



د افغانستان اسلامي جمهوریت
Islamic Republic of Afghanistan
د کورنیو چارو وزارت
Ministry of Interior



Law & Order Trust Fund for Afghanistan LOTFA

TENDER For PROCUREMENT OF WORKS

CONSTRUCTION OF CPD (CENTRAL PRISON DIRECTORATE) FACILITIES IN NANGARHAR PROVINCE

Ref. No: LOTFA/MOI/ITB/0006/2014

Ministry of Interior
Kabul, Afghanistan

Law and Order Trust Fund for Afghanistan (LOTFA)

Project Office

Ministry of Interior Compound

Kabul - Afghanistan

BIDDING DOCUMENTS FOR

PROCUREMENT OF WORKS

**CONSTRUCTION OF CPD (CENTRAL PRISON
DIRECTORATE) FACILITIES IN NANGARHAR PROVINCE**

INVITATION FOR Bid No.: LOTFA/MOI/ITB/0006/2014

ISSUED ON: 25TH AUGUST 2014

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SECTION 1 INSTRUCTIONS TO BIDDERS

A. GENERAL

1. Scope of Bid
 - 1.1 The Employer **as defined¹ in Section 2 Bidding Data Sheet (BDS)**, invites bids for the construction of Works, **as described in the BDS and Section 5 Special Conditions of Contract (SCC)**. The name and identification number of the Contract are **provided in the BDS and the SCC**.
 - 1.2 The successful Bidder shall be expected to complete the Works by the Intended Completion Date **specified in the BDS and SCC 1.1(r)**.
 - 1.3 Throughout this Bidding Documents:
 - (a) the term "IN WRITING" means communicated in written form (e.g. by email, fax, telex) with proof of receipt;
 - (b) if the context so requires, "SINGULAR" means "PLURAL" and vice versa; and
 - (c) "DAY" means calendar day.
2. Source of Funds
 - 2.1. The Procuring Entity, **as defined in the BDS**, intends to apply part of the funds of its budget, towards the cost of the Project, **as defined in the BDS**, to cover eligible payments under the Contract for the Works. The Employer guarantees that adequate public funds have been budgeted and allotted and are also available for managing the procurement proceedings toward the cost of the project **named in the BDS**. The Employer intends to apply a portion of the public funds to eligible payments under the contract for which these Bidding Documents are issued.
 - 2.2. The Employer guarantees that the adequate public funds are available. For the purpose of this provision, "PUBLIC FUNDS" defines any monetary resources appropriated to procuring entities under Government budget, or revenues generated by statutory bodies and corporations or aid grants and credits put at the disposal of procuring entities by the development partners through the Government.
3. Fraud and Corruption
 - 3.1. The Government requires that Employers, as well as Bidders, Suppliers and Contractors and their subcontractors observe the highest standard of ethics during the implementation and the execution of such Contracts². In pursuance of this policy, the Government:
 - (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "CORRUPT PRACTICE" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party³;
 - (ii) "FRAUDULENT PRACTICE" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to

¹ See also Section 4, General Conditions of Contract, Clause 1. Definitions.

² In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

³ "ANOTHER PARTY" refers to a public official acting in relation to the procurement process or contract execution. In this context, "PUBLIC OFFICIAL" includes Government staff and employees of other organizations taking or reviewing procurement decisions.

mislead, a party⁴ to obtain a financial or other benefit or to avoid an obligation;

- (iii) "COLLUSIVE PRACTICE" is an arrangement between two or more parties⁵ designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) "COERCIVE PRACTICE" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party⁶ or the property of the party to influence improperly the actions of a party;
- (v) "OBSTRUCTIVE PRACTICE" is
 - Deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Government 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
 - Acts intended to materially impede the exercise of the Government's inspection and audit rights provided for under sub-clause 3.1(e) 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 and prosecute any procurement official if it finds out that at any time that representative of the procuring entity engaged in corrupt, fraudulent, collusive, coercive or obstructive practices during the procurement or the execution of the contract, without the procuring entity having taken timely and appropriate action satisfactory to the Government to address such practices when they occur;
- (d) will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a Government financed contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a Government financed contract; and
- (e) will have the right to require that a provision be included in bidding documents and in contracts financed by public funds, requiring bidders, suppliers, and contractors and their sub-contractors to permit the Government 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 Government.

4. Eligible Bidders 4.1. A Bidder, and all parties constituting the Bidder, may have the nationality of any country as **specified in the BDS**. 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

⁴ A "PARTY" refers to a public official; the terms "BENEFIT" and "OBLIGATION" relate to the procurement process or contract execution; and the "ACT OR OMISSION" is intended to influence the procurement process contract execution.

⁵ "PARTIES" refers to participants in the procurement process (including officials) attempting to establish bid prices at artificial, non competitive levels.

⁶ A "PARTY" refers to a participant in the procurement process or contract execution.

of proposed subcontractors.

- 4.2. 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 they are affiliated, directly or indirectly, with the consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm, or any individual that has been engaged by the Procuring Entity to provide consulting services for the preparation or supervision of the Works, and any of its affiliates **SHALL NOT BE ELIGIBLE TO BID.**
- 4.3. A Bidder that is under a declaration of ineligibility by the GoA in accordance with ITB Clause 3, at the date of contract award, shall not be eligible to be awarded a contract. The list of such debarred firms is available at the electronic address **specified in the BDS.**
- 4.4. Government-owned enterprises may be eligible only if they can establish that they do not have conflict of interest.
- 4.5. Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.
5. Qualifications of the Bidder
 - 5.1. All bidders shall provide in Section 3 Bidding Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
 - 5.2. 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 prequalification applications or, alternatively, confirm in their bids that the originally submitted prequalification information remains essentially correct as of the date of bid submission. The update or confirmation should be provided in Section 3.
 - 5.3. If the Employer has not undertaken prequalification of potential bidders, all bidders shall include the following information and documents with their bids in Section 3, unless otherwise **stated in the BDS:**
 - (a) 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) total monetary value of construction works performed for each of the last five years;
 - (c) experience in works of a similar nature and size for each of the last five years, and details of work under way or contractually committed; and clients who may be contacted for further information on those contracts;
 - (d) major items of construction equipment proposed to carry out the Contract;
 - (e) qualifications and experience of key site management and technical personnel proposed for the Contract;
 - (f) reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years;

- (g) evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources);
 - (h) authority to seek references from the Bidder's bankers;
 - (i) information regarding any litigation, current or during the last five years, in which the Bidder was/is involved, the parties concerned, and the disputed amounts; and awards;
 - (j) proposals for subcontracting components of the Works amounting to more than ten (10) percent of the Contract Price. The ceiling for sub contractor's participation is **stated in the BDS**.
- 5.4. Bids submitted by a joint venture (JV) 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 5.3 above for each JV 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; and
 - (e) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge;
 - (f) a copy of the JV Agreement entered into by the partners shall be submitted with the bid; or a Letter of Intent to execute a JV 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.
- 5.5. To qualify for award of the Contract, bidders shall meet the following minimum qualifying criteria, unless otherwise **stated in the BDS**:
- (a) an average annual financial amount of construction work over the period **specified in the BDS** of at least the multiple **indicated in the BDS**;
 - (b) experience as prime contractor in the construction of at least the number of works of a nature and complexity equivalent to the Works over the period **specified in the BDS** (to comply with this requirement, works cited should be at least seventy (70) percent complete);
 - (c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment **listed in the BDS**;
 - (d) a Contract Manager with five years' experience in works of an equivalent nature and volume, including no less than three (3) years as Manager; and
 - (e) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than the amount **specified in the**

BDS⁷.

A consistent history of litigation or arbitration awards against the Applicant or any partner of a JV may result in disqualification.

- 5.6. The figures for each of the partners of a JV shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of ITB Sub-Clauses 5.5(a) and (e); however, for a JV to qualify, each of its partners must meet at least twenty-five (25) percent of minimum criteria of ITB Sub-Clauses 5.5(a), (b), and (e) for an individual Bidder, and the partner in charge at least forty (40) percent of those minimum criteria. Failure to comply with this requirement shall result in rejection of the JV's Bid. Subcontractors' experiences and resources shall not be taken into account in determining the Bidder's compliance with the qualifying criteria, unless otherwise **stated in the BDS**.
- 5.7. Domestic bidders and JV of domestic bidders applying for eligibility for a margin of preference in bid evaluation shall supply all information to satisfy the criteria for eligibility as described in ITB Clause 31.
6. One Bid per Bidder 6.1. Each Bidder shall submit only one Bid, either individually or as a partner in a JV. 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.
7. Cost of Bidding 7.1. 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.
8. Site Visit 8.1. 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

9. Contents of Bidding Documents 9.1. The set of Bidding Documents comprises the documents listed in the table below and addenda issued in accordance with ITB Clause 11:
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| Section 1 | Instructions to Bidders (ITB) |
| Section 2 | Bidding Data Sheet (BDS) |
| Section 3 | Bidding Forms |
| Section 4 | General Conditions of Contract (GCC) |
| Section 5 | Special Conditions of Contract (SCC) |
| Section 6 | Specifications |
| Section 7 | Drawings |
| Section 8 | Bill of Quantities |
| Section 9 | Contract and Securities Forms |

⁷ [Usually the equivalent of the estimated payments flow over 4-6 months at the average (straight line distribution) construction rate. The actual period of reference shall depend on the speed with which the Employer shall pay the Contractor's monthly certificates.]

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| 10. Clarification of Bidding Documents | <p>10.1. A prospective Bidder requiring any clarification of the Bidding Documents may notify the Employer in writing at the Employer's address indicated in the BDS. The Employer shall respond to any request for clarification received at least fourteen (14) working days⁸ 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.</p> <p>10.2. To clarify issues and to answer questions on any matter arising in the Bidding Documents, the Employer may, if stated in the BDS, invite prospective Bidders to attend a Pre-Bidding Meeting at the place, date and time as specified in the BDS. Bidders are encouraged to attend the meeting if it is held.</p> <p>10.3. The Bidder is requested to submit any questions in writing so as to reach the Employer not later than five (5) days prior to the date of the meeting.</p> <p>10.4. Minutes of the pre-Bidding meeting, including the text of the questions raised and the responses given, together with any responses prepared after the meeting, will be transmitted within seven (7) days to all those who purchased the Bidding Documents. Any modification to the Bidding Documents listed in ITB Sub-Clause 7.1 that may become necessary as a result of the pre-Bidding meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB Clause 11 and not through the minutes of the pre-Bidding meeting.</p> |
| 11. Amendment of Bidding Documents | <p>11.1. Before the deadline for submission of bids, the Employer may modify the Bidding Documents by issuing addenda.</p> <p>11.2. Any addendum thus issued shall be part of the Bidding Documents and shall be communicated in writing to all purchasers of the Bidding Documents⁹. Prospective bidders shall acknowledge receipt of each addendum in writing to the Employer.</p> <p>11.3. 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 21.2 below.</p> |

C. PREPARATION OF BIDS

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| 12. Language of Bid | 12.1. All documents relating to the Bid shall be in the language specified in the BDS . |
| 13. Documents Comprising the Bid | <p>13.1. The Bid submitted by the Bidder shall comprise the following:</p> <ul style="list-style-type: none"> (a) The Bid, in the format indicated in Section 3; (b) Bid Security, or Bid-Securing Declaration, in accordance with ITB Clause 17, if required; (c) priced Bill of Quantities; (d) Qualification Information Form and Documents; |

⁸ [It may be necessary to extend the deadline for submission of bids if the Employer's response results in substantial changes to the Bidding Documents. See ITB Clause 11 below.]

⁹ [It is therefore important that the Employer maintain a complete and accurate list of recipients of the Bidding Documents and their addresses.]

- (e) Alternative offers where invited;
- (f) and any other materials required to be completed and submitted by bidders, as **specified in the BDS**.

14. Bid Prices
- 14.1. The Contract shall be for the whole Works, as described in ITB Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
 - 14.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. 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.
 - 14.3. All duties, taxes, including BRT and ST, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date twenty eight (28) days prior to the deadline for submission of bids, shall be included in the rates, prices, and total Bid price submitted by the Bidder.
 - 14.4. The rates and prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract if **provided for in the BDS and SCC** and the provisions of **Clause 47 of the GCC**. The Bidder shall submit with the Bid all the information **required under the SCC and GCC Clause 47**.
15. Currencies of Bid and Payment
- 15.1. The unit rates and prices shall be quoted by the Bidder entirely in the currency of the Employer's country as **specified in the BDS**. Foreign currency requirements shall be indicated as percentages of the Bid price (excluding provisional sums¹⁰) and shall be payable at the option of the Bidder in up to three foreign currencies.
 - 15.2. The rates of exchange to be used by the Bidder in arriving at the local currency equivalent and the percentages mentioned in Sub-Clause 15.1 above shall be the selling rates for similar transactions established by the authority **specified in the BDS** prevailing on the date (twenty-eight) 28 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 29.1 shall apply; in any case, payments shall be computed using the rates quoted in the Bid.
 - 15.3. Bidders shall indicate details of their expected foreign currency requirements in the Bid.
 - 15.4. Bidders may be required by the Employer to clarify their foreign currency requirements and to substantiate that the amounts included in the rates and prices, **if required in the BDS**, are reasonable and responsive to ITB Sub-Clause 15.1.
16. Bid Validity
- 16.1. Bids shall remain valid for the period¹¹ **specified in the BDS**.
 - 16.2. 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. If a Bid Security is requested in accordance with ITB Clause 17, it shall be extended up to twenty-eight (28)

¹⁰ [Provisional sums are monetary sums specified by the Employer in the Bill of Quantities, to be used at his discretion for nominated subcontractors and other specified purposes.]

¹¹ [The period must be a realistic time, usually not less than 35 days nor more than 105, allowing for bid evaluation, clarifications.]

days after the deadline of the extended bid validity period. A Bidder may refuse the request without forfeiting the Bid Security or execution of its Bid Securing Declaration. A Bidder agreeing to the request shall not be required or permitted to modify its Bid, except as provided in ITB Clause 17.

- 16.3. 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 fifty-six (56) 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.

17. Bid Security
and Bid-
Securing
Declaration

- 17.1. **If required in the BDS**, the Bidder shall furnish as part of its Bid, a Bid Security or a Bid-Securing Declaration in original form as **specified in the BDS**.

- 17.2. The Bid Security shall be in the **amount specified in BDS** and denominated in the currency of the Employer's country or the currency of the Bid or in another freely convertible currency, as **specified in the BDS**, and shall:

- (a) at the bidder's option, be in the form of either a letter of credit, or a bank guarantee from a banking institution.
- (b) be issued by a reputable institution selected by the bidder and located in any country. If the institution issuing bid security is located outside the Employer's Country, it shall have a correspondent financial institution located in the Employer's Country to make it enforceable;
- (c) be substantially in accordance with one of the forms of Bid Security or Bid-Securing Declaration included in Section 9, Contract and 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 17.5 are invoked;
- (e) be submitted in its original form; copies shall not be accepted;
- (f) remain valid for a period of twenty-eight (28) days beyond the validity period of the bids, as extended, if applicable, in accordance with ITB Clause 16.2.

- 17.3. If a Bid Security or a Bid-Securing Declaration is required in accordance with ITB Sub-Clause 17.1, any bid not accompanied by a substantially responsive Bid Security or Bid-Securing Declaration in accordance with ITB Sub-Clause 17.1, shall be rejected by the Employer as non-responsive.

- 17.4. The Bid Security or the Bid-Securing Declaration of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security.

- 17.5. The Bid Security may be forfeited or the Bid-Securing Declaration executed:

- (a) if a Bidder modifies or withdraws its bid after the deadline for submission of bids during the period of bid validity specified by the Bidder on the Bid Submission Sheet, except as provided in ITB Sub-Clause 16.2; or
- (b) if the Bidder refuses to accept a correction of an arithmetical error appearing on the face of the Bid;
- (c) if the Bidder does not accept the correction of its Bid Price pursuant to

ITB Sub-Clause 28.2;

- (d) if the successful Bidder fails within the specified time to:
 - (i) sign the Contract; or
 - (ii) furnish the required performance security.
- (e) If the bidder provides bogus information about its eligibility

17.6. The Bid Security or Bid-Securing Declaration of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security or Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent.

17.7. If a Bid Security is **not required in the BDS**, and:

- (a) if a Bidder modifies or withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid Form, except as provided in ITB 16.2; or
- (b) if the successful Bidder fails to (i) sign the Contract in accordance with ITB 34; or (ii) furnish a performance security in accordance with ITB 35; or does any other act as provided under clause 16.5 of ITB

the Employer may, **if provided for in the BDS**, declare the Bidder disqualified to be awarded a contract by the Employer for a period of time **as stated in the BDS**.

18. Alternative Proposals by Bidders

18.1. Alternatives shall not be considered, unless specifically **allowed in the BDS**. If so allowed, ITB Sub-Clauses 18.1 and 18.2 shall govern, and **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 6, shall be evaluated on their own merits.

18.2. 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, alternative advance payment and time for completion within a reasonable pre-disclosed range and other relevant details.

19. Format and Signing of Bid

19.1. The Bidder shall prepare one original of the documents comprising the Bid as described in ITB Clause 13, bound with the volume containing the Bidding Forms, 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 discrepancy between them, the original shall prevail.

19.2. 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 5.3 (a). All pages of the Bid where entries or amendments have been made shall be initialed by the person or persons signing the Bid.

- 19.3. 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.
- 19.4. The Bidder shall furnish information as described in the Bidding Forms, 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

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| 20. Submission, Sealing and Marking of Bids | <p>20.1. Bidders may always submit their bids by mail or by hand. When 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 in two inner envelopes and one outer envelope, duly marking the inner envelopes as "ORIGINAL" and "COPIES."</p> <p>20.2. The inner and outer envelopes shall:</p> <ul style="list-style-type: none"> (a) be addressed to the Employer at the address provided in the BDS; (b) bear the name and identification number of the Contract as defined in the BDS and SCC; and (c) provide a warning not to open before the specified time and date for Bid opening as defined in the BDS. <p>20.3. In addition to the identification required in ITB Sub-Clause 20.2, 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 22.</p> <p>20.4. 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.</p> |
| 21. Deadline for Submission of Bids | <p>21.1. Bids shall be delivered to the Employer at the address specified above no later than the time and date specified in the BDS.</p> <p>21.2. The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with ITB Clause 11, 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.</p> |
| 22. Late Bids | <p>22.1. Any Bid received by the Employer after the deadline prescribed in ITB Clause 21 shall be returned unopened to the Bidder.</p> |
| 23. Withdrawal, Substitution and Modification of Bids | <p>23.1. Bidders may withdraw, substitute or modify their Bids by giving notice in writing before the deadline prescribed in ITB Clause 21.</p> <p>23.2. Each Bidder's withdrawal, substitution or modification notice shall be prepared, sealed, marked, and delivered in accordance with ITB Clauses 19 and 20, with the outer and inner envelopes additionally marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION" as appropriate.</p> <p>23.3. No Bid may be substituted or modified after the deadline for submission of Bids.</p> |

- 23.4. 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 16.2 may result in the forfeiture of the Bid Security or execution of the Bid-Securing Declaration pursuant to ITB Clause 17.
- 23.5. 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.

E. BID OPENING AND EVALUATION

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| 24. Bid Opening | <p>24.1. The Employer shall open the bids, including modifications made pursuant to Clause 23, 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.</p> <p>24.2. 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 23 shall not be opened.</p> <p>24.3. 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 or Bid-Securing Declaration, if required, and such other details as the Employer may consider appropriate, shall be announced by the Employer at the opening. No bid shall be rejected at bid opening except for the late bids pursuant to ITB Clause 22. Substitution Bids and modifications submitted pursuant to ITB Clause 23 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</p> <p>24.4. The Employer shall prepare Minutes of the Bid Opening, including the information disclosed, to those present, in accordance with ITB Sub-Clause 24.3.</p> |
| 25. Confidentiality | <p>25.1. 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 34.4. Any effort by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of its 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.</p> |
| 26. Clarification of Bids | <p>26.1. To assist in the examination, evaluation, and comparison of Bids, the Employer may, at the Employer's discretion, ask any Bidder for clarification of the Bidder's Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing, 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 28.</p> |
| 27. Examination of | <p>27.1. Prior to the detailed evaluation of Bids, the Employer shall determine whether</p> |

Bids and Determination of Responsiveness	each Bid (a) meets the eligibility criteria defined in ITB Clause 4; (b) has been properly signed; (c) is accompanied by the Security or the Bid-Securing Declaration, if required; and (d) is substantially responsive to the requirements of the Bidding Documents. 27.2. 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. 27.3. If a Bid is not substantially responsive, it shall be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation. 27.4. No negotiation shall be held with the lowest or any other Bidder. 27.5. A bidder shall not be required, as a condition for award, to undertake responsibilities not stipulated in the Bidding Documents, to have to change its price or otherwise modify its Bid.
28. Correction of Errors	28.1. Bids determined to be substantially responsive shall be checked by the Employer for any arithmetic errors. Errors shall be corrected by the Employer as follows: (a) where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern; and (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted shall govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted shall govern, and the unit rate shall be corrected. 28.2. The amount stated in the Bid shall be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid shall be rejected, and the Bid Security may be forfeited or the Bid-Securing Declaration executed in accordance with ITB Sub-Clause 17.5 (b).
29. Currency for Bid Evaluation	29.1. Bids shall be evaluated as quoted in the currency of the Employer's Country in accordance with ITB Sub-Clause 15.1, unless a Bidder has used different exchange rates than those prescribed in ITB Sub-Clause 15.2, 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 the Employer's currency using the exchange rates prescribed in ITB Sub-Clause 15.2.
30. Evaluation and Comparison of Bids	30.1. The Employer shall evaluate and compare only the bids determined to be substantially responsive in accordance with ITB Clause 27. 30.2. 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 28;
- (b) excluding provisional sums and the provision, if any, for contingencies in the Bill of Quantities, but including Daywork¹², where priced competitively;
- (c) making an appropriate adjustment for any other acceptable variations, deviations, alternative advance payment and time for completion within a reasonable pre-disclosed range, or alternative offers submitted in accordance with ITB Clause 18; and
- (d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with ITB Sub-Clause 23.5.

30.3. 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.

30.4. 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.

30.5. In the case of several lots, pursuant to ITB Sub-Clause 30.2 (d), the Employer shall apply the bidder's discounts so as to minimize the combined cost of all the lots

31. Preference for Domestic Bidders

31.1. If so **indicated in the BDS**, domestic contractors may receive a margin of preference in Bid Evaluation, for which this clause shall apply.

31.2. Domestic bidders shall provide all evidence necessary to prove that they meet the following criteria to be eligible for a margin of preference as **specified in the BDS**, in the comparison of their bids with those of bidders who do not qualify for the preference. They should:

- (a) be registered within the country of the Employer's country;
- (b) have majority ownership by nationals of the country of the Employer's country;
- (c) not subcontract more than ten (10) percent of the Contract Price, excluding provisional sums, to foreign contractors.

31.3. The following procedure shall be used to apply the margin of preference:

- (a) Responsive bids shall be classified into the following groups:
 - (i) Group A: bids offered by domestic bidders and JV meeting the criteria of ITB Sub-Clause 31.2; and
 - (ii) Group B: all other bids.
- (b) For the purpose of further evaluation and comparison of bids only, a percentage as **specified in the BDS** of the evaluated Bid prices determined in accordance with ITB Sub-Clause 30.2 shall be added to all bids classified in Group B.

¹² [Daywork is work carried out following instructions of the Project Manager and paid for on the basis of time spent by workers, and the use of materials and the Contractor's equipment, at the rates quoted in the Bid. For Daywork to be priced competitively for Bid evaluation purposes, the Employer must list tentative quantities for individual items to be costed against Daywork (e.g., a specific number of tractor driver staff-days, or a specific tonnage of Portland cement), to be multiplied by the bidders' quoted rates and included in the total Bid price.]

F. AWARD OF CONTRACT

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| 32. Award Criteria | 32.1. Subject to ITB Clause 33, 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 offered the lowest evaluated Bid price, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of ITB Clause 4, and (b) qualified in accordance with the provisions of ITB Clause 5. |
| 33. Employer's Right to Accept any Bid and to Reject any or all Bids | 33.1. Notwithstanding ITB Clause 32, 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 acceptance of Bid, without thereby incurring any liability to the affected Bidder or bidders provided that the reason for rejecting all Bids or cancelling the procurement proceedings are promptly communicated officially to the bidders ¹³ . |
| 34. Notification of Award and Signing of Agreement | <p>34.1. The Bidder whose Bid has been accepted shall be notified of the award by the Employer prior to expiration of the Bid validity period in writing. This letter, hereinafter and in the GCC 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".</p> <p>34.2. The Letter of Acceptance shall constitute the formation of the Contract, subject to the Bidder furnishing the Performance Security in accordance with ITB Clause 35 and signing the Agreement in accordance with ITB Sub-Clause 34.3.</p> <p>34.3. The Agreement shall incorporate all agreements between the Employer and the successful Bidder. It shall be signed by the Employer and sent to the successful Bidder, within twenty-eight (28) days following the Letter of Acceptance's date. Within twenty-one (21) days of receipt, the successful Bidder shall sign the Agreement and deliver it to the Employer.</p> <p>34.4. The Employer shall simultaneously publish in PPU and the Procurement Entity Websites, the results identifying the Bid and lot numbers and the following information:</p> <ul style="list-style-type: none"> (a) The name of each bidder who submitted a bid; (b) bid prices as read out at bid opening; (c) the name and evaluated prices of each bid that was evaluated; (d) the name of the bidders whose bids were rejected and the reasons for their rejection; and (e) the name of the winning bidder, together with the price it offered, as well as the duration and summary scope of the contract awarded. <p>34.5. After publication of the award, unsuccessful bidders may request in writing to the Employer for a debriefing seeking explanations for the failure of their bids. The Employer shall promptly respond in writing to any unsuccessful Bidder who, after publication of contract award requests the Employer in writing to explain on which grounds its bid was not selected.</p> |
| 35. Performance | 35.1. Within twenty-one (21) days after receipt of the Letter of Acceptance, the |

¹³ The Procuring Entity shall refer to PPL art. 7.

Security	successful Bidder shall sign the contract and deliver to the Employer a Performance Security in the amount stipulated in the GCC and in the Form (Bank Guarantee) stipulated in the BDS, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the GCC.
	35.2. 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 bank located in the country of the Employer, or by a foreign bank acceptable to the Employer through a correspondent bank located in the Employer's country.
	35.3. Failure of the successful Bidder to comply with the requirements of ITB Sub-Clauses 35.1 and 34.3 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security or execution of the Bid-Securing Declaration. Upon the successful Bidder's, signing of the Agreement and furnishing of the Performance Security pursuant to ITB Clause 35.1, the Employer shall promptly notify the name of the winning bidder to each unsuccessful bidder and shall discharge the Bid Securities of the unsuccessful bidders pursuant to ITB Clause 17.4.
36. Advance Payment and Security	36.1. 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. Section 9 Contract and Security Forms provides a Bank Guarantee for Advance Payment Form.
37. Adjudicator	37.1. The Employer proposes the person named in the BDS to be appointed as Adjudicator under the Contract, at an hourly fee specified in the BDS, plus reimbursable expenses. 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 appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the BDS and the SCC at the request of either party.
38. Bidder's Right to Complain	38.1. Any Bidder has the right to complain if it has suffered or may suffer loss or damage due to a breach of a duty imposed on the Employer by the Public Procurement Law and Circulars.
	38.2. The complaint shall firstly be processed through an administrative review following the procedures set out in the PPL and the Rules of Procedure for Public Procurement. The place and address for the first stage in the submission of complaints to the Administrative Authority is provided in the BDS.

SECTION 2 BIDDING DATA SHEET

ITB Clause	Amendments of, and Supplements to, Clauses in the Instructions to Bidders
A. GENERAL	
ITB 1.1	The Employer is: Law and Order trust Fund for Afghanistan (LOTFA) Project under the Ministry of Interior (MOI) of the Islamic Republic of Afghanistan represented by the Deputy Minister. The Works are: Construction of CPD (Central Prison Directorate) Facilities in Nangarhar Province – boundary wall, guard towers, guard house and check points The Name and Identification of the Contract are: MOI/LOTFA/ITB/0006/2014 Construction of CPD Facilities in Nangarhar Province
ITB 1.2	The Intended Completion Date is: Eighteen (18) Months from the Start Date.
ITB 2.1	The name of the Employer has been given in ITB 1.1 above in this BDS. The Project is: Construction of CPD Facilities in Nangarhar Province
ITB 4.1	Bidders from the following countries are not eligible: None
ITB 4.3	The list of firms debarred from participating in Government projects is available at: A list of firms debarred from participating in Government Procurement is available at: http://www.ppu.gov.af/English/More/LDS.aspx In addition, the bidder shall be debarred from participating in the procurement if it is included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers or if it is in UNDP's list of suspended and removed vendors.
ITB 5.3	The information required from Bidders in ITB Sub-Clause 5.3 is modified as follows: None.
ITB 5.3(j)	The ceiling for Sub-Contractor's participation is: Not Applicable.
ITB 5.4	The qualification data required from Bidders in ITB Sub-Clause 5.4 are modified as follows: None.
ITB 5.5	The qualification criteria in ITB Sub-Clause 5.5 are modified as follows: None.
ITB 5.5(a)	Replace the clause 5.5(a) to read as follows: The average minimum required annual volume of construction work for the successful bidder in last five years shall be USD Seven hundred thousand (USD 700,000) or equivalent.
ITB 5.5(b)	The number is: two (2) The period is: five (5) years
ITB 5.5(c)	The essential equipment to be made available for the contract by the successful Bidder shall be: Not Applicable. The bidder should submit the proposal for timely acquisition (own, lease, hire, etc.) of the essential equipment as

	required under ITB 5.3(d).
ITB 5.5(e)	The minimum amount of liquid assets and/ or credit facilities net of other contractual commitments of the successful Bidder shall be USD Seventy thousand (USD 70,000) or equivalent.
ITB 5.6	Subcontractor's experience and resources Shall Not be taken into account.
ITB 8	The Pre-Bidding meeting shall be held at: Address: LOTFA Project Office, Ministry of Interior, Kabul, Afghanistan. Date and Time: 8th September 2014 at 1000 hrs Bidders may at their option undertake site visit after the pre-bid meeting.
B. BIDDING DOCUMENTS	
ITB 10.1	For clarification of Bids purposes only , the Employer's address is: Attention: Mr. Mohammad Ashraf "Baaser", Procurement Associate Address: LOTFA Project Office, Ministry of Interior, Kabul, Afghanistan. Contact details: mohammad.ashraf.baaser@undp.org ; +93 (0) 797 000 045
C. PREPARATION OF BIDS	
ITB 12.1	The language of the Bid is: English
ITB 13(f)	Any additional materials required to be completed and submitted by the bidders are: None.
ITB 14.4	The Contract is not subject to price adjustment in accordance with GCC Clause 47.
ITB 15.1	The currency of the Employer's country is: Afghanis (AFN).
ITB 15.2	The authority for establishing the rates of exchange shall be: UN Official Exchange Rate.
ITB 15.4	Bidders Are required to substantiate the rates and prices.
ITB 16.1	The Bid shall be valid for: Ninety (90) days.
ITB 17.1	A Bid Security is required. Bid shall include a Bid Security issued by a bank using the Bid Security Form included in Section 9 Contract and Security Forms. Note: - The bid security shall be submitted in original. Photo copies / Scanned copies will not be accepted. The bid security remain valid for a period of twenty-eight (28) days beyond the validity period of the Bids, i.e., 118 days from bid submission deadline date, i.e., up to 23rd January 2015 or extended bid submission deadline date, if extended, in accordance with ITB Clause 21.2
ITB 17.2	The Bid Security amount is: AFN Four hundred thousand (AFN 400,000)
	The Bid Security currency is Afghani (AFN).

ITB 17.7	Not Applicable.
ITB 18.1	Alternative Bids shall not be considered.
ITB 19.1	The number of Copies of the Bid to be completed and returned shall be: One (1) original and Two (2) copies
D. SUBMISSION OF BIDS	
ITB 20.1	Bidders may not submit their bids electronically.
ITB 20.2(a)	The Employer's address for the purpose of Bid submission is: Attention: LOTFA Procurement Office Address: LOTFA Project Office, Ministry of Interior, Kabul, Afghanistan.
ITB 20.2(b)	The Name and Identification number of the Contract has been given in ITB 1.1 above in this BDS.
ITB 20.2(c)	The warning should be " Do NOT OPEN BEFORE 27th September 2014, 1400 hrs "
ITB 21.1	The deadline for submission of Bids shall be: 27th September 2014, 1400 hrs In case the specified deadline for bid submission is declared a holiday by the Government, the bids shall be submitted at the specified time on the next working day.
ITB 23.4	Bid validity has been given in ITB 16.1 above in this BDS.
E. BID OPENING AND EVALUATION	
ITB 24.1	The Bid opening shall take place at: Address: LOTFA Project Office, Ministry of Interior, Kabul, Afghanistan. Date: 27th September 2014 Time: 1400 hrs The bids shall be opened immediately after the bid submission deadline date and time. In case the specified date of bid opening is declared a holiday by the Government, the bids shall be opened at the specified time on the next working day.
ITB 31.1	Not Applicable.
ITB 31.2	Not Applicable.
ITB 31.3(b)	Not Applicable.
F. AWARD OF CONTRACT	
ITB 35.1	The Standard Form of Performance Security acceptable to the Employer shall be a Bank guarantee.
ITB 36.1	Advance Payment: Not Applicable.

ITB 37.1	Deleted. In the case of a dispute between the Employer and the contractor, the dispute shall be referred to arbitration in accordance with the laws of the Islamic Republic of Afghanistan.
ITB 38.2	The Administrative Authority place and address to submit complaints is: Attention: LOTFA Procurement Unit Address: LOTFA Project Office, Ministry of Interior, Kabul, Afghanistan Email Address: mohammad.ashraf.baaser@undp.org

SECTION 3 FORMS

Form	Title
BID FORMS	
SBD/SW/01	CONTRACTOR'S BID FORM
SBD/SW/02	BIDDER QUALIFICATION INFORMATION FORM
SBD/SW/03	LETTER OF ACCEPTANCE TEMPLATE
SBD/SW/04	AGREEMENT FORM

CONTRACTOR'S BID FORM
FORM SBD/SW/01

THE BIDDER SHALL FILL IN AND SUBMIT THIS BID FORM WITH THE BID.

Date: *[Insert the day, month, year]*

IFB No.: *[Insert the identification number of the IFB]*

Title of Contract: *[Insert the title of the Contract]*

To: *[Insert the name and address of the Employer]*

Having examined the Bidding Documents, including addenda *[Insert the list of addenda, if any]*; we offer to execute the *[Insert the Name and Identification Number of the Contract]* in accordance with the GCC accompanying this Bid for the Contract Price of *[Insert the amount in words and figures]*.

The Contract shall be paid in the following currencies: *[Fill the table below, add rows if necessary]*.

Currency	Percentage payable in currency	Rate of exchange: one foreign equals <i>[Insert local]</i>	Inputs for which foreign currency is required
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

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, if required, Bid Security or Bid-Securing Declaration as required by the Bidding Documents and specified in the BDS.

We, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB Sub-Clause 4.1;

We have no conflict of interest in accordance with ITB Sub-Clause 4.2;

Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the contract, has not been declared ineligible by the GoA, in accordance with ITB Sub-Clauses 4.3 and 4.4.

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: *[If there is not, state "NONE"]*

Name and Address of the Agent	Amount and Currency	Purpose of Commission or Gratuity
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

Authorized Signature:

Name of the Signatory:

Title of the Signatory:

Name of the Bidder:

Address of the Bidder:

BIDDER QUALIFICATION INFORMATION FORM
FORM SBD/SW/02

*[The information to be filled in by **bidders** in the following pages shall be used for purposes of post-qualification as provided for in ITB Clause 5. This information shall **NOT** be incorporated in the Contract. Attach additional pages as necessary.]*

1. INDIVIDUAL BIDDERS OR INDIVIDUAL MEMBERS OF A JV

1.1. Constitution or legal status of Bidder: *[Attach copy]*

Place of registration: *[Insert the place of Registration]*

Principal place of business: *[Insert]*

Power of Attorney of Signatory of Bid: *[Attach copy]*

1.2. Annual amounts of construction works performed during the last *[Insert the number pursuant to BDS sub-clause 4.5 (a)]* years: *[Insert the amounts in National Currency].*

1.3. Number of works of a nature and amount similar to the Works performed as prime Contractor over the last *[Insert the number pursuant BDS sub-clause 4.5 (b)]* years: *[Fill the table below, add rows as appropriate]*

[List also details of works under way or committed, including expected completion date(s).]

