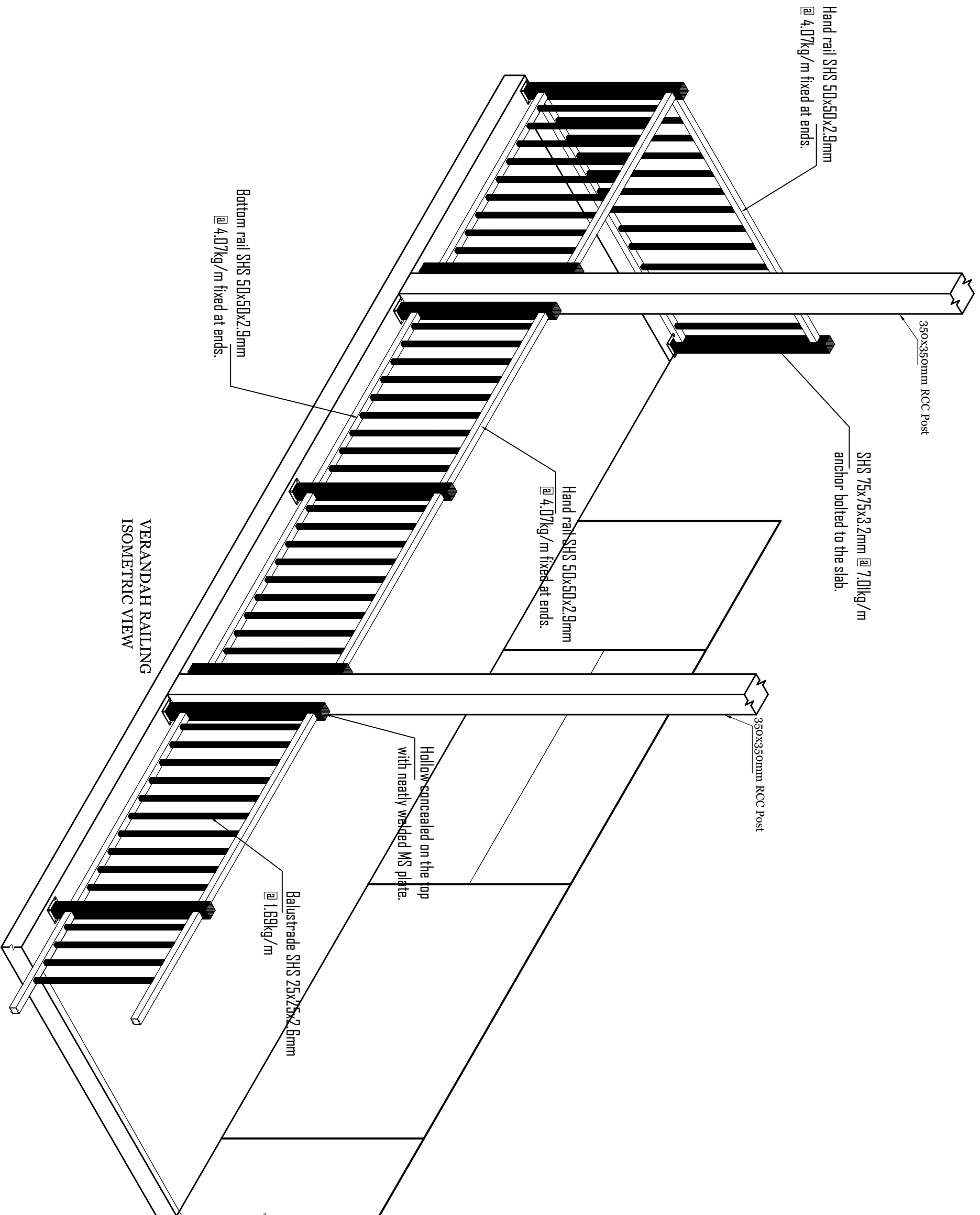
BUILDING: SIX CLASSROOM BLOCK
TITLE: STAIRCASE DETAILS

Karma Sornam CHIEF ENGINEER	Tshering Choden ARCHITECT	ENGINEER
DRAWN BY Pema Chozom	SCALE 1:25	DATE 15/9/2011

NOTES:
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REVISION	DATE

DRAWING NO:
6CL-AR-09



PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE DIRECTOR GENERAL DSE		TITLE: VERANDHA RAILING (ISOMETRIC VIEW)	
Karma Sornam CHIEF ENGINEER		Tshering Choden ARCHITECT	
Pema Chozom DRAWN BY		SCALE 1:30	
DATE		19/9/2011	

NOTES:
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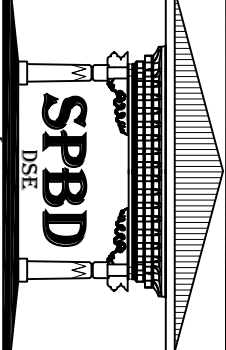
REVISION	DATE

DRAWING NO:
6CL-AR-10

STRUCTURAL DRAWINGS FOR 6 CLASSROOM BUILDING

DRAWING CROSS REFERENCE INDEX

DRAWING NO.	SHEET NO.	DRAWING TITLE
6CL-ST-RI		DRAWING REFERENCE INDEX
6CL-ST-GN		GENERAL STRUCTURAL DESIGN NOTES
6CL-ST-01		FOUNDATION LAYOUT PLAN
6CL-ST-02		FOOTING AND FOUNDATION WALL DETAILS
6CL-ST-03		COLUMN LAYOUT PLAN
6CL-ST-04		COLUMN SCHEDULE AND TIE DETAILS
6CL-ST-05		SPLICING & DUCTILE DETAILING IN BEAMS & COLUMNS
6CL-ST-06		STRUCTURAL GRID PLAN
6CL-ST-07		FRAME A & D BEAM REINFORCEMENT DETAILS
6CL-ST-08		FRAME B BEAM REINFORCEMENT DETAILS
6CL-ST-09		FRAME C BEAM REINFORCEMENT DETAILS
6CL-ST-10		FRAME 1 & 7 BEAM REINFORCEMENT DETAILS
6CL-ST-11		FRAME 2, 4 & 6 BEAM REINFORCEMENT DETAILS
6CL-ST-12		FRAME 3 & 5 BEAM REINFORCEMENT DETAILS
6CL-ST-13		LINTEL & GRC CONNECTION DETAILS
6CL-ST-14		SLAB BOTTOM REINFORCEMENT DETAILS-1
6CL-ST-15		SLAB TOP REINFORCEMENT DETAILS-2
6CL-ST-16		TYPICAL STAIRCASE DETAILS
6CL-ST-17		ROOF TRUSS LAYOUT PLAN
6CL-ST-18		ROOF TRUSS ELEVATIONAL DETAILS
6CL-ST-19		ROOF TRUSS CONNECTION DETAILS

 <p>SPBD DSE MINISTRY OF EDUCATION</p>	PROJECT		BUILDING: SIX CLASSROOM BLOCK	
	HON'BLE SECRETARY MOE DIRECTOR GENERAL DSE	TITLE: DRAWING REFERENCE INDEX Karna Sonam CHIEF ENGINEER Tshering Choden ARCHITECT Sonam Norbu ENGINEER DRAWN BY SCALE NTS DATE 23/11/2011	NOTES: -ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. - ANY DISCREPANCIES IN DRAWINGS SHOULD IMMEDIATELY BE BROUGHT TO THE NOTICE OF THE SPBD DESIGN TEAM	
		REVISION 	DATE 	DRAWING NO: 6CL-ST-RI

A. General:
 ALL DIMENSIONS ARE IN "millimetres" UNLESS OTHERWISE SPECIFIED
 ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS
 DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS UNDER ANY CIRCUMSTANCES
 ALL MATERIALS TO BE USED FOR CONSTRUCTION SHALL BE SQCA APPROVED BRANDS UNLESS OTHERWISE SPECIFIED

B. Technical Datas:
 Grade of Concrete : M20
 Grade of Reinforcing Bars : TMT Fe500
 Safe Bearing Capacity of Soil : 150KN/m² (if abnormal soil condition exists, consult the Design Engineer)

C. Unit Weight of Materials
 Reinforced Cement Concrete : 25 KN/m³
 Plain Cement Concrete : 22 KN/m³
 Brick Masonry : 20 KN/m³
 Stone Masonry : 24 KN/m³
 Timber : 7.0 KN/m³
 Structural Steel : 78.5 KN/m³
 Fresh snow : 1.8 KN/m³
 Compacted snow : 5.0 KN/m³

D. Loadings for structural design:

► Dead Loads:

Derived from the above unit weights

► Live Loads:

1. Residential Buildings:

Rooms, Kitchens, Toilets & Bathrooms : 2.0 KN/m²
 Staircases, Corridors & Stores : 3.0 KN/m²

2. Hostel Buildings:

Livingrooms, Bedrooms, Dormitories, Toilets & Bathrooms : 2.0 KN/m²
 Office rooms : 2.5 KN/m²
 Staircases, Corridors, Kitchens & Laundries : 3.0 KN/m²
 Dining, Cafeteria & Restaurants : 4.0 KN/m²
 Storerooms : 5.0 KN/m²

3. Educational Buildings:

Dormitories, Toilets & Bathrooms : 2.0 KN/m²
 Offices, Dining, Cafeteria, Lounges & Staff rooms : 2.5 KN/m²
 Kitchens, Classrooms, Lecture rooms, Staircases & Corridors : 3.0 KN/m²

4. Roofs: Less than 10° slope

Inaccessible roofs : 0.75 KN/m²

Accessible roofs : 1.50 KN/m² (for slope >10°, minus 2KN/m² for each degree increase from 10°)

► Wind Loads:

Wind Velocity : 44 m/s or Basic Wind Pressure : 1.5 KN/m²

► Seismic Loads:

As per IS 1893-1993
 Zone Factor : 0.36
 Medium Soil Sites
 Importance Factor : 1.5
 Response Reduction Factor : 5.0

Framed Structures

Load Bearing Structures

Zone Factor : 0.36
 Medium Soil Sites
 Importance Factor : 1.5
 Response Reduction Factor : 3.0

E. Load Combinations:

1. For Reinforced Concrete Structures:

1.5 (Dead Loads + Imposed Loads)
 1.2 (Dead Loads + Imposed Loads ±Seismic Loads)
 1.5 (Dead Loads + Seismic Loads)
 0.9 (Dead Loads) ± 1.5(Seismic Loads)

2. For Steel Structures:

1.7 (Dead Loads + Imposed Loads)
 1.3 (Dead Loads + Imposed Loads ±Seismic Loads)
 1.7 (Dead Loads + Seismic Loads)

F. Nominal Covers to Steel Reinforcement:

For fire resistance between 2 to 3 hours

► Bottom Covers:

Beams : 40mm
 Slabs : 35mm
 Columns : 40mm or not less than Ø of bar
 Footings : 50mm (minimum)
 ► Side Covers:
 Beams : 25mm
 Slabs : 15mm
 Columns : 40mm or not less than Ø of bar
 Footings : 40mm

G. For Load Bearing Structures:

Reference IS 4326-1993 (Earthquake Resistant Design & Construction of Buildings)

Seismic Strengthening Arrangements:

i. Plinth Bands
 ii. Vertical Reinforcements
 iii. Lintel Bands
 iv. Roof Bands
 v. Gable Bands

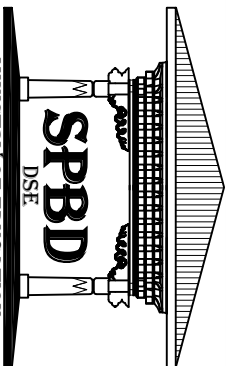
Concrete mix around vertical steel : Cement : Sand = 1:2
 Concrete mix for masonry works : Cement : Sand = 1:4

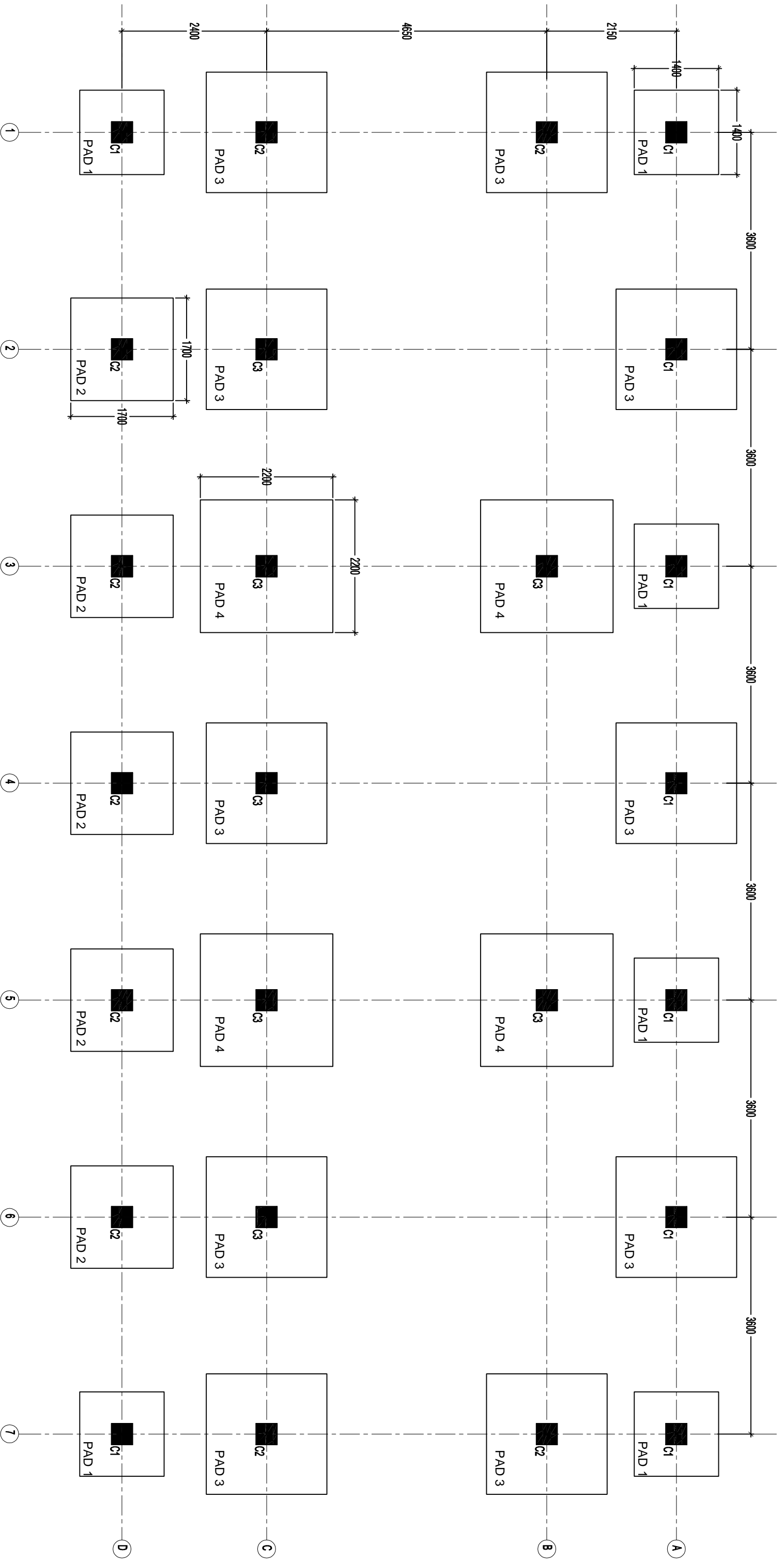
H. IS Codes Referred:

IS 456 : 2000 - Plain and Reinforced Concrete
 IS 875 (part 1 to 5) : 1987 - Design Loads (Other than earthquake) for Buildings and Structures
 IS 1983 (part 1) : 2002 - Criteria for Earthquake Resistant Design of Structures
 IS 4326 : 1993 - Earthquake Resistant Design & Construction of Buildings
 IS 13920 : 1993 - Ductile Detailing of RC Structures subjected to Seismic Forces
 NUDC/002/1985 - Manual for Timber Engineering Design, RG&B

► General Structural Notes (For Framed RC Structures):

- i. All foundations shall be laid on well compacted and levelled soil.
- ii. Stirrups shall be provided with 135° hooks with 10Ø extension at each end embedded in concrete
- iii. Splicing in beams shall not be provided within a distance of 2D from the joint face and not in mid span at bottom
- iv. Not more than 50% of the bars shall be spliced at a section
- v. Spacing of stirrups shall not exceed 150mm c/c in the splice region.
- vi. Lap splices for column reinforcement shall be provided only in the centre half of the member.