PROJECT NAME AND COUNTRY	NAME OF CLIENT AND CONTACT PERSON	TYPE OF WORK COMPLETED AND YEAR OF COMPLETION	VALUE OF CONTRACT
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

1.4. Major items of Contractor's Equipment proposed for carrying out the Works: *[List all information requested below, add rows as appropriate also refer to ITB sub-clause 5.3(d)]*

ITEM OF EQUIPMENT	DESCRIPTION, MAKE AND AGE (YEARS)	CONDITION (NEW, GOOD, POOR) AND NUMBER AVAILABLE	OWNED, LEASED (FROM WHOM), OR TO BE PURCHASED (FROM WHOM)
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

1.5. Qualifications and experience of key personnel for administration and execution of the Contract: *[Fill the table below, add rows as appropriate. Attach biographical data; refer also to ITB sub-clause 5.3(e) and GCC sub-Clause 9.1]*

POSITION	NAME	YEARS OF EXPERIENCE (GENERAL)	YEARS OF EXPERIENCE IN PROPOSED POSITION
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

- 1.6. Proposed sub-contracts and firms involved: *[Fill the table below, add rows as appropriate; also refer to GCC clause 7.]*

SECTIONS OF THE WORKS	VALUE OF SUB-CONTRACT	SUBCONTRACTOR NAME AND ADDRESS	EXPERIENCE IN SIMILAR WORK
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

- 1.7. Financial Reports for the last *[insert a number in words and figures]* years: balance sheets, profits and loss statements auditors' reports, etc.: *[List and attach copies]*.
- 1.8. Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc.: *[List below and attach copies of support documents]*.
- 1.9. Name, address and telephone, facsimile numbers of banks that may provide references if contacted by the Employer: *[List below]*
- 1.10. Information on current litigation(s) in which the Bidder is involved: *Fill the table below, add rows as appropriate]*

OTHER PARTY(IES)	CAUSE OF DISPUTE	AMOUNT INVOLVED
<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>	<i>[Insert as appropriate]</i>

- 1.11. Proposed program, work method and schedule: *[List as appropriate]*.
Descriptions, drawings, and charts, as necessary, to comply with the requirements of the Bidding Documents: *[List as appropriate]*.

2. JOINT VENTURES

- 2.1. The information listed in 1.1 to 1.10 above shall be provided for each partner of the JV.
- 2.2. The information in 1.11 above shall be provided for the JV.
- 2.3. Attach the power of Attorney of the signatory(ies) of the Bid authorizing signature of the Bid on behalf of the JV.
- 2.4. Attach the Agreement among all partners of the JV (and which is legally binding on all partners), which shows that:
- (a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
 - (b) one of the partners 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; and
 - (c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

3. ADDITIONAL REQUIREMENTS

- 3.1 Bidders should provide any additional information required in the BDS.

LETTER OF ACCEPTANCE TEMPLATE
SBD/SW/03

[The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clauses 34 and 35. 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.]

[Letterhead paper of the Employer shall appear here]

Date: *[Insert the day, month, year]*

IFB No.: *[Insert the identification number of the IFB]*

Title of Contract: *[Insert the title of the Contract]*

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

This is to notify you that your Bid dated *[Insert the date as day, month, year]* for execution of the *[Insert the Contract name and identification number, as given in the SCC]* for the Contract Price of *[Insert the amount in words and figures, and the currency]*, as corrected and modified¹⁴ in accordance with the ITB is hereby accepted by our Agency.

You are hereby instructed to

- (a) proceed with the execution of the said Works in accordance with the Contract Documents;
- (b) sign and return the attached Contract Documents; and
- (c) forward the performance security pursuant to ITB Sub-Clause 35.1, *i.e.*, within twenty-one (21) days after receipt of this Letter of Acceptance, and pursuant to GCC Sub-Clause 52.1.

Authorized Signature:

Name of the Signatory:

Title of the Signatory:

Name of the Agency:

Attachment: Agreement

¹⁴ Delete "corrected and" or "and modified" if not applicable. See Notes on Agreement Form, Form NOT/SW/04.

AGREEMENT FORM
FORM SBD/SW/04

[The Agreement shall incorporate any corrections or modifications to the Bid resulting from corrections of errors (ITB Clause 28), price adjustment during the evaluation process (ITB Sub-Clause 16.3, selection of an alternative offer (ITB Clause 18), acceptable deviations (ITB Clause 27), or any other mutually-agreeable changes allowed for in the GCC, such as changes in key personnel, subcontractors, scheduling, and the like.]

This Agreement, made the *[Insert the day]* day of *[Insert the month]*, *[Insert the year]* between *[Insert the Name and Address of the Employer]*, hereinafter called "THE EMPLOYER", and *[Insert the Name and Address of the Contractor]*, hereinafter called "THE CONTRACTOR", of the other part,

WHEREAS the Employer is desirous that the Contractor execute *[Insert the Name and Identification Number of the 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 Agreement witnessed as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement;
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract;
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of: *[Witness entity]*

was hereunto affixed in the presence of: *[Fill as appropriate]*

Signed, Sealed, and Delivered by the said *[Fill as appropriate]*

in the presence of: *[Fill as appropriate]*

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

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

SECTION 4 GENERAL CONDITIONS OF CONTRACT (GCC)

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 24 and 25 hereunder.
 - (b) **BILL OF QUANTITIES** means the priced and completed Bill of Quantities forming part of the Bid.
 - (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 Project Manager, in accordance with GCC Sub-Clause 55.1.
 - (e) The **CONTRACT** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Clause 2.3 below.
 - (f) The **CONTRACTOR** is a person or corporate body whose 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) **DAYWORKS** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
 - (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 Project Manager upon correction of defects by the Contractor.
 - (m) The **DEFECTS LIABILITY PERIOD** is the period **named in the SCC** Sub-Clause 35.1 and calculated from the Completion Date.
 - (n) **DRAWINGS** include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
 - (o) The **EMPLOYER** is the party who employs the Contractor to carry out the Works, as **specified in the SCC**.
 - (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 Project Manager by issuing an

extension of time or an acceleration order.

- (s) **MATERIALS** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (t) **PLANT** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (u) The **PROJECT MANAGER** is the person **named in the SCC** (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- (v) **SCC** means Special Conditions of Contract.
- (w) The **SITE** is the area **defined as such in the SCC**.
- (x) **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.
- (y) **SPECIFICATION** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (z) 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.
- (aa) 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.
- (bb) **TEMPORARY WORKS** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (cc) A **VARIATION** is an instruction given by the Project Manager which varies the Works.
- (dd) The **WORKS** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as **defined in the SCC**.

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

- (d) Special Conditions of Contract;
 - (e) General Conditions of Contract;
 - (f) Specifications;
 - (g) Drawings;
 - (h) Bill of Quantities; and
 - (i) any other document **listed in the SCC** as forming part of the Contract.
3. Language and Law
 - 3.1. The language of the Contract and the law governing the Contract are **stated in the SCC**.
 4. Project Manager's Decisions
 - 4.1. Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
 5. Delegation
 - 5.1. The Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.
 6. Communications
 - 6.1. Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
 7. Subcontracting
 - 7.1. The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.
 8. Other Contractors
 - 8.1. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the SCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.
 9. Personnel
 - 9.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as **referred to in the SCC**, to carry out the functions stated in the Schedule or other personnel approved by the 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.
 - 9.2. If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.
 10. Employer's and Contractor's Risks
 - 10.1. The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
 11. Employer's Risks
 - 11.1. From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:
 - (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:

- (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works; or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor;
 - (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.
- 11.2. From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to:
- (a) a Defect which existed on the Completion Date;
 - (b) an event occurring before the Completion Date, which was not itself an Employer's risk; or
 - (c) the activities of the Contractor on the Site after the Completion Date.
12. Contractor's Risks
- 12.1. From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.
13. Insurance
- 13.1. The Contractor shall provide, 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;
 - (b) loss of or damage to Equipment;
 - (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
 - (d) personal injury or death.
- 13.2. Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 13.3. If the Contractor does not provide any of the policies and certificates required, the Employer may 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.
- 13.4. Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.
- 13.5. Both parties shall comply with any conditions of the insurance policies.
14. Site Investigation Reports
- 14.1. The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports **referred to in the SCC**, supplemented by any information available to the Bidder.

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| 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 | <p>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.</p> <p>18.2. The Contractor shall be responsible for design of Temporary Works.</p> <p>18.3. The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.</p> <p>18.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.</p> <p>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 this use.</p> |
| 19. Safety | 19.1. The Contractor shall be responsible for the safety of all activities on the Site. |
| 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 stop the Works and notify the Project Manager of such discoveries. The project Manager shall notify the Institute of Archaeology on the issue as per the Law on the Protection of Historical and Cultural Properties of 2004, Article 10. |
| 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 Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out. |
| 23. Instructions, Inspections and Audits | <p>23.1. The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.</p> <p>23.2. The Contractor shall permit the Government and/or persons appointed by the Government to inspect the Site and/or the accounts and records of the</p> |

Contractor and its sub-contractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Government if required by the GoA. The Contractor's attention is drawn to Sub-Clause 60.1, Corrupt or Fraudulent Practices, which provides, *inter alia*, that acts intended to materially impede the exercise of the Government's inspection and audit rights provided for under Sub-Clause 23.2; constitute a prohibited practice subject to contract termination as well as to a determination of ineligibility.

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| 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 within fourteen (14) days of the notification of the Project Manager's decision. |
| 25. Procedure for Disputes | <p>25.1. The Adjudicator shall give a decision in writing within twenty-eight (28) days of receipt of a notification of a dispute.</p> <p>25.2. The Adjudicator shall be paid by the hour at the rate specified in the BDS and SCC, together with reimbursable expenses of the types specified in the Contract Data, 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 twenty-eight (28) days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above twenty-eight (28) days, the Adjudicator's decision shall be final and binding.</p> <p>25.3. The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified in the SCC.</p> |
| 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 thirty (30) days, the Adjudicator shall be designated by the Appointing Authority designated in the SCC at the request of either party, within fourteen (14) days of receipt of such request. |

B. TIME CONTROL

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| 27. Program | <p>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.</p> <p>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.</p> <p>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</p> |
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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 Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.
28. Extension of the Intended Completion Date
- 28.1. The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 28.2. The Project Manager shall decide whether and by how much to extend the Intended Completion Date within twenty-one (21) days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. 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.¹⁵
- 29.2. If the Contractor's priced proposals for an 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 and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
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.

¹⁵ The employer's attention is drawn on the fact that acceleration is difficult to control, extra care shall be paid in this case

- 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.

C. QUALITY CONTROL

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| 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. 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. |
| 34. Tests | 34.1. If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event. |
| 35. Correction of Defects | <p>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.</p> <p>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.</p> |
| 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. |

D. COST CONTROL

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| 37. Bill of Quantities | <p>37.1. The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.</p> <p>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.</p> |
| 38. Changes in the Quantities | <p>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-five (25) percent, provided the change exceeds one (1) percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.</p> <p>38.2. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than fifteen (15) percent, except with the prior approval of the Employer.</p> <p>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.</p> |
| 39. Variations | 39.1. All Variations shall be included in updated Programs produced by the Contractor. |

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| 40. Payments for Variations | <p>40.1. The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.</p> <p>40.2. If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 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.</p> <p>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.</p> <p>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.</p> <p>40.5. The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.</p> |
| 41. Cash Flow Forecasts | <p>41.1. When the Program 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.</p> |
| 42. Payment Certificates | <p>42.1. The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.</p> <p>42.2. The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.</p> <p>42.3. The value of work executed shall be determined by the Project Manager</p> <p>42.4. The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.</p> <p>42.5. The value of work executed shall include the valuation of Variations and Compensation Events.</p> <p>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.</p> |
| 43. Payments | <p>43.1. Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within twenty-eight (28) days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be</p> |

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 prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

- 43.2. If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 43.3. Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 43.4. 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

- 44.1. The following shall be Compensation Events:
 - (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC 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;
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site;
 - (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons;
 - (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor;
 - (i) The advance payment is delayed;
 - (j) The effects on the Contractor of any of the Employer's Risks;
 - (k) The Project Manager unreasonably delays issuing a Certificate of Completion.
- 44.2. If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the

Intended Completion Date shall be extended.

- 44.3. As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.
- 44.4. The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.
45. Tax 45.1. The Project Manager shall adjust the Contract Price if taxes, including BRT and ST, duties, and other levies are changed between the date twenty eight (28) days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 47.
46. Currencies 46.1. Where payments are made in currencies other than the currency of the Employer's country, 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. Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:
- $$P_c = A_c + B_c \text{ } I_{mc}/I_{oc}$$
- Where
- P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."
- A_c and B_c are coefficients¹⁶ **specified in the SCC**, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and
- I_{mc} is the index prevailing at the end of the month being invoiced and I_{oc} is the index prevailing twenty-eight (28) days before Bid opening for inputs payable; both in the specific currency "c."
- 47.2. If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.
48. Retention 48.1. The Employer shall retain from each payment due to the Contractor the proportion **stated in the SCC** until Completion of the whole of the Works.
- 48.2. On completion of the whole of the Works, half the total amount retained

¹⁶ The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the nonadjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected.

- 48.3. On completion of the whole Works, the Contractor may substitute retention money with an "on demand" Bank guarantee.
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 amount **defined in the SCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.
- 49.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 43.1.
50. Bonus
- 50.1. The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.
51. Advance Payment
- 51.1. The Employer shall make advance payment to the Contractor of the amounts **stated in the SCC** by the date **stated in the SCC**, against provision by the Contractor of an Unconditional Bank Guarantee 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.
- 51.2. The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
- 51.3. The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, Price Adjustments, Compensation Events, Bonuses, or Liquidated Damages.
52. Securities
- 52.1. 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 acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The bank guarantee shall be valid until a date twenty-eight (28) days from the date of issue of the Certificate of Completion .

53. Dayworks
- 53.1. 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.
- 53.2. 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 two days of the work being done.
- 53.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.
54. Cost of Repairs
- 54.1. Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

55. Completion
- 55.1. 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.
56. Taking Over
- 56.1. The Employer shall take over the Site and the Works within seven (7) days of the Project Manager's issuing a certificate of Completion.
57. Final Account
- 57.1. 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 fifty-six (56) days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within fifty-six (56) 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.
58. Operating and Maintenance Manuals
- 58.1. If "AS BUILT" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the SCC**.
- 58.2. 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.
59. Termination
- 59.1. The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 59.2. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for twenty-eight (28) 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 twenty-eight (28) days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within eighty-four (84) days of the date of the Project Manager's certificate;
- (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- (f) the Contractor does not maintain a Security, which is required; and
- (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the SCC**.

59.3. 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 59.2 above, the Project Manager shall decide whether the breach is fundamental or not.

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

59.5. 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.

60. Corrupt or
Fraudulent
Practices

60.1. 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 fourteen (14) days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of Clause 59.5 shall apply.

60.2. 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 Sub-Clause 9.1., Personnel.

60.3. For the purposes of this Sub-Clause:

- (i) "CORRUPT PRACTICE" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party¹⁷;
- (ii) "FRAUDULENT PRACTICE" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party¹⁸ to obtain a financial or other benefit or to avoid an obligation;

¹⁷ "ANOTHER PARTY" refers to a public official acting in relation to the procurement process or contract execution, "PUBLIC OFFICIAL" includes Government staff and employees of other organizations taking or reviewing procurement decisions.

¹⁸ A "PARTY" refers to a public official; the terms "BENEFIT" and "OBLIGATION" relate to the procurement process or contract execution; and the "ACT OR OMISSION" is intended to influence the procurement process or contract execution.

- (iii) "COLLUSIVE PRACTICE" is an arrangement between two or more parties¹⁹ designed to achieve an improper purpose, including to influence improperly the actions of another party;
- (iv) "COERCIVE PRACTICE" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party²⁰ or the property of the party to influence improperly the actions of a party;
- (v) "OBSTRUCTIVE PRACTICE" is"
 - deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a GoA 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
 - acts intended to materially impede the exercise of the Government's inspection and audit rights provided for under Clause 23, Instructions, Inspections and Audits.

60.4. No fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the Bid or the Contract, shall be given or received in connection with the procurement process or in the Contract execution.

- | | |
|------------------------------|---|
| 61. Payment upon Termination | <p>61.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.</p> <p>61.2. 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.</p> |
| 62. Property | <p>62.1. All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.</p> |
| 63. Release from Performance | <p>63.1. 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.</p> |

¹⁹ "PARTIES" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

²⁰ A "PARTY" refers to a participant in the procurement process or contract execution.

64. Settlement of Disputes

64.1. Amicable Settlement:

- (a) The Employer and the Contractor shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

64.2. Adjudication

- (b) 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 within fourteen (14) days of notification of the Project Manager's decision in writing;

64.3. Arbitration

- (a) If either of the Party is dissatisfied with the Adjudicator's decision, or if the Adjudicator fails to give a decision within twenty-eight (28) days of a dispute being referred to, then either of the Parties may, within twenty-eight (28) days of such reference, give notice to the other party, with a copy for information to the Adjudicator, of its intention to commence arbitration.

SECTION 5 SPECIAL CONDITIONS OF CONTRACT

GCC Clause	Amendments of, and Supplements to, Clauses in the GCC
A. GENERAL	
GCC 1.1(m)	The Defects Liability Period is: 12 months from the Completion Date
GCC 1.1(o)	The Employer is: Law and Order trust Fund for Afghanistan (LOTFA) Project under the Ministry of Interior (MOI) of the Islamic Republic of Afghanistan represented by the Deputy Minister
GCC 1.1(r)	The Intended Completion Date for the whole of the Works shall be Eighteen (18) from Start Date.
GCC 1.1(u)	The Project Manager is:
GCC 1.1(w)	The Site is located at: Central Prison Department (CPD) Facilities in Nangarhar province and is defined in attached Drawings.
GCC 1.1(z)	The Start Date shall be: 1st November 2014 or the date of site handover whichever is later.
GCC 1.1(dd)	The Works consist of: Construction of CPD (Central Prison Directorate) Facilities in Nangarhar Province – boundary wall, guard towers, guard house and check points.
GCC 2.2	Sectional Completions are: Not Applicable.
GCC 2.3(i)	The following documents also form part of the Contract: None.
GCC 3.1	The language of the Contract is: English.
	The laws that apply to the Contract are: Laws of Islamic Republic of Afghanistan.
GCC 8.1	Schedule of other contractors: Not Applicable.
GCC 9.1	Key Personnel: <i>[Insert Schedule of Key Personnel]</i> .
GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for the Works, Plant and Materials: USD 250,000. (b) for loss or damage to Equipment: USD 50,000 (c) for loss or damage to property in connection with Contract but excepting the Works, Plant, Materials, and Equipment: None. (d) for personal injury or death: (i) of the Contractor's employees: USD 100,000 (ii) of other people: USD 100,000
GCC 14.1	Site Investigation Reports are: None.

GCC 15.1	<i>[List the queries, if appropriate.]</i>
GCC 21.1	The Site Possession Date(s) shall be: 1st November 2014
GCC 24.1	Replace GCC 24.1 with the following: "In the case of a dispute between the Employer and the contractor, the dispute shall be referred to arbitration in accordance with the laws of the Islamic Republic of Afghanistan."
GCC 25.1, 25.2, 25.3	Deleted.
GCC 26.1	Deleted.
B. TIME CONTROL	
GCC27.1	The Contractor shall submit for approval a Program for the Works within Thirty (30) days from the date of the Letter of Acceptance.
GCC 27.3	The period between Program updates is Ninety (90) days .
	The amount to be withheld for late submission of an updated Program is AFN One hundred thousand (AFN 100,000)
C. QUALITY CONTROL	
GCC 35.1	The Defects Liability Period is: 12 months from Completion Date .
D. COST CONTROL	
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: five (5) percent .
GCC 49.1	The liquidated damages for the whole of the Works are 0.1 percent of the Final Contract Price per day. The maximum amount of liquidated damages for the whole of the Works is ten (10) percent of the Final Contract Price.
GCC 50.1	The Bonus for the whole of the Works is: Not Applicable .
GCC 51.1	The Advance Payments shall be: Not Applicable .
GCC 52.1	The Performance Security amount is: Five (5) percent of the contract price . Bank Guarantee: Unconditional
E. FINISHING THE CONTRACT	
GCC 58.1	The date by which drawings and/or operating and maintenance manuals are required is: 90 days from Completion Date for "as built" drawings (if different from drawings provided by the Employer under the contract). An operation and maintenance manual is not required.

GCC 58.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is: AFN One hundred thousand (AFN 100,000), if applicable.
GCC 59.2(g)	The maximum number of days is: 100 (one hundred) days
GCC 61.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is ten (10) percent.
GCC 64.2 and 64.3	Deleted

SECTION 6 SPECIFICATIONS AND PERFORMANCE REQUIREMENTS

Attached

SECTION 7 DRAWINGS

Attached

SECTION 8 BILL OF QUANTITIES

Attached

SECTION 9 CONTRACT AND SECURITY FORMS

Form	Title
	Contract Forms
SBD/SW/05	BID SECURITY: BANK GUARANTEE
SBD/SW/06	BID SECURING DECLARATION — NOT APPLICABLE
SBD/SW/07	PERFORMANCE GUARANTEE (UNCONDITIONAL)
SBD/SW/08	BANK GUARANTEE FOR ADVANCE PAYMENT — NOT APPLICABLE

[Samples of acceptable forms of Bid, Performance, and Advance Payment Securities are provided in this Section 9. Bidders shall not complete the Performance and Advance Payment Security forms at this stage of the procurement process. Only the successful Bidder shall be required to provide these two securities.]

BID SECURITY: BANK GUARANTEE**FORM SBD/SW/05**

*[If required, the **Bank/Bidder** shall fill in this Bank Guarantee Form in accordance with the instructions indicated in brackets.]*

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

Beneficiary: *[Insert the Name and Address of the Employer]*

Date: *[Insert the date]*

BID GUARANTEE No.: *[Insert the number in figures]*

We have been informed that *[Insert the name of the Bidder]*, hereinafter called "THE BIDDER" has submitted to you its bid, hereinafter called "THE BID", dated *[Insert the date]* for the execution of *[Insert the Name of the contract]* under Invitation for Bids No. *[Insert the IFB number in figures]*, hereinafter called "THE IFB".

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

At the request of the Bidder, we *[Insert the full Name of the Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[Insert the amount in words and figures]* 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 modified or withdrawn its Bid after deadline for submission of bids during the period of bid validity specified by the Bidder in the Bid Form; or
- (b) has refused to accept a correction of an arithmetical error appearing on the face of the bid;
- (c) 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;
 - (ii) fails or refuses to furnish the performance security, in accordance with the ITB.
- (d) has provided bogus information about its eligibility

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 ITB;
- (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;
 - (ii) twenty-eight (28) days after the expiration of the Bidder's Bid.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

[Signature(s)]

BID-SECURING DECLARATION
FORM SBD/SW/06

Not Applicable

PERFORMANCE BANK GUARANTEE
(UNCONDITIONAL)
FORM SBD/SW/07

*[The **bank or the successful Bidder** providing the Guarantee shall fill in this Form in accordance with the instructions indicated in brackets, if the Employer requires this type of security.]*

[Insert the bank's issuing branch or office Name and Address]

Beneficiary: *[Insert the Name and Address of the Employer]*

Date: *[Insert the date]*

PERFORMANCE GUARANTEE NO.: *[Insert the Performance Guarantee Number in figures]*

WE HAVE BEEN INFORMED THAT *[Insert the Name of the Contractor]*, hereinafter called "THE CONTRACTOR", has entered into Contract No. *[Insert the reference Number of the Contract in figures]* dated with you, for the execution of *[Insert the Name of the Contract and a brief description of the Works]*, hereinafter called "THE CONTRACT".

FURTHERMORE, WE UNDERSTAND THAT, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Contractor, WE *[Insert the Name of the Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[Insert the amount in words and figures]*²¹ 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 your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire no later than twenty-eight (28) days from the date of issuance of the Taking-Over Certificate, calculated based on a copy of such Certificate which shall be provided to us, or on the *[Insert the day]* day of *[Insert the month]*, *[Insert the year]*²² whichever occurs first. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

[Signature(s) of Authorized Representative(s) of the Bank]

²¹ The Guarantor (bank) shall insert an amount representing the percentage of the Contract Price specified in the Contract and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Employer.

²² *[Insert the date twenty eight (28) days after the expected Completion date. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this Guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this Guarantee for a period not to exceed [Insert "SIX MONTHS" OR "ONE 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.".]*

BANK GUARANTEE FOR ADVANCE PAYMENT
FORM SBD/SW/08

Not Applicable

ITB SECTION 6 , SPECIFICATIONS AND PERFORMANCE REQUIREMENTS
(ATTACHED AS ANNEX 1)

TECHNICAL SPECIFICATION FOR CONSTRUCTION WORK

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SECTION 1 PRELIMINARIES

1.1 SITE PREPARATION

- 1.1.1 The site shall be dewatered prior to any site work being performed. Any standing water shall be drained to an appropriate site as approved by the PM or PM's Rep. Site drainage is to be established as soon as practical after the start of the project. All drainage structures are to be kept open during construction and shall be fully restored at the end of the project.
- 1.1.2 In all required instances standard fill shall be used to raise the ground surface to the level of the sub-base beneath the slabs. Fill material shall be spread in uniform layers not to exceed 300mm thick prior to compaction and compacted only by mechanical methods. The PM or PM's Rep will test compaction.

1.2 FOUNDATION WORKS

- 1.2.1 All excavation within 1 metre of known underground utilities shall be dug by hand. All excavations shall allow for placing and removing of forms and still maintain required dimensions of the foundation. Protect any adjacent building during nearby excavation to prevent failure of the existing structure. Place concrete as soon as possible after excavation in order to preserve the integrity of the foundation. In the event that concrete has to be delayed, ensure that water is diverted away from the foundations to prevent erosion and degradation of the foundation.

1.3 PREPARATION OF SUB-GRADE

- 1.3.1 Prior to formwork beginning, the PM or PM's Rep must approve the sub-grade for grade and line and compaction. Compaction to a minimum of 20 CBR will be tested by the PM or PM's Rep using a DCP. Any area not meeting compaction requirements must be removed and replaced with suitable material prior to placing of concrete formwork.

1.4 DRAINAGE

- 1.4.1 Drainage is to be constructed IAW the Project Drawings. The ground level is to be established so that water will naturally flow to the drains shown. Low areas are to be built up to ensure that ponding of water will not occur.
-

SECTION 2 CONCRETE WORKS

2.1 VAPOUR BARRIER

- 2.1.1 A polyethylene vapour barrier meeting a minimum 200um shall be placed under all slabs. Seams shall be overlapped a minimum of 200mm and taped along the full length of the seams. The vapour barrier shall extend under all footings as well as the full area of the slab.

2.2 FORMWORK

- 2.2.1 All forms are to be rigid and mortar-tight in construction. As a minimum, the following design criteria must be met:
- a. **Timber forms** – Forms must be constructed in such a manner as to prevent warping, bowing, or possible bulging of the sides under the hydraulic pressure of the wet concrete. Timber should be sound and without visible defects that would affect the strength and integrity of the forms.
 - b. **Props / Shoring** – All props shall of sufficient strength to prevent the forms from moving or warping.
 - c. **Release agents** – The thinnest possible coating of form release agent should be carefully applied to all form faces prior to placement of concrete. Care should be used to prevent form release agent from being placed on reinforcement material or construction joints.
 - d. **Line and grade** – All forms are to be set to line and grade in accordance with the drawings and specifications. The completion of formwork will constitute a **HOLD POINT** as all formwork is to be inspected for line and grade by the PM or PM's Rep prior to the pouring of any concrete.

2.3 CONCRETE REINFORCEMENT

- 2.3.1 All reinforcement shall be minimum 400 MPa in strength. Reinforcement shall be free of any kinks, defects, and unwanted deformations. Reinforcement shall be mechanically cut (not with a torch), to length and bent according to project drawings. Reinforcement shall be free of dirt, mud, oil, grease, and loose rust. If the rebar must be cleaned by wire brushing or other approved methods, it is imperative that the mass of the rebar not be reduced below specified sizes.
- 2.3.2 Reinforcement shall be placed as shown on the drawings ensuring that proper minimum cover of the rebar is maintained. The minimum cover of the reinforcement will be 50mm unless otherwise indicated in the specifications or drawings.
- 2.3.3 Reinforcement bars shall be tied together by wiring each intersection using annealed wire not less than 1.25mm in diameter. The ends of wire ties are to be bent away from faces of formwork so that the ties do not project into the specified concrete cover.
- 2.3.4 Reinforcement shall be spliced by lapping only. Welding of reinforcement is not permitted unless approved by PM's Rep. Vertical reinforcement shall not be tied to the vertical formwork by the use of annealed wire
-

- 2.3.5 The completion of rebar placement constitutes a **HOLD POINT**, concrete is not to be poured until rebar has been inspected by the PM or PM's Rep.

2.4 MIXING OF CONCRETE

- 2.4.1 Concrete shall be minimum 32MPa, 80mm slump and must be mixed by a mechanical mixer. Timing of all concrete shall ensure that the delivery of concrete to the forms is continuous.

- 2.4.2 Concrete shall be constituted using the following materials:

- a. **Cement** – all cement shall be Portland cement and it shall be less than 6 months old. All cement shall be measured by volume.
- b. **Water** – all water shall be from a clean source. Water may be measured by weight or volume.
- c. **Aggregate** – Aggregate shall be crushed angular stone with no size greater than 20mm. Aggregate must be measured by volume. **RIVER ROCK IS NOT TO BE USED.**

- 2.4.3 Alternatively, the concrete can be mixed using a 15 litre bucket for the measure. For each 50 kg bag of cement, the mix shall contain 5 buckets of dry sand and 6 buckets of crushed stone and 1 1/2 buckets of water. The ingredients shall be added to the mixer in the following order: 1 bucket of water, 6 buckets of gravel, 5 buckets of dry sand, and the 50 kg bag of cement. The final ½ bucket of water is to be added only in the amount needed to make the concrete workable.

2.5 PLACEMENT OF CONCRETE

- 2.5.1 The placement of all concrete slabs is to occur in sections so that the first section poured will act as the formwork for the following section, ensuring that there is no plastic or debris between the face of the first slab and the second. With the main building slabs all concrete is to be placed in one continuous pour so that there are no cold joints present.

- 2.5.2 The vapour barrier or the forms on which the concrete is to be placed must be free of standing water and debris. The concrete must be placed within a half hour of mixing – **NO EXCEPTIONS**. Concrete should be delivered as near its final location as possible with **no vertical drops greater than 1.5 m**. Place concrete continuously once placement begins. Concrete is not to be placed on concrete that has already set.

- 2.5.3 All concrete must be mechanically vibrated. Vibration should follow the procedure shown:

- a. Vibrators should be inserted vertically at positions no more than 450mm apart. The vibrator should be withdrawn slowly allowing all air bubbles to escape and to prevent a “hole” from forming when the vibrator is removed. As shown in Figure 1.

- b. The vibrator should not touch the forms or the rebar during vibration! Care must be used when using the vibrator as over-vibration will cause segregation and may damage the formwork or cause the formwork to collapse.
 - c. Newly placed concrete should be vibrated “into” the previously placed concrete by ensuring that the vibrator penetrates the previously placed concrete by a minimum of 50mm or by $\frac{1}{4}$ the depth of the previous layer whichever is greater.
 - d. **DO NOT USE VIBRATOR TO MOVE CONCRETE INTO POSITION IN THE FORMS.**
-

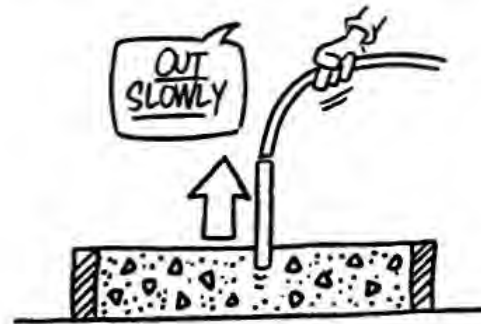
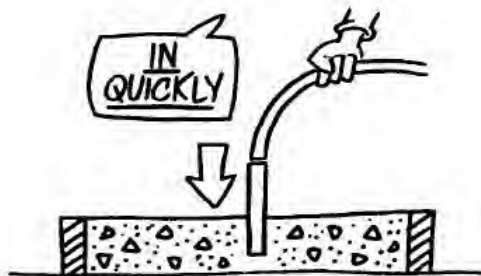
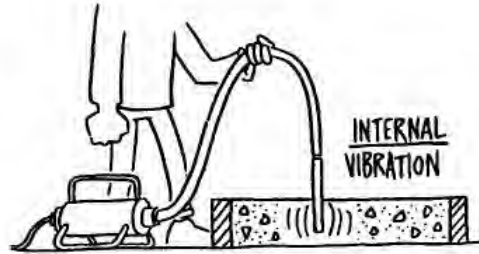
Figure 1: Vibration Technique

INTERNAL VIBRATION Internal vibration is done with a mechanical vibrator or poker vibrator. The **POKER** is put into concrete and vibrates it from the inside.

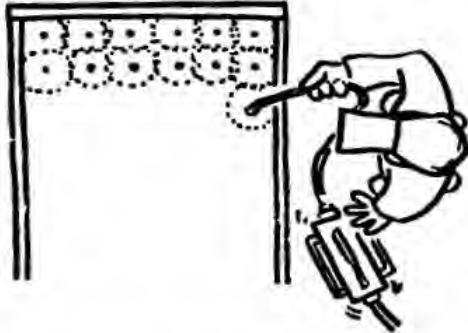
Method

Make sure there are enough workers so some can compact while others continue to place.

Put the poker into the concrete **QUICKLY**. Take the poker out very **SLOWLY** otherwise a hole, or weak spot, may be left in the concrete.



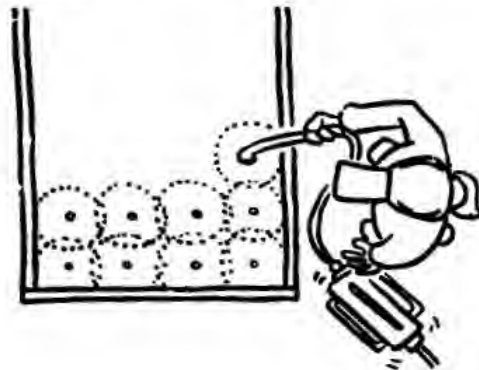
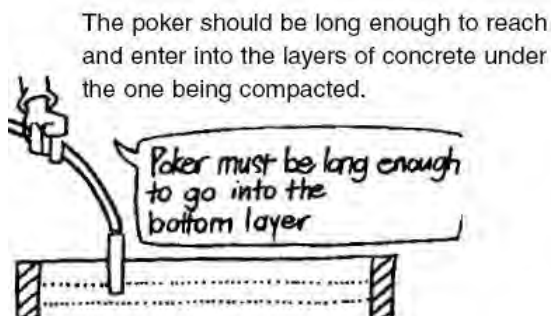
The **SIZE** of the poker determines how much concrete is vibrated at one time.



The area vibrated at one time is called the **RADIUS OF ACTION**. This can be seen by over what radius air bubbles rise to the surface.

The radius of action will be greater with a **LARGER** poker and more-workable concrete.

Always compact in a definite pattern so the radius of action overlaps and covers the whole area of the concrete.

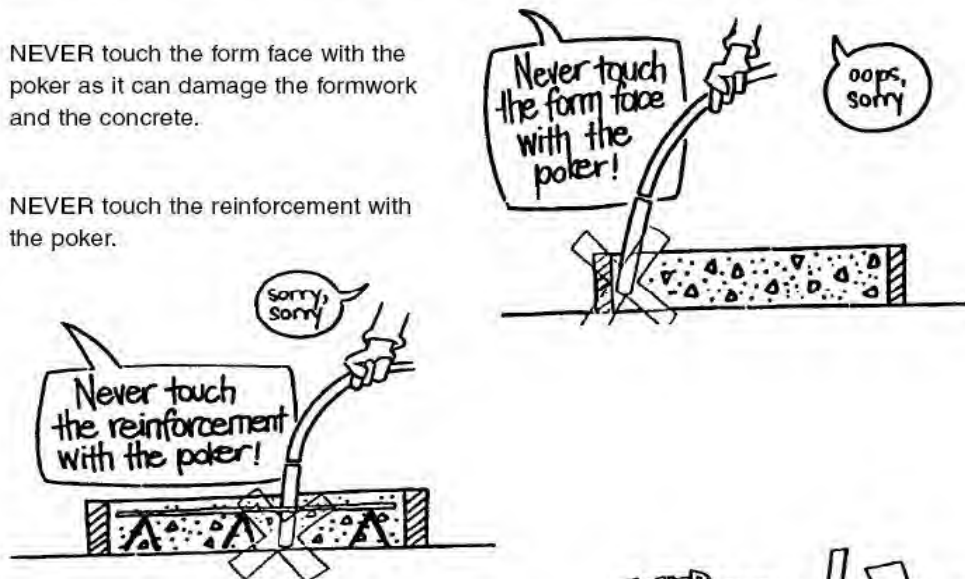


PRECAUTIONS Taking the poker out **TOO QUICKLY** will leave a hole in the concrete.

To close the hole, vibrate near the hole and take the poker out **VERY SLOWLY**.

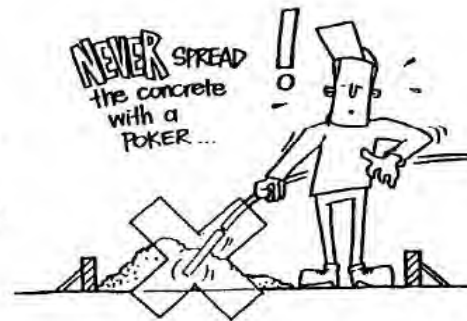
NEVER touch the form face with the poker as it can damage the formwork and the concrete.

NEVER touch the reinforcement with the poker.



NEVER spread or move concrete sideways with the poker, always use a shovel.

NEVER leave the poker running when not in use.



HOW LONG TO COMPACT For concrete of average workability (ie slump of 80 mm) with a poker size between 25–75 mm, concrete should usually be vibrated for between 5 and 15 seconds.

It is worse to **UNDER-VIBRATE** than to **OVER-VIBRATE** concrete.

2.6 CONCRETE TESTING

2.6.1 Three cube or cylinder strength test samples are to be taken from each building; one test is to be taken from each of the following: footing, floor slab and footpath slab. One sample is to be tested after 7 days, and two samples are to be tested after 28 days. The Contractor is to record the time, and location of where the sample was taken. Results of all concrete tests are to be provided to the PM's Rep.

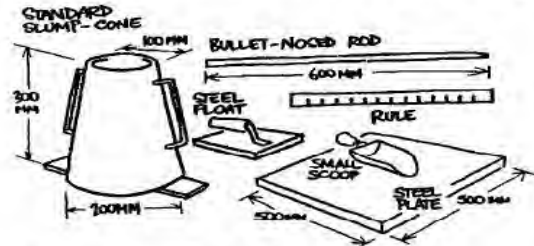
2.6.2 Concrete slump tests are to be regularly conducted to ensure the quality and workability of the concrete mix prior to its placement. All test results are to be included in Weekly Progress Reports. Figure 2 below details the process to be used for the conduct of a slump test.

Figure 2: Slump test technique

THE SLUMP TEST The slump test is done to make sure a concrete mix is workable. The measured slump must be within a set range, or tolerance, from the target slump.

Tools

- Standard slump cone (100 mm top diameter x 200 mm bottom diameter x 300 mm high)
- Small scoop
- Bullet-nosed rod (600 mm long x 16 mm diameter)
- Rule
- Slump plate (500 mm x 500 mm)



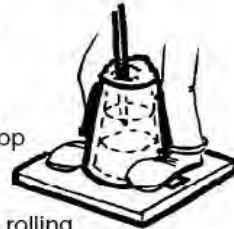
Method

- 1 Clean the cone. Dampen with water and place on the slump plate. The slump plate should be clean, firm, level and non-absorbent.
- 2 Collect a sample.
- 3 Stand firmly on the footpieces and fill 1/3 the volume of the cone with the sample. Compact the concrete by 'rodding' 25 times.

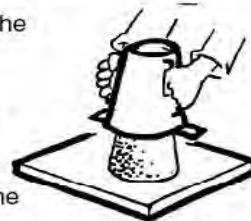
Rodding Rodding means to push a steel rod in and out of the concrete to compact it into the cylinder, or slump cone. Always rod in a definite pattern, working from outside into the middle.



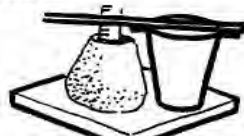
- 4 Now fill to 2/3 and again rod 25 times, just into the top of the first layer.
- 5 Fill to overflowing, rodding again this time just into the top of the second layer. Top up the cone till it overflows.



- 6 Level off the surface with the steel rod using a rolling action. Clean any concrete from around the base and top of the cone, push down on the handles and step off the footpieces.
- 7 Carefully lift the cone straight up making sure not to move the sample.

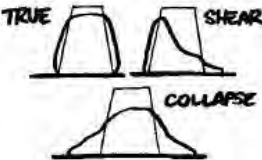


- 8 Turn the cone upside down and place the rod across the up-turned cone.



The Slump Test continues on the next page

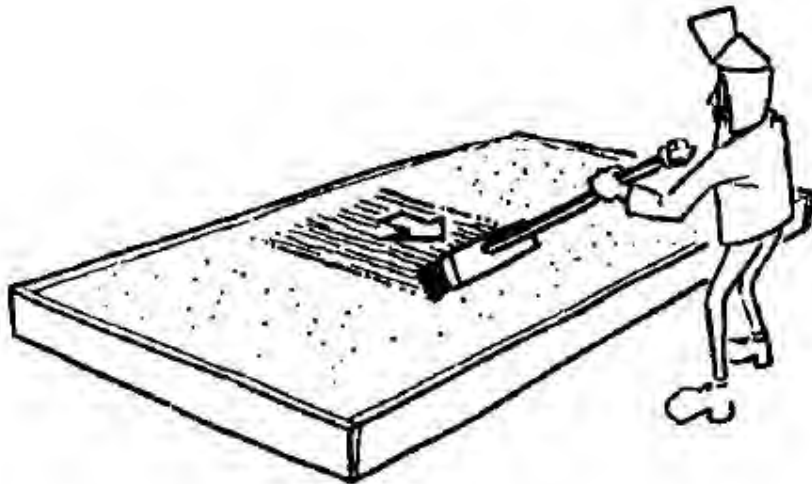
Slump tests are to achieve a slump of 80mm +/- 15mm

- 9 Take several measurements and report the average distance to the top of the sample.
- 10 If the sample fails by being outside the tolerance (ie the slump is too high or too low), another must be taken. If this also fails the remainder of the batch should be rejected.
- 

2.7 CONCRETE FINISHES

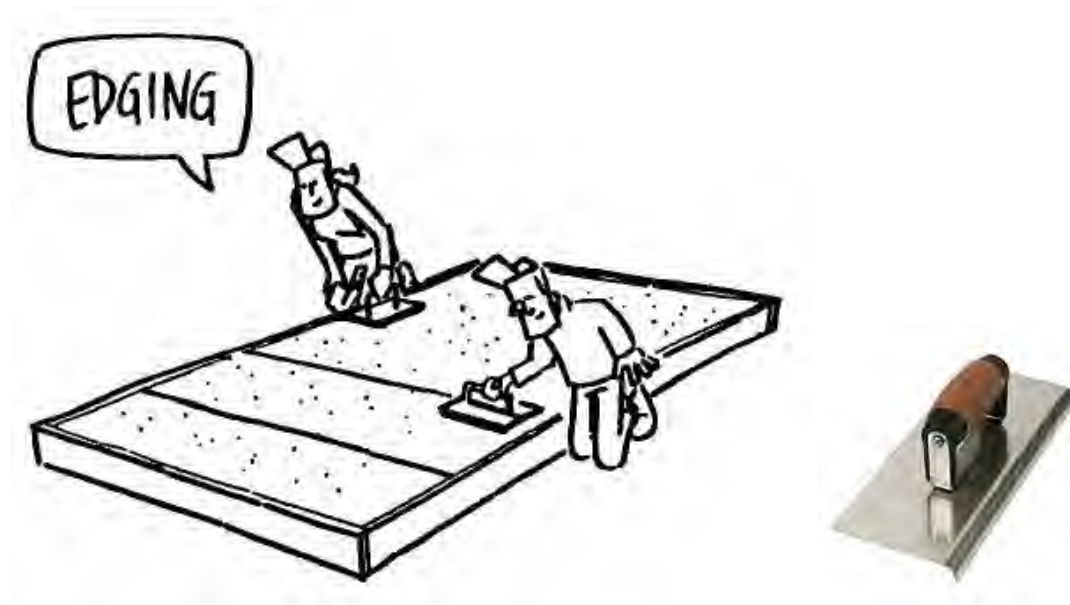
- 2.7.1 All concreted is to be screeded to the appropriate design level and finished as required as either an exposed surface or ready to expect tiling.
- 2.7.2 The finish of all footpaths and ramp slabs are to be a broomed finish, at right angles to the direction of traffic, covering the full width of the concrete surface, as detailed in figure 3.

Figure 3: Broom Finish



2.7.3 To ensure all the edges of a slab are neat and strong they are to be finished with a steel edging tool, as detailed by figure 4.

Figure 4: Edging technique and tools



2.7.4 To ensure the consistency of the finishing concrete the following techniques are to be utilised:

- a. **Patching** – remove the forms while the concrete is still “green” (not less than 3 days from placement except where horizontal forms are required to be kept in place for not less than 12 days). Patch immediately as necessary using a cement-rich patching grout.
 - b. **Construction joints** – locate joints as specified. If they are relocated or an emergency construction joint is required, advise the PM or PM’s Rep immediately so that an inspection can be done prior to progressing with additional work.
 - c. **Contraction Joints** – all contraction joints shall be sawn as soon as possible after the concrete has set. Saw joints shall be 3mm wide by $\frac{1}{4}$ the depth of the slab; in other words, if the slab is 150mm thick, the saw joint shall be 37mm deep, or by other approved method by PM or PM’s Rep. Joints to be filled with flexible compound to prevent moisture entering joint.
 - d. **Finish at construction joints** – the new concrete should butt against the previous placement. The joint should be straight, true, and free from blemishes.
 - e. **Joint prep** – roughen and clean the existing concrete surface to remove any loose material and concrete laitance. Dampen the surface prior to placing the adjacent slab.
 - f. **NOTE:** Use care removing the edge forms to prevent spilling that will be difficult to repair following the next placement.
-

2.8 CONCRETE CURING

2.8.1 The concrete is to be cured for a period of not less than seven days, method to be used is to be discussed with PM or PM's Rep prior to pouring.

2.8.2 **Note:** once the concrete has been placed, barricades are to be erected for the curing period to ensure the finished surface of the concrete is not damaged. If any damage to the finished surface occurs the whole slab is to be removed and replaced.

2.9 REMOVAL OF FORMWORK

2.9.1 Formwork shall remain in position until the times as detailed in table 1 have elapsed.

Table 1: Formwork stripping times

Average temperature during curing	Vertical faces	Supporting members
Greater than 20 °C	3 days	12 days
Between 12 °C and 20 °C	5 days	18 days
Between 5 °C and 12 °C	7 days	24 days

2.9.2 Forms must be removed with care without hammering, wedging, or in any other manner that would damage the concrete.

2.10 HOT WEATHER CONCRETING

2.10.1 During hot weather i.e. above 35°C, concrete slabs shall be protected by keeping the slab continuously wet through the use of burlap or other appropriate material. See figure 5 for further details.

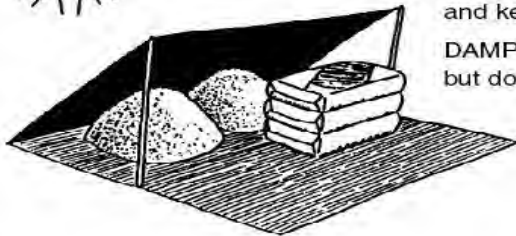
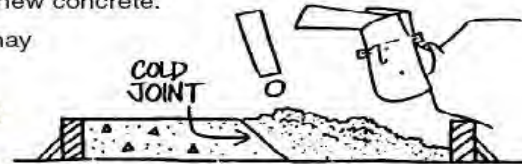
Figure 5: Hot weather concreting techniques**IN HOT WEATHER**

Workability In hot and/or windy weather a concrete mix may stiffen rapidly and not be workable.

A 'set retarding' admixture may be added to the concrete during mixing to give a longer working time.

In hot and/or windy weather, if concrete stiffens quickly, a cold unbonded joint may form between concrete already in place and the new concrete.

If there is a chance of this happening you may need to make a construction joint.

**To Stop Concrete Drying out and Cracking**

Use one or more of the following:

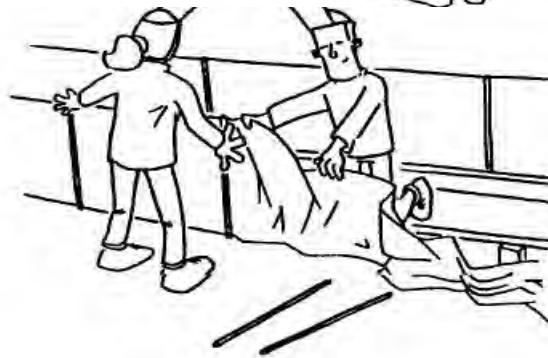
Use **SHADE** to keep all materials out of direct sun and keep the aggregates **MOIST**.

DAMPEN subgrade and formwork, but don't leave excess water lying around.



Put up **SHADES** and **WINDBREAKS** or try to place in the cooler parts of the day.

Avoid **DELAYS** once the job begins by planning ahead.



CURE concrete carefully.

Keep it **COOL**. In extreme conditions iced water, or other methods, may be used in the mix to keep it cool. Do not apply cold water to a hot concrete surface as thermal cracking may result due to the sudden cooling.

2.11 COLD WEATHER CONCRETING

2.11.1 Cold weather concreting precautions must be employed any time the temperature is below 10°C. The concrete temperature must all times during the curing process be

maintained at a minimum of 5°C. If the concrete is allowed to freeze, the entire placement must be removed and replaced at the Contractor's sole expense.

2.11.2 The following conditions apply to cold weather concreting:

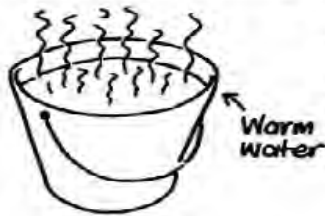
- a. **Bleed water** – It takes much longer for bleed water to evaporate during cold weather. **IT IS NOT PERMISSIBLE TO USE LEAN CEMENT OR ANY OTHER AGENT TO SOAK UP EXCESS WATER FROM THE CONCRETE.**
 - b. **Admixtures** – Accelerating admixtures may be used if approved in advance by the PM or PM's Rep. Admixtures containing chlorides are NOT permitted.
 - c. **Water** – Hot water may be used during mixing to accelerate the set of the concrete but in no instance shall the temperature of the water exceed 70°C. There can be no inconsistencies in the temperature of the mixed concrete delivered to the site.
 - d. **Insulation** – In temperatures below 10°C, insulated forms and protective covers must be used to protect the concrete. The formwork must be waterproof or protected by plastic sheeting.
 - e. **Stripping formworks** – Care must be taken during cold weather to not expose warm concrete to low temperatures too quickly. When formwork is removed in cold weather, the concrete should be covered with protective coverings properly lapped and sealed at joints and edges to ensure wind-tightness. In no instance is the concrete to be soaked with cold water. Observe the proper times for form removal as shown in Section 3.10.
-

Figure 6: Cold weather concrete techniques

IN COLD WEATHER Frozen or very cold water will also slow down the setting time which can cause costly delays.

In extremely cold weather water turns to ice, **EXPANDS** and can **CRACK** hardened concrete.

To Stop Water Freezing and Cracking Concrete Use one or more of the following:



Keep all **MATERIALS** warm.

Use **WARM WATER** in the mix.

COVER the formwork and subgrade, to keep them free of frost and ice.



Use a 'Set-Accelerating' **ADMIXTURE**.

Try to keep concrete as much above 10°C

2.12 WATER PROOFING

2.12.1 The roof is to be sealed with two waterproof membranes. One is to be positioned between the roof slab and the layer of PCC and the other is to be installed above the layer of PCC, with the top layer of membrane extending up the full height of the parapet and at least half way across the top of the parapet wall, IAW drawings.

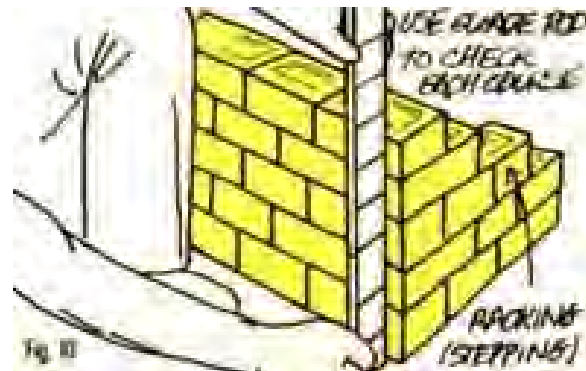
2.12.2 100mm x 75mm rectangular shaped downpipes are to be installed and are to be securely fixed to the building using saddle clips. The saddle clips are to be evenly spaced at no greater than 1.5m intervals. The base of the downpipe is to discharge at a 45 deg angle, 150mm above ground level. Runoff is to be incorporated into the storm water drainage plan.

SECTION 3 MASONRY WORKS

3.1 EXTERIOR WALL CONSTRUCTION

- 3.1.1 Bricks shall be soaked for 24 hours prior to use. Bricks are to be clean, free from defects and other foreign material prior to rendering. Bricks shall be laid in English bond and shall be set with both bed mortar and vertical joints filled with mortar. Bricks are to be laid with level courses, uniform joints, and square corners and plumb verticals. To help achieve this guide rod can be used.

Figure 7: English Bond and Guide Rod

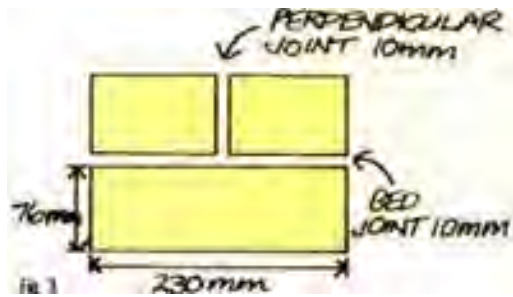


- 3.1.2 Brick walls will include lateral steel reinforcement ties between columns at every fifth course.
- 3.1.3 Ring beam dimensions at the top of the wall are shown on the drawings.

3.2 MORTAR

- 3.2.1 Cement mortar for masonry works shall consist of 1 part cement, 1 part hydrated lime and 6 parts sand. Each mortar mix shall consist of sufficient water to give the mix appropriate workability.
- 3.2.2 The thickness of mortar shall not be less than 6mm and not more than 10mm. Mortar shall be placed on all horizontal and vertical surfaces, as detailed in figure 8.

Figure 8: Bed and perpendicular joints



3.3 MISCELLANEOUS MASONRY CONSTRUCTION

- 3.3.1 Any miscellaneous masonry construction shall be built IAW the drawings and specifications.

SECTION 4 PLUMBING SERVICES

4.1 SEWER

- 4.1.1 The Contractor shall supply, install all sanitary plumbing works in accordance with the attached drawings.
- 4.1.2 PVC pipe with a minimum diameter of 100mm shall be used unless stated on plans. Pipe work shall be laid with a minimum fall of 1:60 unless stated otherwise within plans and be at a minimum depth of 300mm below finished ground level. All pipe work joints shall be watertight and tested, in the presence of the PM or PM's Rep, prior to backfilling trenches.
- 4.1.3 The Contractor shall construct and install an overflow relief gully (ORG) in accordance with the sewer plans. The ORG is to be installed at a minimum height of 150mm below the lowest fixture connected to the drain in the building. The height between the top of the ORG and the surrounding ground surface is to be a minimum 75mm.
- 4.1.4 The installation of all inspection openings (IO's) are to be located in accordance with the project drawings and are to be fully covered with sand.
- 4.1.5 All risers are to be sealed with tape on completion of testing.

4.2 WATER RETICULATION SYSTEM

- 4.2.1 The water reticulation system is to be installed IAW the specifications and drawings:
 - a. Supply and install pipe work IAW the water service plan, which is to be laid in at a minimum of 300mm below GL with warning tape to be laid 150mm above top of pipe. Fittings are to be 50mm poly/Class 6 UPVC with isolation valves required as per plans. These isolation valves are to be housed in, and be accessible through a concrete in-ground pit. All fittings shall be adequately sealed with plumbers tape and securely tightened to ensure that no leaking occurs.
 - b. Supply and install all tap ware in the buildings IAW the design plans. The Contractor is to present samples of all tap ware to the PM or PM's Rep for inspection and approval prior to procurement and installation.
 - c. All tap ware / fixtures' are to have cut off valves (1) each. To include main water cut off value. Water Heater (WH) shall have (2) valves one for Hot Water entering and one for Cold Water leaving.
 - 4.2.2 **Note:** Give notice if any existing services are encountered.
-

4.2.3 Hydrostatic Testing

4.2.3.1 Water services shall not show any leakage when subjected to a hydrostatic pressure of 150kPa for a period of not less than 30min.

4.2.3.2 The test shall be performed on installed piping prior to burial or concealment. In the case of pipe systems with elastomeric seals, the piping shall be backfilled leaving joints exposed until completion of the test.

4.2.3.3 Note: When a pressure test is carried out, it may be necessary to disconnect and cap the water service to isolate it from the water main, fixtures and appliances, which may be damaged by the test pressure applied.

4.3 INSPECTING AND TESTING

4.3.1 Give 72 hours notice to the PM or PM's Rep for inspection of the following (BEFORE ANY BACKFILLING)

- a. All installed pipe work;
- b. Pressure testing of completed installation; and
- c. Commissioning of the system

4.4 TRENCHING AND BACKFILLING

4.4.1 All trenches shall be excavated and backfilled to the following requirements:

- a. Trenches are to be a minimum width of 300mm plus pipe diameter in depth, with the bottom free of sharp objects or tree roots;
 - b. Prior to any trenches being backfilled, all pipe work/water reticulation system is to be pressure tested in the presence of the PM or PM's Rep and results are to be recorded;
 - c. All services shall be surrounded by 100mm of sand or fine grained soil with no hard edge objects permitted to come into contact with, or rest against, any pipe or fitting; and
 - d. Any backfill within 300mm of the top of pipe shall be free of builder's waste, bricks, concrete pieces, rocks or similar material which would be retained on a 75mm sieve.
-

SECTION 5 ELECTRICAL SERVICES

5.1 GENERAL REQUIREMENTS

- 5.1.1 The Contractor shall supply and install the complete electrical reticulation system, as detailed within the drawings and specification. All work shall be performed by a qualified electrician who is trained in proper electrical wiring, earthing, and generator systems.
- 5.1.2 All electrical distribution shall be in underground PVC conduits sized 100mm in diameter. A fibreglass or concrete pull box shall be installed every 100 meters or any time that a service connection is made underground or its direction changed. If installed below a footpath or driveway the surface of the lid is to be installed flush with the finished surface of the footpath or driveway and incorporate a trafficable lid.
- 5.1.3 All trenches shall be a minimum of 700mm deep and the bottoms of all trenches shall be clean from all sharp objects and tree roots.
- 5.1.4 All interior cabling shall be chased into any masonry walls and concealed under the surface in PVC conduit of not less than 25mm in diameter, with all circuits to be installed in their own conduit.

5.2 CABLE SIZING AND CODING

- 5.2.1 The mains distribution cable (underground) shall be 4 core 16mm² fully insulated cables, complete with a separate 6mm earth cable. The cabling shall meet the following guidelines:
 - a. Active phase 1 - red
 - b. Active phase 2 - white
 - c. Active phase 3 - blue
 - d. Neutral - black
 - e. Earth - green and yellow or green
- 5.2.2 All interior cabling shall be a minimum of 2.5mm² insulated copper cabling.

5.3 SUB- BOARDS

- 5.3.1 There is to be a MSB located in the generator shed with a sub-board fitted internally within the accommodation building, with that sub-board connected to an external electrical pit located adjacent to the sub board wall and connected via a 50mm conduit. The sub-boards are to have, as a minimum, the following capacity:
 - a. 1 x 3 phase breaker;
 - b. 2 x 10 amp breakers – lighting circuits;
 - c. 1 x 10 amp breaker – fan circuit;
-

- d. 3 x 15 amp breakers – power circuits; and
- e. 3 x 15 amp breakers – spares.

5.4 EARTHING REQUIREMENTS

- 5.4.1 The sub-board for the each building is to have a separate 19mm copper earth-stake / rod driven into the ground adjacent to the electrical pit. The earth rod must be in the ground at least 150cm and be exposed at least 30cm from the surface. A 6mm² earth cable is to be secured to the earth rod with an earth clip, painted with galvanizing paint and connected to the sub-board.

5.5 ELECTRICAL ACCESSORIES

- 5.5.1 All electrical accessories shall be installed as per the following requirements:
- a. All electrical fittings are to be approved by the PM's Rep prior to installation.
 - b. All electrical fittings are to be mounted using no less than two fixings.
 - c. Power socket outlets are to be installed at a height of 300mm, except for in wet areas where they are to be installed at a height of 1300mm, and a minimum of 500mm away from basins. All sockets are to be rated at a minimum 10 Amps.
 - d. All light switches and fan controllers are to be mounted at 1300mm above the finished floor level.
 - e. All ceiling fans are to be 4 blade variant with a power consumption rating of 70W.
 - f. All external lights and switches are to be weather proof and are to be approved by PM's Rep prior to installation.
 - g. Hot water service is to be 225lt external system and is to be approved by the PM's Rep prior to installation.
 - h. All conduits within concrete slabs, walls and ceilings are to be fixed in place by suitable fixings at a spacing of no greater than 300mm. The conduit is to be chased into the brickwork with a minimum of 10mm cover. Electrical work is to be inspected prior to rendering.
 - i. All electrical connections are to be adequately insulated so that the cable will not separate over time.
-

5.6 TESTING AND COMMISSIONING

5.6.1 Prior to the completion of the project, the Contractor is to conduct the following minimal electrical installation testing in the presence of the PM's Rep:

- a. Earth Resistance and Continuity Test (main earth).
 - b. Insulation Resistance Test (of installation).
 - c. Earth Resistance and Continuity Test (other earthed components/parts).
 - d. Polarity Test (mains).
 - e. Polarity Test (final sub circuits and connections).
 - f. Certificates of testing are to be submitted to the PM's Rep.
-

SECTION 6 LPG GAS SERVICES

6.1 GENERAL REQUIREMENT

- 6.1.1 The Contractor shall supply and install the complete LPG reticulation system, as detailed within the drawings and specification. All work shall be performed by a qualified or suitably trained gas fitter.
- 6.1.2 All LPG distribution lines are not be laid underground and are to be of copper and or galvanised metal construction.

6.2 GAS ACCESSORIES

- 6.2.1 All LPG accessories shall be installed as per the following requirements:
 - a. All gas fittings are to be approved by the PM's Rep prior to installation.
 - b. The gas bottles (2 x 45kg sized bottles) are to be placed and secured in a steel mesh cage which is on top of a concrete pad IAW project drawings.
 - c. The gas bottle is to be fitted with an appropriate regulator capable of reducing pressure down to 2.7kPa.
 - d. A four burner LPG cook top oven is to be installed to the kitchen IAW the project drawings. The model and type is to be approved by the PM's Rep prior to installation.

6.3 TESTING AND COMMISSIONING

- 6.3.1 Prior to the completion of the project, the Contractor is to conduct the following minimal gas installation testing in the presence of the PM's Rep:
 - a. A soapy water test on all joints and fittings, under pressure at 7kPa.
 - b. Final connection test to appliance under pressure at 1.5kPa.
 - c. Certificates of testing are to be submitted to the PM's Rep.
-

SECTION 7 BUILDING FINISHES

7.1 RENDERING

- 7.1.1 All walls shall be rendered on both faces with a 10mm thick coating of cement rendering. The render ratio is to be one part cement, one part lime, five parts washed sharp sand 1:1:5.
- 7.1.2 The background surface to be rendered should be free from laitance, paint, oil, dust and any dirt or other loose material that may prevent a good bond from forming between the background and the render. Render should be applied within half an hour of mixing.

7.2 DOORS AND INSTALLATION

- 7.2.1 All doorframes and doors shall be of aluminium construction and be installed IAW the project drawings. Where glass inserts are required the glass shall be 4mm thick.
- 7.2.2 The installation of doors shall include the frames, prefabricated doors, and associated hardware. The door style is to be approved by the PM's Rep prior to placement.
- 7.2.3 All joints between masonry and aluminium doorframes are to be caulked to prevent the passage of wind and water. Material should have silicon applied with a caulking gun to a dry, clean surface. The Contractor shall provide door handles and locksets that are keyed alike, with one key to all doors. Door hinges are not to be painted.

7.3 WINDOWS AND INSTALLATION

- 7.3.1 Windows shall be aluminium framed, with glass thickness of 4mm IAW the drawings and specifications. The window style shall be approved by the PM or PM's Rep prior to purchase. All opening windows are to have locking latches.
- 7.3.2 All joints are to be caulked between the masonry and aluminium to prevent the passage of wind and water. Material should have silicon applied with a caulking gun to a dry, clean surface.

7.4 PAINTING

- 7.4.1 All walls shall be painted both internally and externally and is not to occur until all render and concrete is full cured, a minimum of 42 days. Prior to painting, the PM or PM's Rep shall inspect the rendering and give a notice to proceed with the painting works. The Contractor is to paint both interior and exterior walls, ceilings, and all trim work before electrical fit-out. The paints used are to be as follows:
 - a. **All surfaces** - shall receive 1 coat of an oil-based primer that is compatible with all subsequent finishing coats.
 - b. **Exterior walls** - shall receive 3 coats of exterior grade acrylic paint so as to achieve maximum coverage.
 - c. **Interior walls** - shall receive 2 coats of an acrylic water-proof paint.
-

- d. **Ceilings** - shall receive 2 coats of white oil based paint.

7.4.2 The colour schedule to be used will be advised prior to the purchase of any paint.

7.5 FLOOR COVERINGS

7.5.1 Tile samples shall be approved by the PM's Rep prior to placement. All surfaces shall be dry, free of dust and clean prior to tiling. Tiles will be placed on a mortar bed of 1 part cement and 3 parts sand no greater than 20mm thick. Nominal tile sizes and types are detailed on the attached drawings and are to be installed as follows:

- a. **If Not Indicated:** If Tile is not shown or called out in plan, all kitchens & bathrooms are to be tiled floors with 1.5m onto the wall from floor up. Showers are to be completely tiled from floor to ceiling.
 - b. **Cutting:** Cut tiles neatly to fit around fixtures and fittings and at margins where necessary. Drill holes without damaging tile faces. Cut recesses where necessary for fittings such as soap holders. Rub edges smooth without chipping. Damaged tiles are to be replaced at the Contractor's expense.
 - c. **Laying:** Lightly dust the screeded surface with dry cement and trowel level until the cement is damp, or spread thin slurry of neat cement, or tile adhesive on to the back of the tile to a nominal thickness of 20mm. Do not provide mortar after initial set has occurred. Return tiles into sills, reveals and openings. Butt up to returns, frames, fittings, and other finishes. Strike and point up beds where exposed. Remove tile spacers before grouting.
 - d. **Protection:** Keep traffic off floor tiles until the bedding has set and attained its working strength. Keep the work clean as it proceeds and protect finished work from damage.
 - e. **Spacing:** The floor tiles are to be set out to give uniform joint widths as specified:
 - i **Internal** - ceramic tiling 3mm
 - ii **External** - ceramic tiling 6mm
 - f. **Fixtures:** If possible position tiles so that holes for fixtures and other penetrations occur at the intersection of horizontal and vertical joints or on the centre lines of tiles. Continue tiling fully behind fixtures, which are not built in to the tiling surface. Before tiling ensure that fixtures interrupting the tile surfaces are accurately positioned in their designed or optimum locations relative to the tile layout.
 - g. **Falls and grades:** Grade floor tiling to even and correct falls to floor wastes in accordance with drawings and specifications ensuring all wall junctions are level.
-

SECTION 8 CLOSE OUT

8.1 REINSTATEMENT

- 8.1.1. Before practical completion, clean and repair any damages caused by installation or use of temporary work and restore existing facilities used during construction to original condition.

8.2 LANDSCAPING

- 8.2.1 Plants are to be supplied for the planter boxes and are to be well suited to the local climate and are to be drought tolerant.
- 8.2.2 The plants are to be watered once a day or as appropriate until Practical Completion is achieved, at which point it will be the responsibility of the Health Centre staff to ensure this continues.
- 8.2.3 The site is to be cleared of all excess building material as well as excess spoil and the area levelled.

8.3 AS CONSTRUCTED DRAWINGS

- 8.3.1 The Contractor shall maintain one set of drawings that shall be marked with actual dimensions of the buildings and features as-built on the site. These drawings shall be kept up-to-date on the jobsite for review by PM or PM's Rep at his request. At the project completion, the as-built drawings will be certified by the Contractor and delivered to the PM or PM's Rep for transfer to the owner for their future use.

8.4 OWNER'S MANUALS

- 8.4.1 Operating and maintenance manuals on all equipment including but not limited to ceiling fans, light fixtures, and any other material for which the supplier furnishes a manual shall be delivered to the PM or PM's Rep 14 days prior to completion of the project. These manuals shall be bound in binder(s) to protect for future use.

9.1 3 PHASE(S) INSPECTION REPORT

- 9.1.1 Contractor is to notify 24-48 hrs in advance when he is getting ready to start a section of the project. PM or PM's Rep will visit the site to insure proper construction is being preformed, this meet will be documented and signed by the Contractors onsite Rep and my the PM or PM's Rep. Pictures will be taken at each phase
- 9.1.2 Phase 1: Before starting in section of work (example, concrete pad) Phase 1 PM or PM's Rep will insure forms are correct, Steel is tied and will have to contractor perform a Slump Test (See Section 2.6 Slump Test)
- 9.1.3 Phase 2: During or while construction is being done, (example concrete pad) Phase 2 PM or PM's Rep will insure contractor is properly pouring the mixture and vibrating, (see Section 2.6)
-

9.1.4 Phase 3: After section of work is completely finished (example concrete pad) Phase 3 is after pad is poured and concrete has cured and all forms have been removed. This picture will show the finished product.

9.2 Question and Answers about 3 phase inspection reports

Q. How often does the 3 phase inspection report needed be completed?

A. Each time a new area of work is starting; for example, concrete footing and slabs, concrete columns, underground utilities (EACH) unless in the same trench, windows, doors and fixtures.

Q. Each time I install a window, but I have 25 windows?

A. No, (1) inspection for all windows, PM or PM's Rep will do a report on the complete installation of (1) window, and if the Window is install correctly and everything works properly, we will give you the OKAY to install the rest of the windows to the standard at which the first window was installed.

Q. Who fills out the Report?

A. PM or PM's Rep, will complete the report with contractors site manager present, both people will sign the report at each phase of construction.

Q. Who Takes the Pictures?

A. PM or PM's Rep will take the picture and eventually the picture will be attached to the report.

9.3 (Blank) 3 Phase Inspection Report will be found in Appendix A

10.1 STANDARD STRUCTUAL DETAILS

11.1.1 Provided in Appendix B, C & D you can find several standard details that will include Footing, floor slabs, roof slabs, ring beams, stair cases, and so on. These details are to be followed with variance. We have found these design are more than adequate engineering and construction standards.

11.2 Contractor is allowed to submit design changed to the PM or PM's Rep for approval if the contractor feels our standard design will not for a particular application.