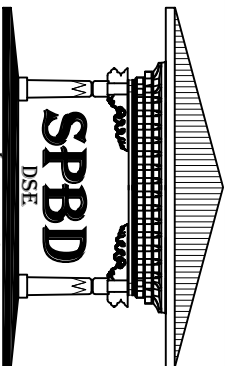
	PROJECT		BUILDING: SIX CLASSROOM BLOCK		NOTES: -ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. - ANY DISCREPANCIES IN DRAWINGS SHOULD IMMEDIATELY BE BROUGHT TO THE NOTICE OF THE SPBD DESIGN TEAM
	HONBLE SECRETARY MOE DSE DIRECTOR GENERAL		TITLE: GENERAL STRUCTURAL NOTES Karma Sornam CHIEF ENGINEER Tshering Choden ARCHITECT Sonam Norbu ENGINEER DATE: 23/11/2011		
		REVISION		DATE	
				DRAWING NO:	
				6CL-ST- GN	

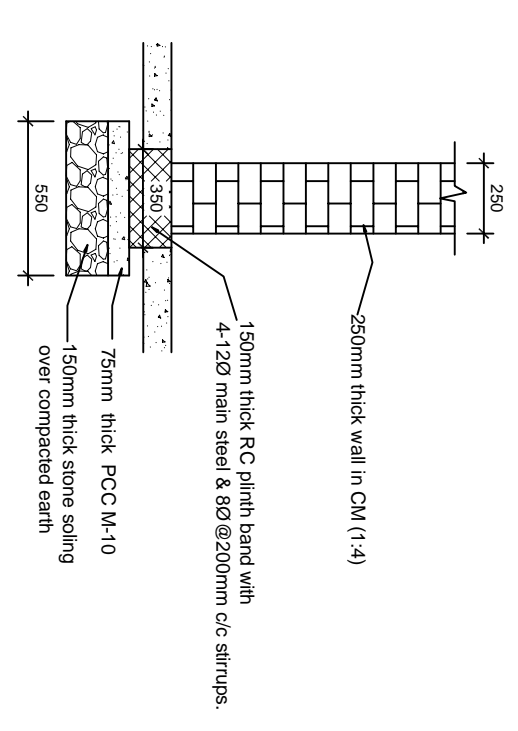
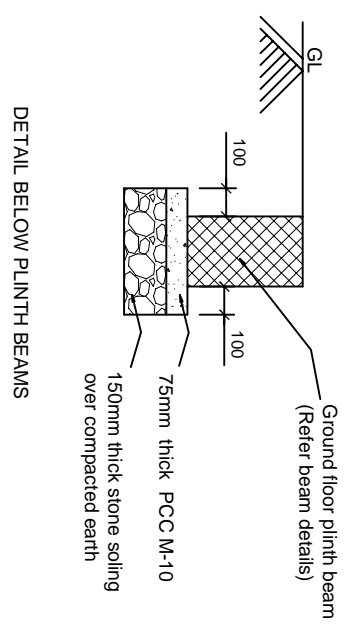
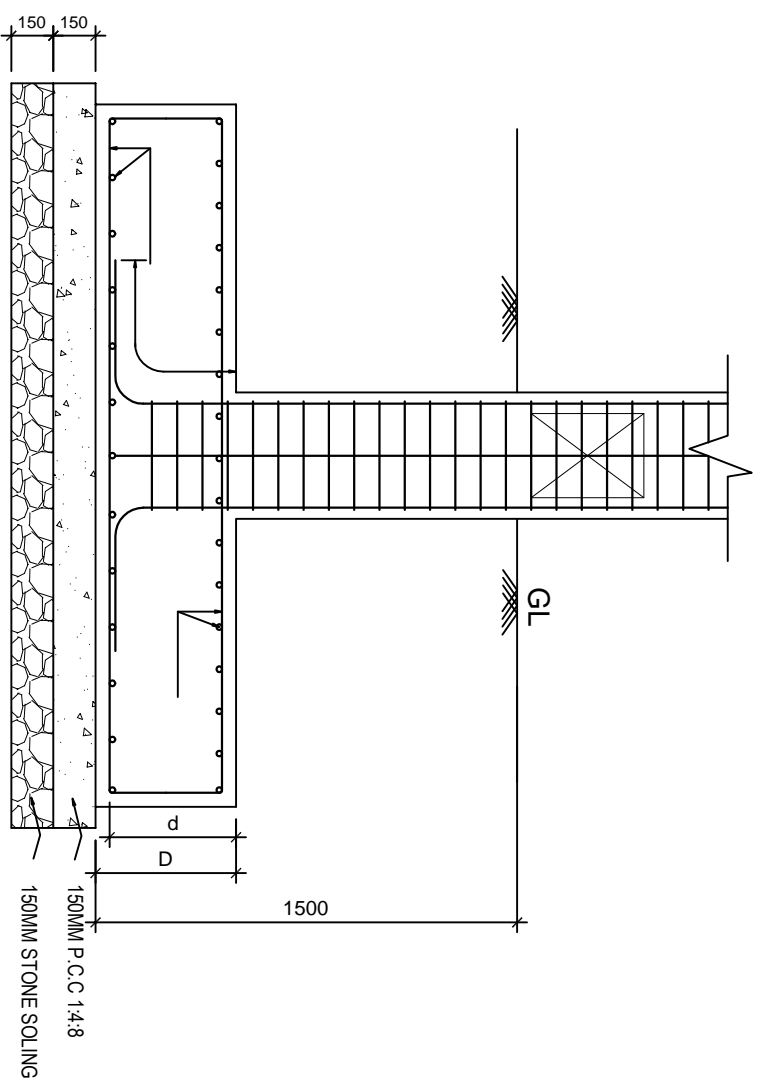


FOUNDATION LAYOUT PLAN

NOTES:-
 The columns are reinforced with the followings:
 Column C1 [350x350mm] {4 -1MT16+4-1MT12 & 8@ @85/150mm c/c}
 Column C2 [350x350mm] {4 -1MT16+4-1MT16 & 8@ @85/150mm c/c}
 Column C3 [350x350mm] {4 -1MT20+4-1MT16 & 8@ @85/150mm c/c}

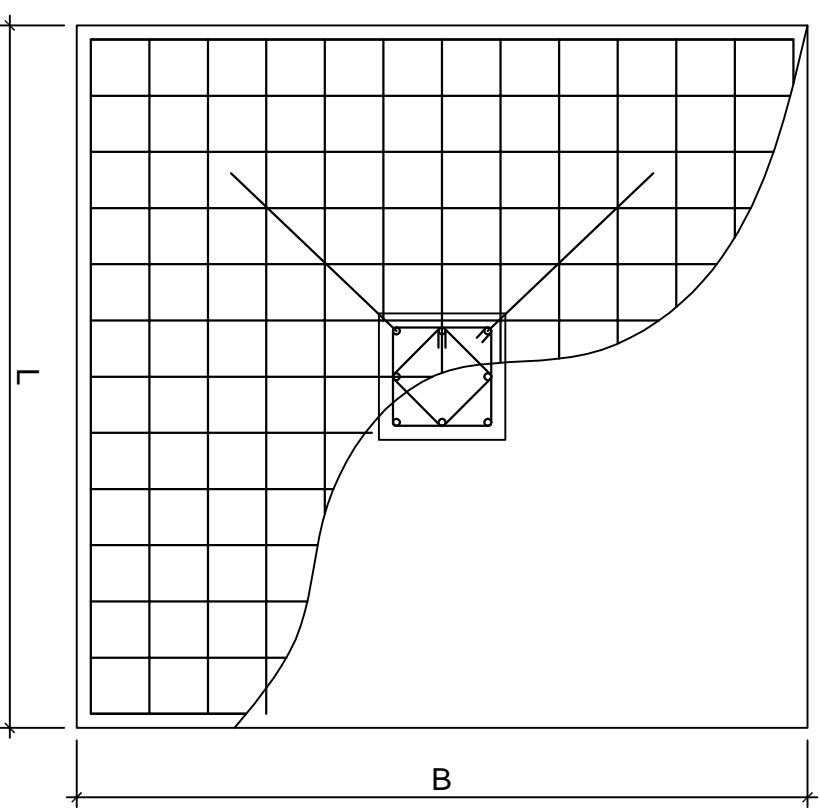
NOTES:-
 The Bearing Capacity of soil is assumed as 150KN/m² and at site if any abnormalities in the soil conditions exist, please inform the Design Engineer at SPBD Office.
 The minimum depth of foundation is at 1500mm from ground level.
 Grade of Concrete - M20
 Grade of Steel - F4500

		PROJECT HON'BLE SECRETARY MOE DIRECTOR GENERAL DSE	
BUILDING: SIX CLASSROOM BLOCK		TITLE: FOUNDATION LAYOUT PLAN	
Karna Soram CHIEF ENGINEER	Tshering Choden ARCHITECT	Sonam Norbu ENGINEER	DRAWN BY SCALE NTS
DATE 23/11/2011		NOTES: -ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE. -ALL DIMENSIONS ARE TO BE READ AND NOT SCALED OFF. - ANY DISCREPANCIES IN DRAWINGS SHOULD IMMEDIATELY BE BROUGHT TO THE NOTICE OF THE SPBD DESIGN TEAM	
REVISION	DATE	DRAWING NO: 6CL-ST-01	

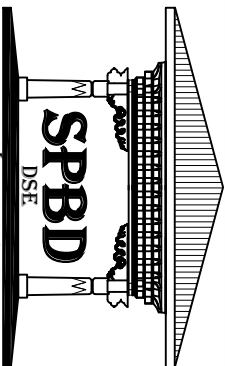


Rebar size	Development length, L_d	Anchorage length, L_a	REINFORCEMENT DETAILS	
			Bottom	Top
12Ø	565	690	10Ø@150 c/c in both directions	8Ø@180 c/c in both directions
16Ø	755	915	12Ø@120 c/c in both directions	8Ø@180 c/c in both directions
20Ø	940	1140	12Ø@120 c/c in both directions	8Ø@180 c/c in both directions
25Ø	1175	1425	16Ø@150 c/c in both directions	8Ø@180 c/c in both directions

FOOTING	SIZE		DEPTH		REINFORCEMENT DETAILS	
	Length, L	Breadth, B	Total depth, D	Eff. depth, d	Bottom	Top
PA01	1400	1400	300	250	10Ø@150 c/c in both directions	8Ø@180 c/c in both directions
PA02	1700	1700	350	300	12Ø@120 c/c in both directions	8Ø@180 c/c in both directions
PA03	2000	2000	350	300	12Ø@120 c/c in both directions	8Ø@180 c/c in both directions
PA04	2200	2200	350	300	16Ø@150 c/c in both directions	8Ø@180 c/c in both directions



NOTES:-
 The Bearing Capacity of soil is assumed as 150KN/m² and at site, if any abnormalities in the soil conditions exist, please inform the Design Engineer at SPBD Office.
 The minimum depth of foundation is at 1500mm from ground level.
 Grade of Concrete - M20
 Grade of Steel - Fe500
 Minimum Clear Cover - 50MM



SPBD
DSE

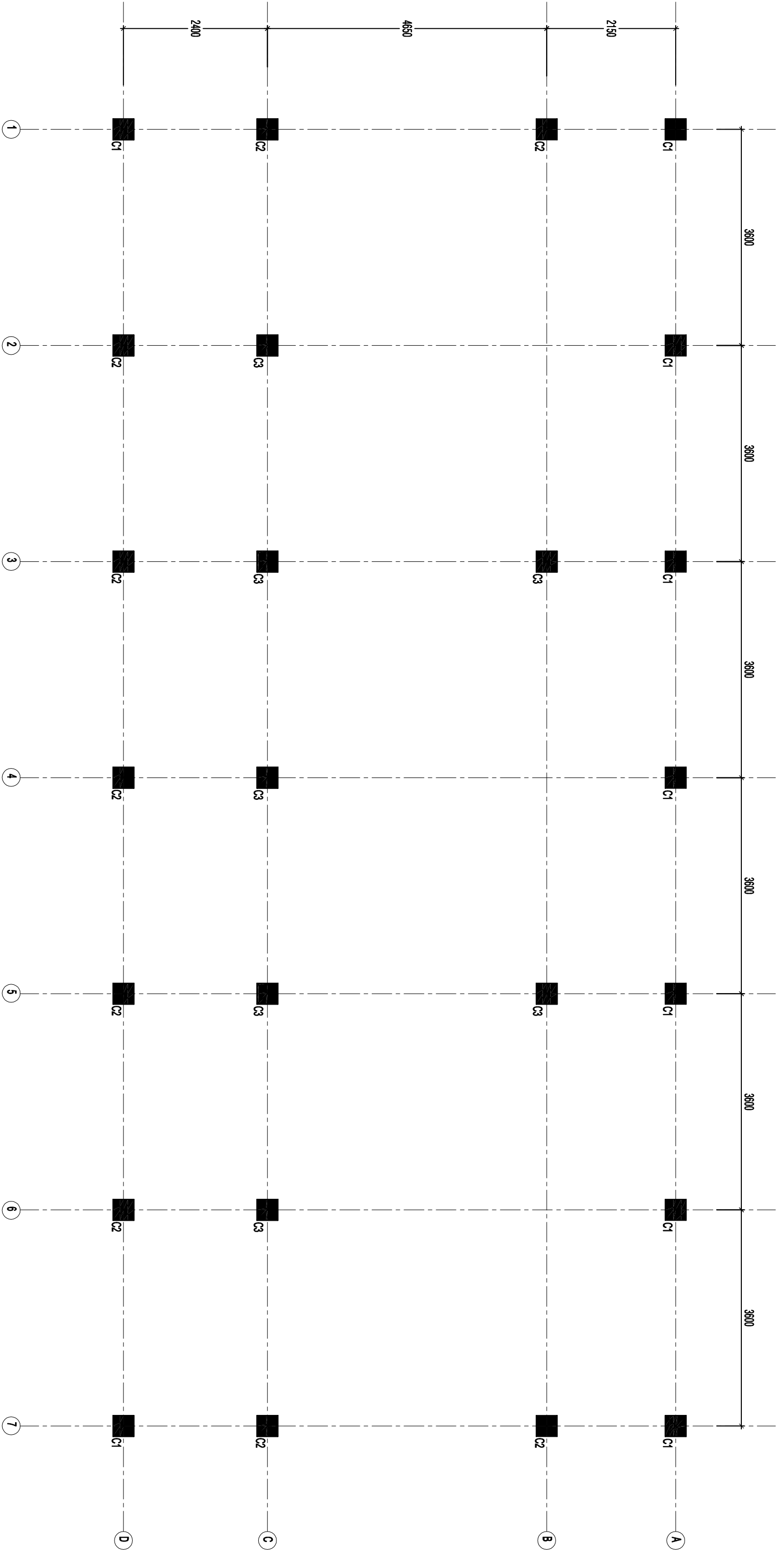
MINISTRY OF EDUCATION

PROJECT		BUILDING: SIX CLASSROOM BLOCK		
HON'BLE SECRETARY MOE	Karma Sornam CHIEF ENGINEER	TITLE: FOOTING & FOUNDATION WALL DETAILS		
DIRECTOR GENERAL DSE	Tshering Choden ARCHITECT	Sonam Norbu ENGINEER	SCALE NTS	
		DATE 23/11/2011		