Date : Jan 2014



Central Prison Directorate (CPD)

PROJECT NAME :-Construction Prison in Nangarhar phase 1

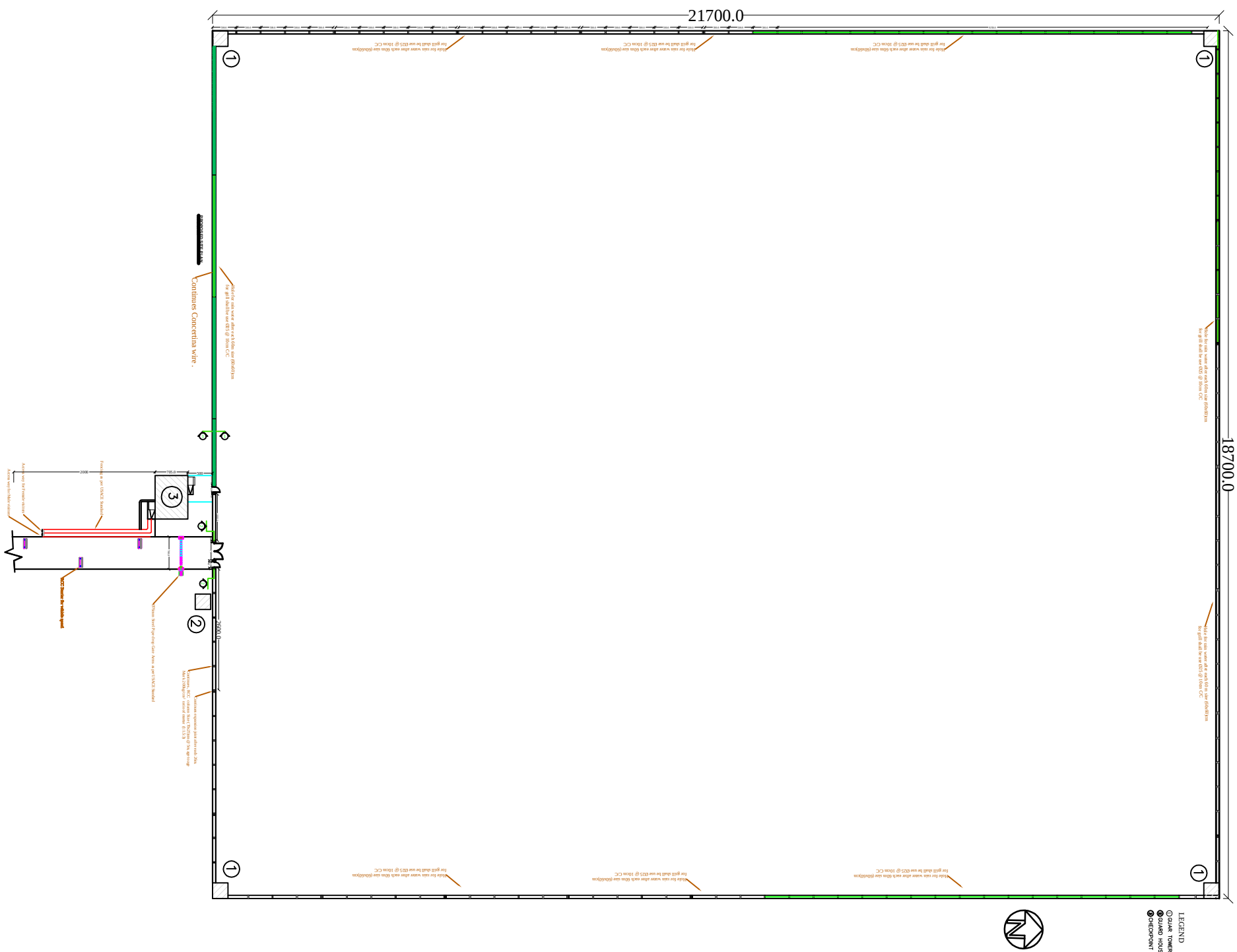
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Drawn By				Date		March, 2014			
Design By				Drawing code					
Approved by	Central Prison Directorate (CPD)			Sheet Number		1 of 15			
Denomination	GPS Coordinate								



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LOADING.



Central Prison Directorate (CPD)

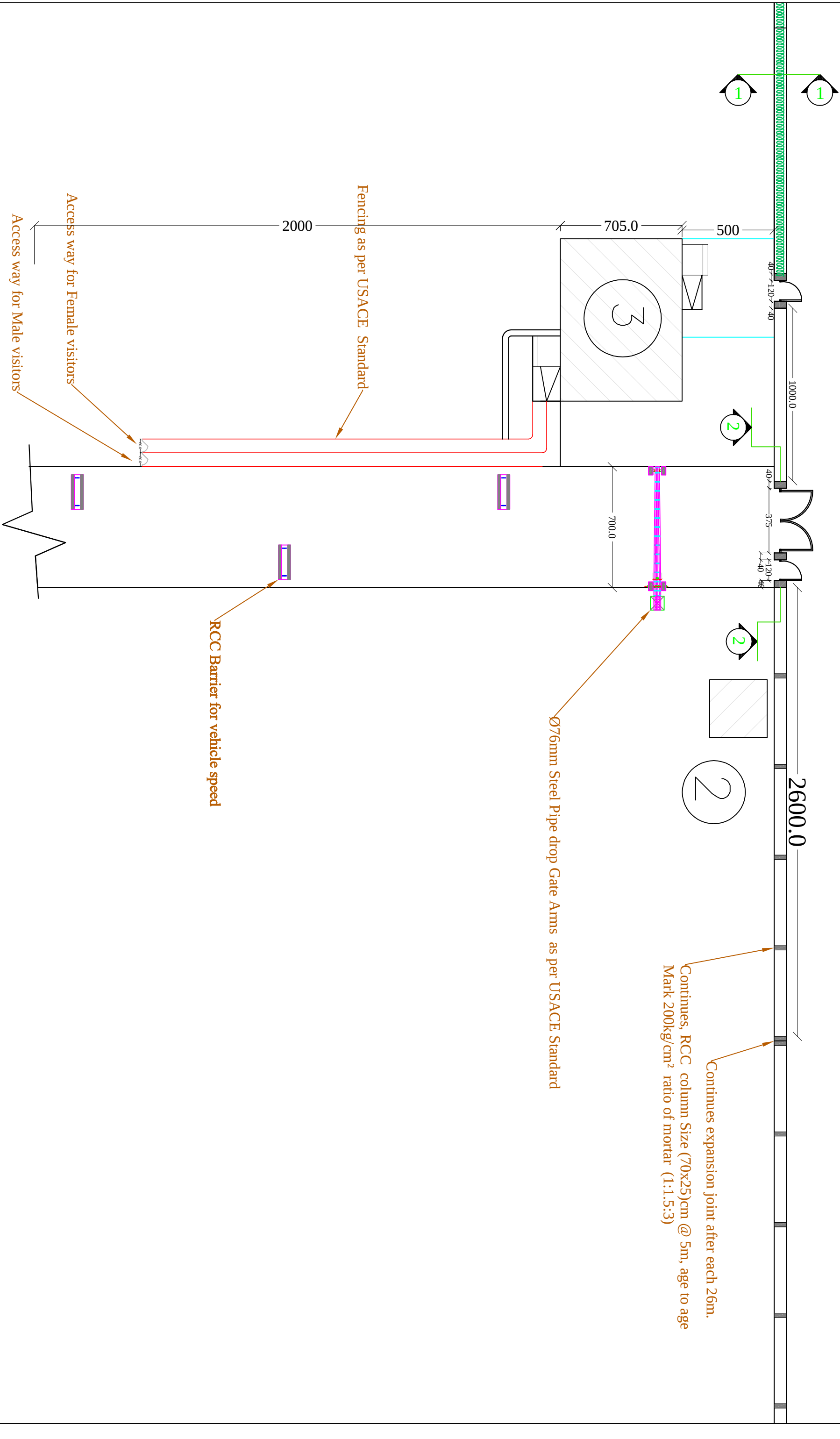
PROJECT NAME:-Construction Prison in Nangarhar phase I

CPD Engineering Department		Revision	Scale	without scale	Revision
Drawn By			Date	March , 2014	
Design By			Drawing code		
Approved by			Sheet Number	1 of 8	
Denomination	Site plan				



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Address: District 10 Sadarad Square Kabul - Afghanistan
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Central Prison Directorate (CPD)

PROJECT NAME :-Construction Prison in Nangarhar phase I

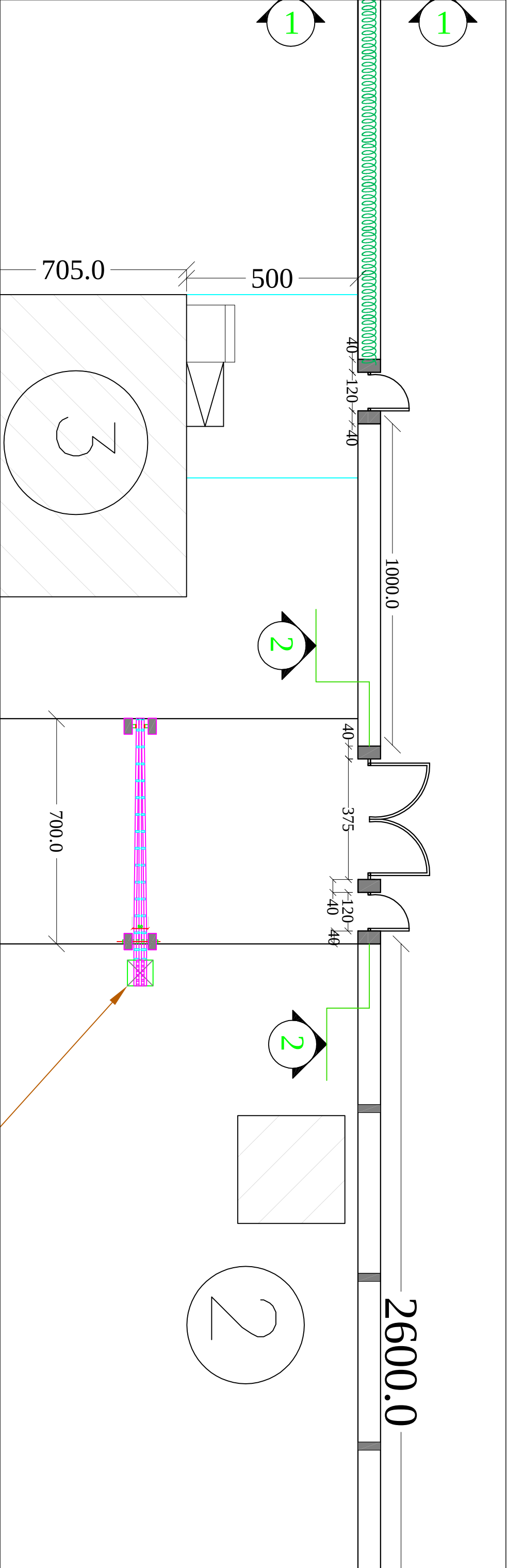
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Drawn By			Scale	without scale		
Design By			Date	March , 2014		
Approved by			Drawing code			
Denomination	Access way details		Sheet Number	2 of 8		



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Hole for rain water after each 60m size (60x60)cm for grill shall be use Ø25 @ 10cm C/C

Continues Concertina wire .

Ø76mm Steel Pipe drop Gate Arms as per USACE Standard

Continues expansion joi
Continues, RCC column Size (70x25)cm
Mark 200kg/cm² ratio of mortar (1:1.5

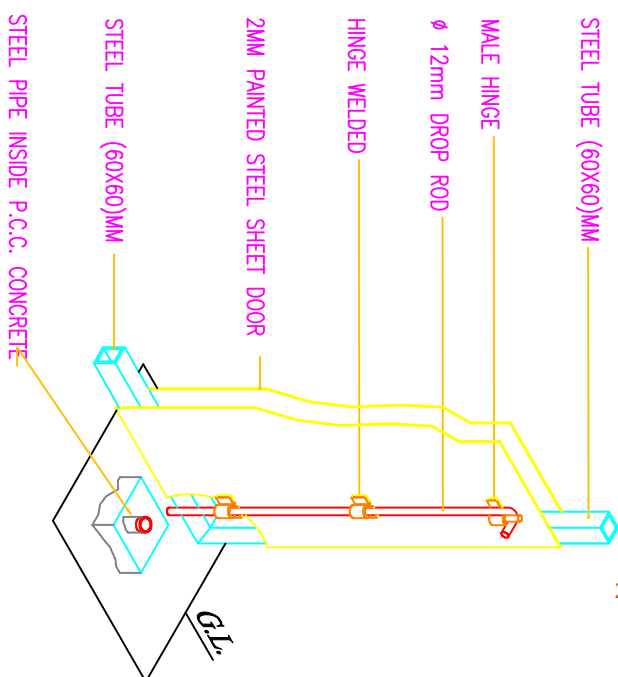
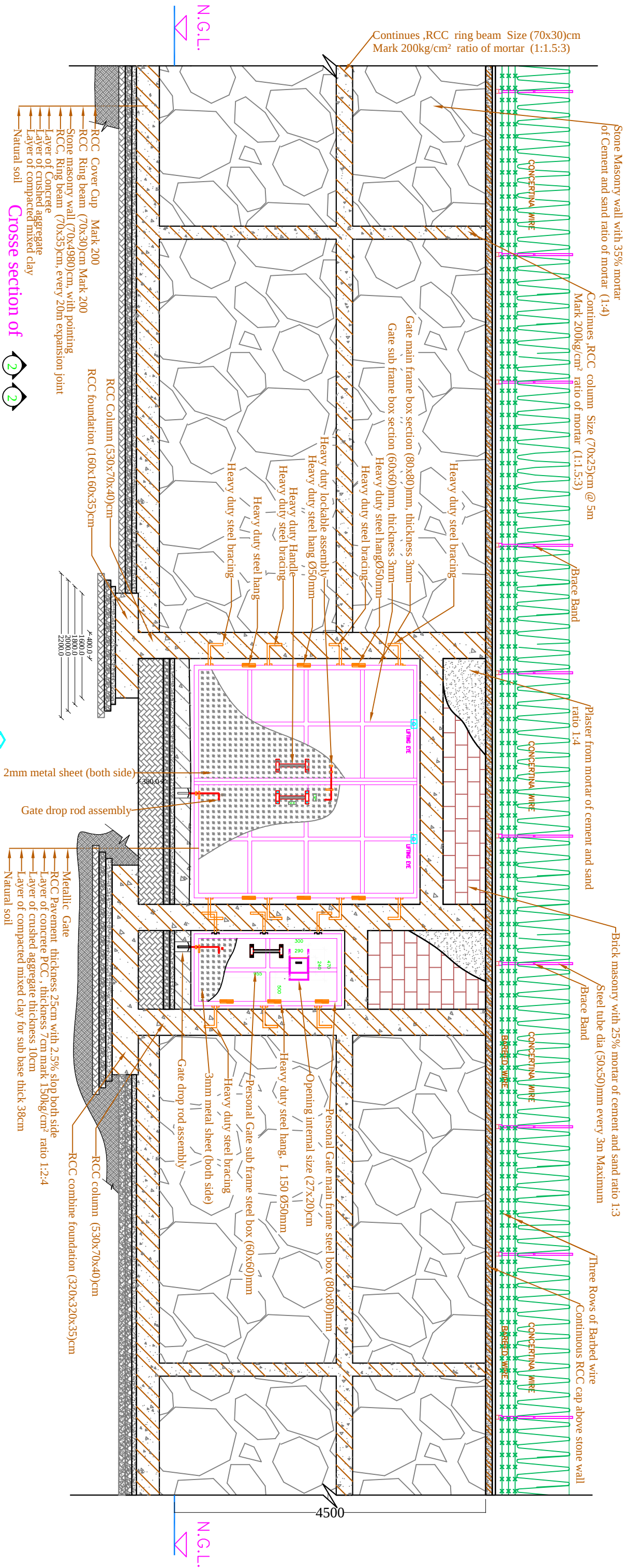
Central Prison Directorate (CPD)

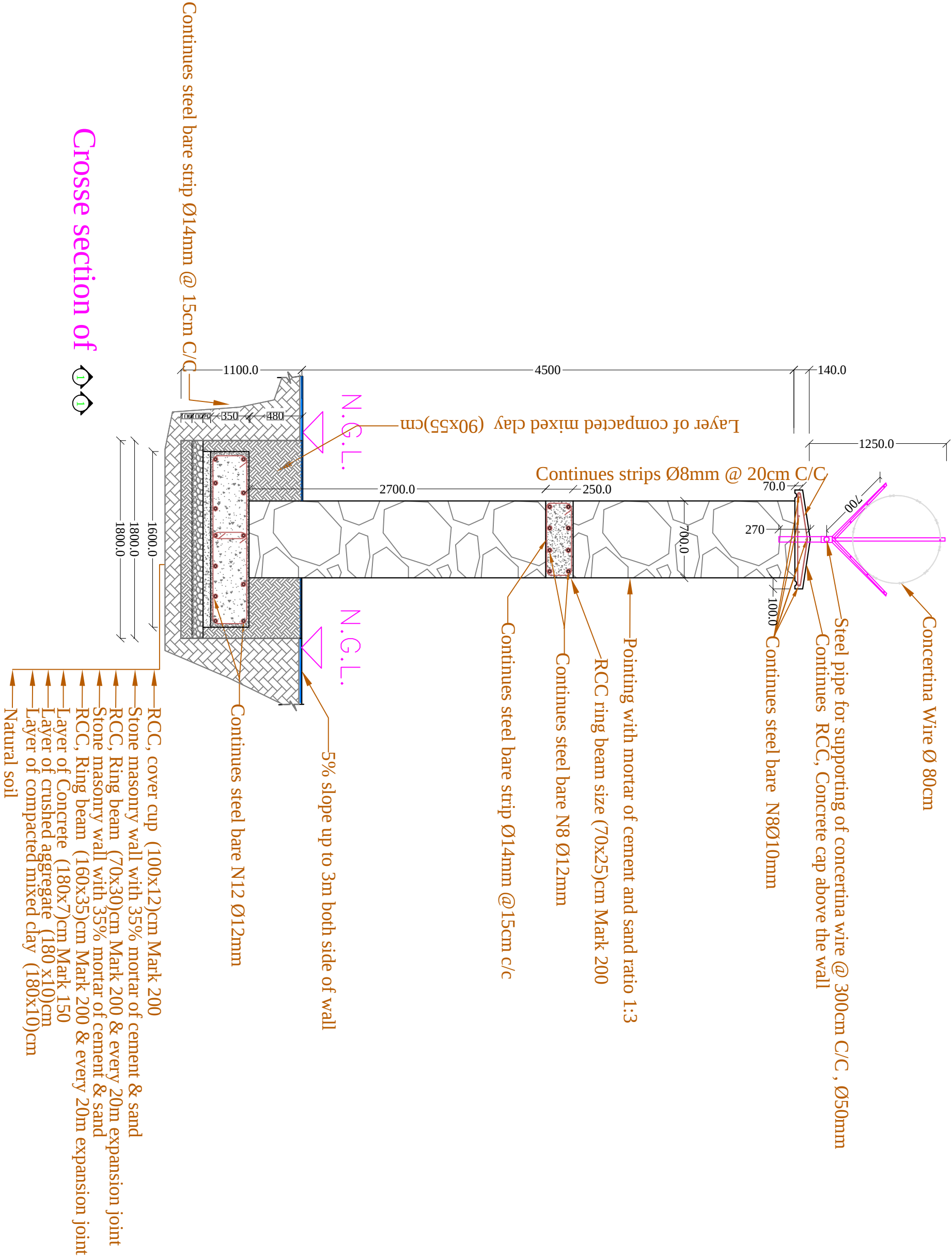
CPD Engineering Department		Fencing as per USACE Standard		without scale		Revision	
Drawn By		Revision		Scale			
Design By				Date	March , 2014		
Approved by				Drgwing code	UNDLOTF-A - 03		
Denomination				Sheet Number	3 of 8		

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Address: District 10 Sadaat Square Kabul - Afghanistan

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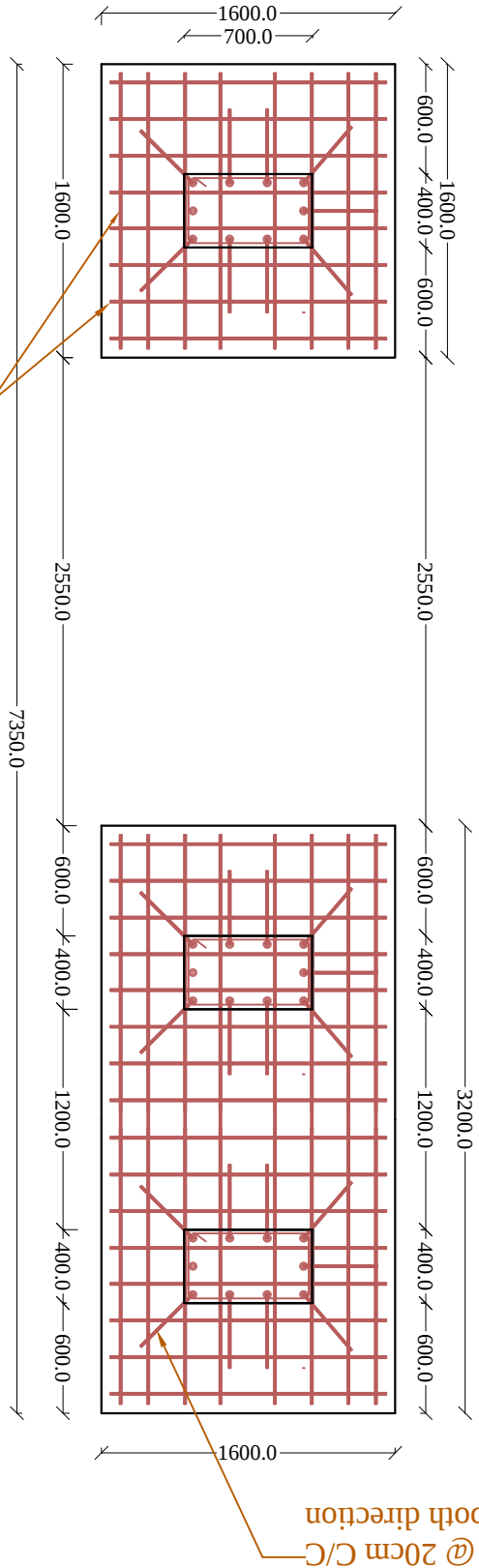
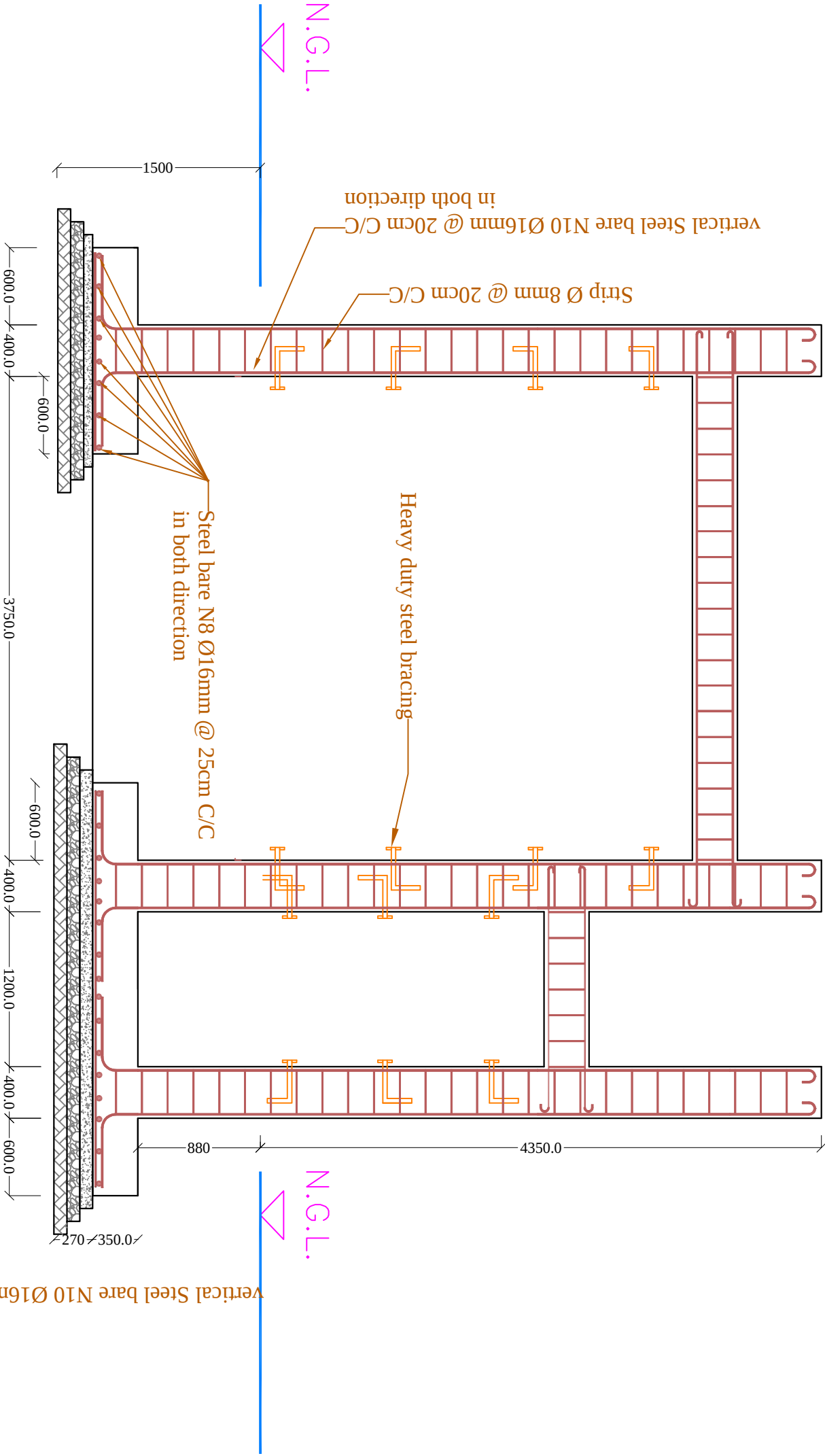




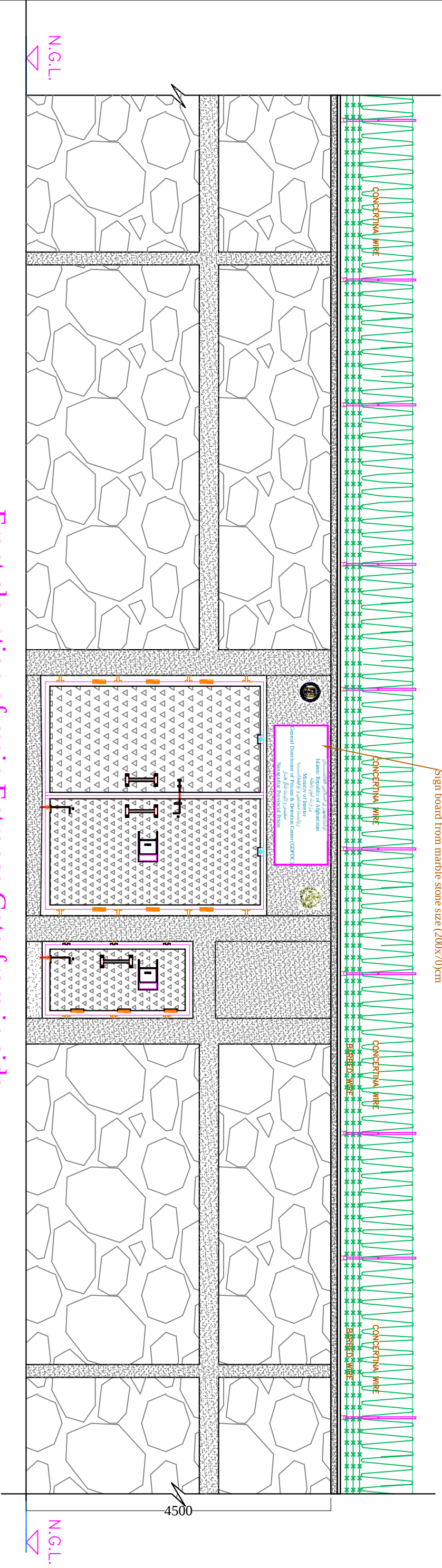
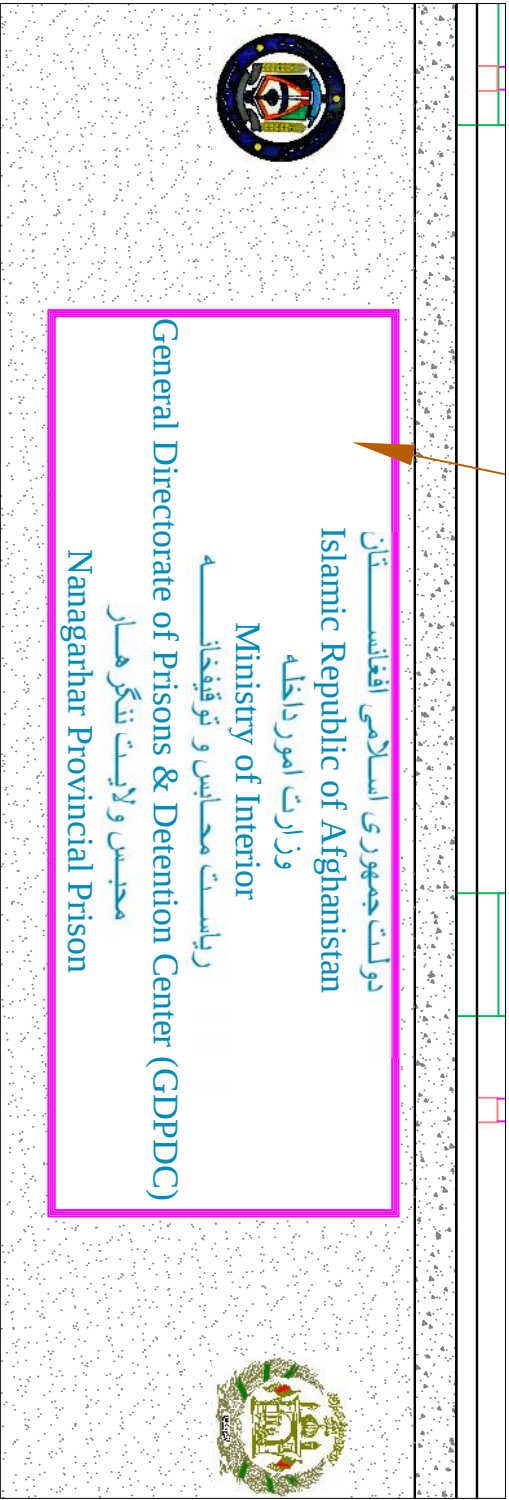
Crosse section of



CPD Engineering Department		Revision		Revision	
Drawn By		Scale	without scale		
Design By		Date	March , 2014		
Approved by		Drawing code			
Denomination	Wall Section 1-1	Sheet Number	5 of 8		



Details of RCC Column and foundation for main entrance gate



Front elevation of main Entrance Gate from in side

Central Prison Directorate (CPD)

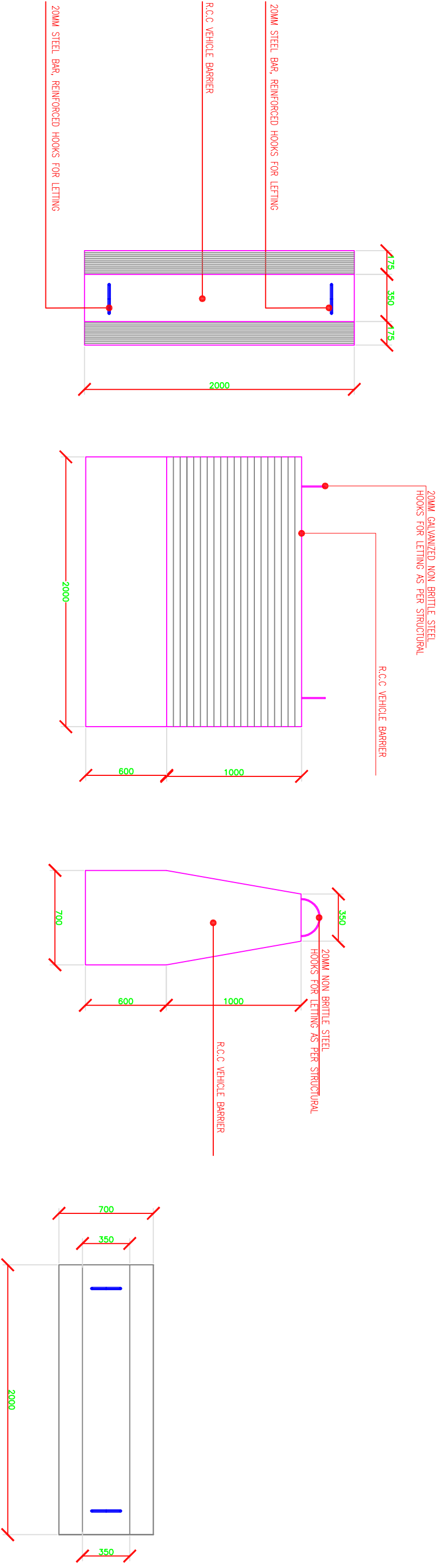
PROJECT NAME :-Construction Prison in Nangarhar phase I

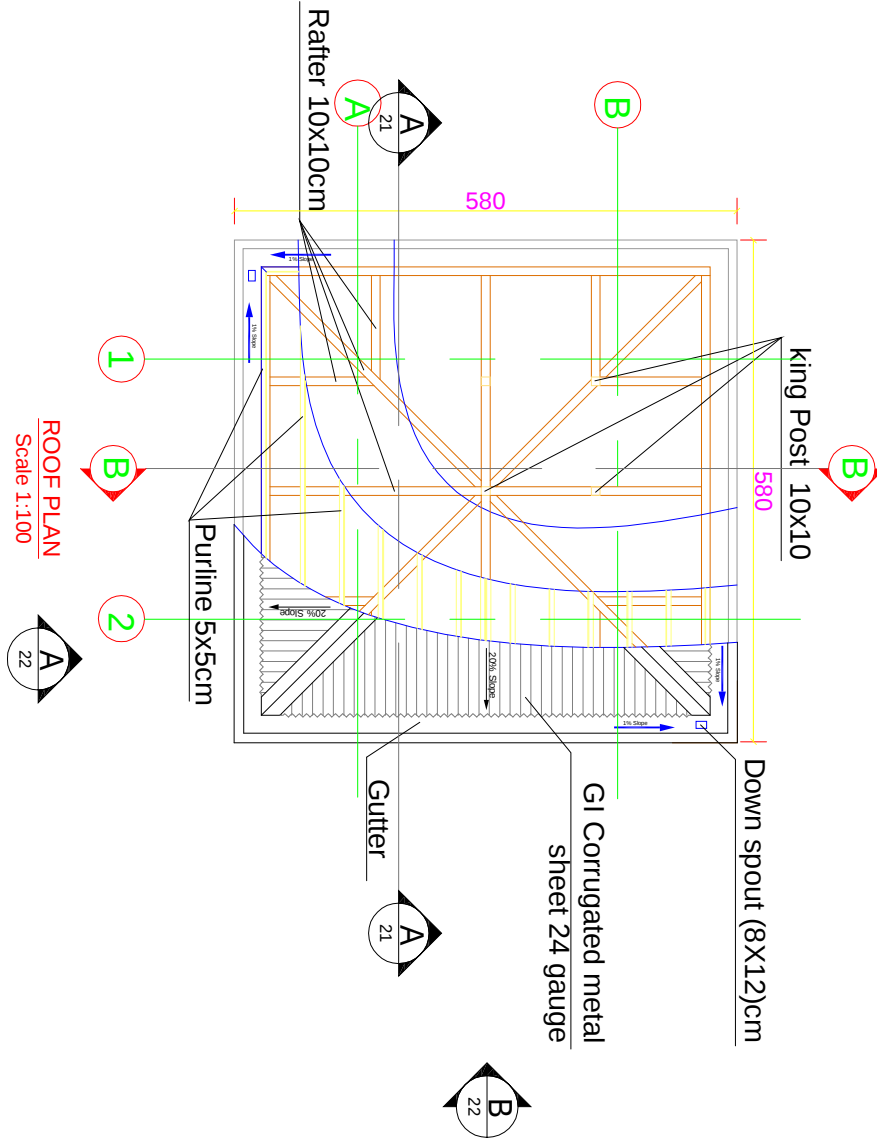
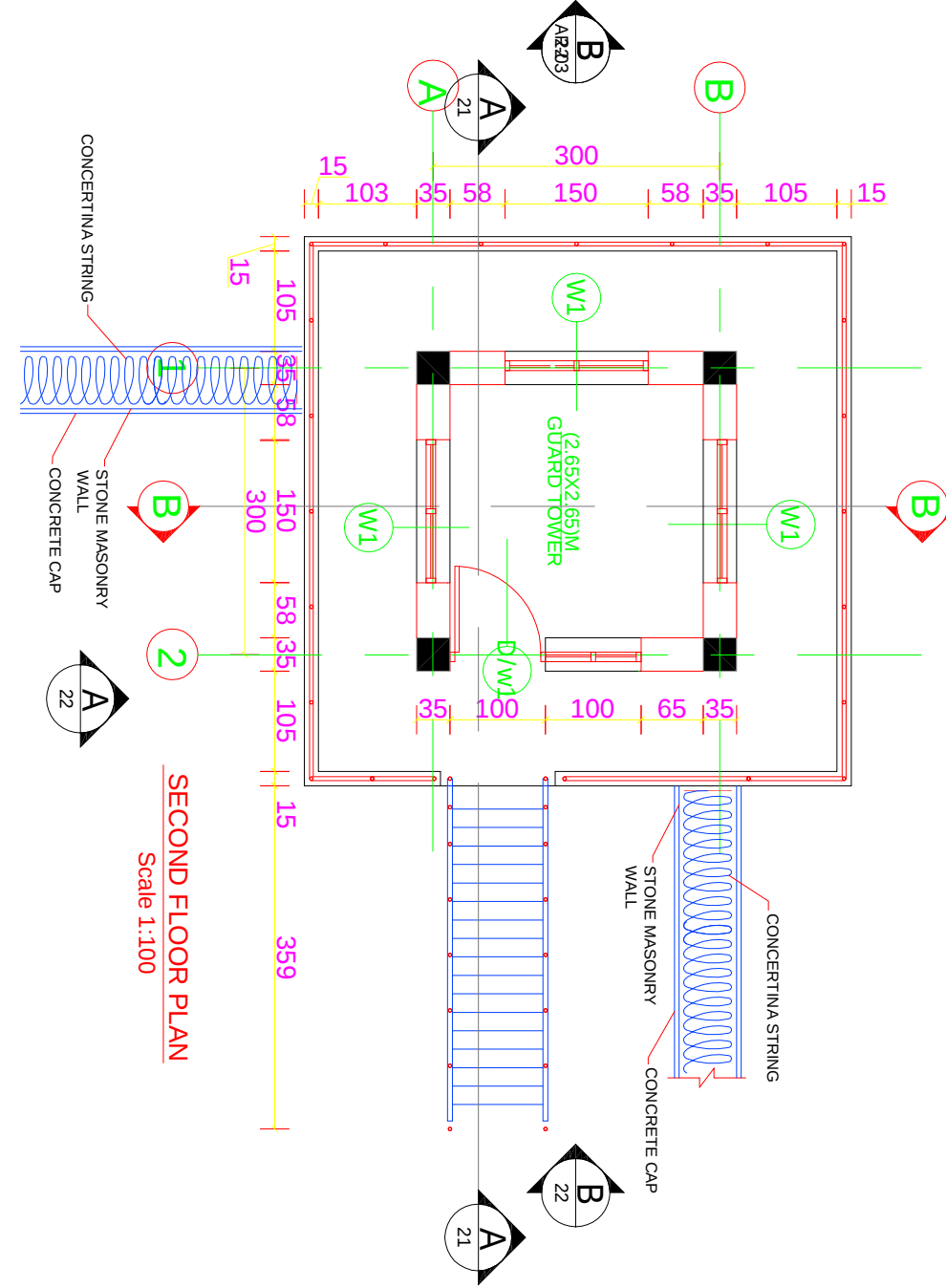
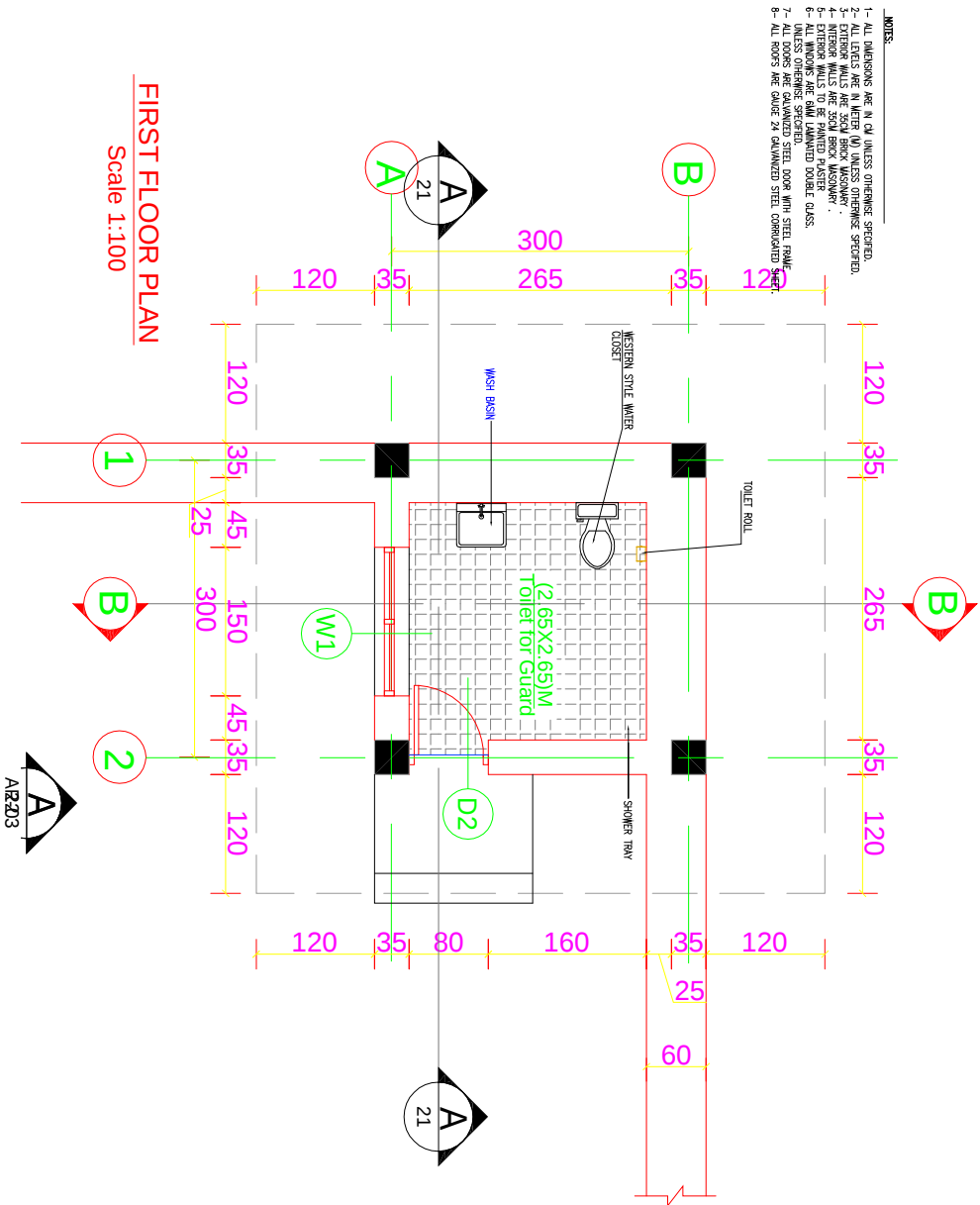
CPD Engineering Department		Revision	
Drawn By		Scale	without scale
Design By		Date	March , 2014
Approved by	Central Prison Directorate (CPD)	Drawing code	UNDLOTTA - 03
Denomination	FRONT ELEVATION OF BOUNDARY WALL		
		Sheet Number	7 of 8

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Tel : 0093 020 220 32 45





GUARD TOWER FINISH SCHEDULE				
ROOM NO	ROOM NAME	FLOOR	WALLS	CEILING
1	Guard tower	F3	W1	C1
2	Toilet	F2	W2	C1

ROOM SCHEDULE LEGEND:

FLOOR MATERIAL:

F1- 300x300x20mm TERRAZZO TILES.

F2- 200x200mm CERAMIC TILES.

F3- SEALED CONCRETE.

WALL MATERIAL:

W1- PAINTED PLASTER.

W2- 150X150mm GLAZED CERAMIC UP TO 2M

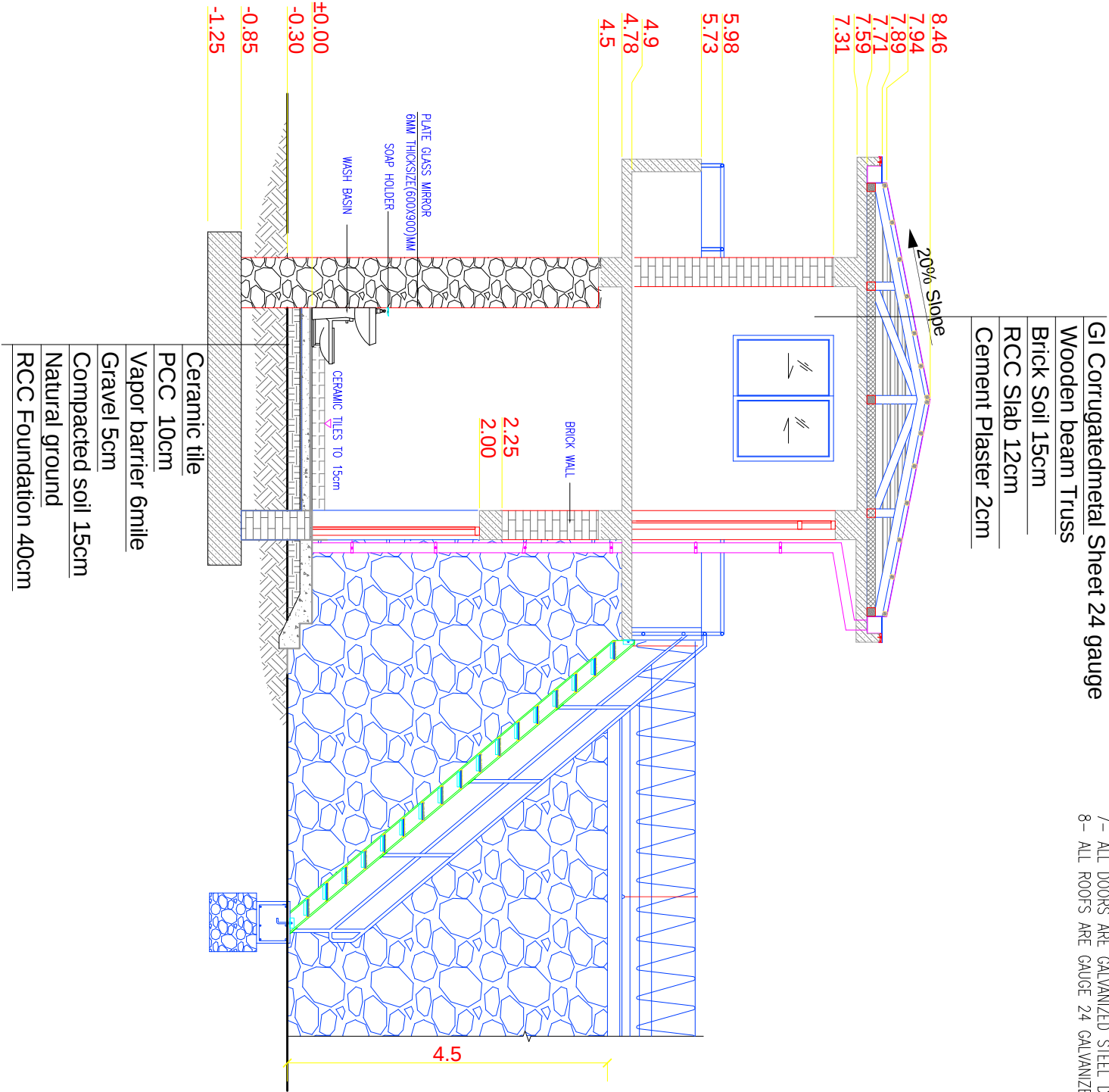
CEILING MATERIAL:

C1- PAINTED PLASTER.

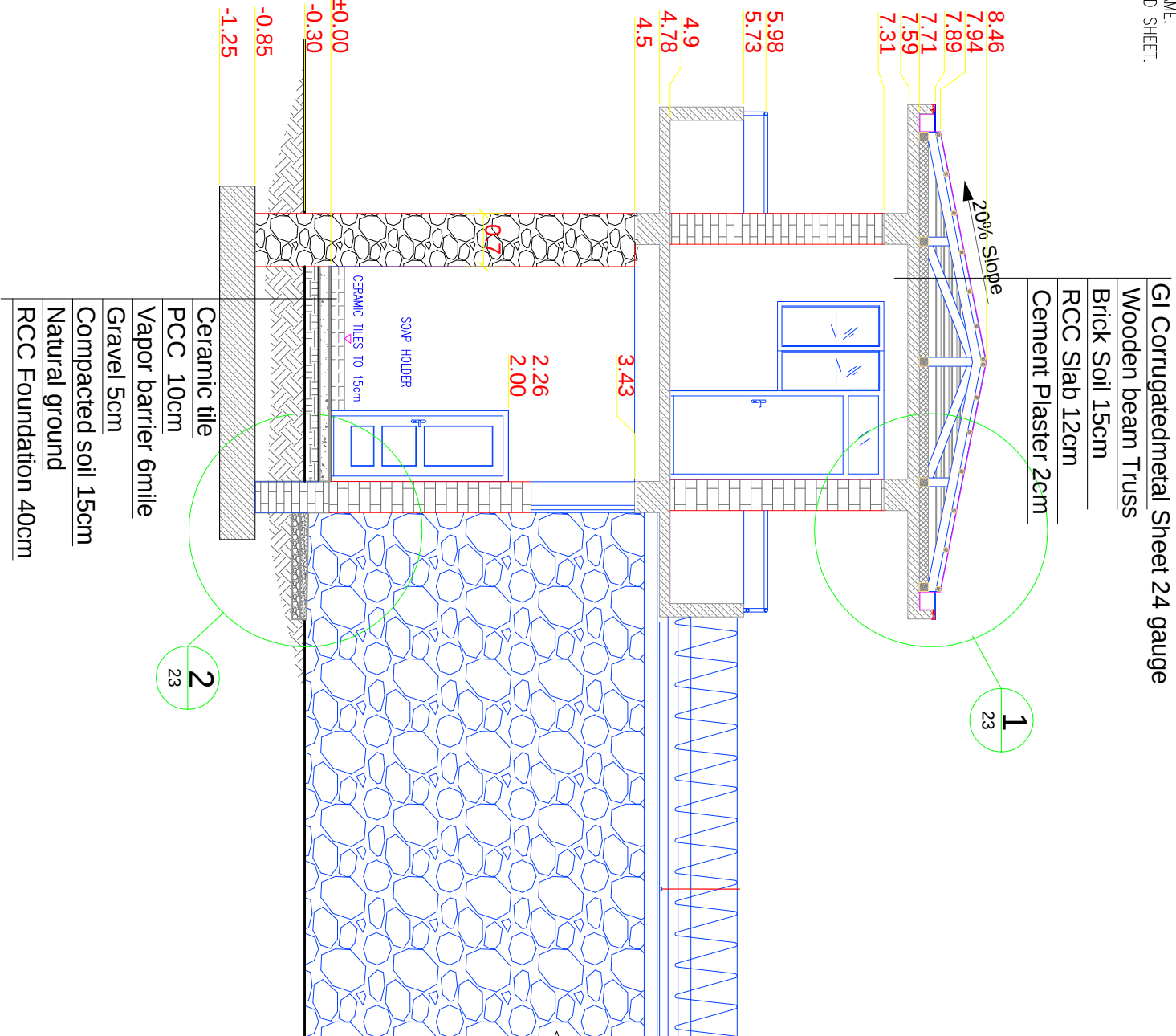
GUARD TOWER
FLOOR PLAN
& SCHEDULE

NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
- 3- EXTERIOR WALLS ARE 35CM BRICK MASONARY .
- 4- INTERIOR WALLS ARE 35CM BRICK MASONARY .
- 5- EXTERIOR WALLS TO BE PAINTED PLASTER
- 6- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS.
- UNLESS OTHERWISE SPECIFIED.
- 7- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.
- 8- ALL ROOFS ARE GAUGE 24 GALVANIZED STEEL CORRUGATED SHEET.



A
BUILDING SECTION
Scale: 1:100



B
BUILDING SECTION
Scale: 1:100



Central Prison Directorate (CPD)

Typical drawing of Guard tower for the Construction of Prison

Central prisons Directorate , Engineering Department

Drawn By		Approved By		Date	March-2014
Design By		Signature		Drawing code	Mol -03
Checked by		Date		Sheet number	2 OF 5
DENOMINATION	GUARD TOWER BUILDING SECTIONS				



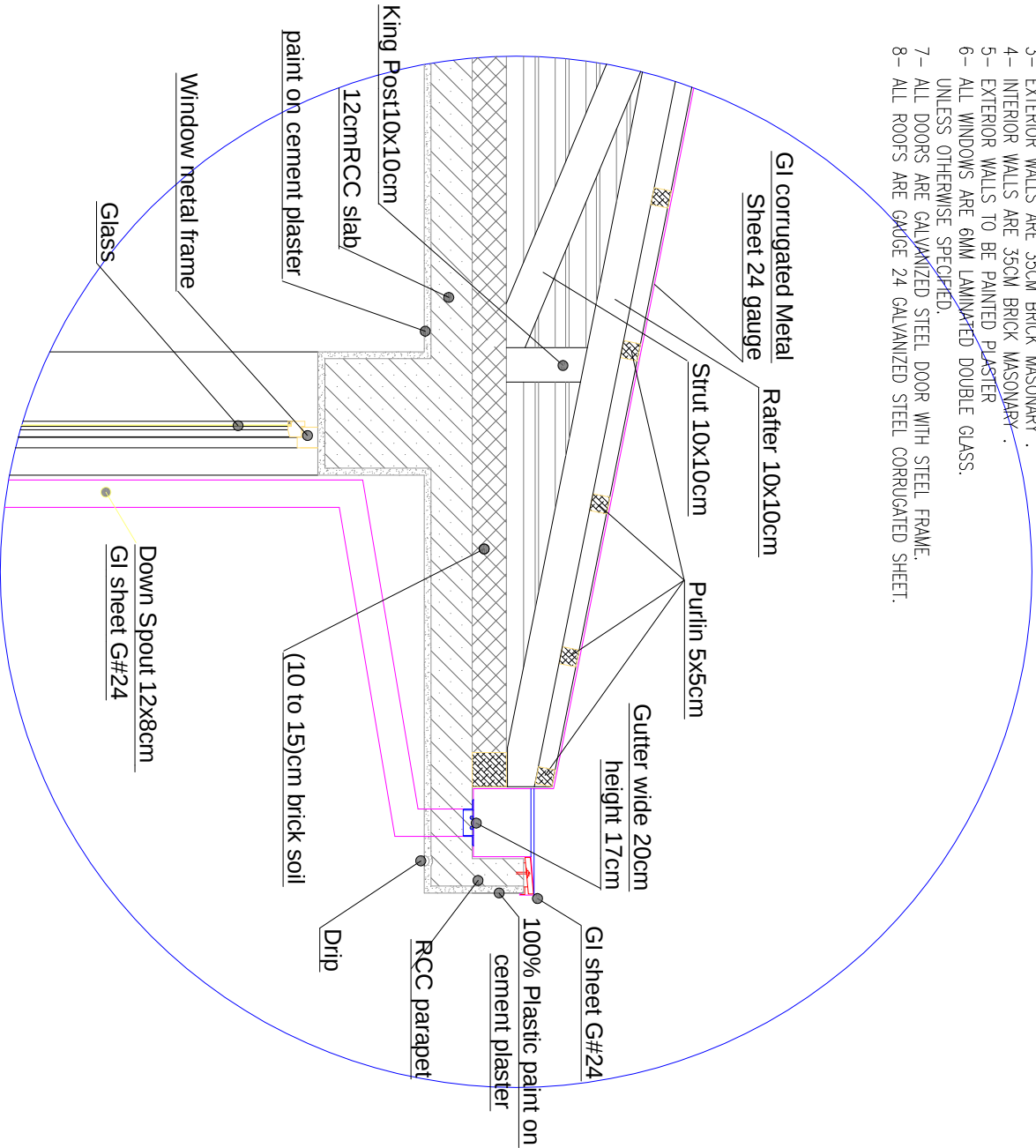
Islamic Republic of Afghanistan , Ministry of Interior

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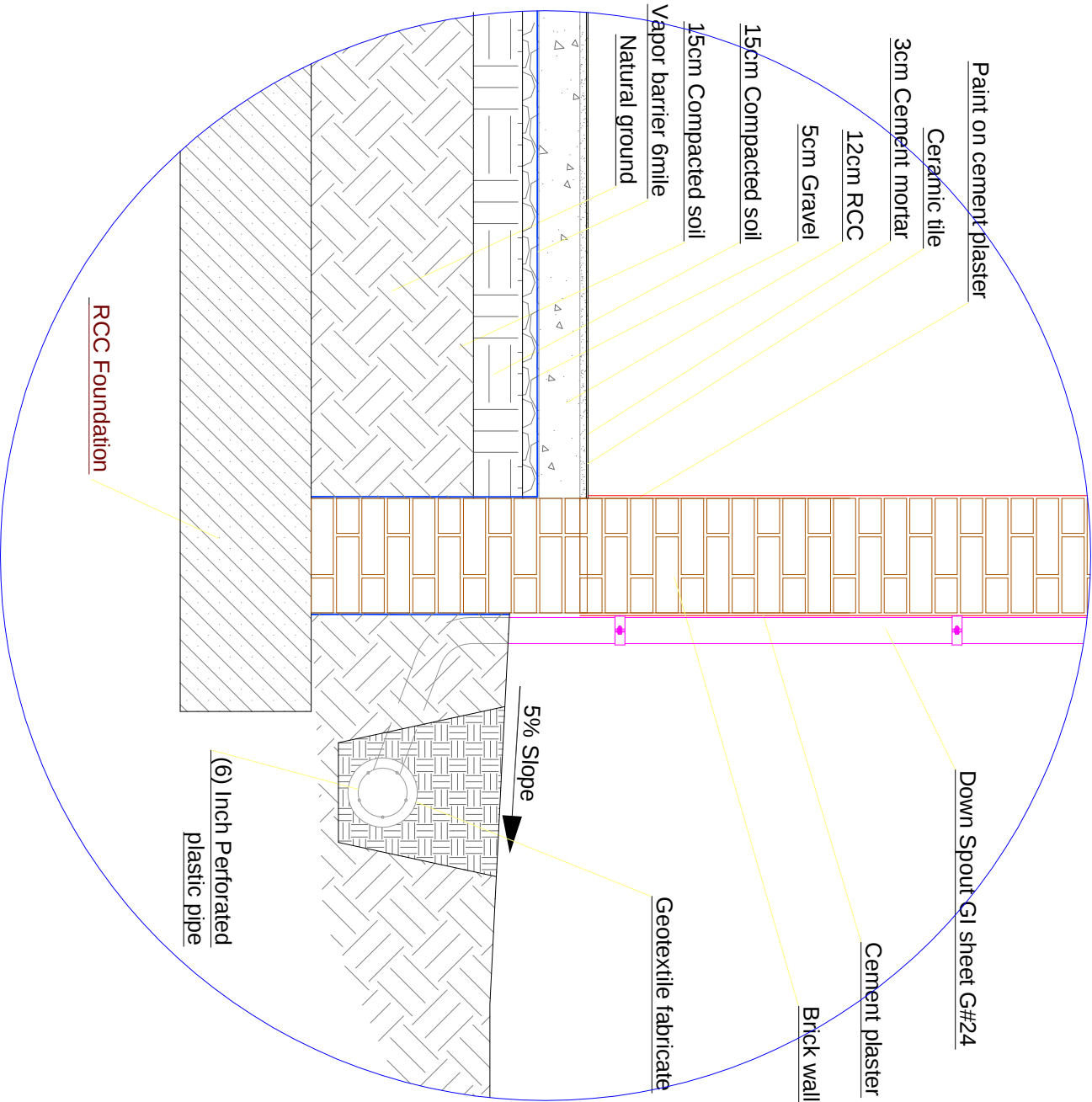
Address: District 10 Soddard Square Kabul - Afghanistan
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NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
- 3- EXTERIOR WALLS ARE 35CM BRICK MASONARY .
- 4- INTERIOR WALLS ARE 35CM BRICK MASONARY .
- 5- EXTERIOR WALLS TO BE PAINTED PLASTER
- 6- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS.
- UNLESS OTHERWISE SPECIFIED.
- 7- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.
- 8- ALL ROOFS ARE GADGE 24 GALVANIZED STEEL CORRUGATED SHEET.



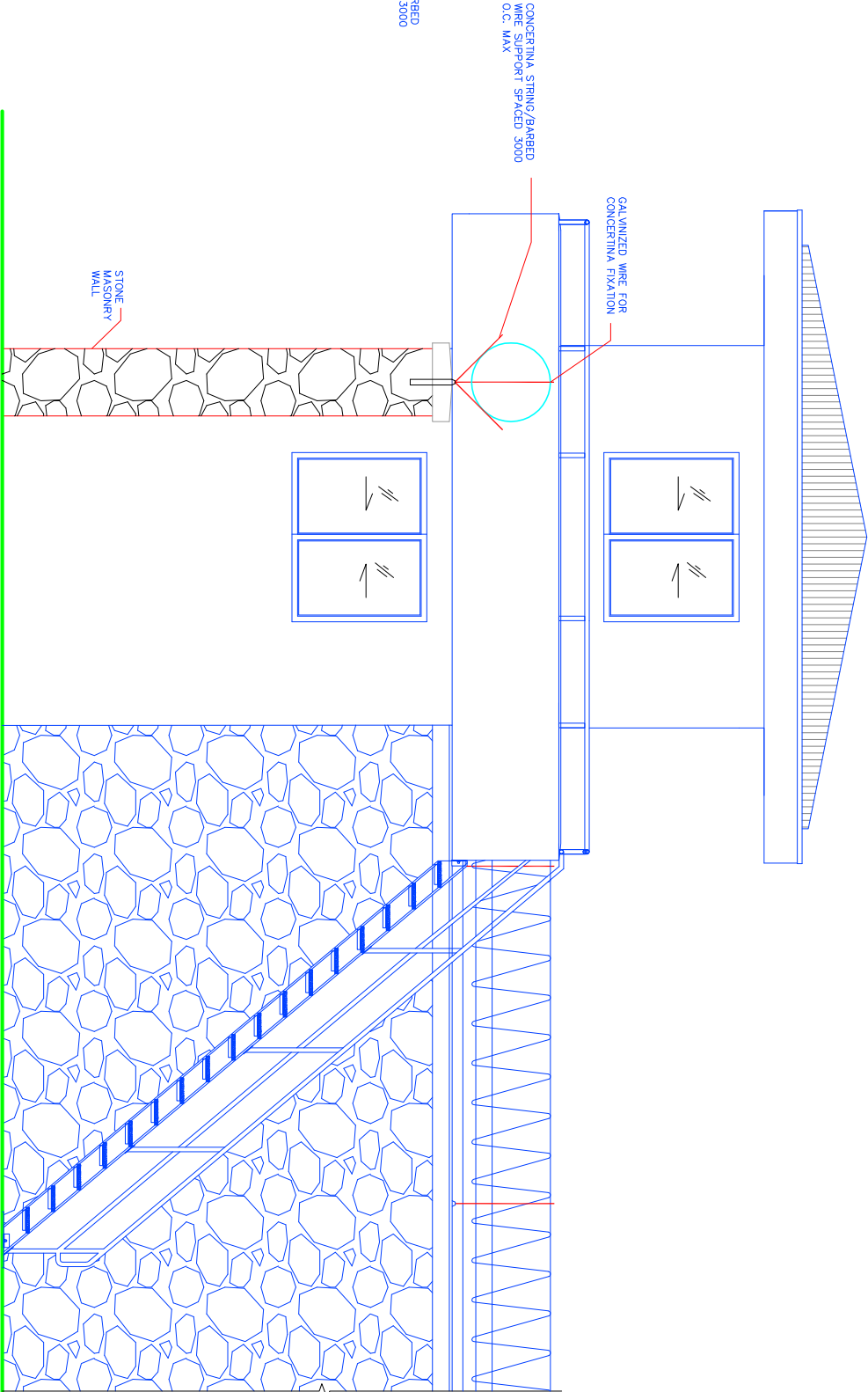
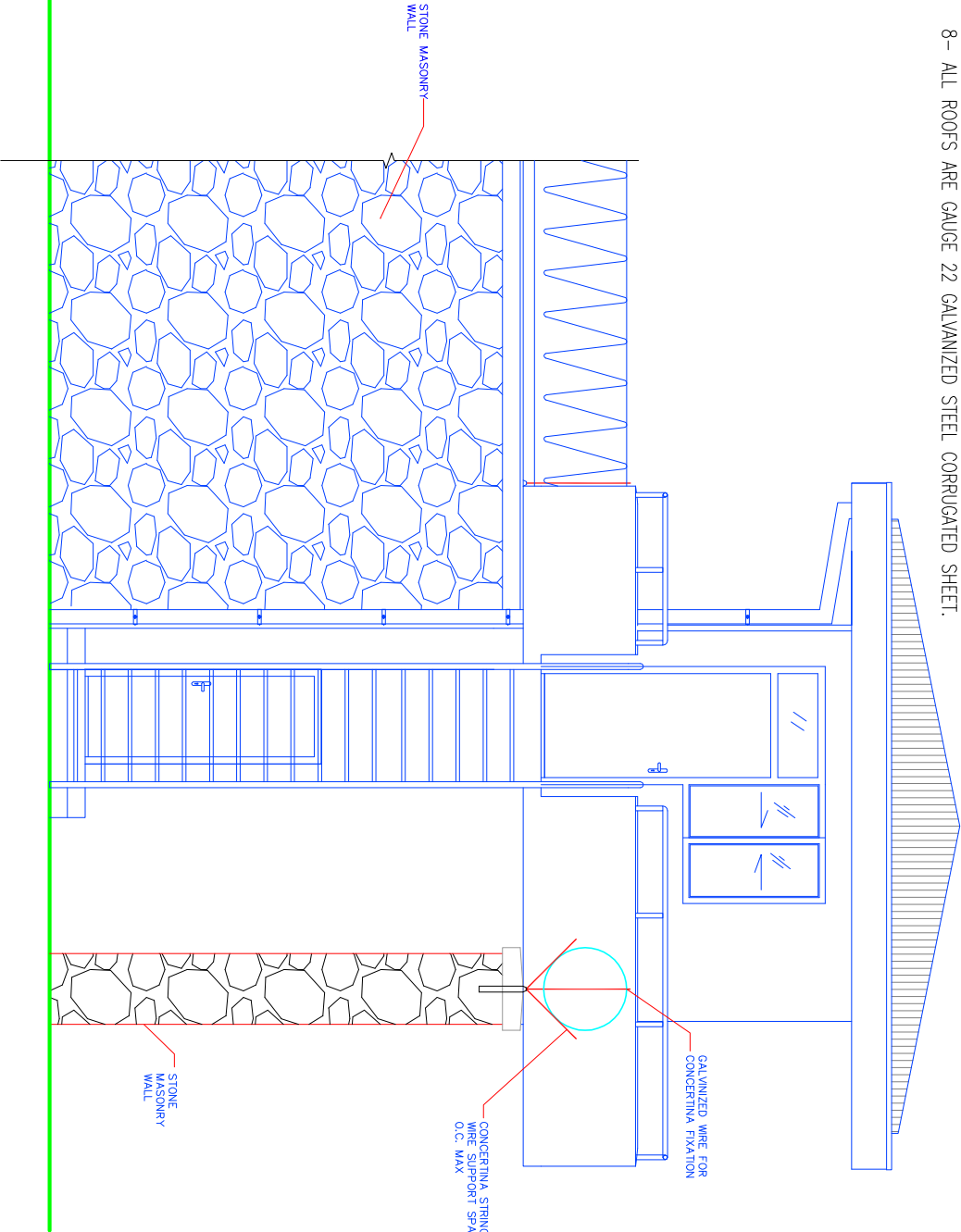
1 Gutter & parapet detail
Scale: 1:20



2 Exterior wall detail
Scale: 1:20

NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
- 3- EXTERIOR WALLS ARE 35CM BRICK MASONRY .
- 4- INTERIOR WALLS ARE 35CM BRICK MASONRY .
- 5- EXTERIOR WALLS TO BE PAINTED PLASTER
- 6- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS.
- UNLESS OTHERWISE SPECIFIED.
- 7- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.
- 8- ALL ROOFS ARE GAUGE 22 GALVANIZED STEEL CORRUGATED SHEET.



B
ELEVATION

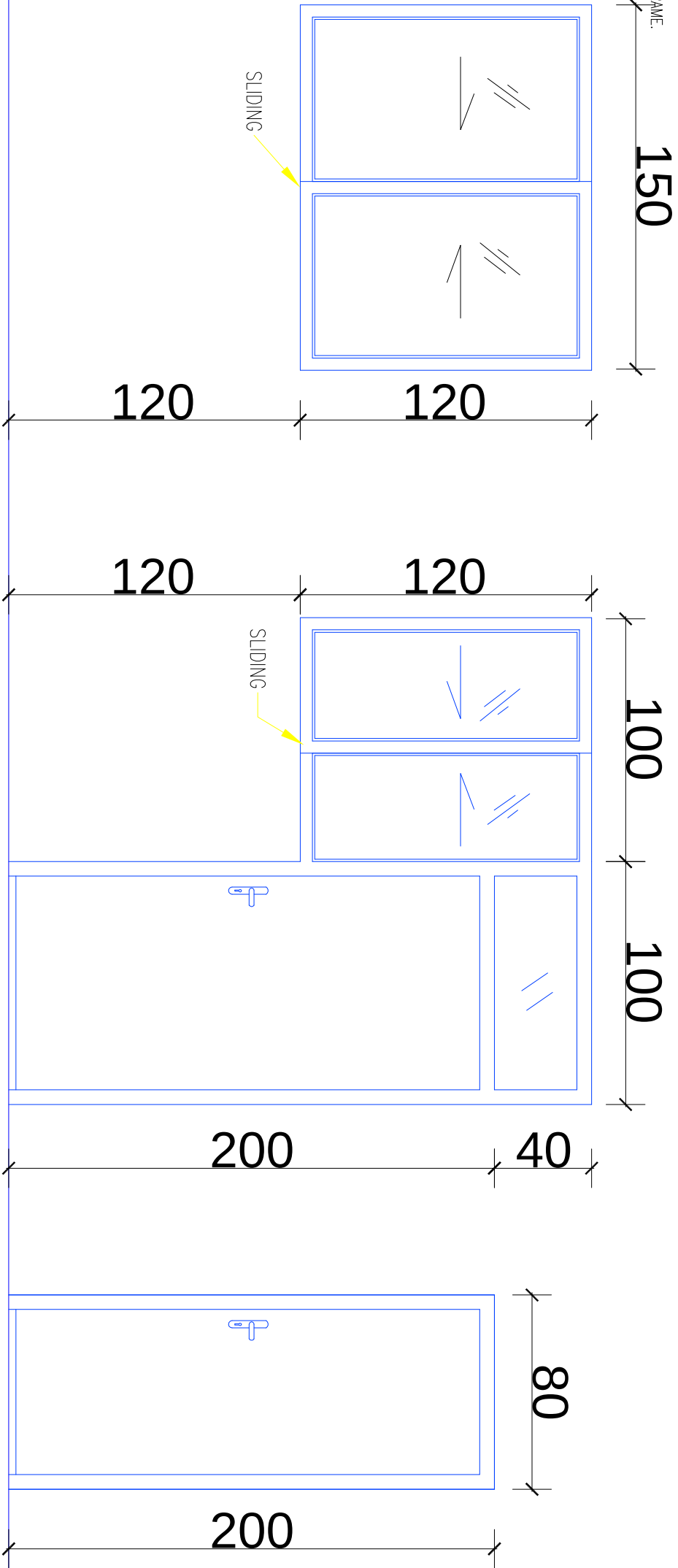
Scale: 1:100

A
ELEVATION

Scale: 1:100

GUARD TOWER
ELEVATIONS

- NOTES:
- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
 - 2- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS, UNLESS OTHERWISE SPECIFIED.
 - 3- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.