NOTES:
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REVISION	DATE

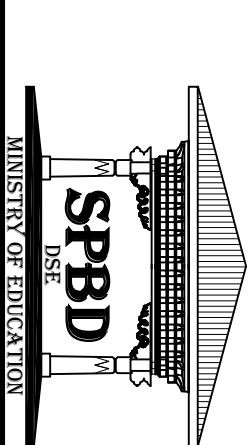
DRAWING NO:
6CL-ST-02



COLUMN LAYOUT PLAN

NOTES:-
 The columns are reinforced with the followings:
 Column C1 [350x350mm] (4 - TMT 16+4-TMT 12 & 8@ @85/150mm c/c)
 Column C2 [350x350mm] (4 - TMT 16+4-TMT 16 & 8@ @85/150mm c/c)
 Column C3 [350x350mm] (4 - TMT 20+4-TMT 16 & 8@ @85/150mm c/c)
 Grade of Concrete M20
 Grade of Steel Fe 415
 Cover- 40mm(min)

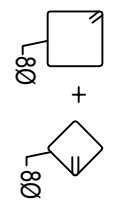
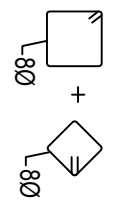
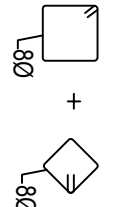
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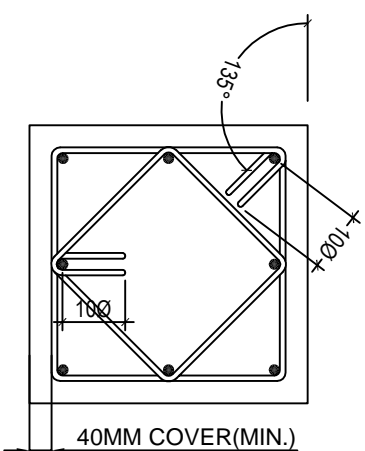


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karna Soram	TITLE: COLUMN LAYOUT PLAN	
DIRECTOR GENERAL DSE	CHIEF ENGINEER	Tshering Choden ARCHITECT	Sonam Norbu ENGINEER
	DRAWN BY	SCALE	DATE
		NTS	23/11/2011

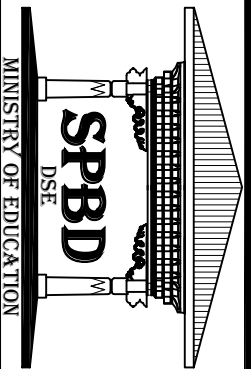
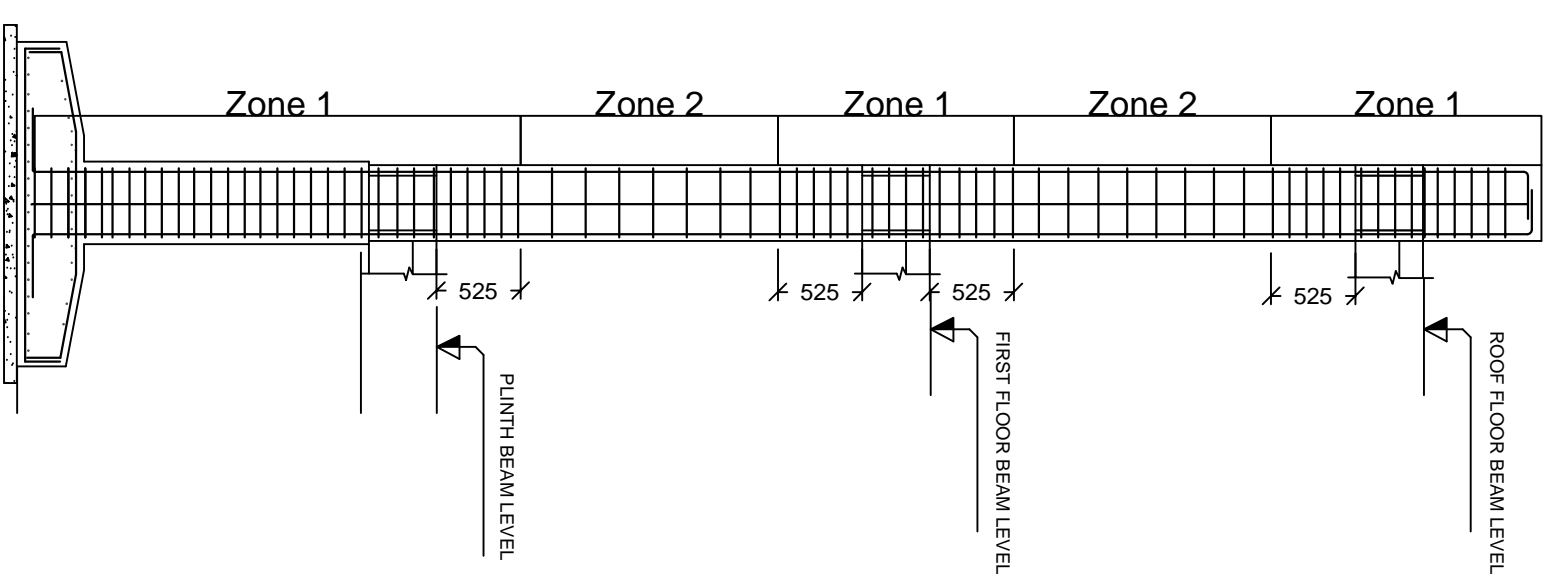
REVISION	DATE	DRAWING NO: 6CL-ST-03

COLUMN SCHEDULE

COLUMN TYPE	COLUMN SIZE	COLUMN MAIN REINFORCEMENT	COLUMN TIES		SHAPE OF TIES
			ZONE 1	ZONE 2	
C1	350 X 350	4 - 16Ø + 4 - 12Ø	2-8Ø@85 c/c	2-8Ø@150 c/c	
C2	350 X 350	4 - 16Ø + 4 - 16Ø	2-8Ø@85 c/c	2-8Ø@150 c/c	
C3	350 X 350	4 - 20Ø + 4 - 16Ø	2-8Ø@85 c/c	2-8Ø@150 c/c	



NOTES:-
 Grade of Concrete M20
 Grade of Steel Fe 500
 Cover- 40mm(min)

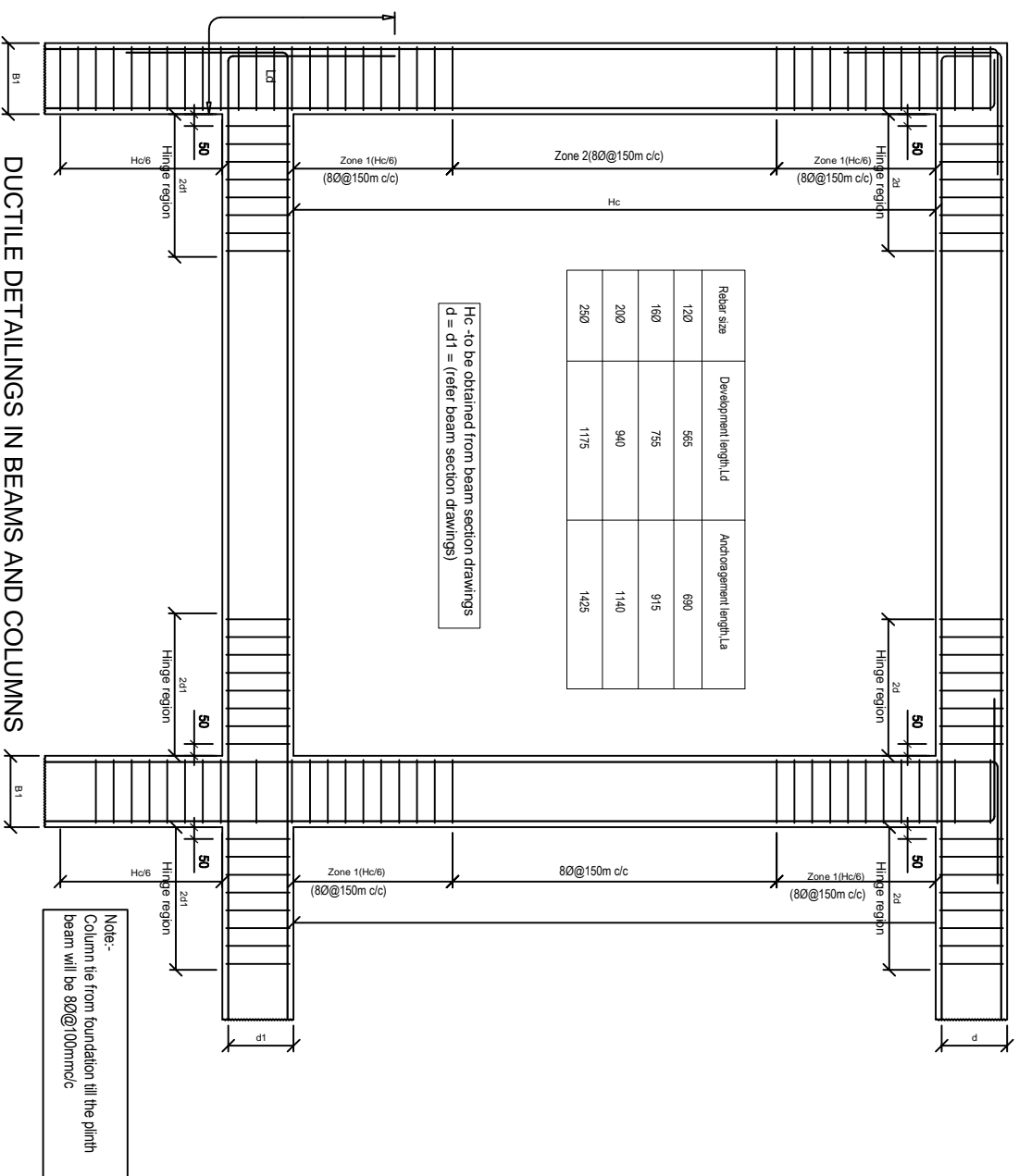
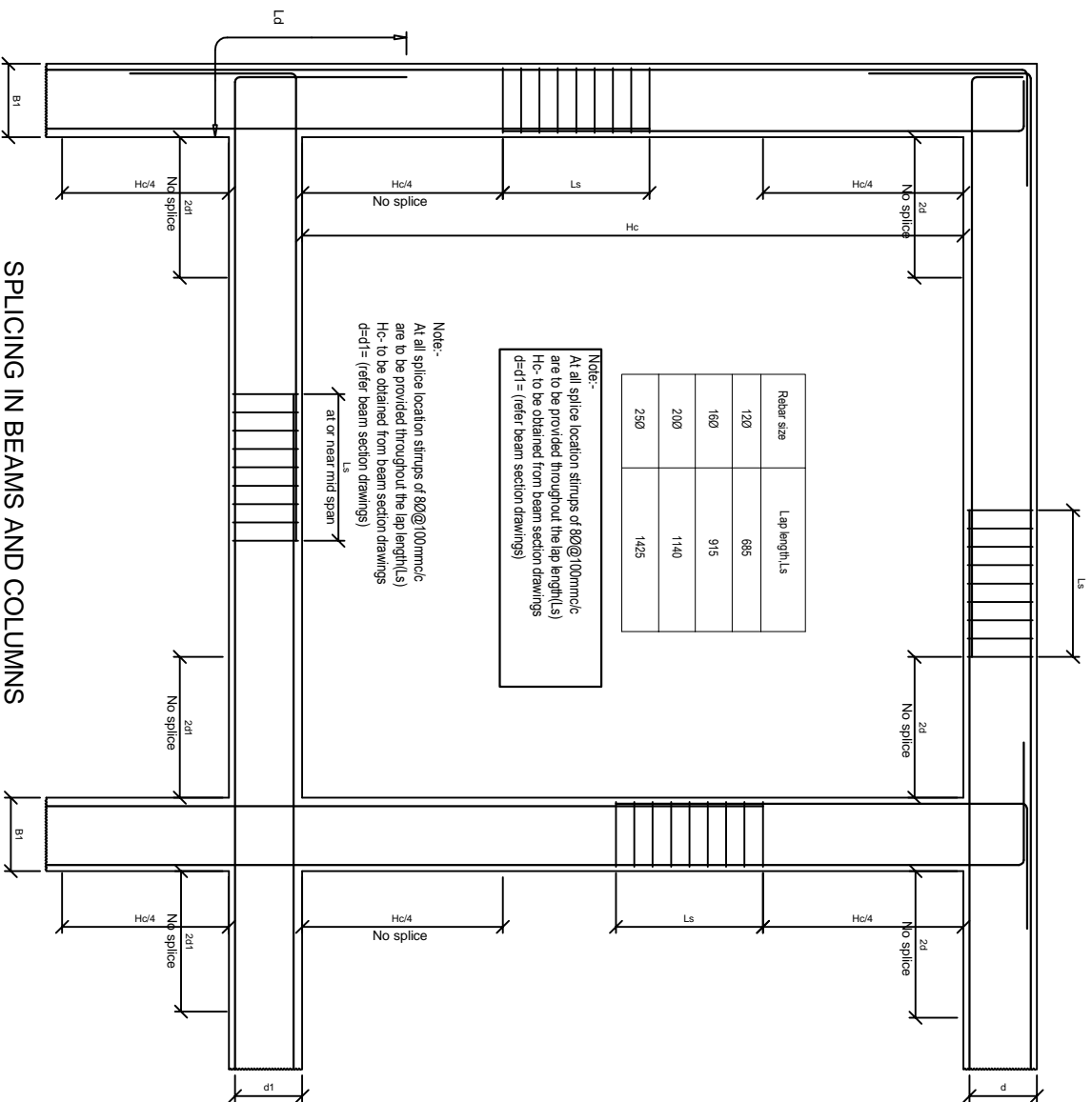


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE DIRECTOR GENERAL DSE	Karma Sornam CHIEF ENGINEER	Tshering Choden ARCHITECT	Sonam Norbu ENGINEER
TITLE: COLUMN SCHEDULE & THE DETAILS		SCALE	DATE
		NTS	23/11/2011

NOTES:
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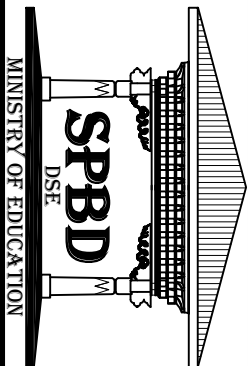
REVISION	DATE

DRAWING NO:
6CL-ST-04



SPlicing IN BEAMS AND COLUMNS

DUCTILE DETAILINGS IN BEAMS AND COLUMNS

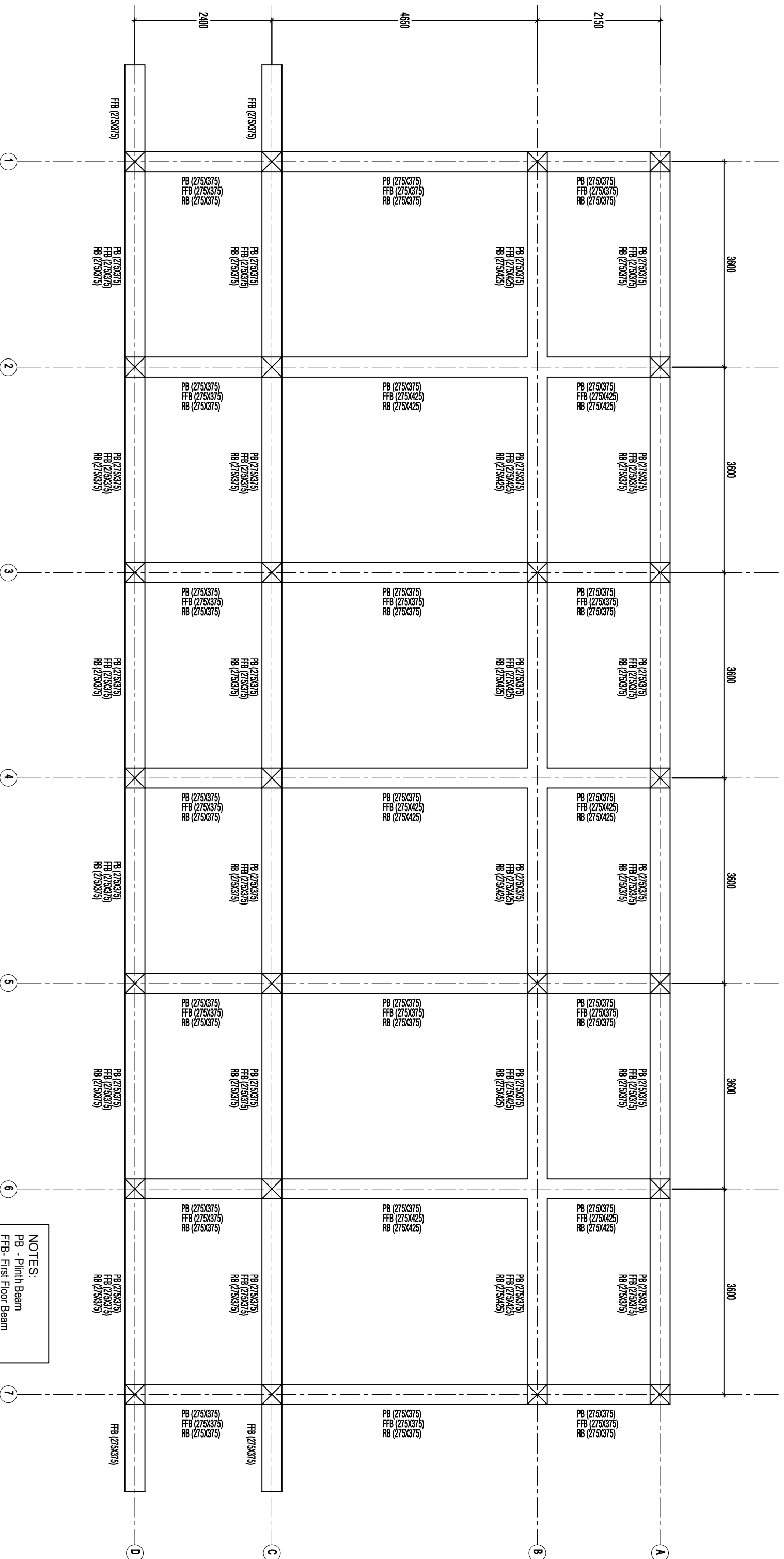


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Sornam	ARCHITECT	ENGINEER
DIRECTOR GENERAL DSE	Tshering Choden	NTS	23/11/2011
DRAWN BY		DATE	