W1(4)

D/w1(1)

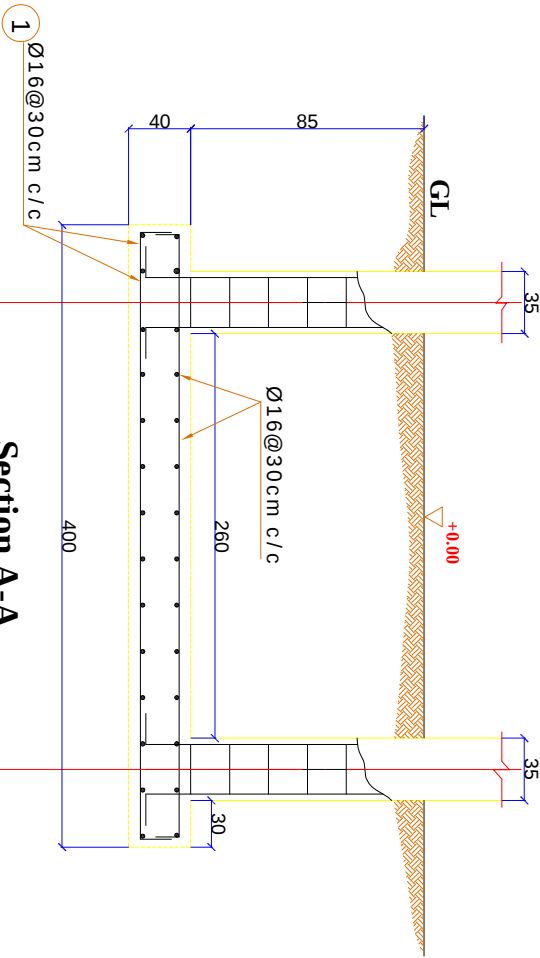
D2(1)

Door and Window elevation

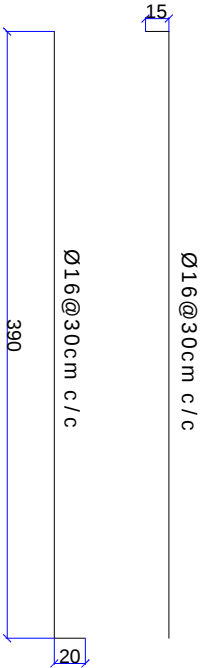
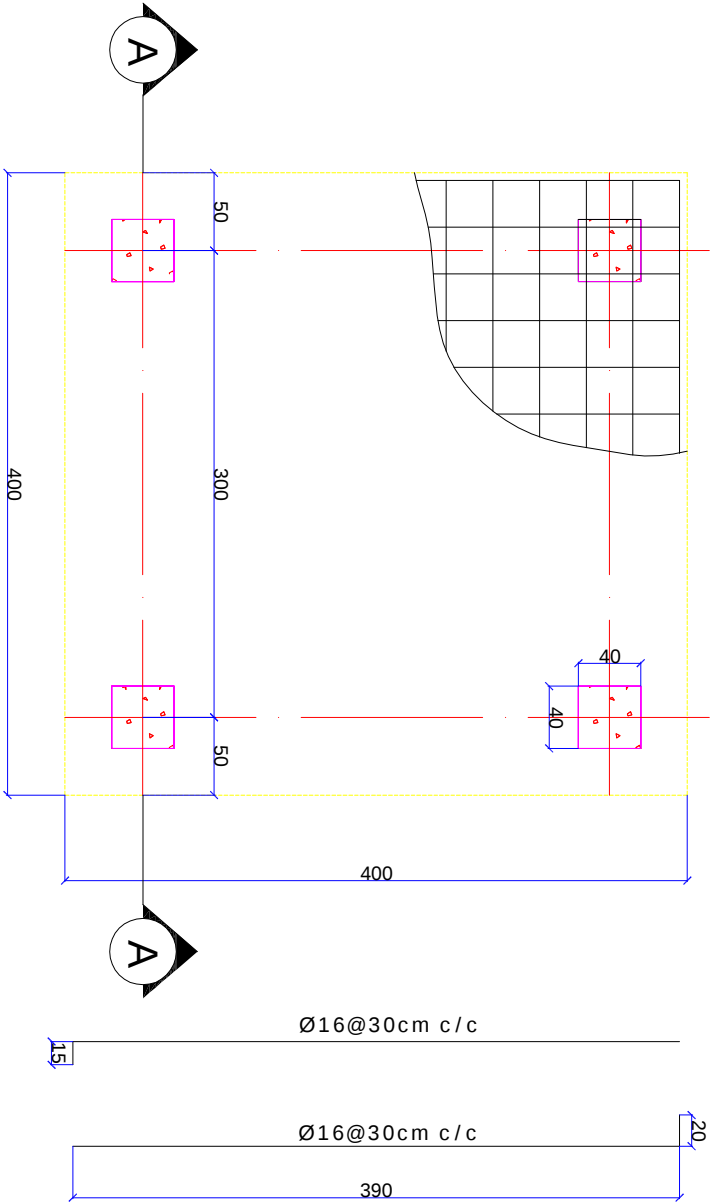
DOOR SCHEDULE				
DOOR NO	DIMENSION		PANEL NUMBER	NUMBER
	WIDTH	HEIGHT		
D/w1	200	240	1	1
D2	80	200	1	1
PAINTED HOLLOW METAL DOOR				
PAINTED HOLLOW METAL DOOR				

WINDOW SCHEDULE				
WINDOW NO	DIMENSION		PANEL NUMBER	NUMBER
	WIDTH	HEIGHT		
W1	150	120	2	4
PAINTED HOLLOW METAL WINDOW				
PAINTED HOLLOW METAL WINDOW				

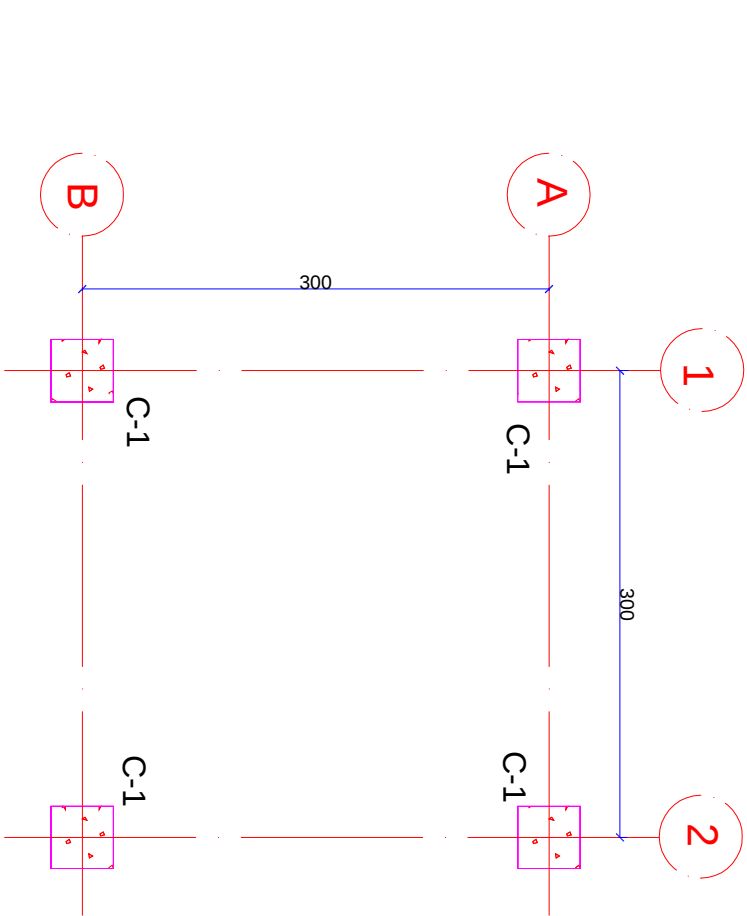
GUARD TOWER
DOOR & WINDOW
SCHEDULE



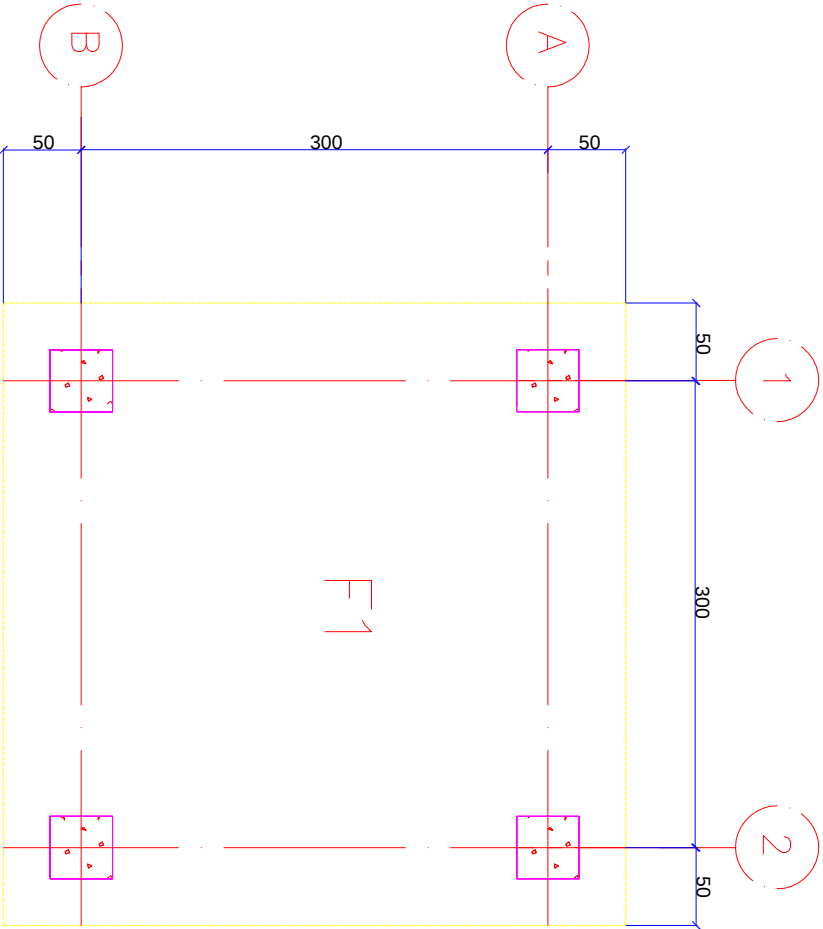
Section A-A



Footing F-1



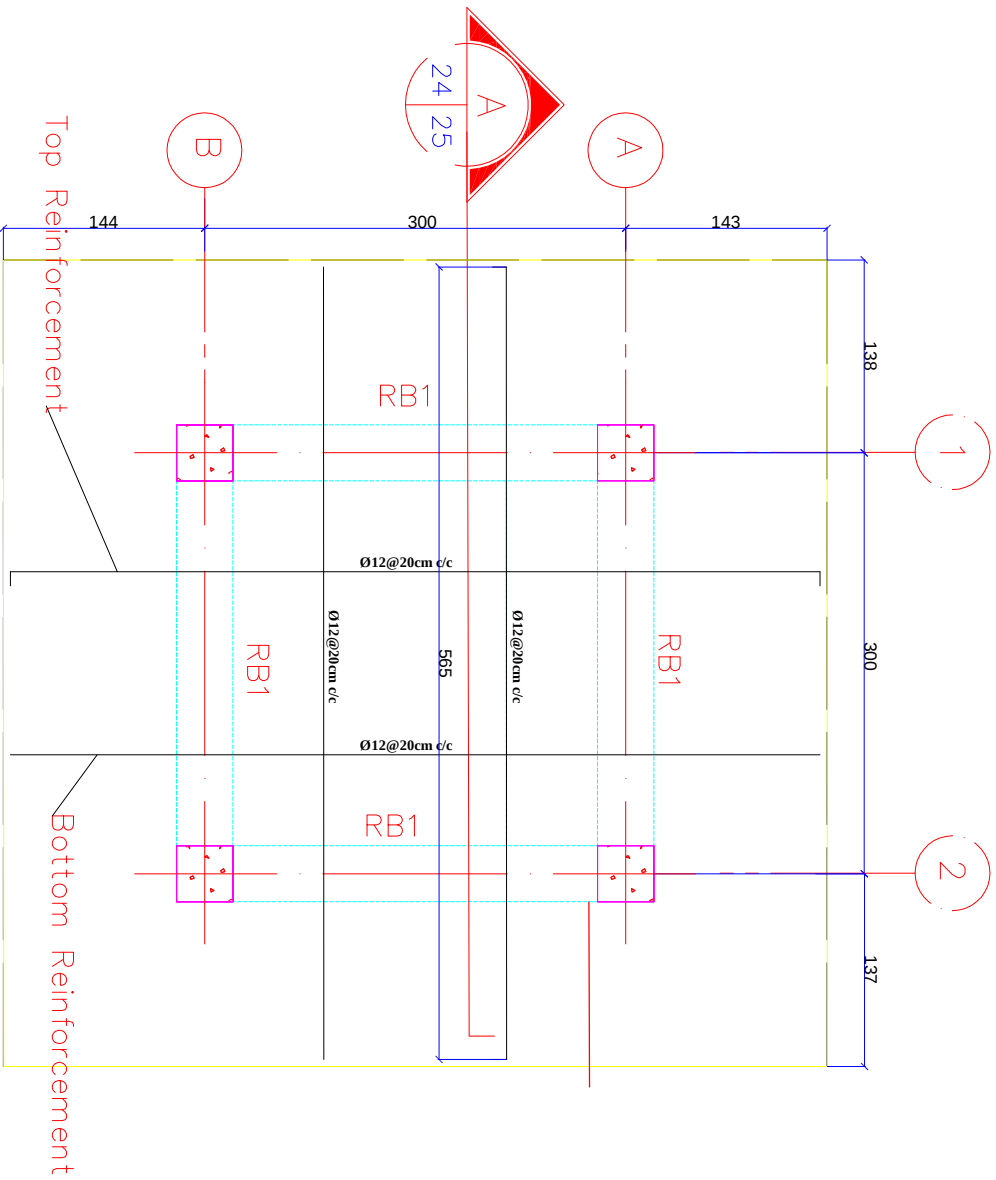
Column Layout Plan



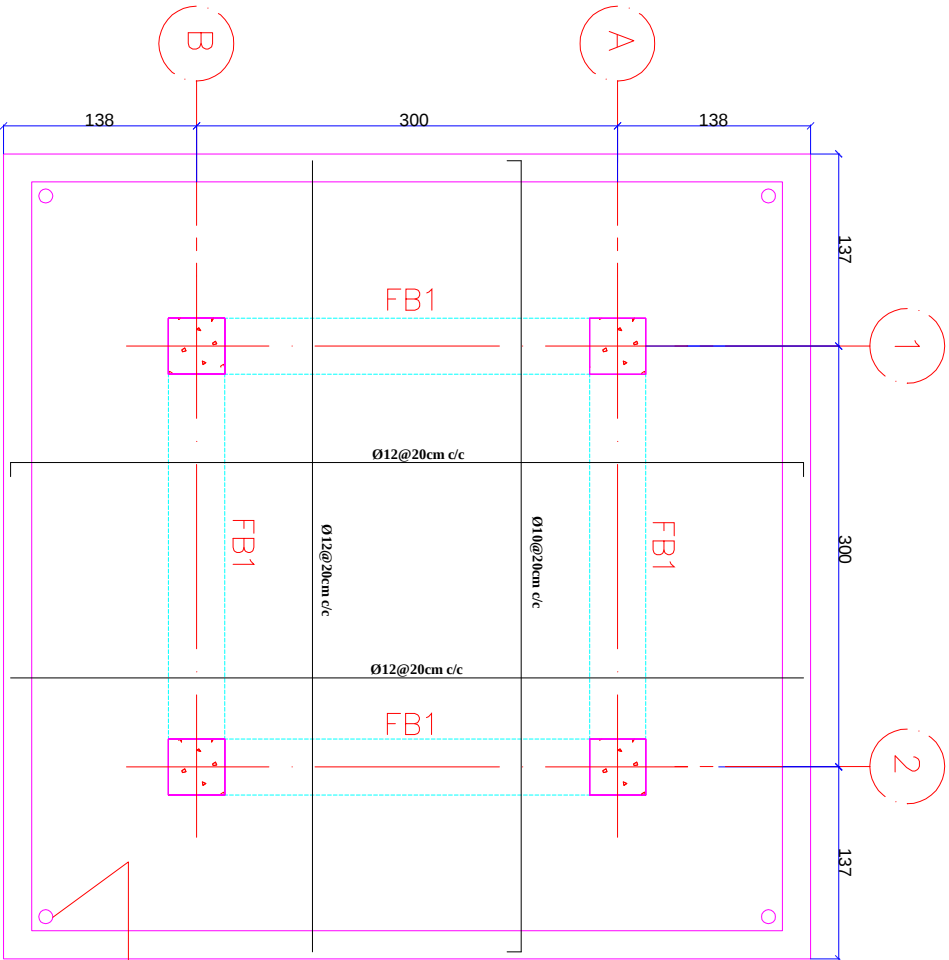
Footing Layout Plan

UNLESS OTHERWISE NOTED LINEAR DIMENSION
SHOWN ARE IN CENTIMETERS.

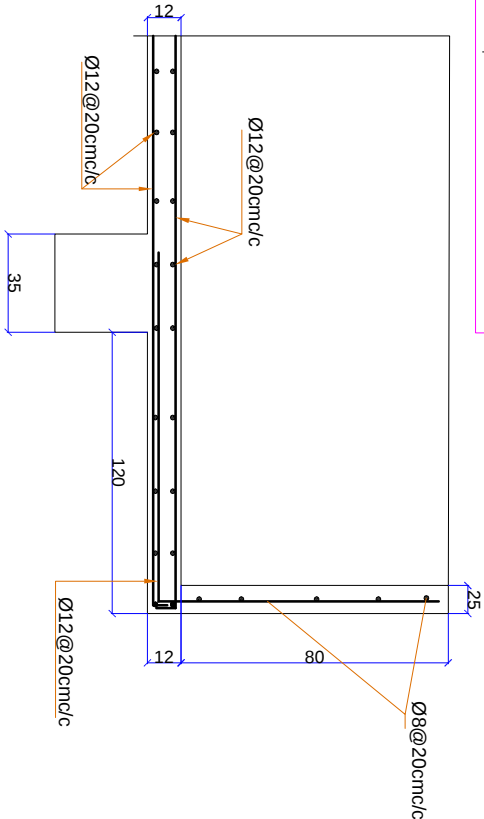
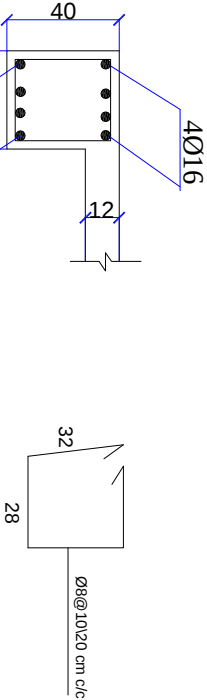
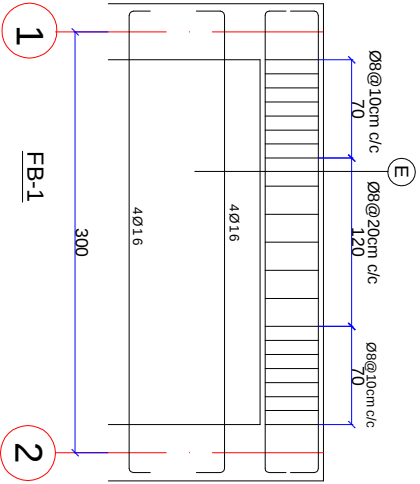
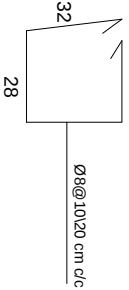
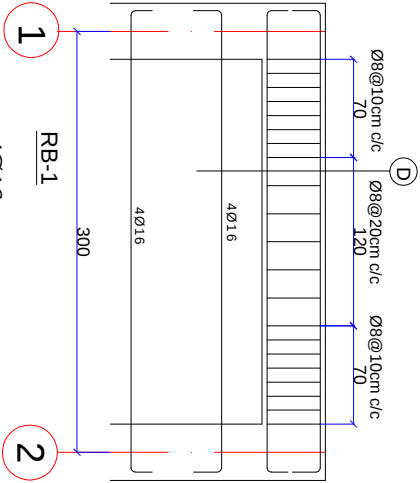
GUARD TOWER
COL FOOTING
& COLUMNS



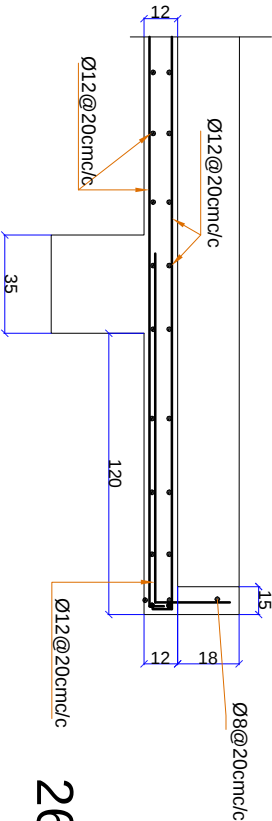
Roof Slab Reinforcement



Ø25 WEEP HOLE
EACH CORNER



(Parapet Detail)



(Parapet Detail)

GUARD TOWER
CONCRETE SLAB
& RING BEAM



Central Prison Directorate (CPD)

Typical drawing of Guard tower for the Construction of Prison

LOTFA Engineering Department		Central prisons Directorate , Engineering Department		Scale	To fit
Drawn By	Eng. Mateen	Approved By	Eng.	Date	March ,2013
Design By		Signature		Drawing code	Mat -03
Checked by		Date		Sheet number	2 OF 4
DENOMINATION		GUARD TOWER CONCRETE SLAB AND RING BEAM DETAILS			

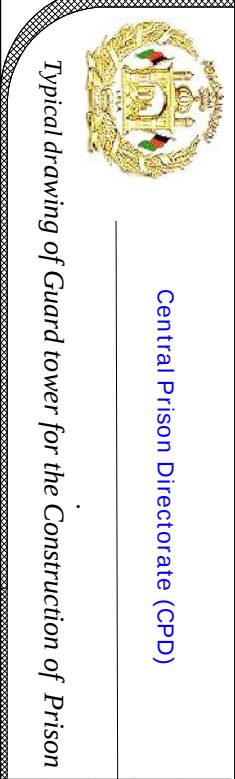


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Address: District 10 Sadarad Square Kabul - Afghanistan

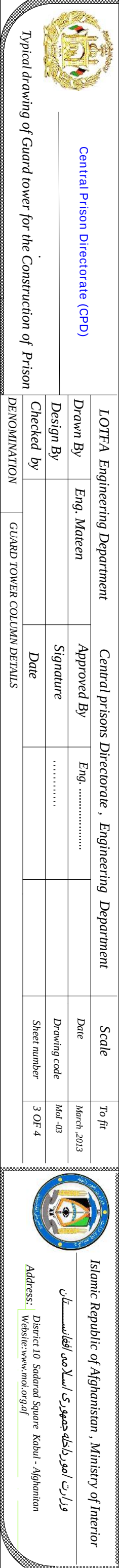
Website:www.moi.org.af



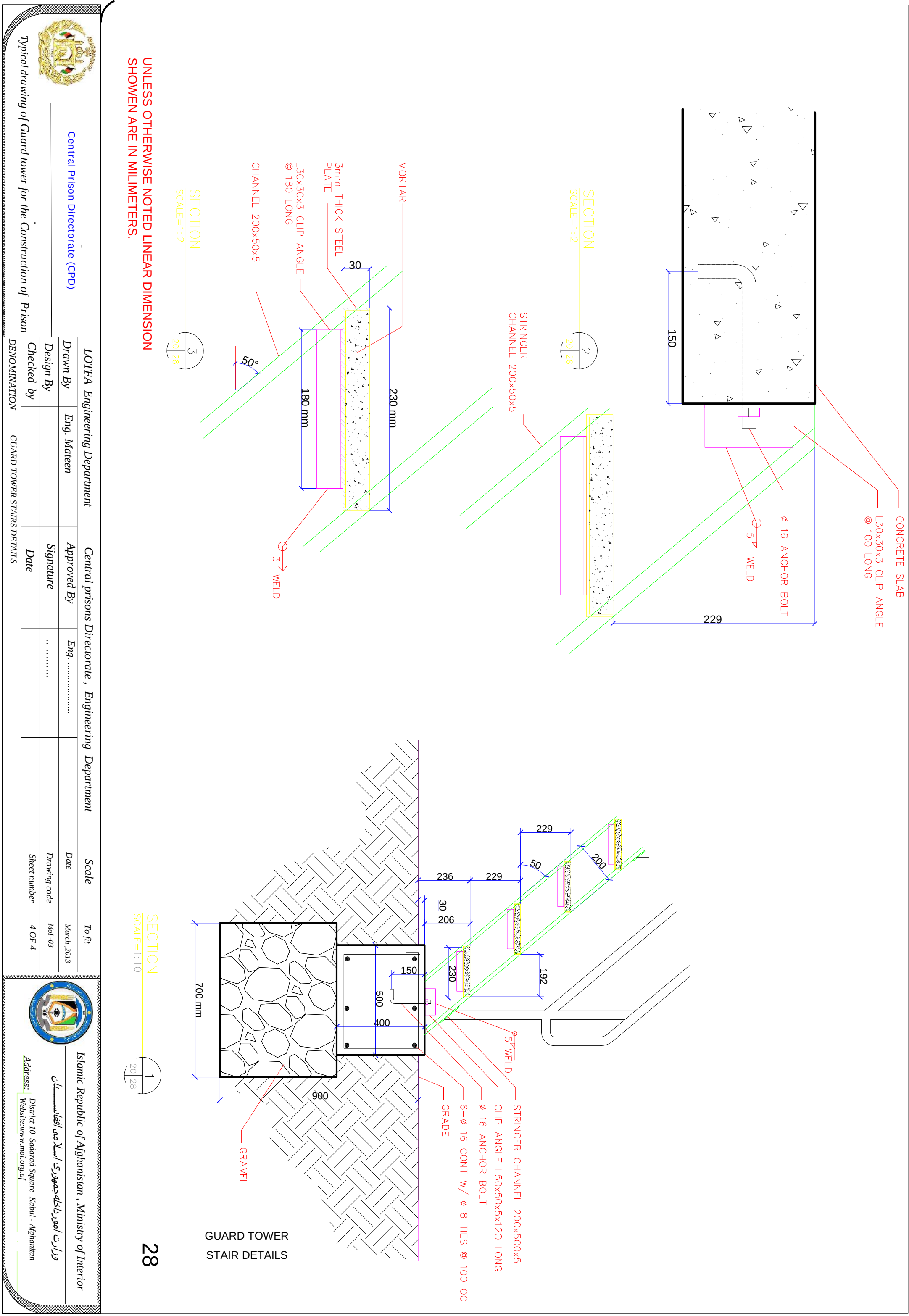
LOIYA Engineering Department		Central prisons Directorate , Engineering Department			Scale	To fit
Drawn By	Eng. Mateen	Approved By	Eng.		Date	March ,2013
Design By		Signature			Drawing code	Mol -03
Checked by		Date			Sheet number	3 OF 4
DENOMINATION		GUARD TOWER COLUMN DETAILS				

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Interior



Interior



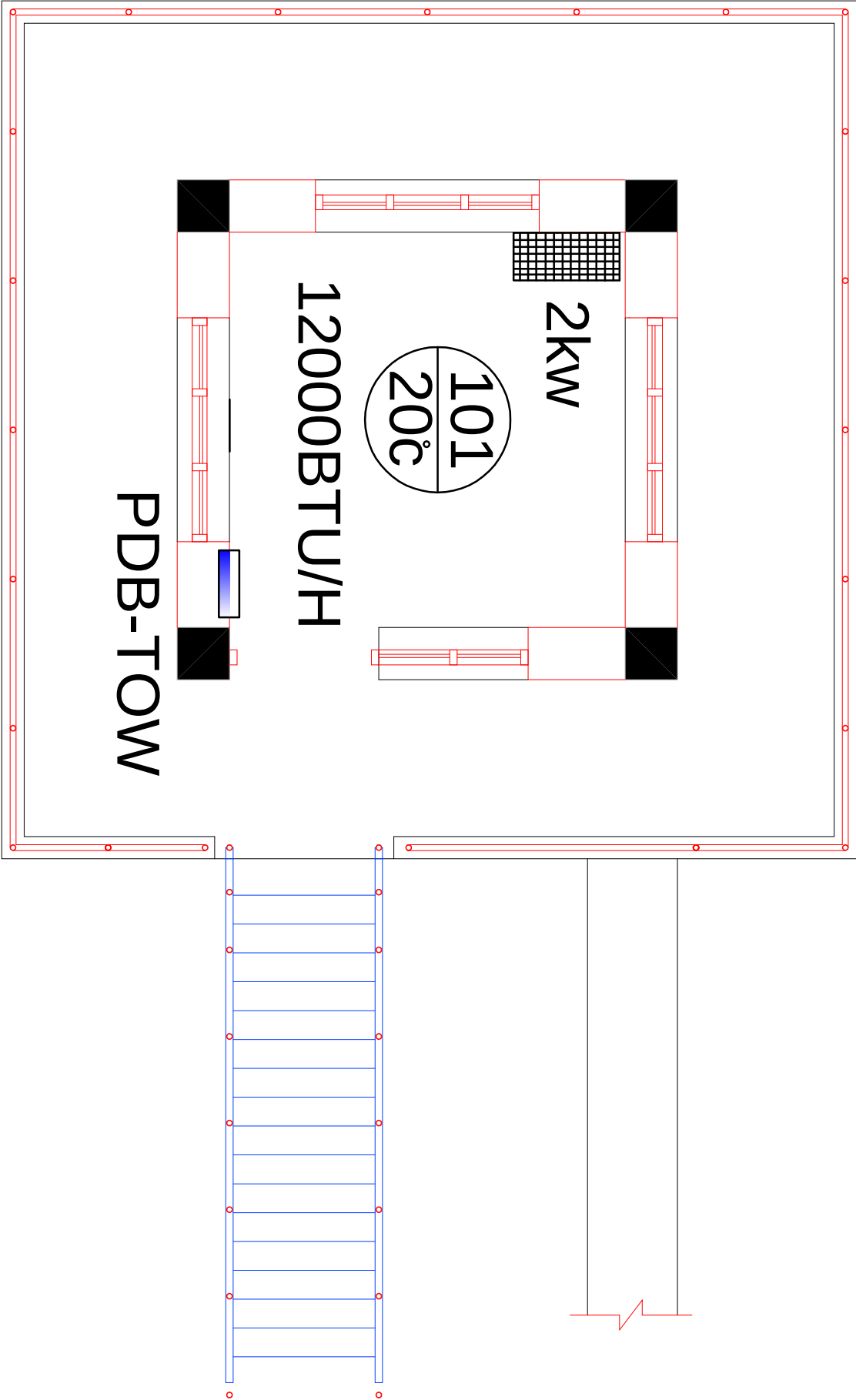
UNLESS OTHERWISE NOTED LINEAR DIMENSION
SHOWN ARE IN MILLIMETERS.

SECTION
SCALE=1:10

1
20 28

GUARD TOWER
STAIR DETAILS

Guard Tower Heating Plan

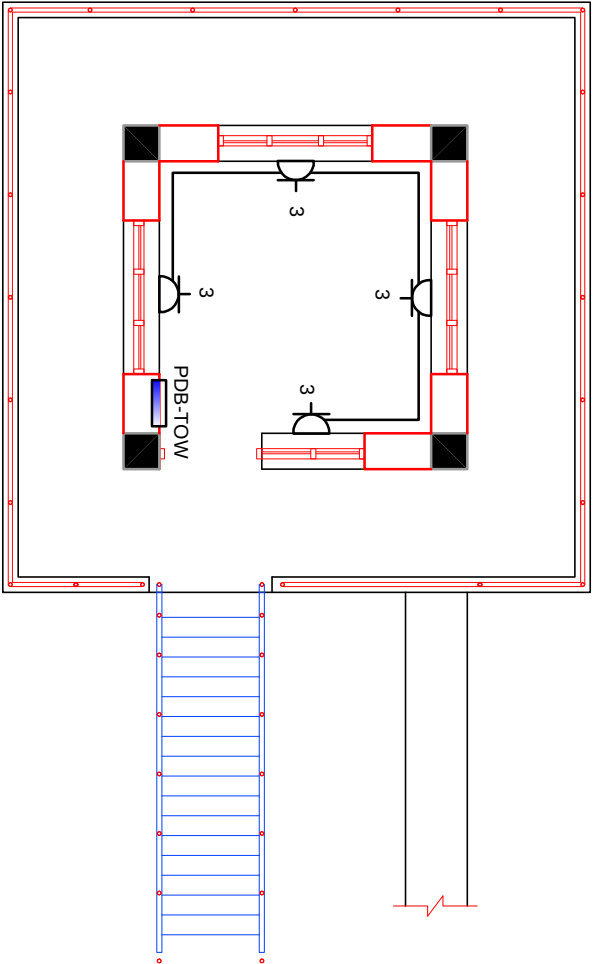


Schedule of Equipment for Heaters System Guard Tower Plan

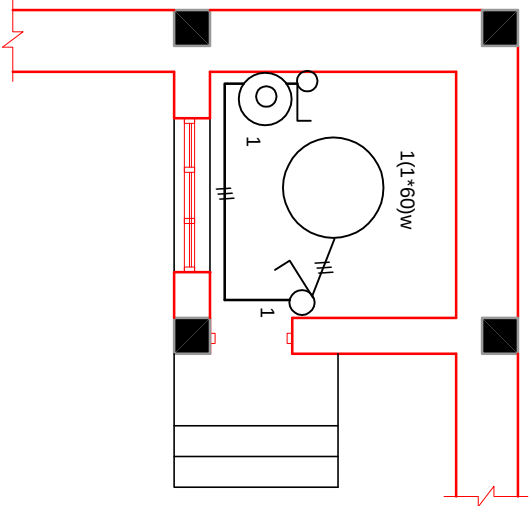
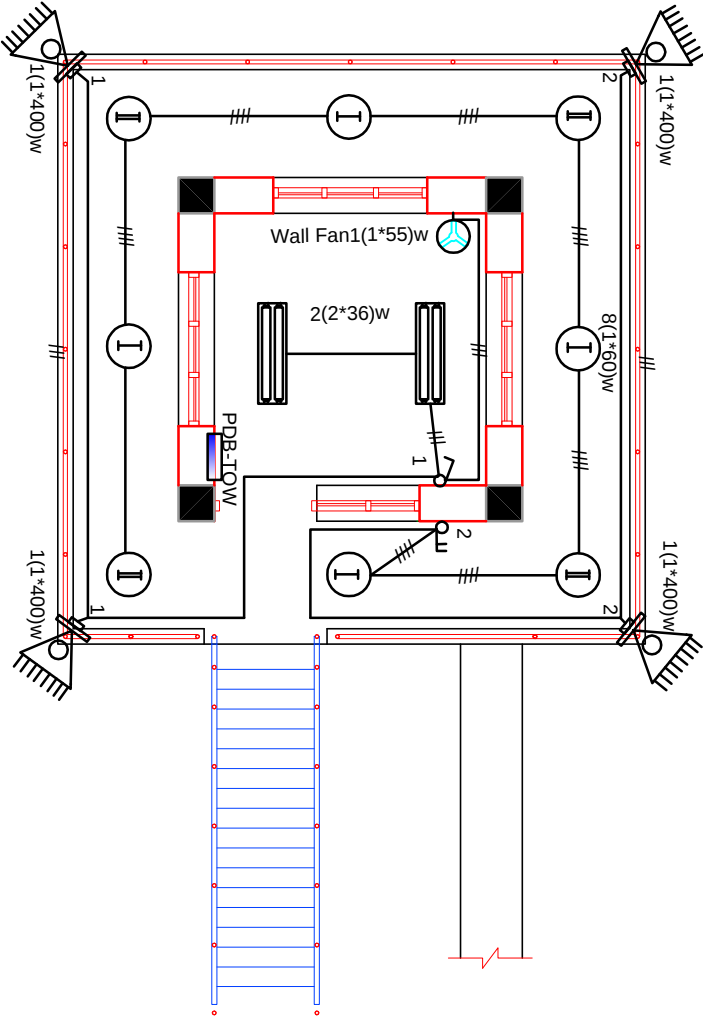
No	Symbol	Description	Unit	Qty	Origin
1	■	Wall Mount Forced Air Heaters-AC 2KW	Pcg	4	Samsung
4	⌈⌋	Wall Mounting Bracket WB210 for 2kw Heater	Pcg	4	czech Rep

GUARD TOWER
HEATING PLAN
& SCHEDULE

Guard Tower Power Plan

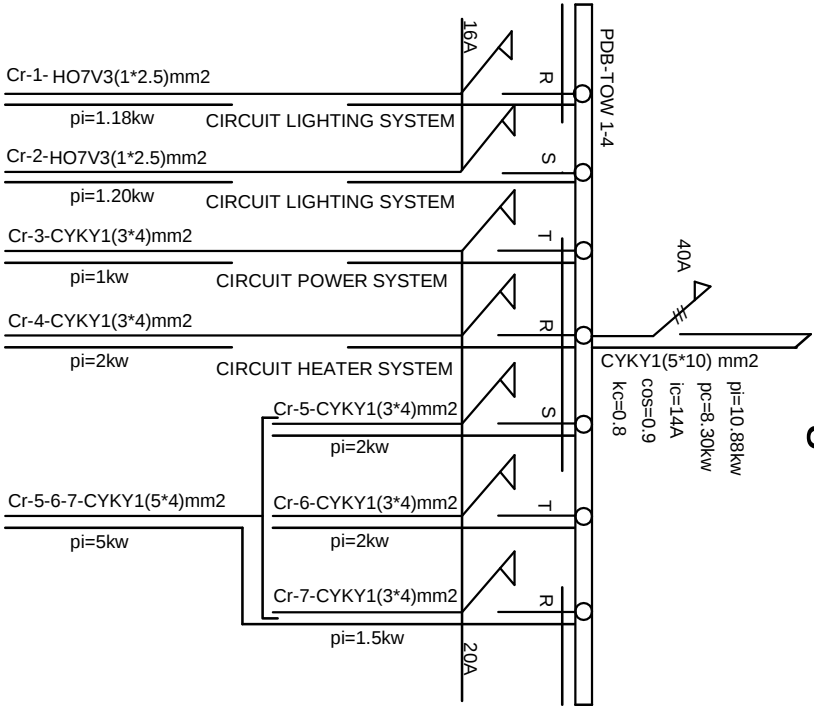


Guard Tower Lighting Plan



Power and Lighning Heating

Electrical Diagrams



Schedule of Electrical Equipment for (4) Guard Towers

No	Symbol	Description	Unit	Qty	Origin
1		Flourescent Lamp code-1600-1236AL-(2*36)w	Set	10	czec Rep
2		Incandescent Ceiling Lamp 1(1*60)w with circular shade (250) mli	Set	40	Germany
3		One pole switch under plaster	Set	15	Germany
4		Two pole switch under plaster	Pcg	15	czec Rep
5		Single Phase Socket under plaster APT 803-16A-250V-IEC-60884-1	Pcg	5	czec Rep
6		Auto Switch Single Phase (16)A	Pcg	20	czec Rep
7		Auto Switch Single Phase (20)A	Pcg	10	czec Rep
8		Auto Switch Three Phase (40)A	Pcg	25	czec Rep
9		Auto Switch Three Phase (55)w	Pcg	5	czec Rep
10		Auto Switch Three Phase (55)w	Pcg	5	Pakistan
11		Panel Distribution board 24Modular (47*38*11)cm	Set	5	czec Rep
12		Junction Box	Pcg	50	czec Rep
13		Copper Wire HO7V 3(1*2.5)mm2	Pcg	350	Germany
14		Copper Wire HO7V1(3*4)mm2	Meter	360	Germany
15		Copper cabale CYKY 1(6*4)mm2	Meter	1150	Germany
16		Copper cabale CYKY 1(6*4)mm2	Meter	1150	Germany
17		Copper cabale CYKY 1(6*4)mm2	Meter	20	Germany
18		Copper cabale CYKY 1(6*4)mm2	Meter	600	Germany
19		Copper cabale CYKY 1(6*4)mm2	Meter	60	Germany
20		Copper cabale CYKY 1(6*4)mm2	Meter	5	Germany
21		Copper cabale CYKY 1(6*4)mm2	Meter	250	Germany
22		Copper cabale CYKY 1(6*4)mm2	Meter	36	Germany
23		Copper cabale CYKY 1(6*4)mm2	Meter	48	Germany
23		Copper cabale CYKY 1(6*4)mm2	Meter	48	Germany

Notes : 1-The Switch will be installed -(1.4) m above the floor.
2-The Socket will be installed -(0.4) m above the floor.
3-The Panel Distribution board will be installed -(1.7) m above the floor.
4-Wall fan Connect to nearest joint box of each room.