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REVISION	DATE

DRAWING NO:
6CL-ST-05



STRUCTURAL GRID LAYOUT PLAN

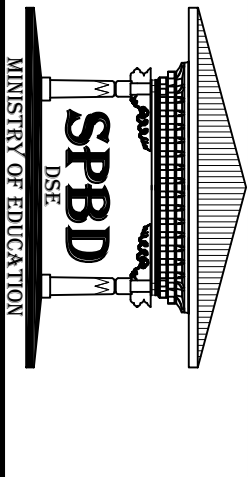
NOTES:
 PB - Plinth Beam
 FFB- First Floor Beam
 RB - Roof Beam

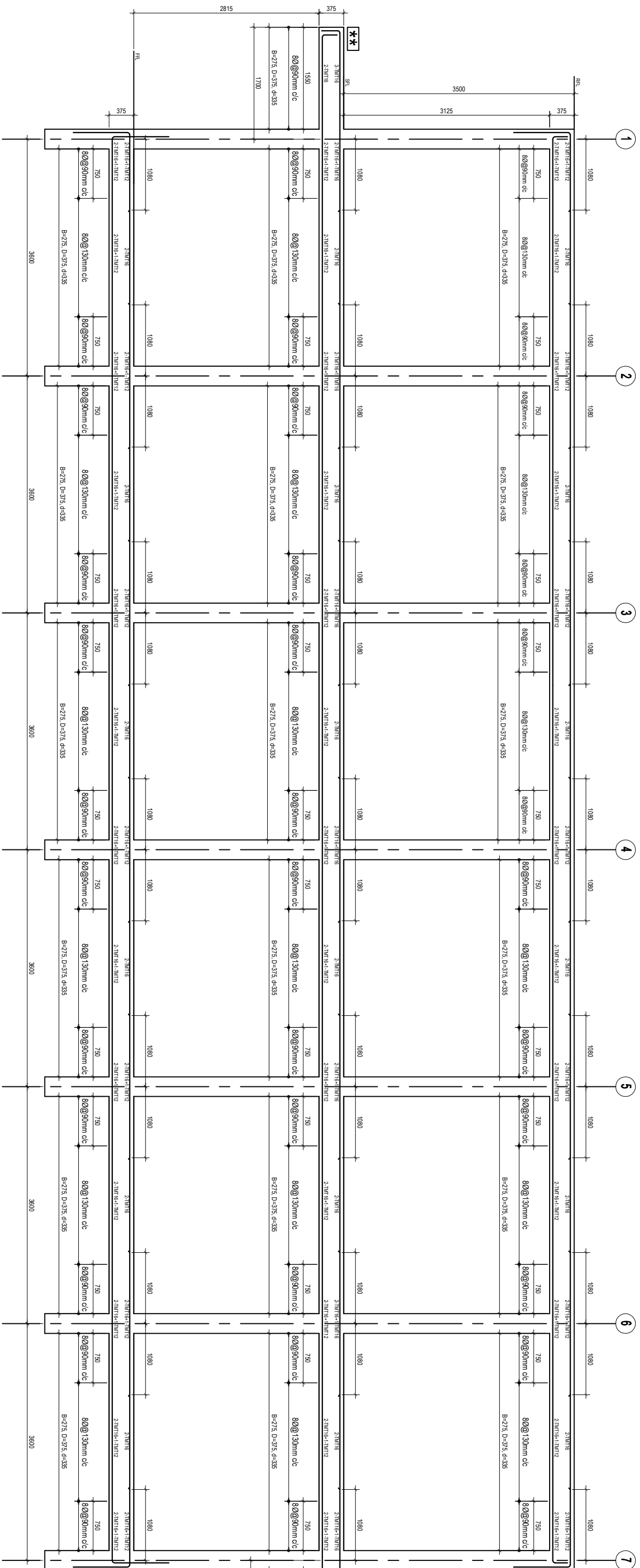
PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Sornam	ARCHITECT	ENGINEER
DIRECTOR GENERAL DSE	Chief Engineer	Tshering Choden	Sonam Norbu
TITLE: BEAM LAYOUT PLAN		SCALE	DATE
		NTS	23/11/2011

NOTES:
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REVISION	DATE

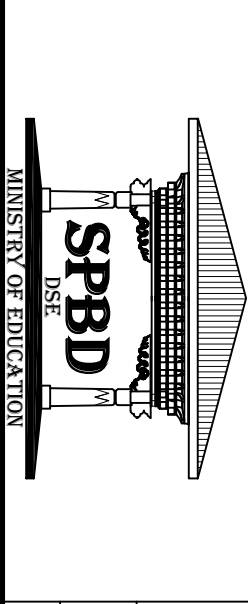
DRAWING NO:
6CL-ST-06





FRAME A & D

NOTES:
 Grade of Concrete- M20
 Grade of Steel- Fe415
 Clear cover for beams- 30mm
 Refer splicing details for splicing location
 - Splices Centreline beam projection for
 FRAME D beams only

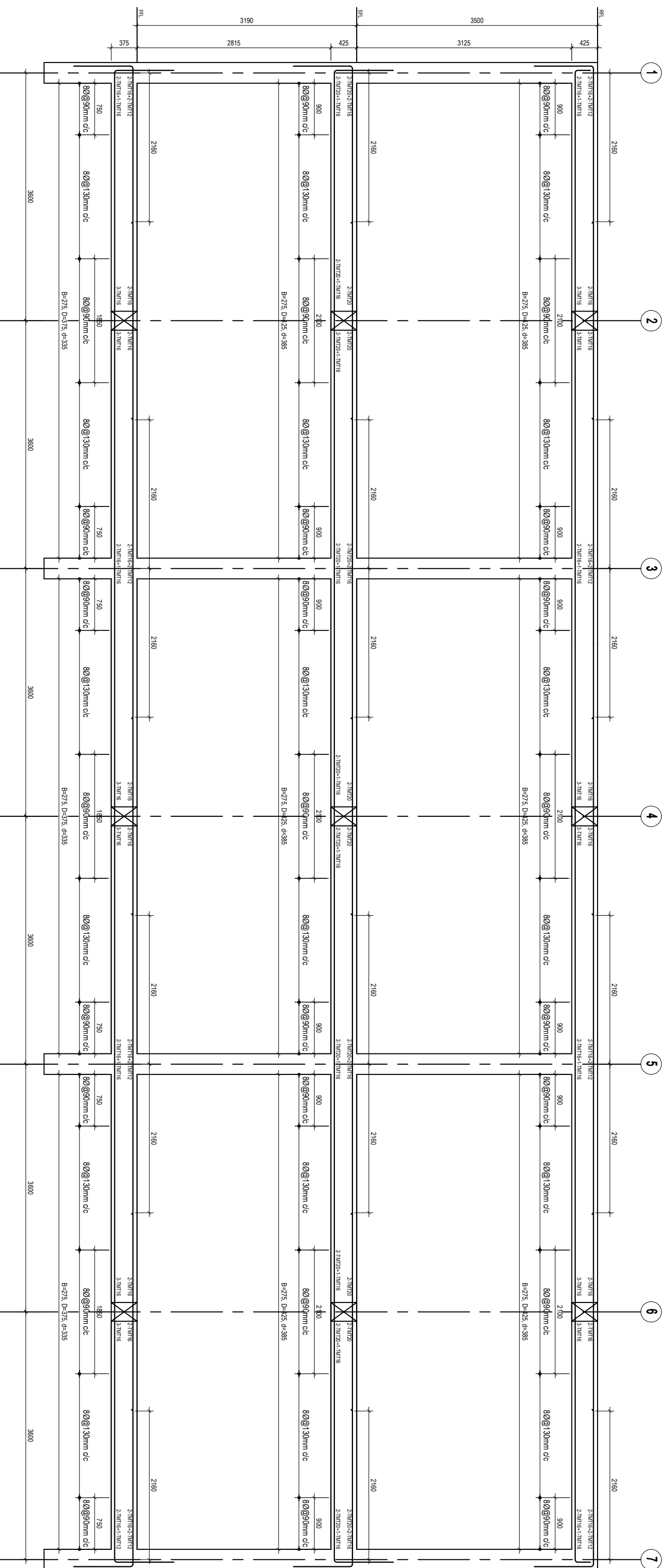


PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HONBLE SECRETARY MOE	Karma Sornam	CHIEF ENGINEER	Tshering Choden
DIRECTOR GENERAL DSE		SCALE	NTS
		DATE	23/11/2011

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REVISION	DATE

DRAWING NO:
GCL-ST-07



FRAME B

NOTES:
 Grade of Concrete M20
 Grade of Steel Fe415
 Clear cover to reinforcement = 35mm
 Refer splicing details for splice location

PROJECT

BUILDING: SIX CLASSROOM BLOCK

TITLE: FRAME B BEAM DETAILS

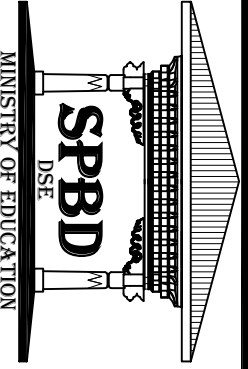
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DIRECTOR GENERAL DSE	CHIEF ENGINEER	ARCHITECT	ENGINEER
DRAWN BY	SCALE	NTS	DATE
			23/11/2011

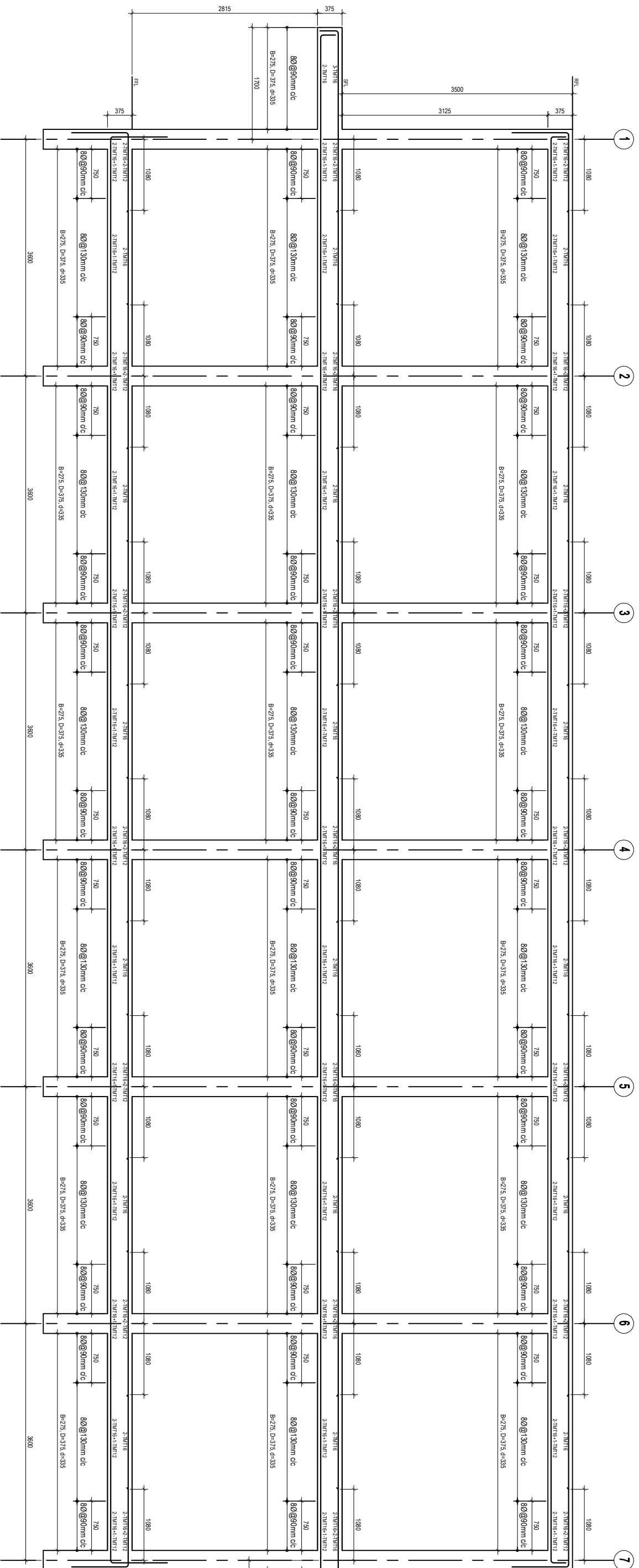
REVISION

DATE

DRAWING NO:

6CL-ST-08





NOTES:
 Grade of Concrete: M20
 Grade of Steel: Fe415
 Clear cover to beams: 30mm
 Refer spacing tables for splice location

FRAME C

PROJECT

BUILDING: SIX CLASSROOM BLOCK

TITLE: FRAME C BEAM DETAILS

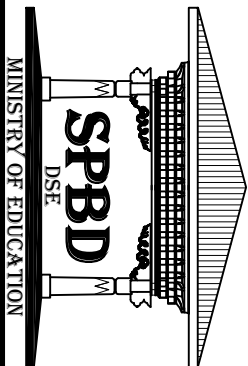
HONBLE SECRETARY MOE	Karma Sornam	Tshering Choden	ENGINEER
DIRECTOR GENERAL DSE	CHIEF ENGINEER	ARCHITECT	ENGINEER
	DRAWN BY Pema Chozom	SCALE 1:75	DATE 5/9/2011

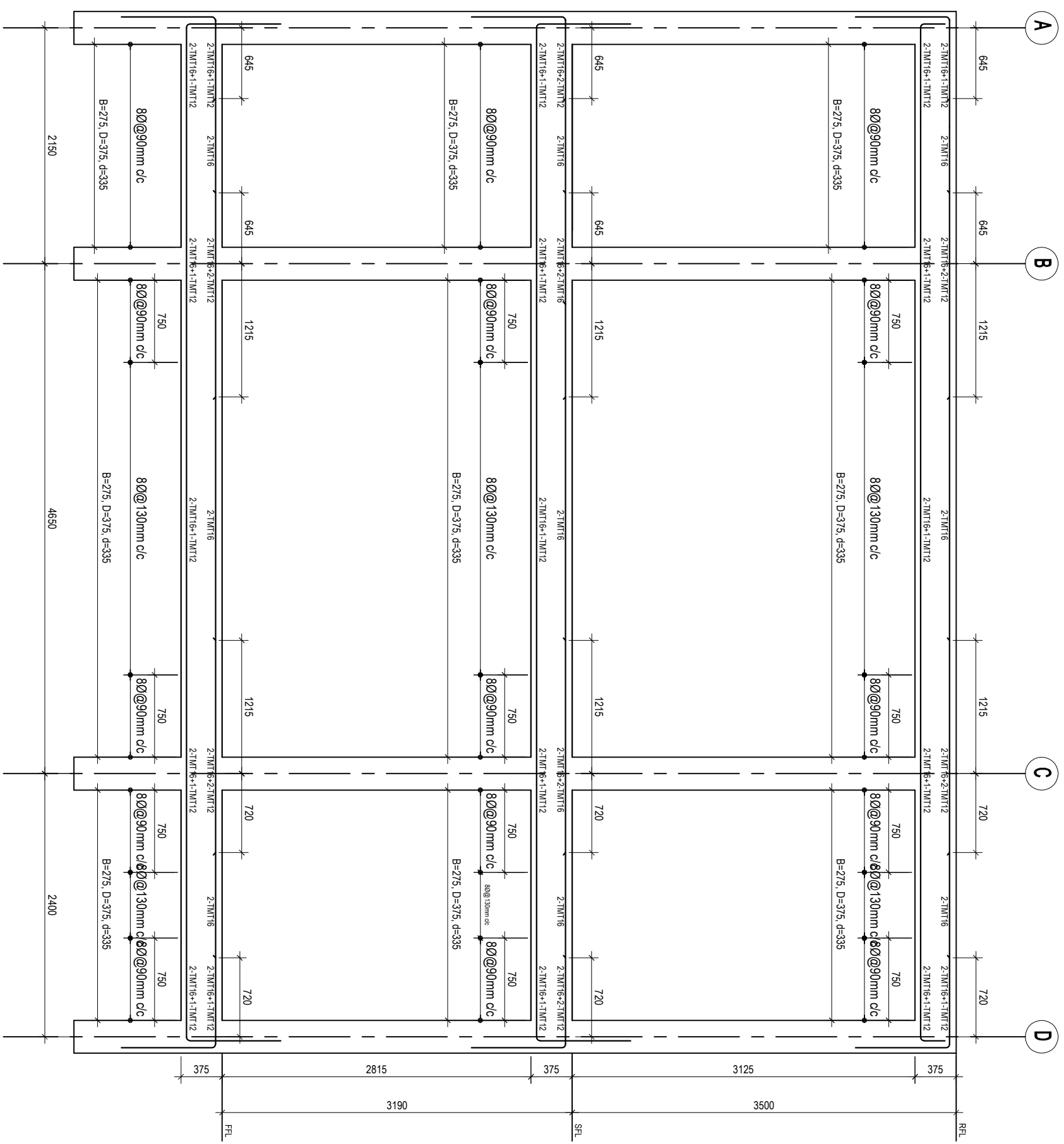
REVISION

DATE

DRAWING NO:

6CL-ST-09



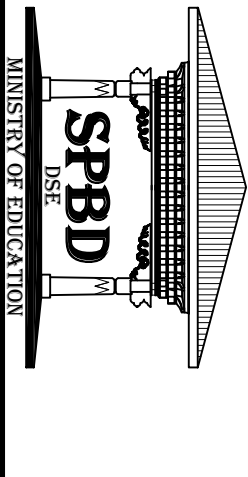


FRAME 1 & 7

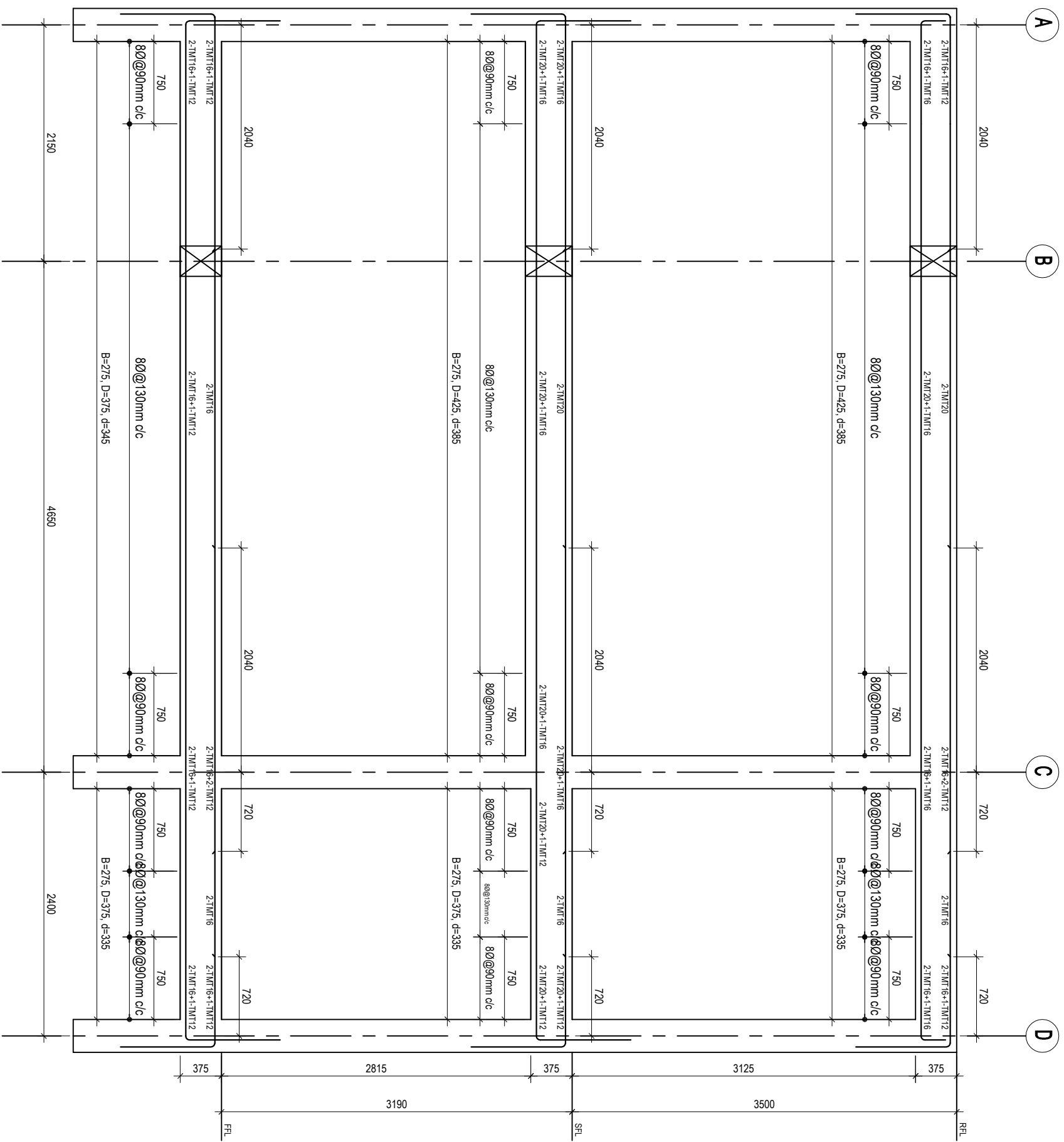
NOTES:
 Grade of Concrete- M20
 Grade of Steel- Fe415
 Clear cover for beams= 35mm
 Refer splicing details for splice location

NOTES:
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PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Soram	CHIEF ENGINEER	ARCHITECT
DIRECTOR GENERAL DSE	Sonam Norbu	ENGINEER	SCALE NTS
DATE 23/11/2011		DRAWN BY	



REVISION	DATE	DRAWING NO:
		6CL-ST- 10



FRAME 2,4 & 6

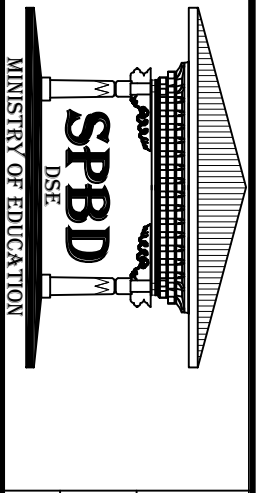
NOTES:
 Grade of Concrete- M20
 Grade of Steel- Fe415
 Clear cover for beams= 35mm
 Refer splicing details for splice location

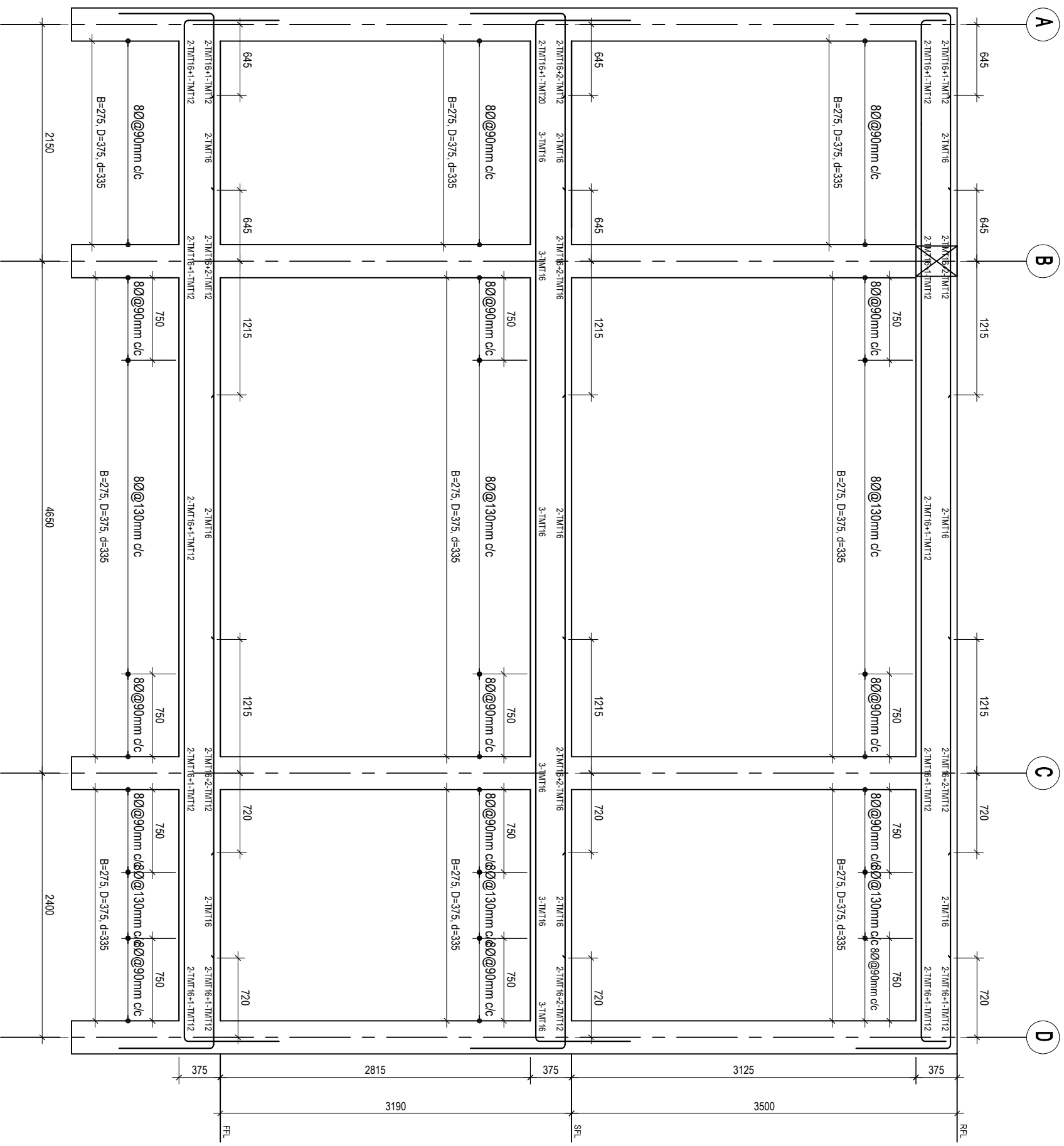
PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Sornam	CHIEF ENGINEER	Tshering Choden
DIRECTOR GENERAL DSE		ARCHITECT	Sonam Norbu
TITLE: FRAME 2, 4 & 6 BEAM DETAILS		SCALE	DATE
		NTS	23/11/2011
DRAWN BY			

NOTES:
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 -ALL DIMENSIONS MEASURE UNFINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
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REVISION	DATE

DRAWING NO:
6CL-ST- 11





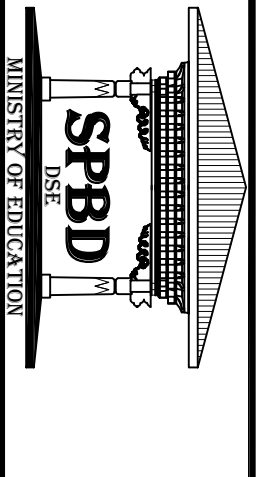
FRAME 3 & 5

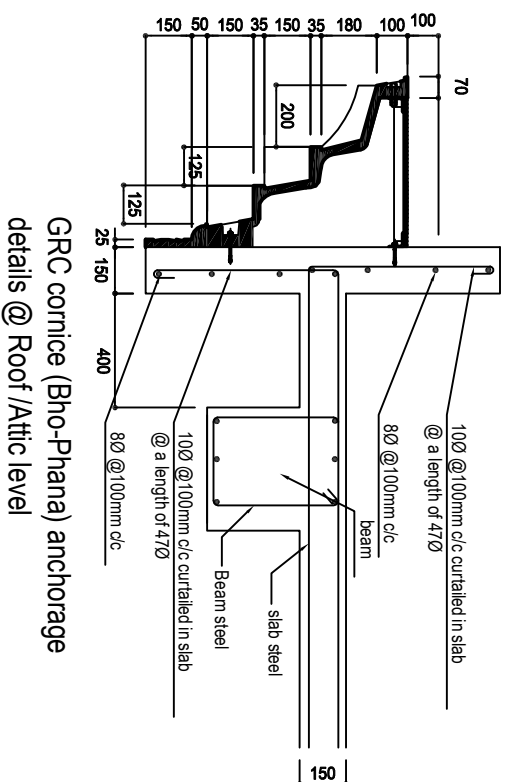
NOTES:
 Grade of Concrete- M20
 Grade of Steel- Fe415
 Clear cover for beams= 35mm
 Refer splicing details for splice location

PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Karma Sornam	TITLE: FRAME 3 & 5 BEAM DETAILS	
DIRECTOR GENERAL DSE	Chief Engineer Pema Chozom	ARCHITECT Tshering Choden	ENGINEER
	SCALE 1:75	DATE 5/9/2011	

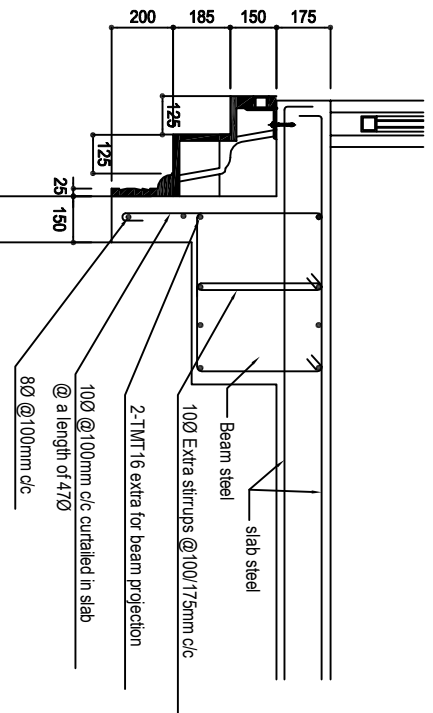
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REVISION	DATE	DRAWING NO: GCL-ST- 12