Central Prison Directorate (CPD)

Typical drawing of Guard tower for the Construction of Prison

Central prisons Directorate , Engineering Department

Drawn By	Approved By	Scale	To fit
Design By	Signature	Date	March ,2014
Checked by	Date	Drawing code	MoI -03
DENOMINATION	GUARD TOWER ELECTRICAL AND SCHEDULE	Sheet number	6 OF 6

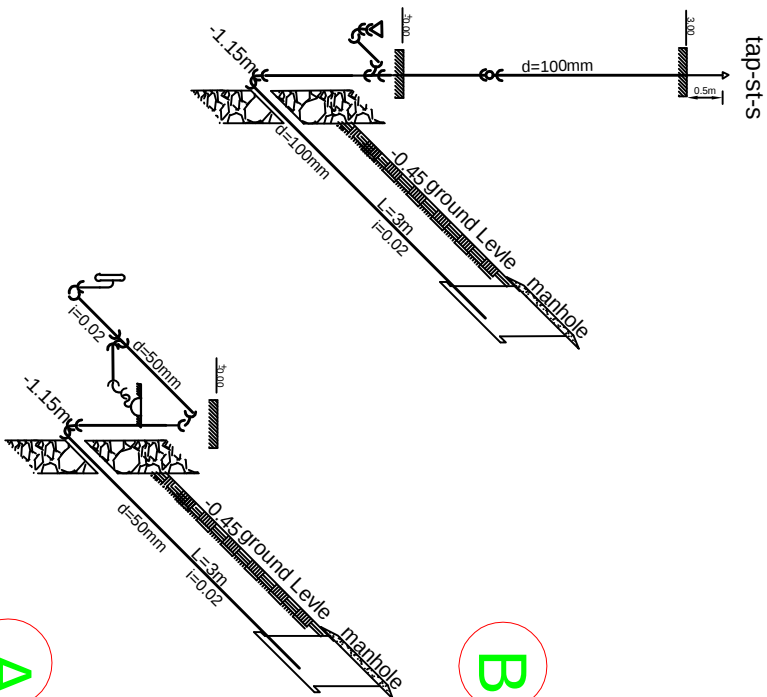


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Diagram of sewage



schedual of quantity

No.	Description	Unit	Quantity
1	Pipe d=20mm	m	As per need it
2	Pipe d=15mm	m	As per need it
3	Bend 20mm	pcs	As per need it
4	Bend 15mm	pcs	As per need it
5	Tee 20x15x20 mm	pcs	As per need it
6	Tee 15 mm	pcs	As per need it
7	Valve and Nepal 20mm	pcs	As per need it
8	Valve and Nepal 15mm	pcs	As per need it
9	Reducer20*15mm	pcs	As per need it
10	Toilet	pcs	As per need it
11	Basin	pcs	As per need it
12	Pipe d= 100mm	m	As per need it
13	Pipe d= 50mm	m	As per need it
14	Bend 135° ,d=100mm	pcs	As per need it
15	Bend 90° , d= 100mm	pcs	As per need it
16	Bend 135° ,d=50mm	pcs	As per need it
17	Bend 90° , d=50mm	pcs	As per need it
18	Tee 45° , d= 100mm	pcs	As per need it
19	Tee 45° , d= 50mm	pcs	As per need it
20	Tee 45° , 100x 50x 100mm	pcs	As per need it
21	Reducer 100x50 mm	pcs	As per need it
22	Inspection d= 100m	pcs	As per need it
23	Drain d= 50mm	pcs	As per need it

- 1-Water supply pipe must be PPR Turkish production
2-Sewer pipe must be UPVC schedule 60

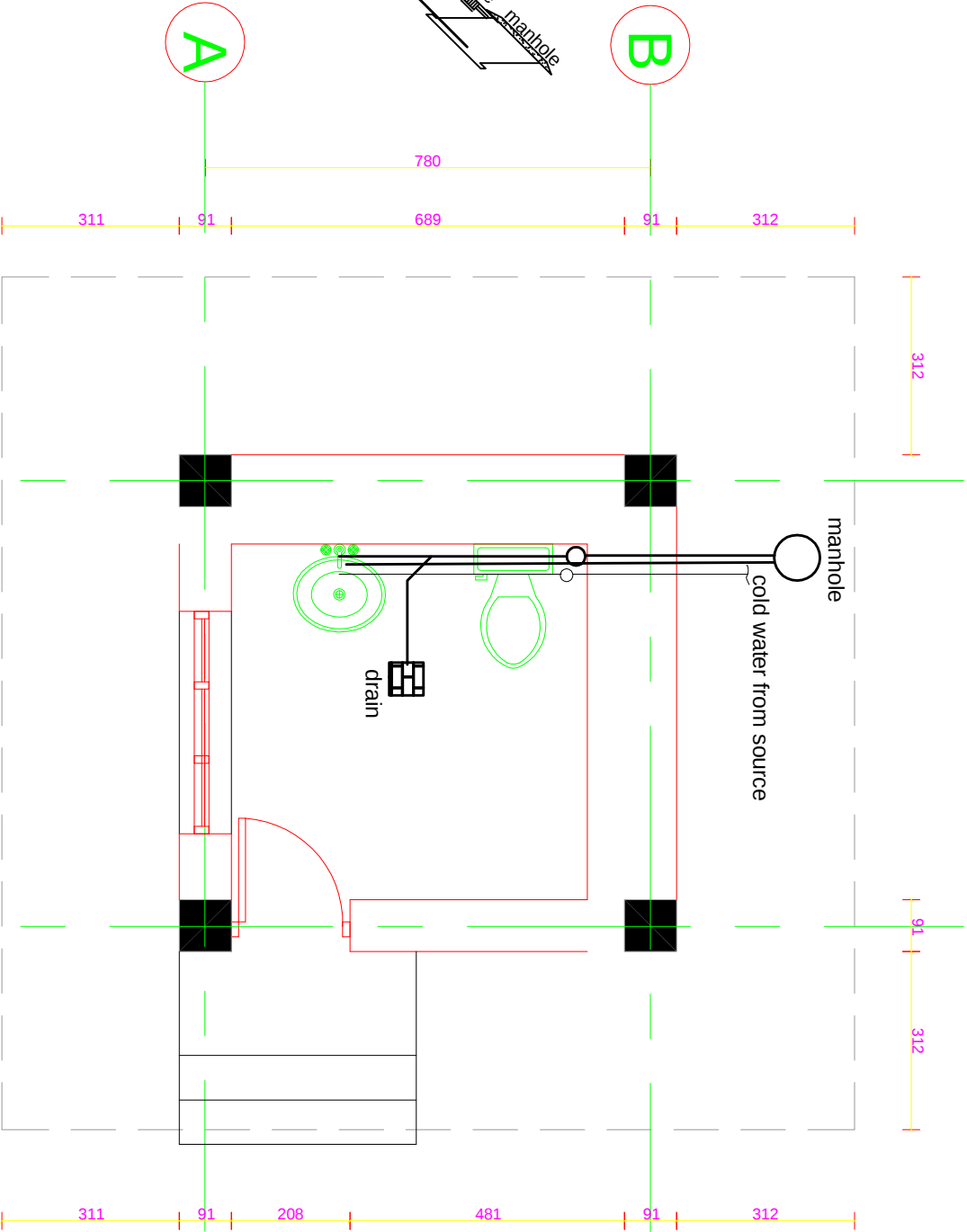
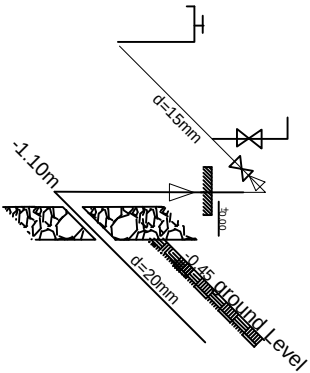


Diagram of water



(2.65X2.65)M
GUARD TOWER

1 2



Central Prison Directorate (CPD)

Typical drawing of Guard tower for the Construction of Prison

Central prisons Directorate , Engineering Department

Drawn By	Approved By	Scale	To fit
Design By	Signature	Date	March 2014
Checked by	Date	Drawing code	Mol -03
DENOMINATION	GUARD TOWER PLUMBING AND SCHEDULE	Sheet number	1OF 1

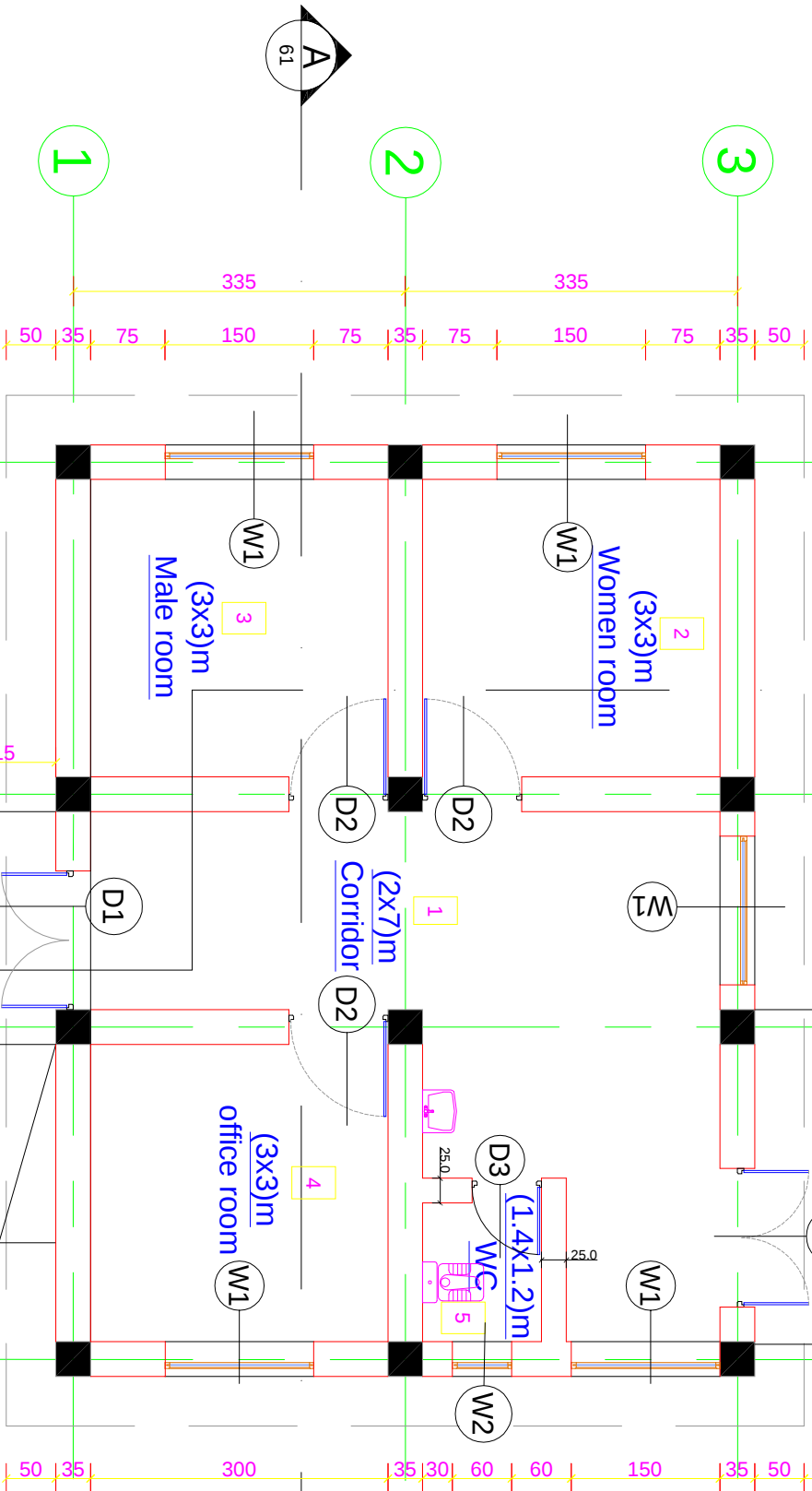


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35 300 35 25 150 25 35 125 140 70 50



ROOM SCHEDULE LEGEND:

WALL MATERIAL:

W1- PAINTED PLASTER.
W2- 150X150mm GLAZED CERAMIC.

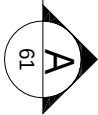
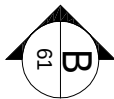
FLOOR MATERIAL:

F1- 300X300X20mm TERRAZZO TILES.
F2- 200X200mm CERAMIC TILES.
F3- SEALED CONCRETE.

CEILING MATERIAL:

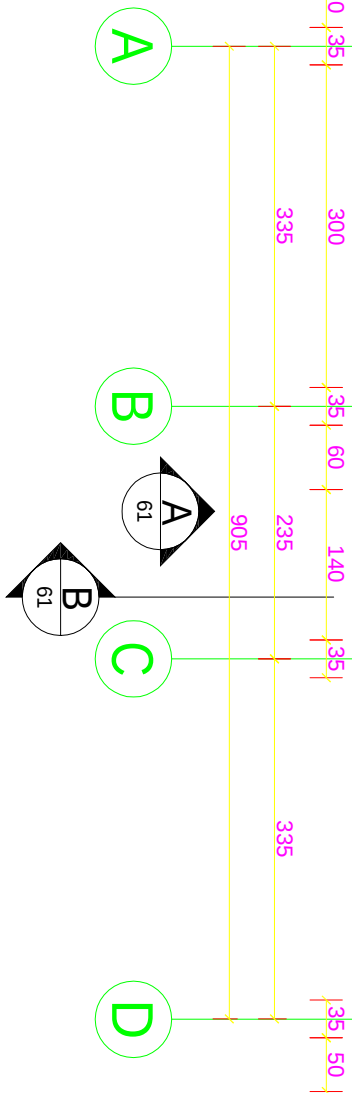
C1- PAINTED PLASTER.

CHECK POINT FINISH SCHEDULE				
ROOM NO	ROOM NAME	FLOOR	WALLS	CEILING
1	Corridor	F3	W1	C1
2	Women room	F3	W1	C1
3	Male room	F3	W1	C1
4	Office	F3	W1	C1
5	WC	F2	W2	C1



CHECK POINT PLAN

15



Central Prison Directorate (CPD)

Typical drawing of check point for the Construction of Prison

Central prisons Directorate , Engineering Department

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Design By	Signature	Date	March 2014
Checked by	Date	Drawing code	Mol -03
DENOMINATION	CHECK POINT BUILDING PLAN	Sheet number	1 OF 6

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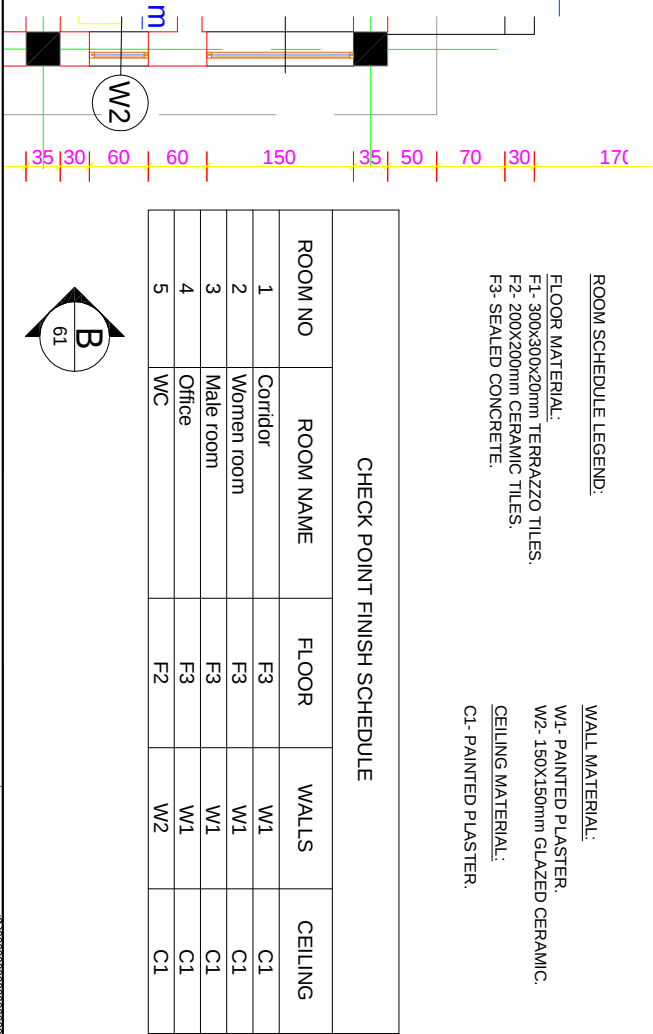
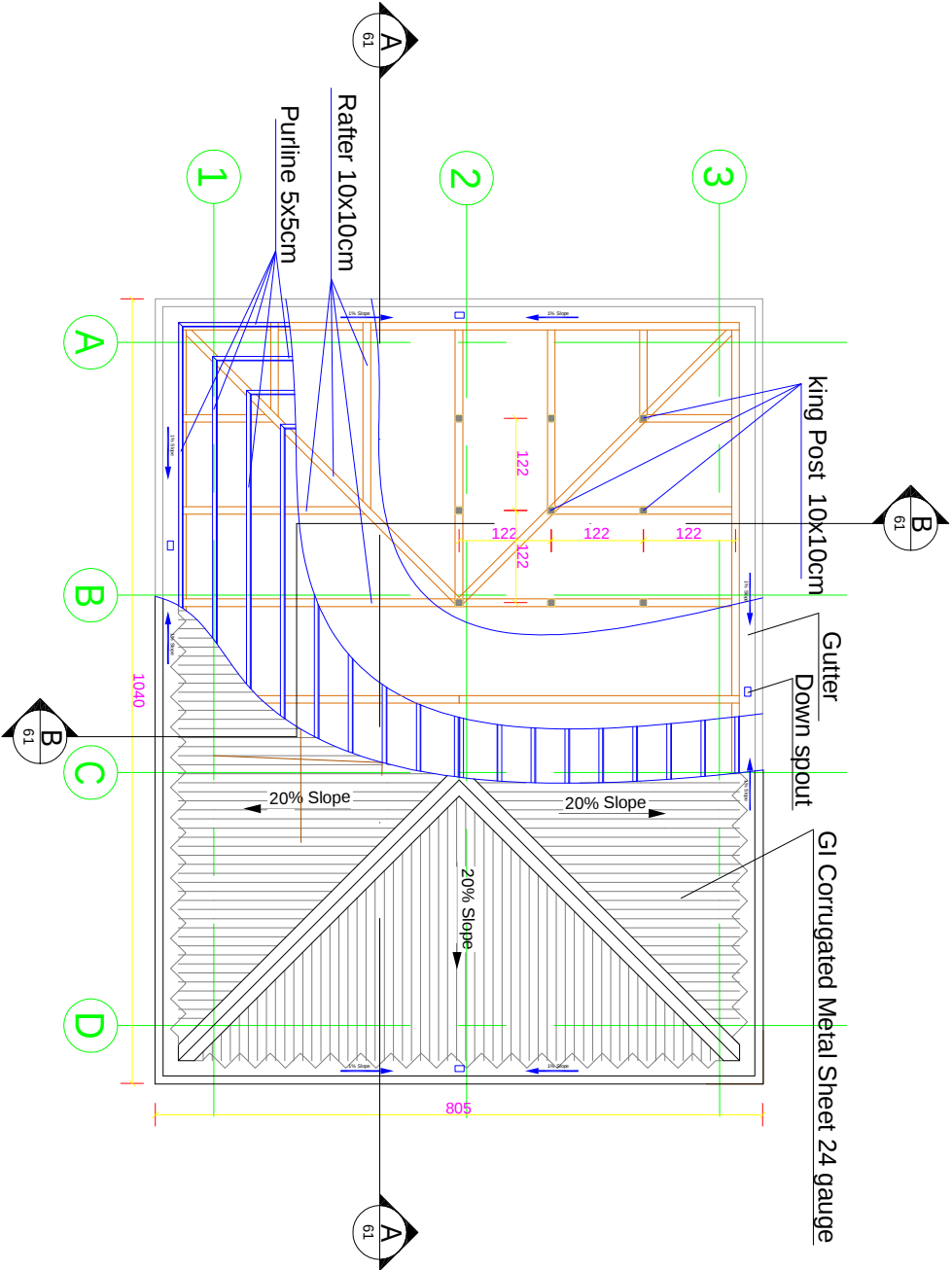
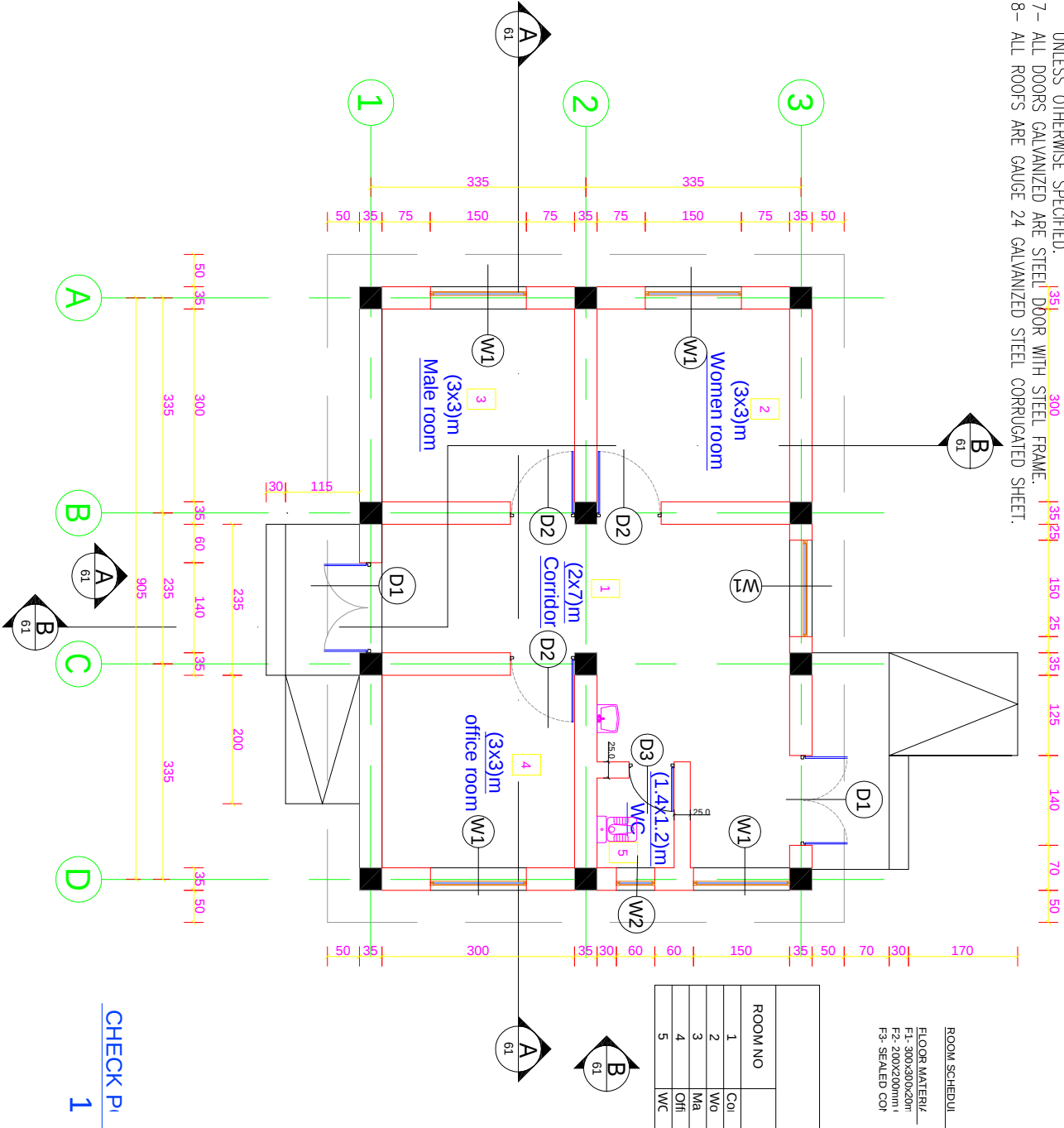
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NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
- 3- ALL EXTERIOR WALLS ARE 35CM BRICK MASONARY .
- 4- ALL INTERIOR WALLS ARE 35CM BRICK MASONARY .
- 5- EXTERIOR WALLS TO BE PAINTED PLASTER
- 6- ALL WINDOWS ARE 6MM LAMINATED GLASS.
- UNLESS OTHERWISE SPECIFIED.
- 7- ALL DOORS GALVANIZED ARE STEEL DOOR WITH STEEL FRAME.
- 8- ALL ROOFS ARE GAUGE 24 GALVANIZED STEEL CORRUGATED SHEET.



Central Prison Directorate (CPD)

Central prisons Directorate , Engineering Department

Scale

To fit

Approved By

Date

Islamic Republic of Afghanistan , Ministry of Interior

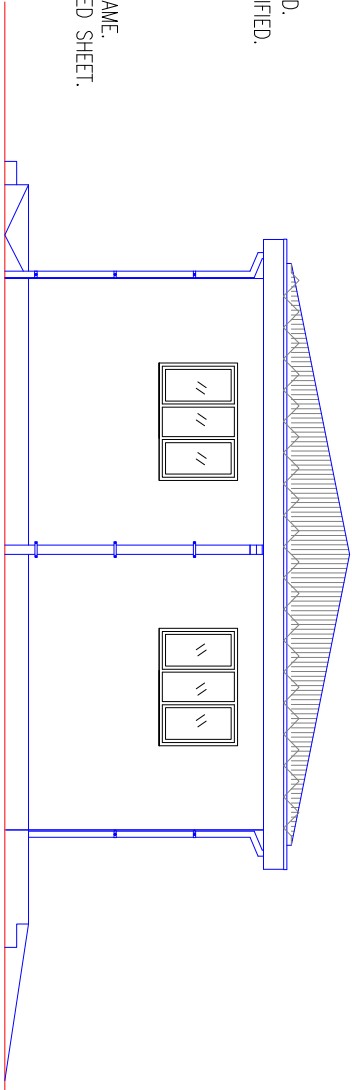
وزارت اورژانس و خدمات ایمنی

Typical drawing of check point for the Construction of Prison

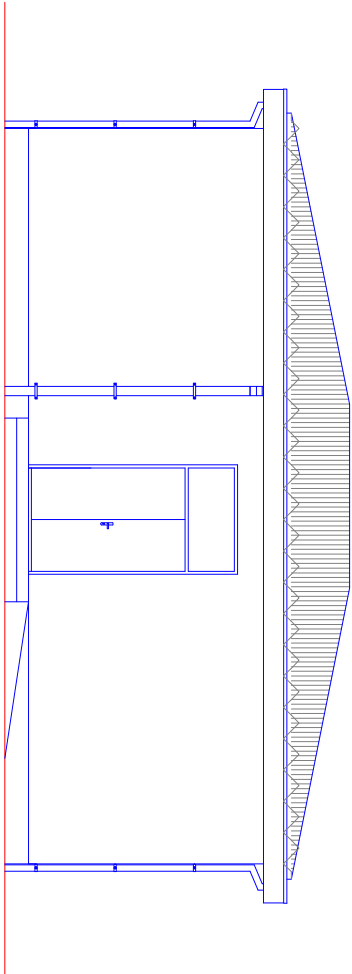
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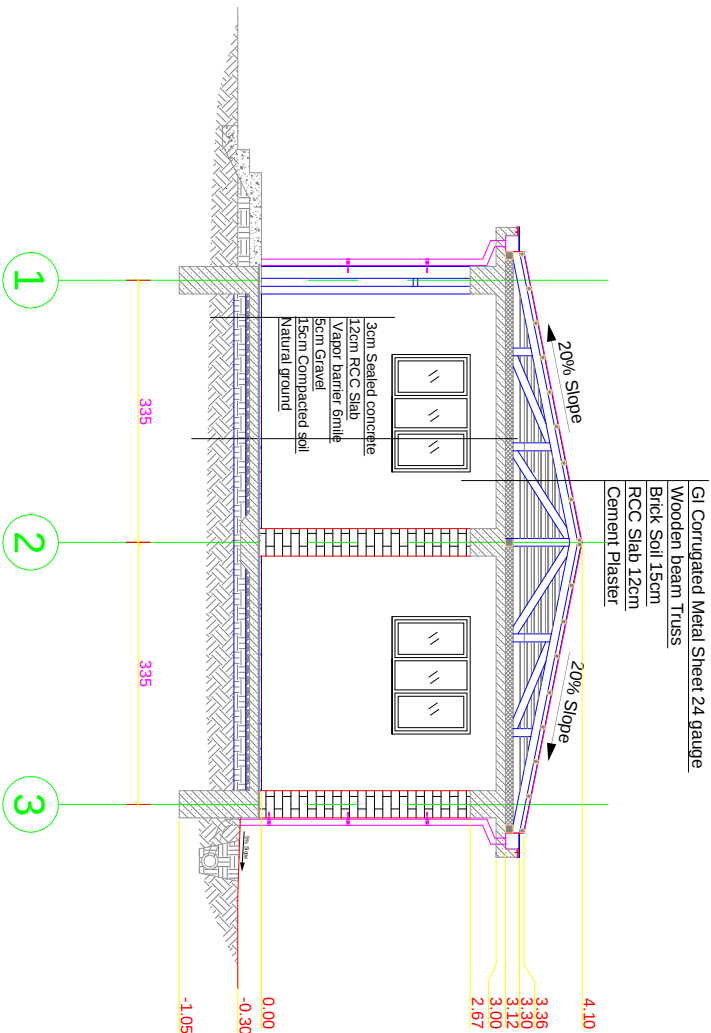
- NOTES:
- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
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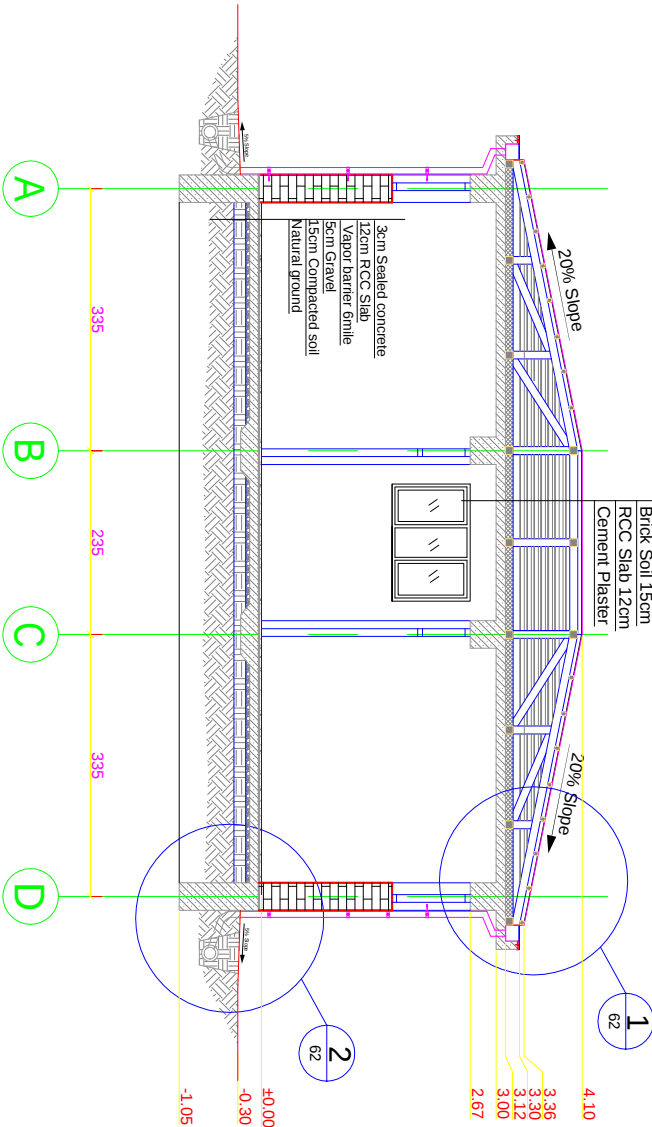
B WEST ELEVATION
Scale: 1:100