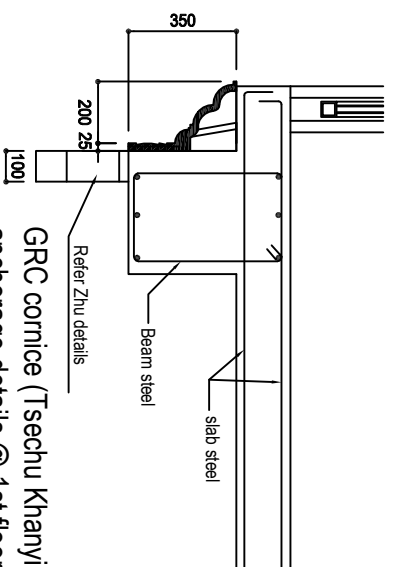




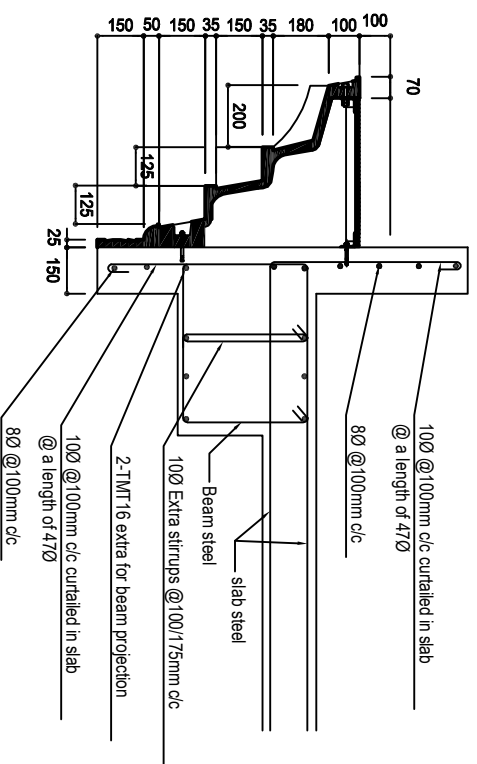
GRC cornice (Bho-Phana) anchorage details @ Roof /Attic level



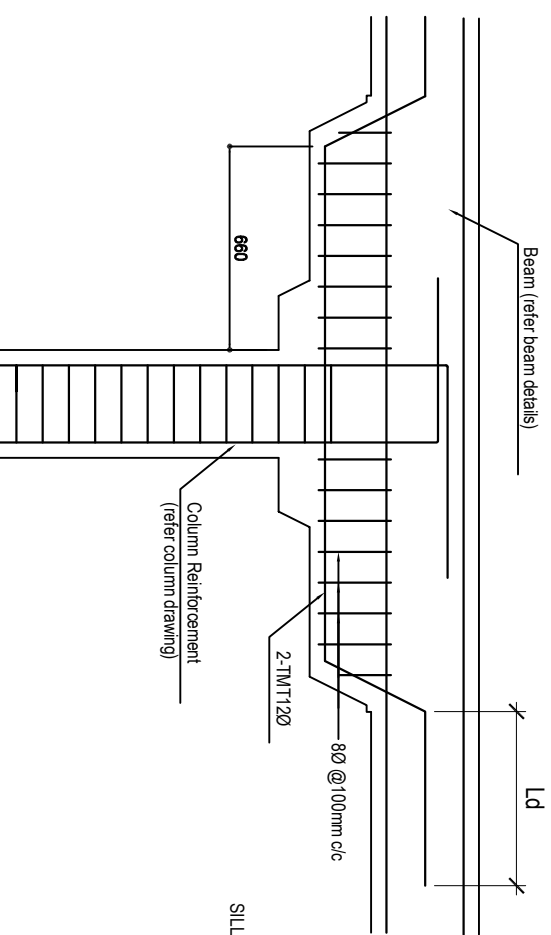
GRC cornice (double Bho) anchorage details @ 2nd floor level



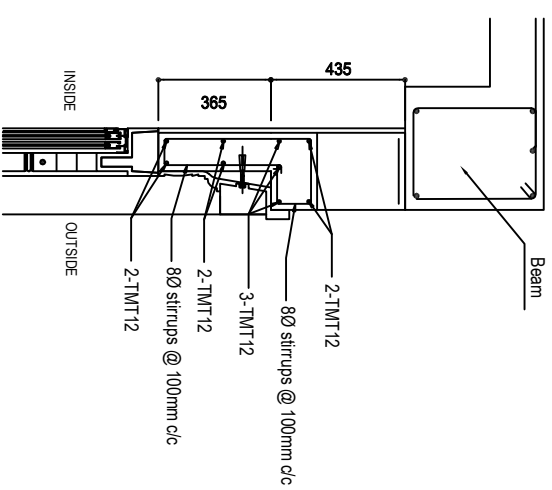
GRC cornice (Tsechu Khanyim) anchorage details @ 1st floor level



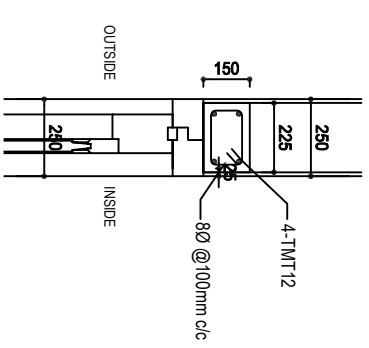
GRC cornice (Bho-Phana) anchorage details @ Roof /Attic level of two storey building



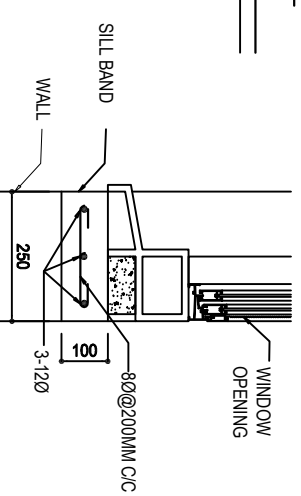
RCC Zhu details @ 1st floor level



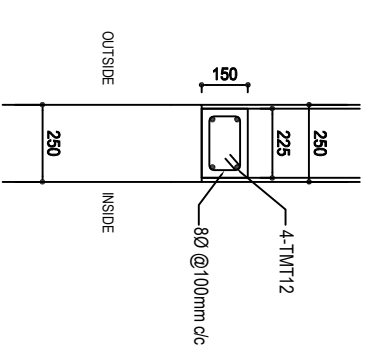
Lintel section over windows/doors



Lintel section over internal doors



Sill band



Lintel section over walls without openings

PROJECT

BUILDING: SIX CLASSROOM BLOCK

TITLE: LINTEL & GRC CONNECTION DETAILS

HON'BLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

Karma Sonam
CHIEF ENGINEER

Tshering Choden
ARCHITECT

Sonam Norbu
ENGINEER

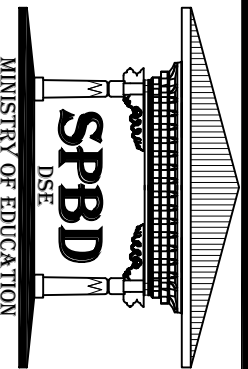
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REVISION

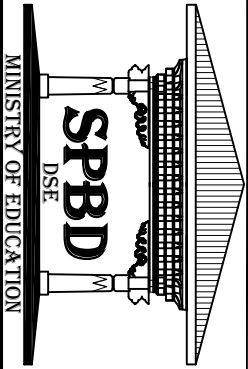
DATE

DRAWING NO:

6CL-ST- 13



MINISTRY OF EDUCATION



PROJECT

HON'BLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

BUILDING: SIX CLASSROOM BLOCK

TITLE: SLAB BOTTOM REINFORCEMENT LAYOUT

Karma Sornam
CHIEF ENGINEER

Tshering Choden
ARCHITECT

Sonam Norbu
ENGINEER

SCALE NTS

DATE 23/11/2011

NOTES:

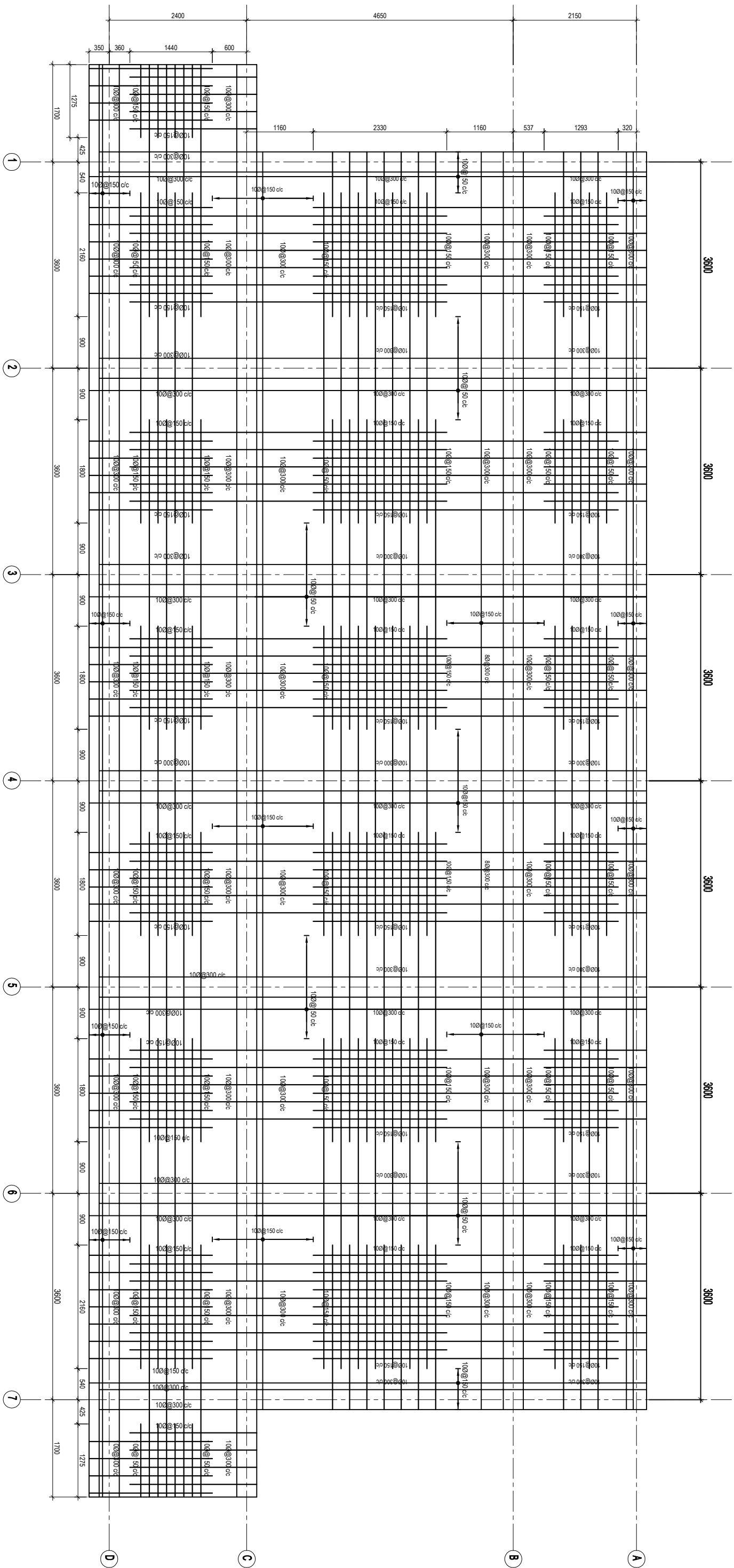
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REVISION	DATE

DRAWING NO:

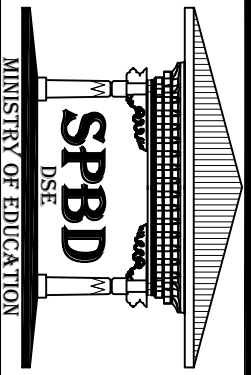
6CL-ST- 14

SLAB BOTTOM REINFORCEMENT LAYOUT PLAN



NOTES:-

- Laps to be staggered and not more than 50% at a section.
- Minimum clear concrete cover - 35mm
- Grade of concrete - M20
- Grade of steel - Fe415
- Overall slab thickness - 150mm



PROJECT
HON'BLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

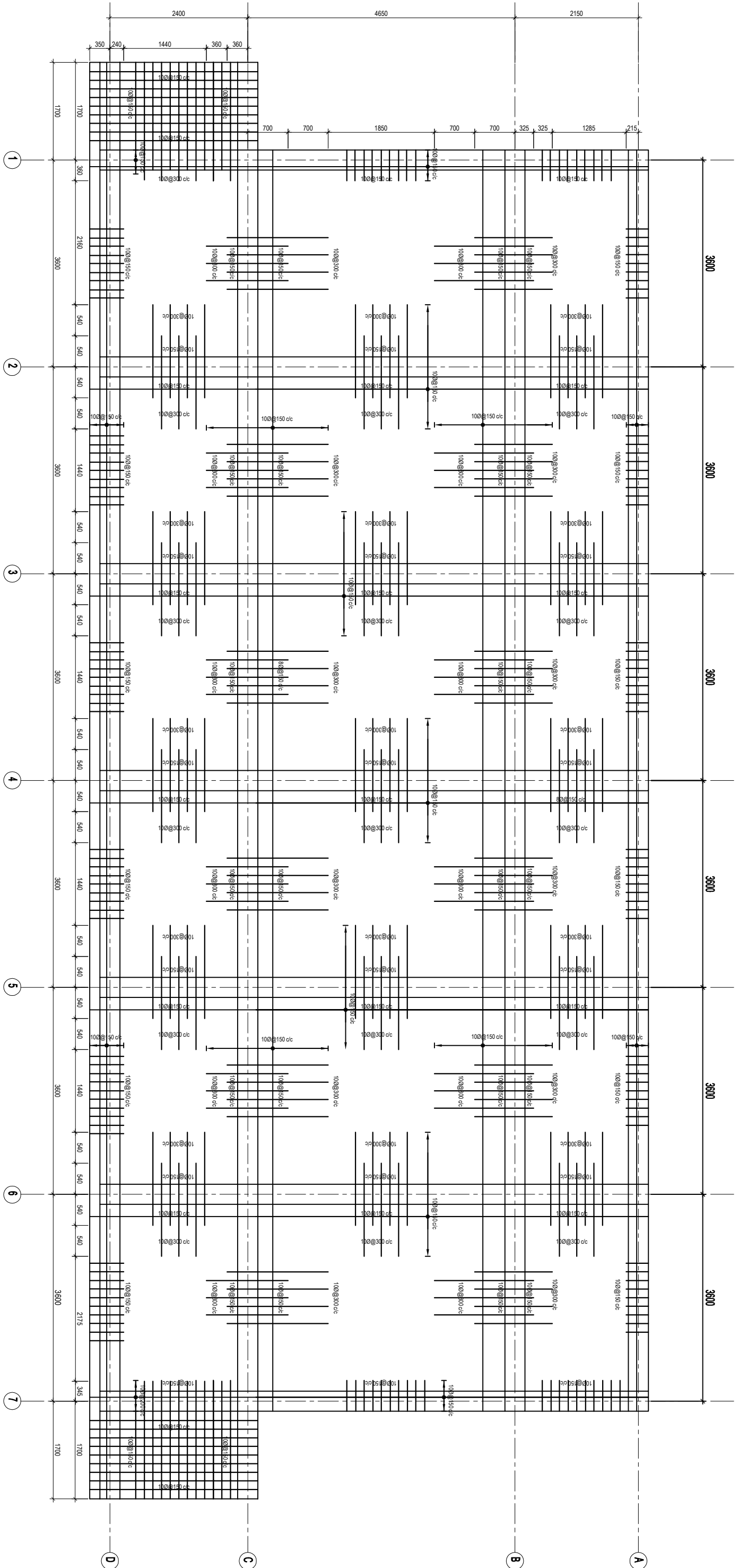
BUILDING: SIX CLASSROOM BLOCK
TITLE: SLAB TOP REINFORCEMENT LAYOUT PLAN
Karna Sornam
CHIEF ENGINEER
DRAWN BY
Tshering Choden
ARCHITECT
SCALE
NTS
DATE
23/11/2011
Sonam Norbu
ENGINEER

NOTES:
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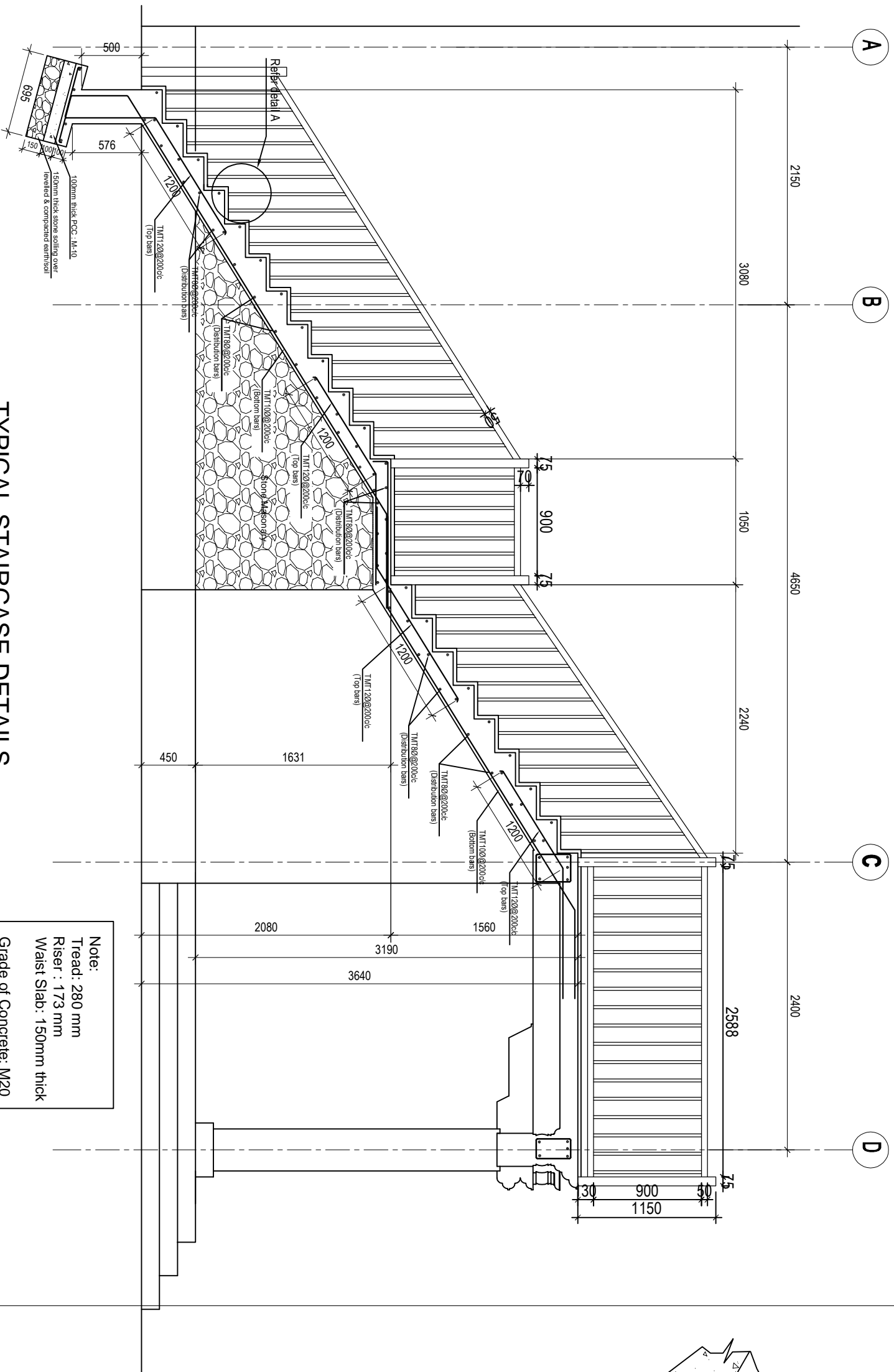
REVISION	DATE

DRAWING NO:
6CL-ST- 15

SLAB TOP REINFORCEMENT LAYOUT PLAN

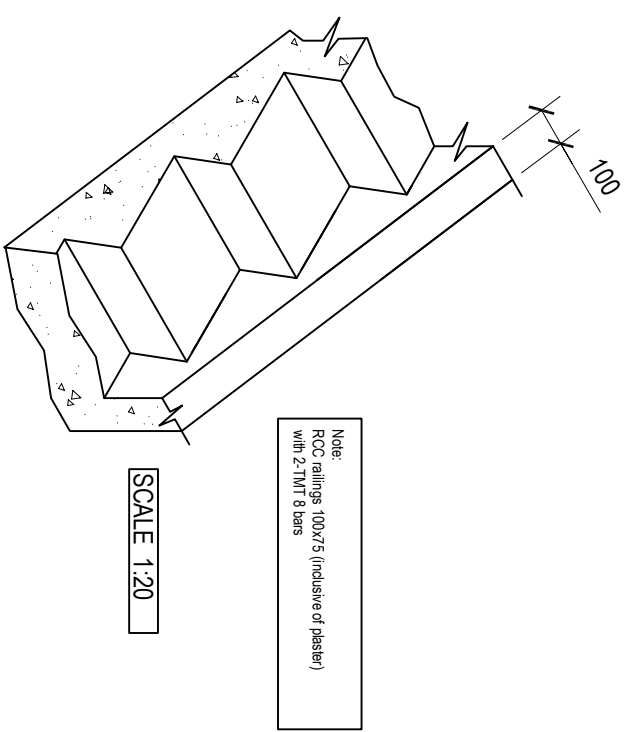


NOTES:-
Laps to be staggered and not more than 50% at a section.
Minimum clear concrete cover - 35mm
Grade of concrete - M20
Grade of steel - Fe415
Overall slab thickness - 150mm

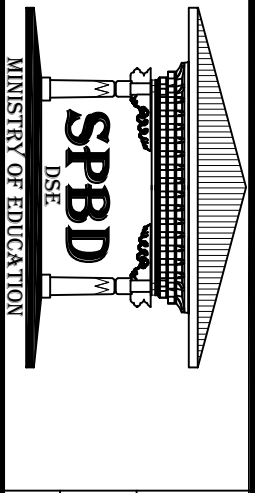
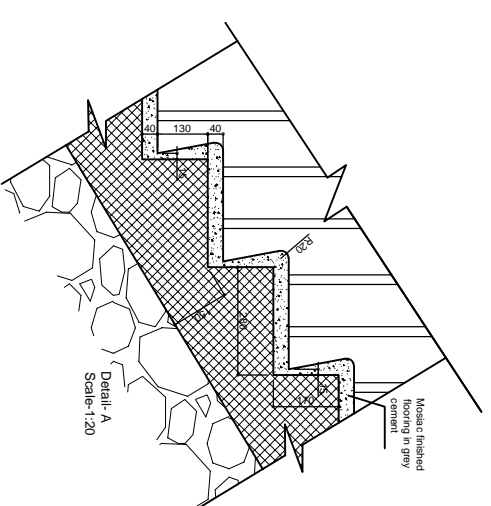


TYPICAL STAIRCASE DETAILS

Note:
 Tread: 280 mm
 Riser : 173 mm
 Waist Slab: 150mm thick
 Grade of Concrete: M20
 Grade of Steel: Fe 415



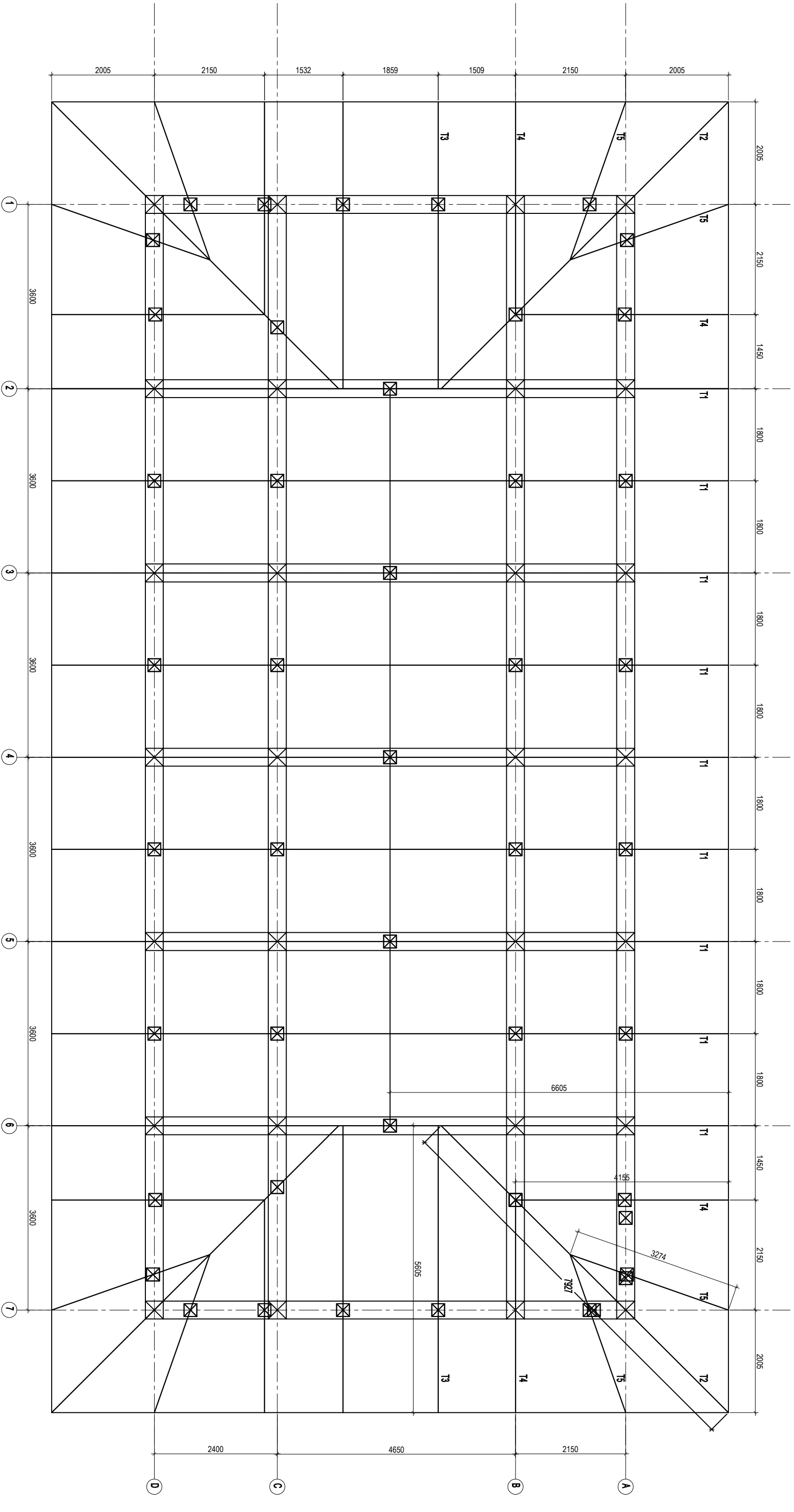
Detail @ A - Railing post reinforcement details



PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE DIRECTOR GENERAL DSE		TITLE: TYPICAL STAIRCASE DETAIL Karma Sonam CHIEF ENGINEER Tshering Choden ARCHITECT Sonam Norbu ENGINEER 23/11/2011 DATE	
DRAWN BY		SCALE	
DSE		NTS	

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REVISION	DATE	DRAWING NO: 6CL-ST-16



ROOF TRUSS LAYOUT PLAN

PROJECT

HON'BLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

BUILDING: SIX CLASSROOM BLOCK

TITLE: ROOF TRUSS LAYOUT PLAN
Karma Sonam
CHIEF ENGINEER
Tshering Choden
ARCHITECT
Sonam Norbu
ENGINEER
SCALE NTS
DATE 23/11/2011
DRAWN BY

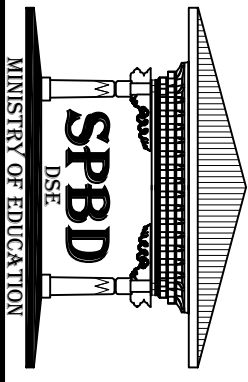
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REVISION

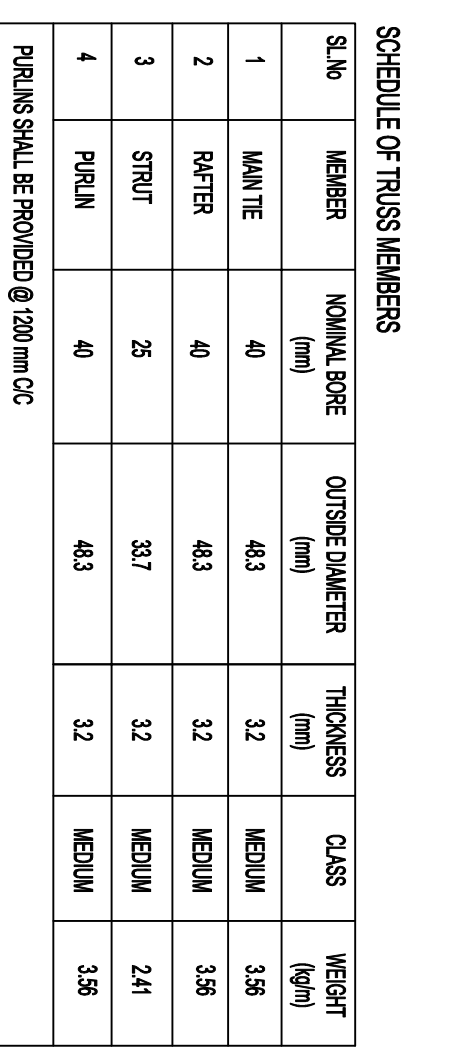
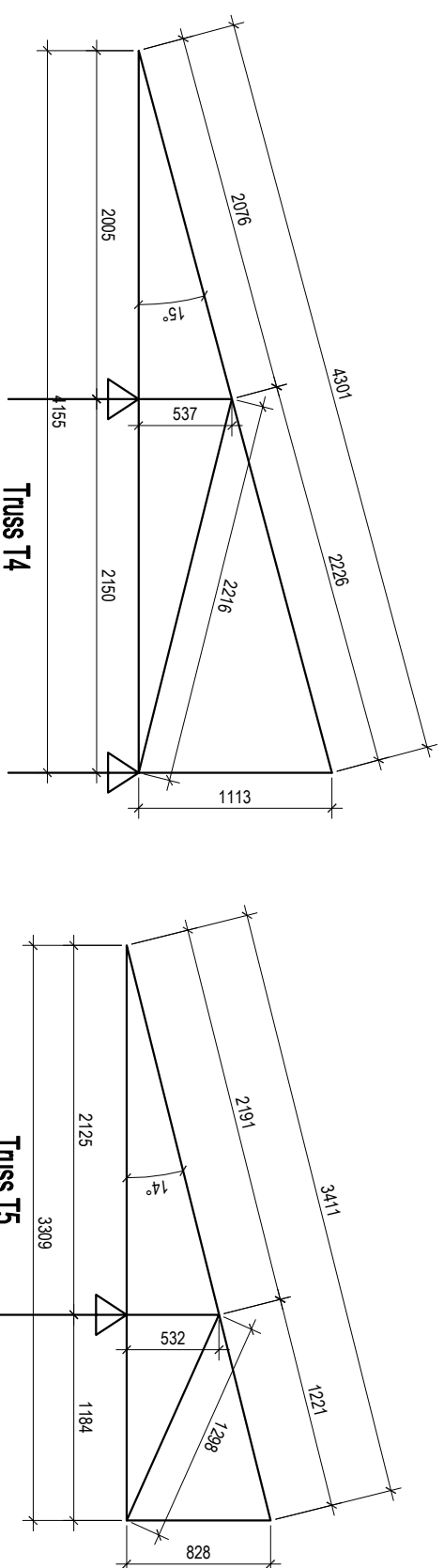
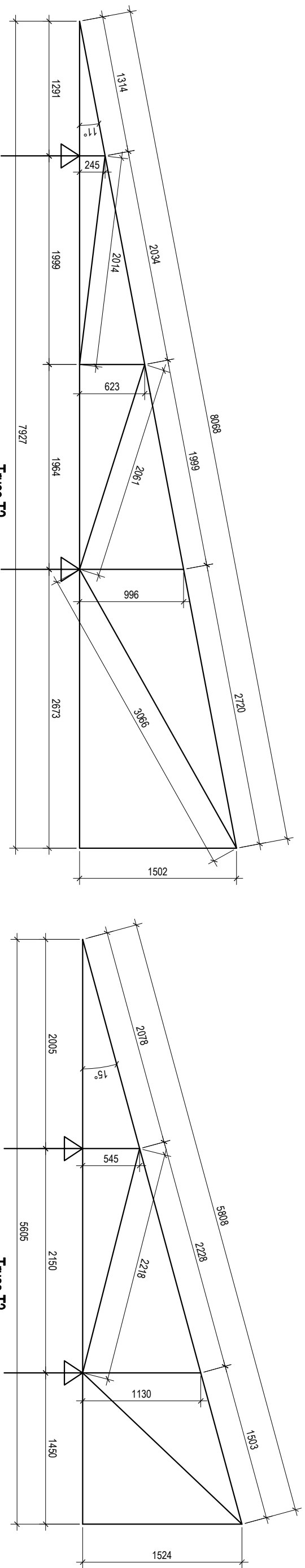
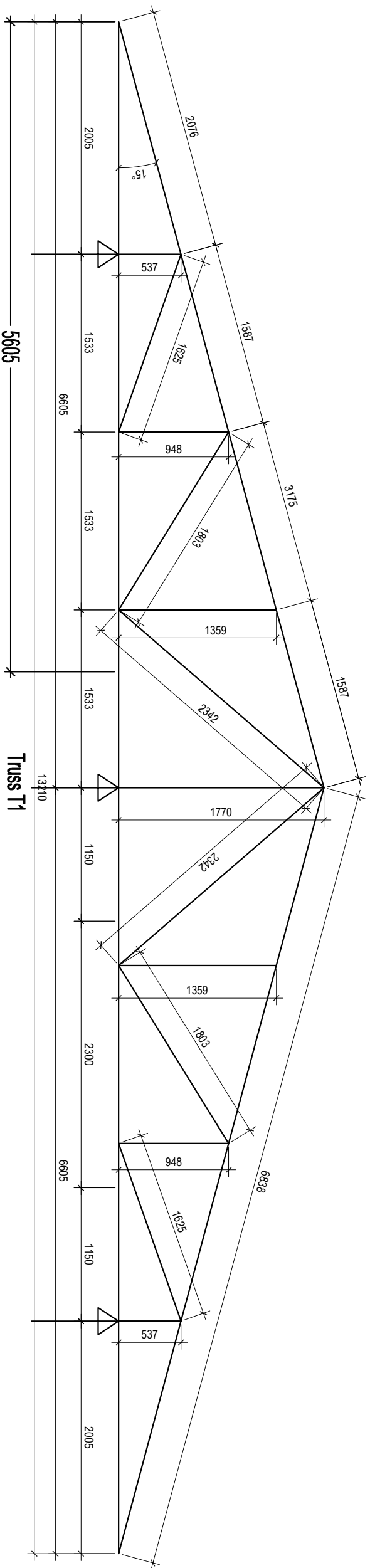
DATE

DRAWING NO:

6CL-ST-17



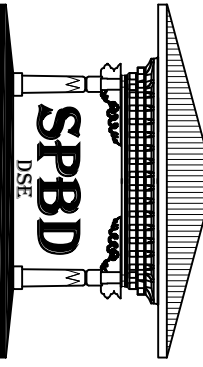
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SCHEDULE OF TRUSS MEMBERS

S/No	MEMBER	NOMINAL BORE (mm)	OUTSIDE DIAMETER (mm)	THICKNESS (mm)	CLASS	WEIGHT (kg/m)
1	MAIN TIE	40	48.3	3.2	MEDIUM	3.56
2	RAFTER	40	48.3	3.2	MEDIUM	3.56
3	STRUT	25	33.7	3.2	MEDIUM	2.41
4	PURLIN	40	48.3	3.2	MEDIUM	3.56

PURLINS SHALL BE PROVIDED @ 1200 mm C/C



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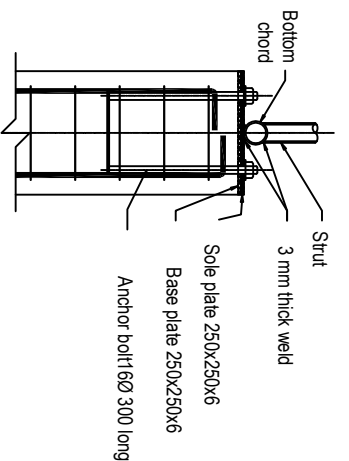
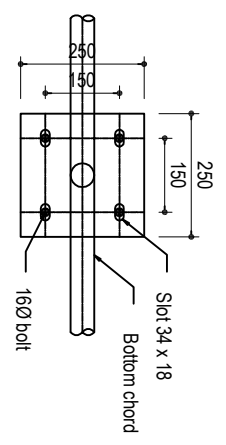
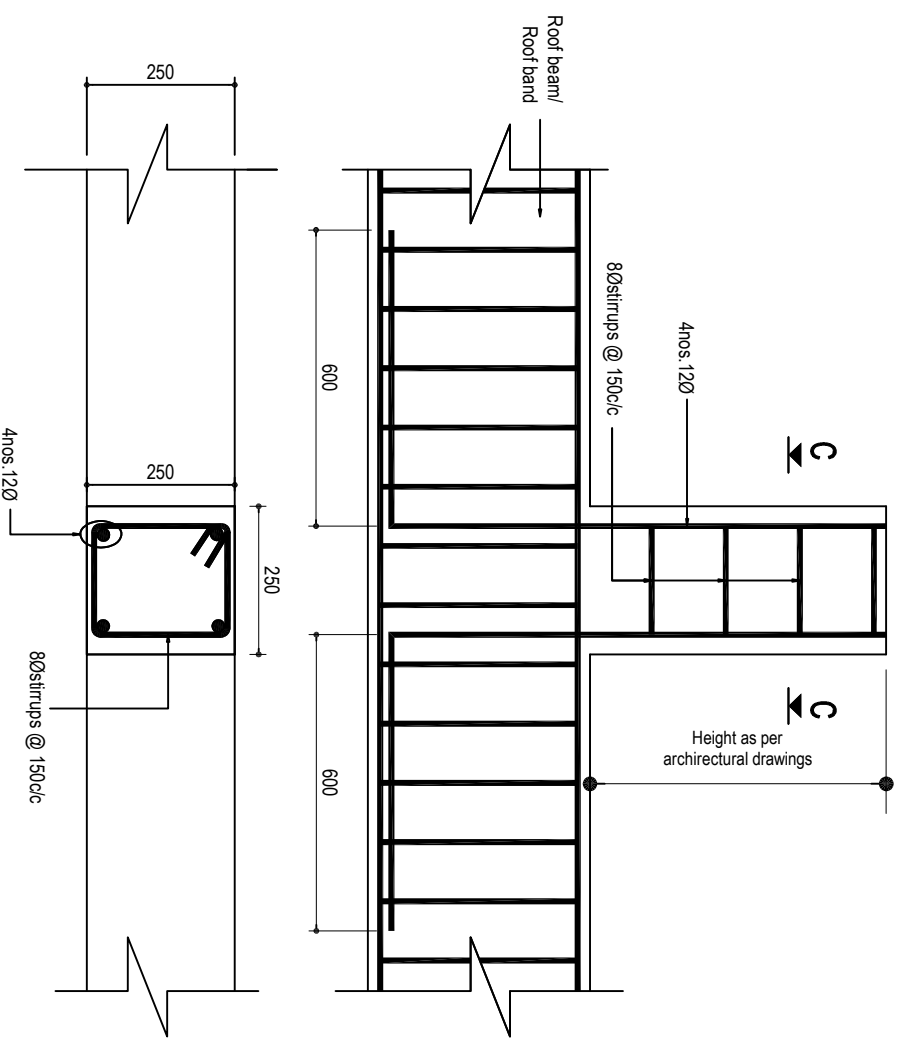
PROJECT		BUILDING: SIX CLASSROOM BLOCK	
HON'BLE SECRETARY MOE	Kartina Sonam CHIEF ENGINEER	TITLE: ROOF TRUSS ELEVATIONAL DETAILS	
DIRECTOR GENERAL DSE	Tshering Choden ARCHITECT	SCALE	DATE
		NTS	23/11/2011

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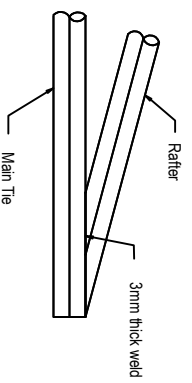
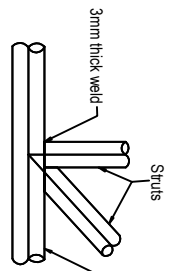
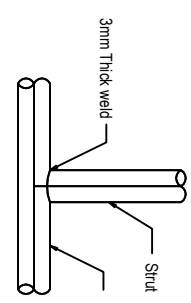
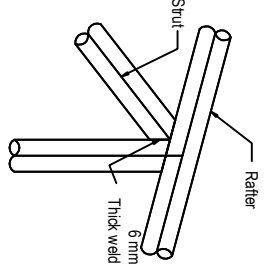
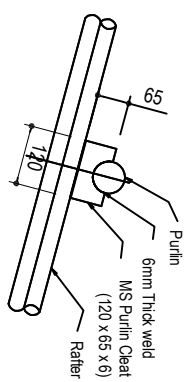
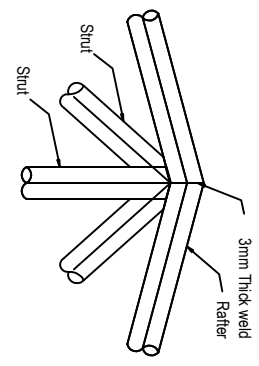
REVISION	DATE

DRAWING NO:
6CL-ST-18



NOTE:

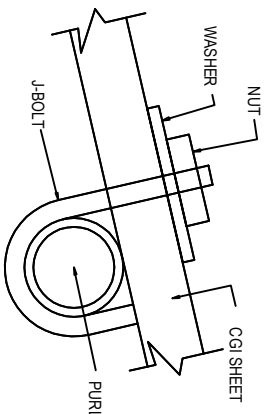
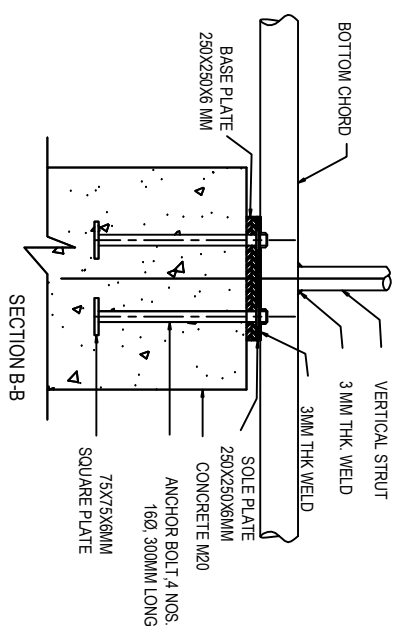
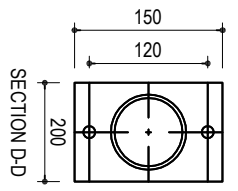
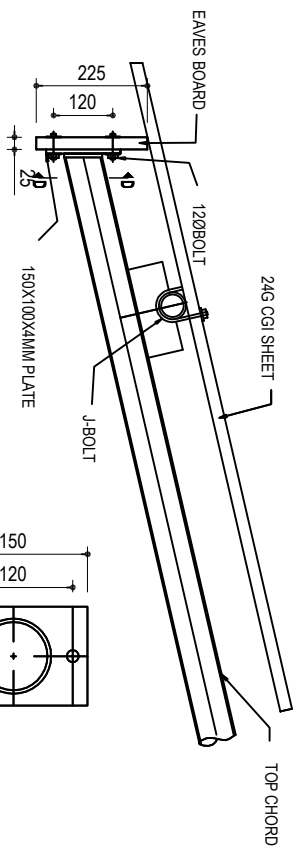
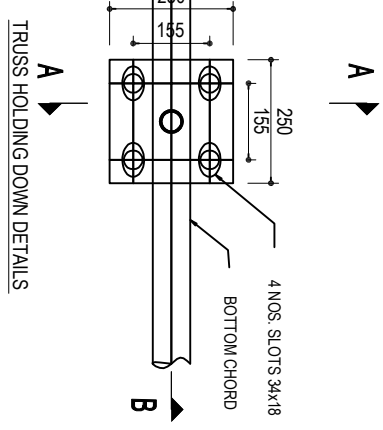
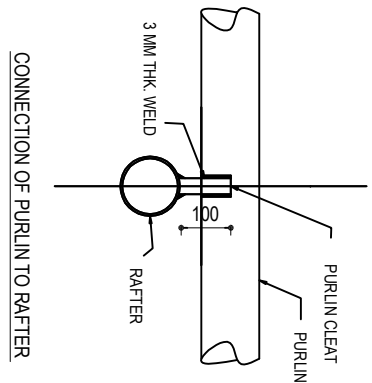
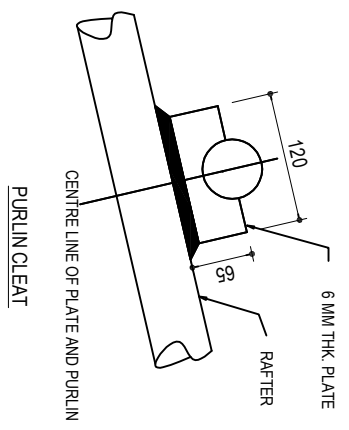
- All the trusses will be supported on the R.C props.
- All the R.C props (250 X 250) is framed into roof beam.
- Prop height is as per architectural drawing.
- The column extended above the roof beams as per architectural drawing will act as prop wherever the truss falls.



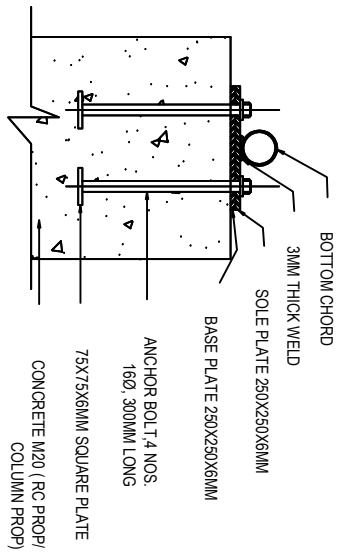
TRUSS MEMBER WELD CONNECTION DETAILS

RC PROP AND ROOF BEAM CONNECTION DETAIL

SECTION C-C

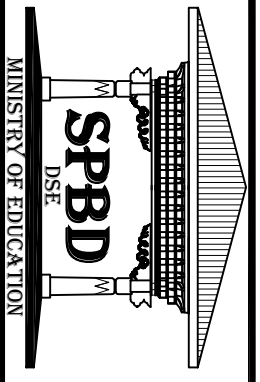


CONNECTION OF CGI SHEET TO PURLIN



NOTE:

- All dimensions are in mm unless stated otherwise.
- Connection details shown are for different types of joints and to be taken same for similar joints.
- Height of RC prop to be taken as per Architectural drawings.
- All members of truss joint shall be in welding.
- Fabrication of truss must be done at site.
- Welding shall conform to IS 816-1989 and thickness shall be 3mm.
- All Steel Tube Sections and Plates shall conform to IS 1161-1968 & IS 2062-1984.
- All MS Nuts & Bolts shall conform to IS 1363-1984 and Washers shall conform to IS 5374-1975.



PROJECT

HONBLE SECRETARY
MOE
DIRECTOR GENERAL
DSE

BUILDING: SIX CLASSROOM BLOCK

TITLE: ROOF TRUSS CONNECTION DETAILS

Karma Soram
CHIEF ENGINEER

Tshering Choden
ARCHITECT

Sonam Norbu
ENGINEER

SCALE NTS

DATE 23/11/2011

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REVISION

NO.	REVISION	DATE

DRAWING NO:

6CL-ST-19