A NORTH ELEVATION
Scale: 1:100



B BUILDING SECTION
Scale: 1:100



A BUILDING SECTION
Scale: 1:100

Central Prison Directorate (CPD)

Central prisons Directorate , Engineering Department

Scale

To fit

Drawn By

Eng. Mateen

Approved By

Date

March 2014

Design By

Signature

Drawing code

Sheet number

Typical drawing of check point for the Construction of Prison

Checked by

Date

DENOMINATION

CHECK POINT BUILDING DETAILS



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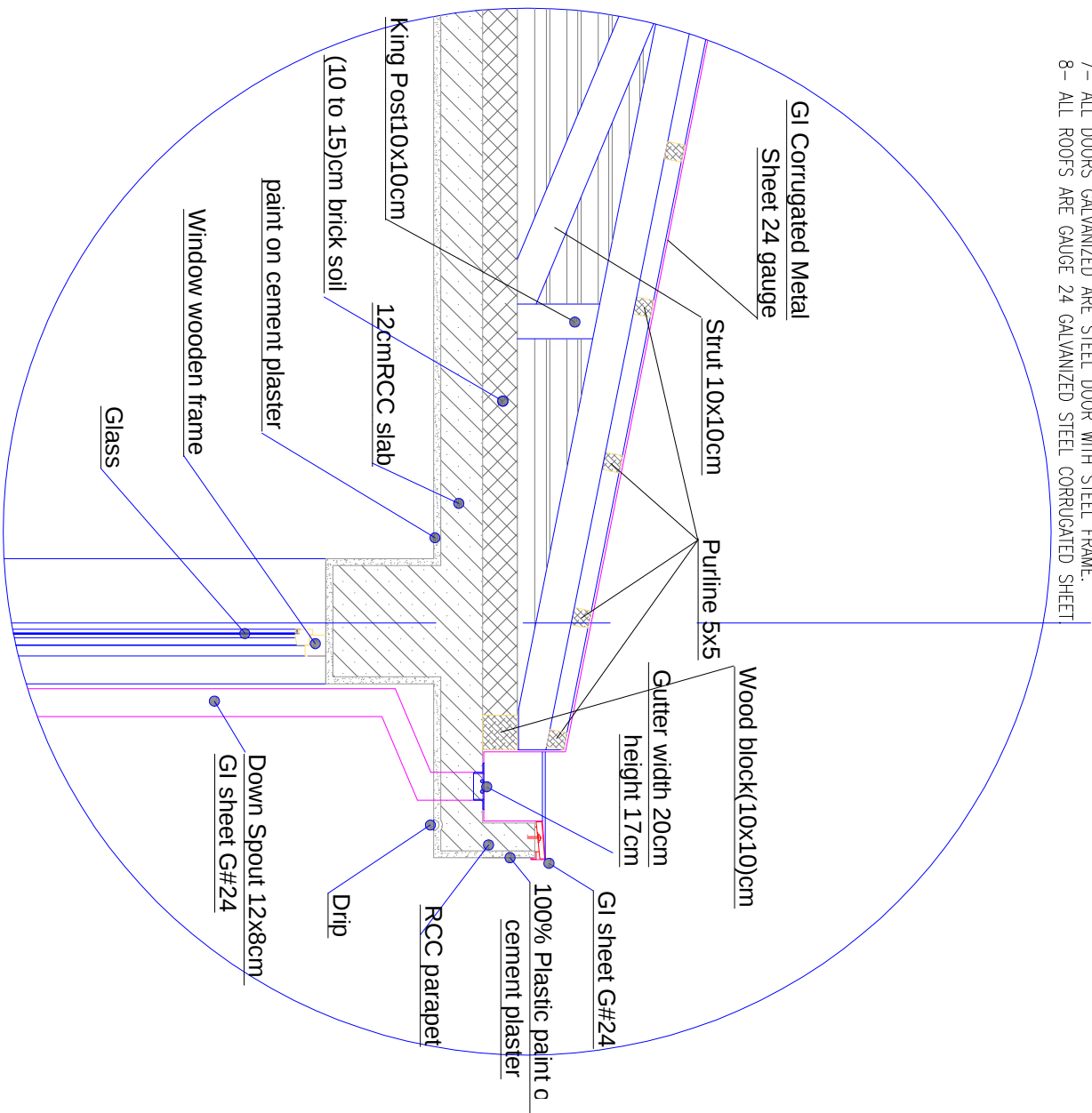
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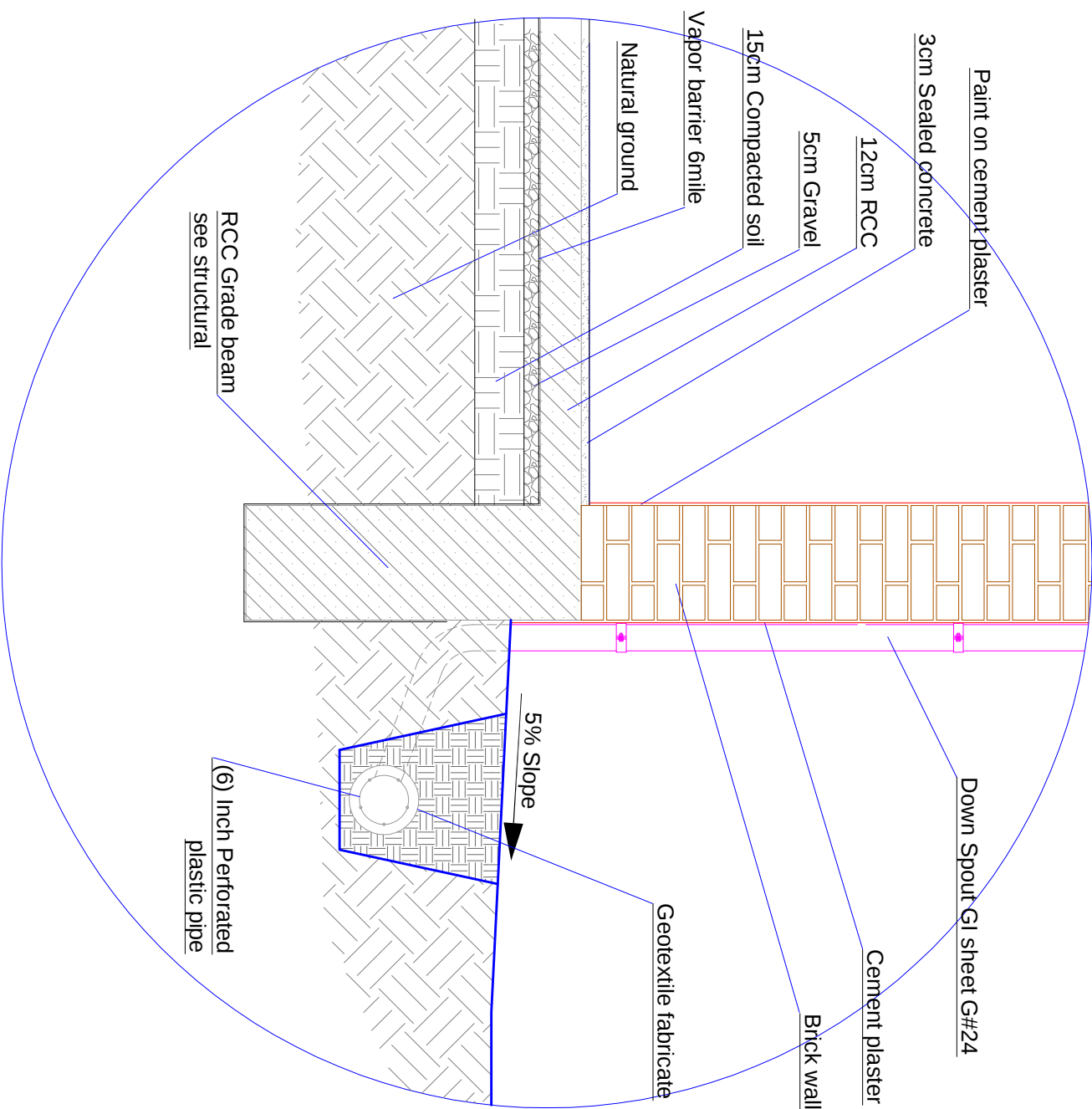
1 Gutter & parapet detail

Scale: 1:20

LOTFA Engineering Department		Central prisons Directorate , Engineering Department		Scale	To fit
Drawn By	Eng. Mateen	Approved By	Eng.	Date	March ,2014
Design By		Signature		Drawing code	Mol -03
Checked by		Date		Sheet number	4 OF 6
DENOMINATION	CHECK POINT GUTTER, ; PARAPET AND EXTERIOR WALL DETAILS				

Exterior wall detail

Scale: 1:20



CHECK POINT

BUILDING DETAILS

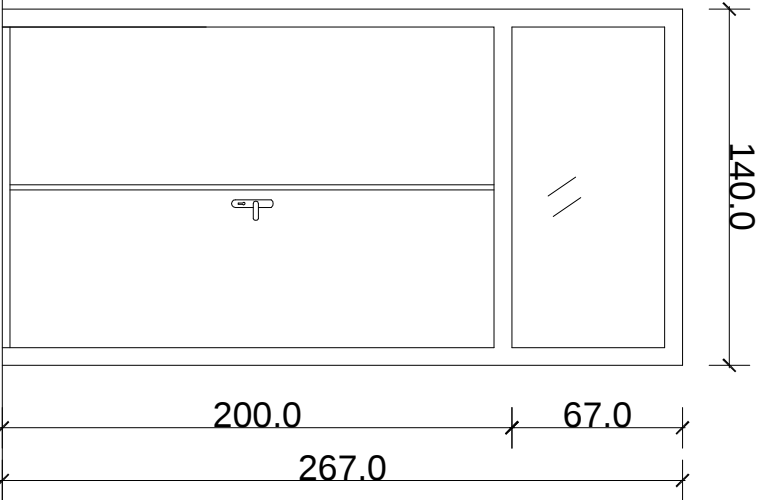
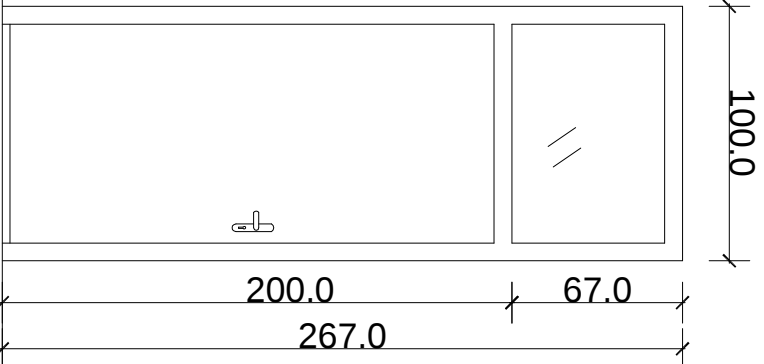
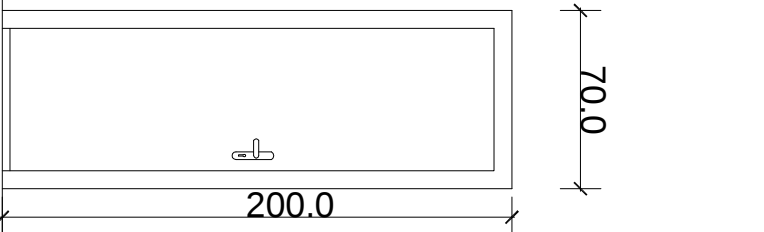
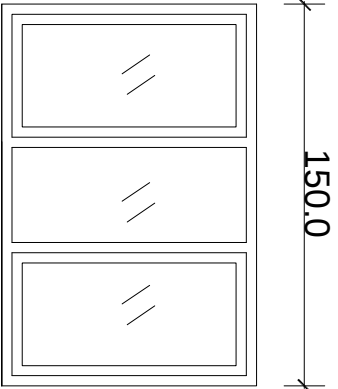
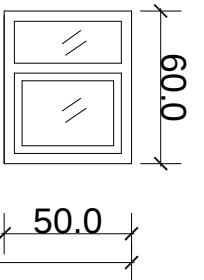


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- 2- ALL WINDOWS ARE 6MM LAMINATED GLASS. UNLESS OTHERWISE SPECIFIED.
- 3- ALL DOORS GALVANIZED ARE STEEL DOOR WITH STEEL FRAME.

W2(1)

W1(5)

Door and window elevation

D3(1)

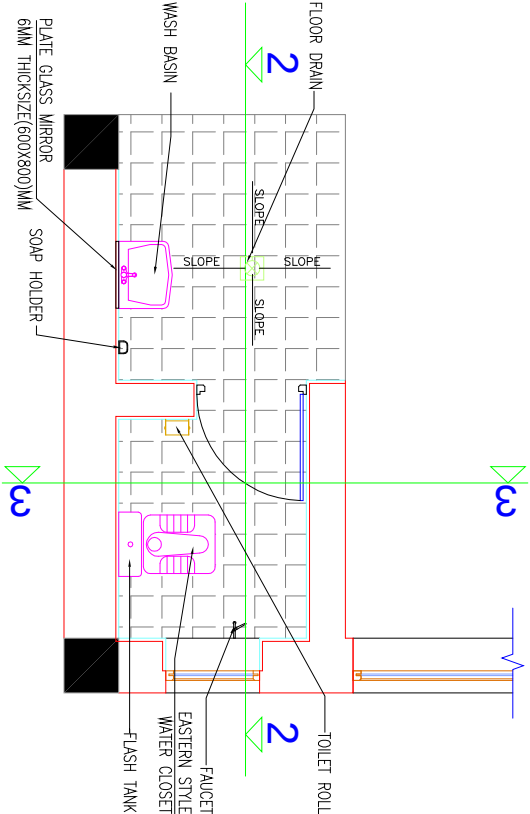
D2(3)

D1(2)

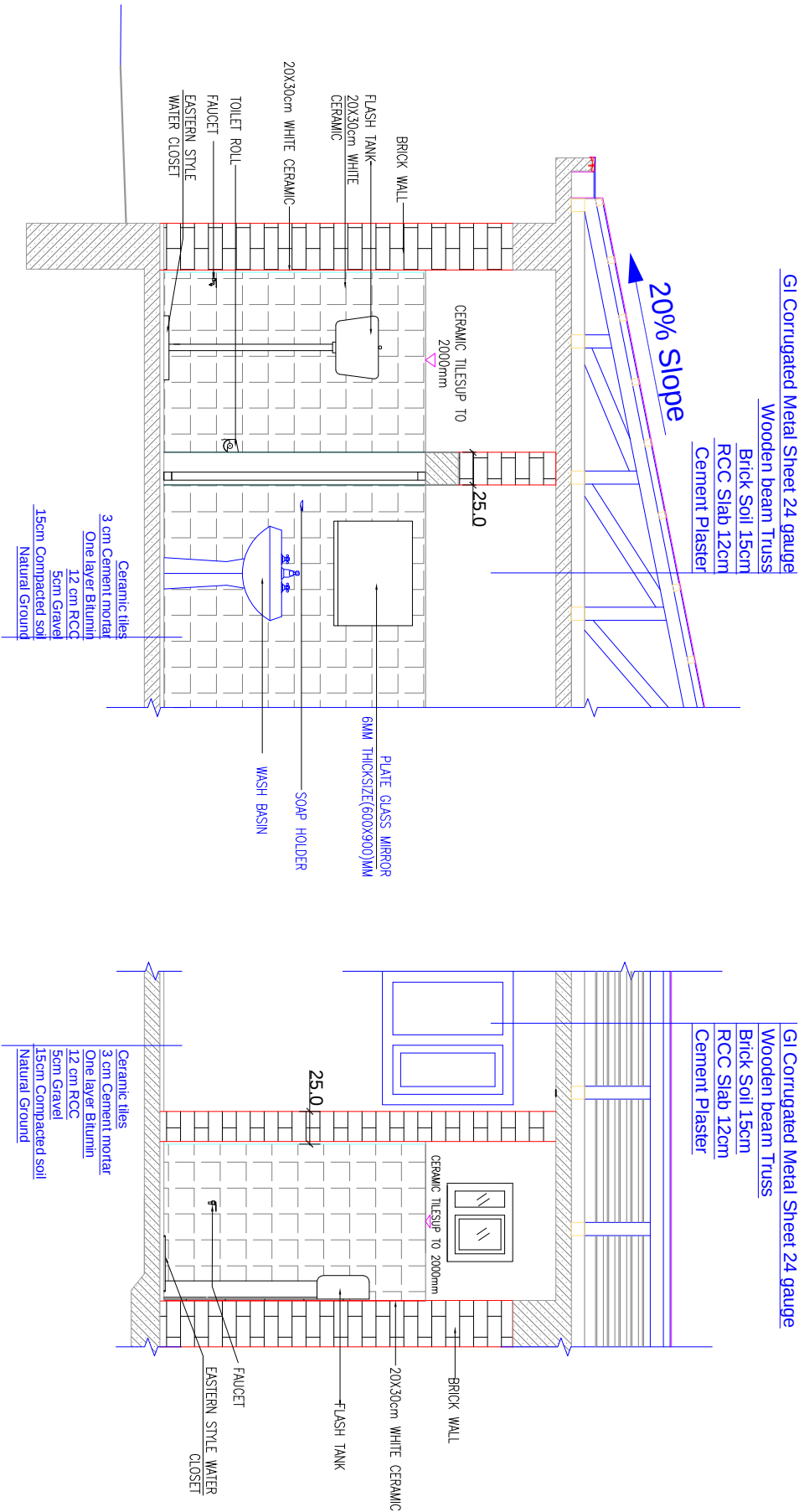
DOOR SCHEDULE		
STRUCTURAL OPENING	HARDWARE	MATERIAL
NO	D1	- 6 STAINLESS STEEL HINGES SIZE 100X75X21. - LOCK SET WITH REMOVABLE CORE FOR KEY. - 5 MM LAMINATED GLASS OVER THE DOOR. - STAINLESS STEEL HANDLE OUTSIDE. - DOOR CLOSER. - WEATHER STRIPPING. - THRESHOLD.
WIDTH	140	- HOLLOW METAL FRAME. - PAINTED STEEL FLUSH DOOR.
HEIGHT	267	
OPENING SYSTEM	HINGED	
NO	D2	- 3 STAINLESS STEEL HINGES SIZE 100X75X21. - LOCK SET WITH REMOVABLE CORE FOR KEY. - 5 MM LAMINATED GLASS OVER THE DOOR. - STAINLESS STEEL HANDLE.
WIDTH	100	- HOLLOW METAL FRAME. - PAINTED STEEL FLUSH DOOR.
HEIGHT	267	
OPENING SYSTEM	HINGED	
NO	D3	- 3 STAINLESS STEEL HINGES SIZE 100X75X21. - LOCK SET WITH REMOVABLE CORE FOR KEY. - STAINLESS STEEL HANDLE.
WIDTH	70	- HOLLOW METAL FRAME. - PAINTED STEEL FLUSH DOOR.
HEIGHT	200	
OPENING SYSTEM	HINGED	

WINDOW SCHEDULE		
STRUCTURAL OPENING	HARDWARE	MATERIAL
NO	W1	- STEEL PANEL. - 6MM LAMINATED GLASS. - FIXED METAL INSECT SCREEN OUT SIDE.
WIDTH	150	- HOLLOW METAL FRAME.
HEIGHT	100	
OPENING SYSTEM	HINGED	
NO	W2	- STEEL PANEL. - 6MM LAMINATED GLASS. - FIXED METAL INSECT SCREEN OUT SIDE.
WIDTH	60	- HOLLOW METAL FRAME.
HEIGHT	50	
OPENING SYSTEM	HINGED	

- NOTES:
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 - 3- ALL DOORS GALVANIZED ARE STEEL DOOR WITH STEEL FRAME.

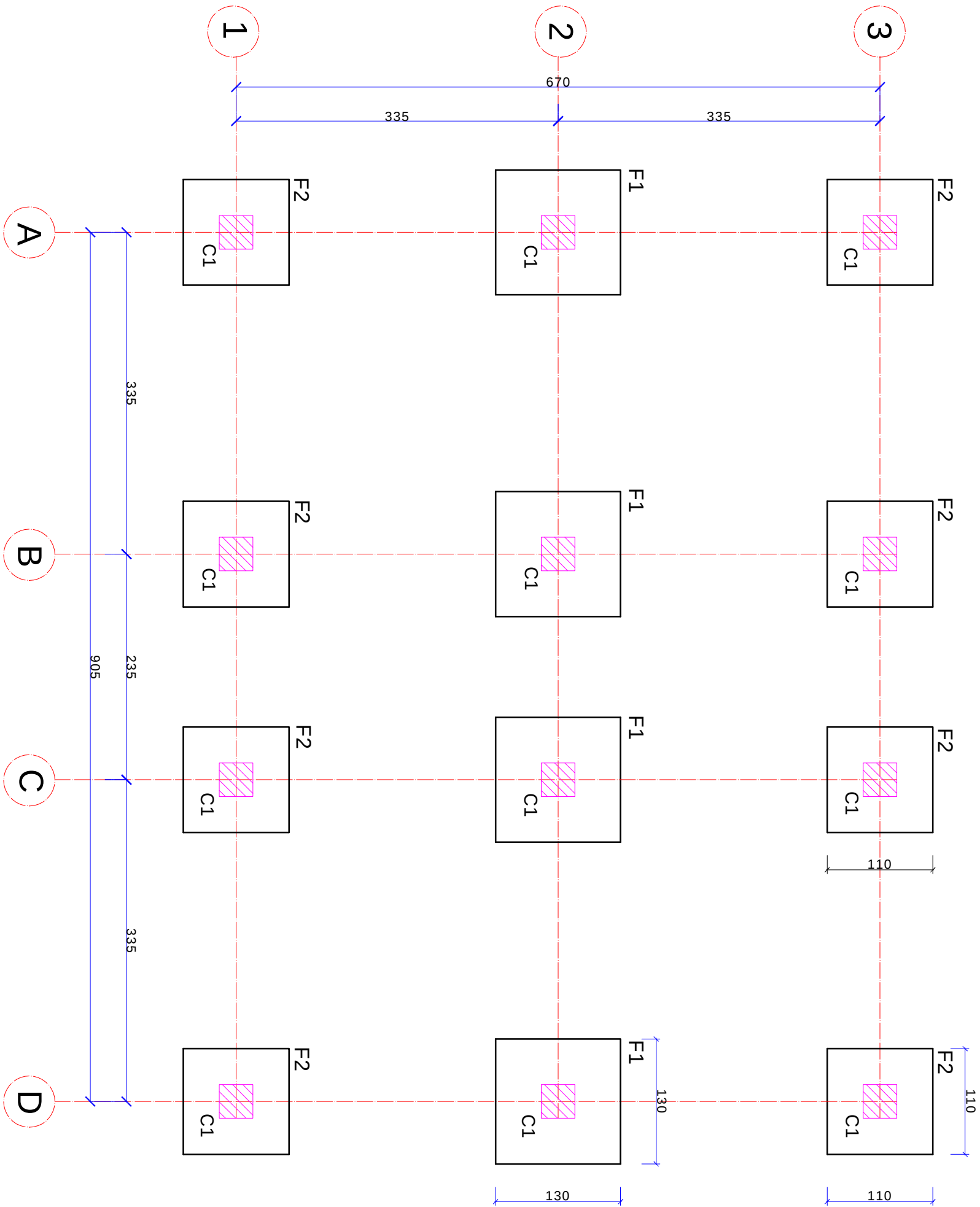


Toilet enlarge plan



DETAIL

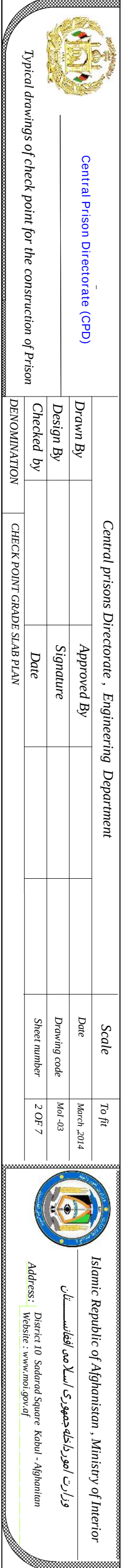
DETAIL



FOUNDATION PLAN

CHECK POINT
FOOTING PLAN





Central prisons Directorate , Engineering Department				Scale	To fit
Drawn By		Approved By		Date	March ,2014
Design By		Signature		Drawing code	Mol -03
Checked by		Date		Sheet number	2 OF 7
DENOMINATION	CHECK POINT GRADE SLAB PLAN				



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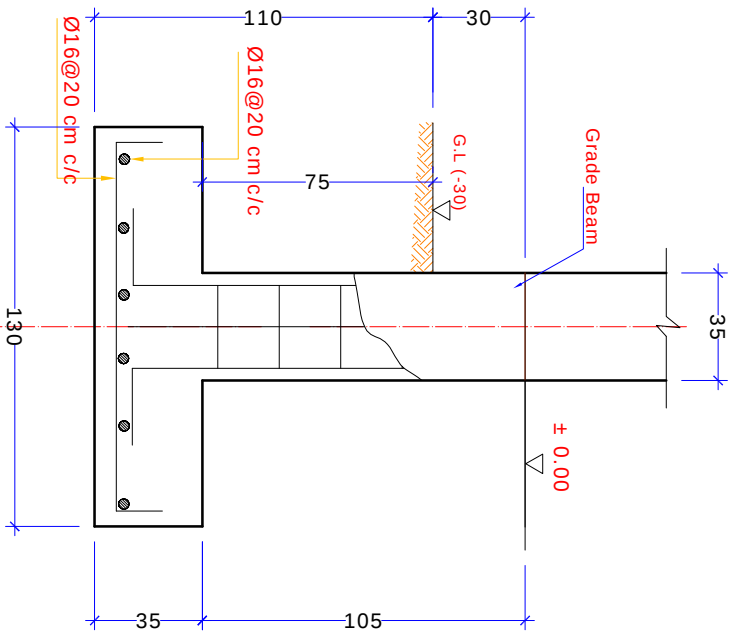
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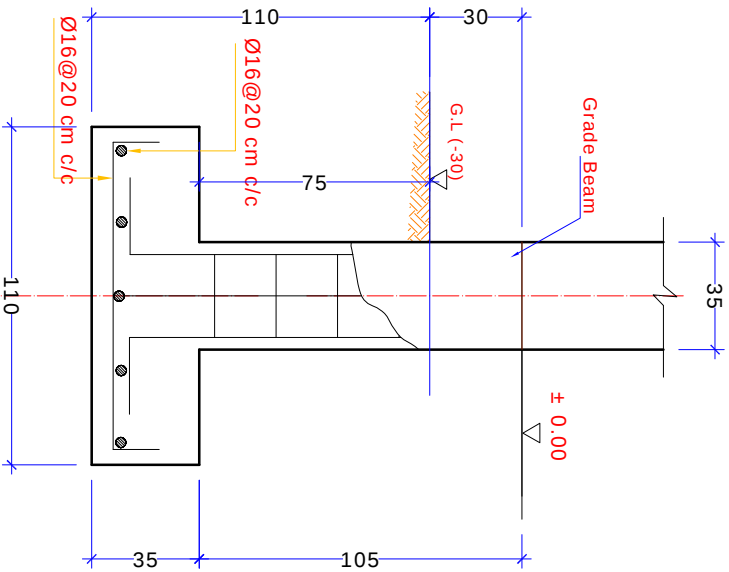
 Website : www.moi.gov.af

99

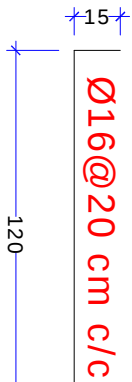
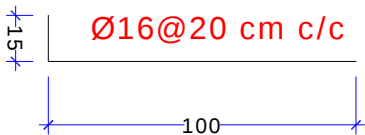
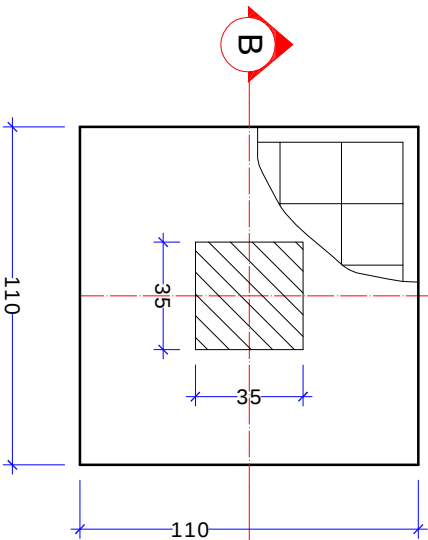
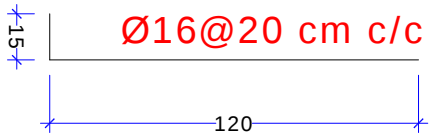
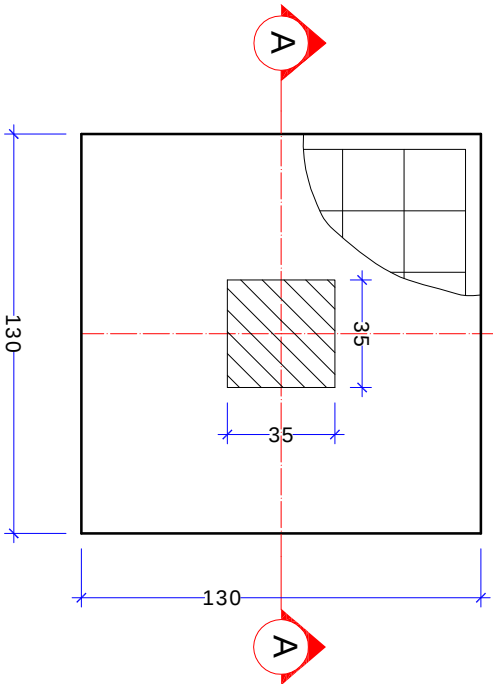




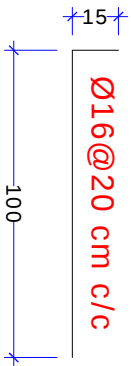
Section A-A



Section B-B



Footing F1



Footing F2



Central Prison Directorate (CPD)

Typical drawings of check point for the construction of Prison

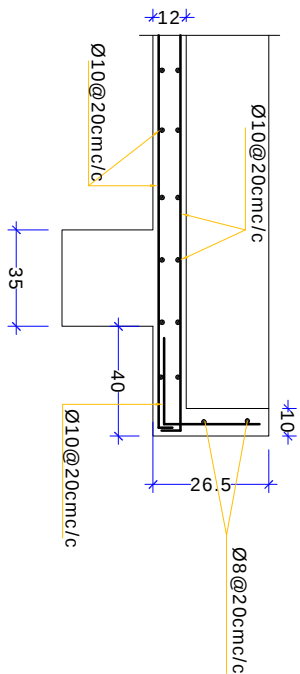
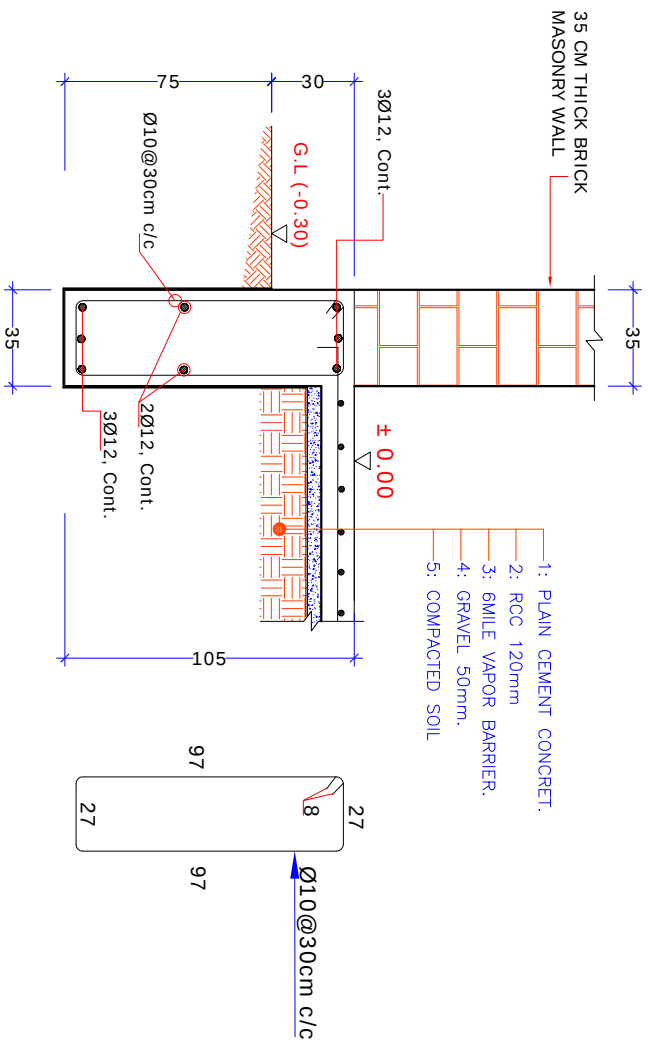
Central prisons Directorate , Engineering Department			
Drawn By		Approved By	
Design By		Signature	
Checked by		Date	
DENOMINATION	CHECK POINT COLUMN FOOTING DETAILS		
Scale	To fit	Date	March 2014
Drawing code	Mol -03	Sheet number	3 OF 7



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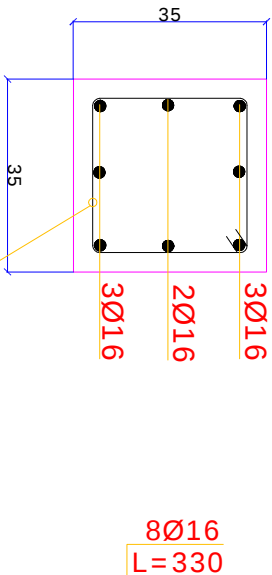
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(Parapet Detail)

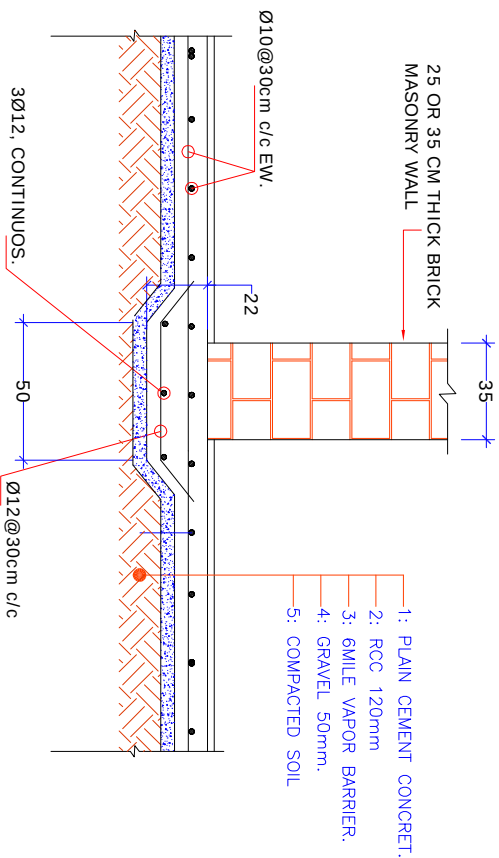
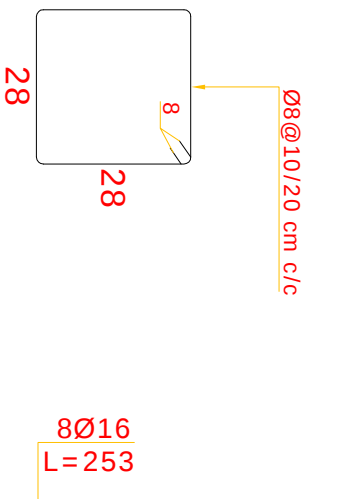
Exterior Wall Foundation

Section 1
SCALE 1:10



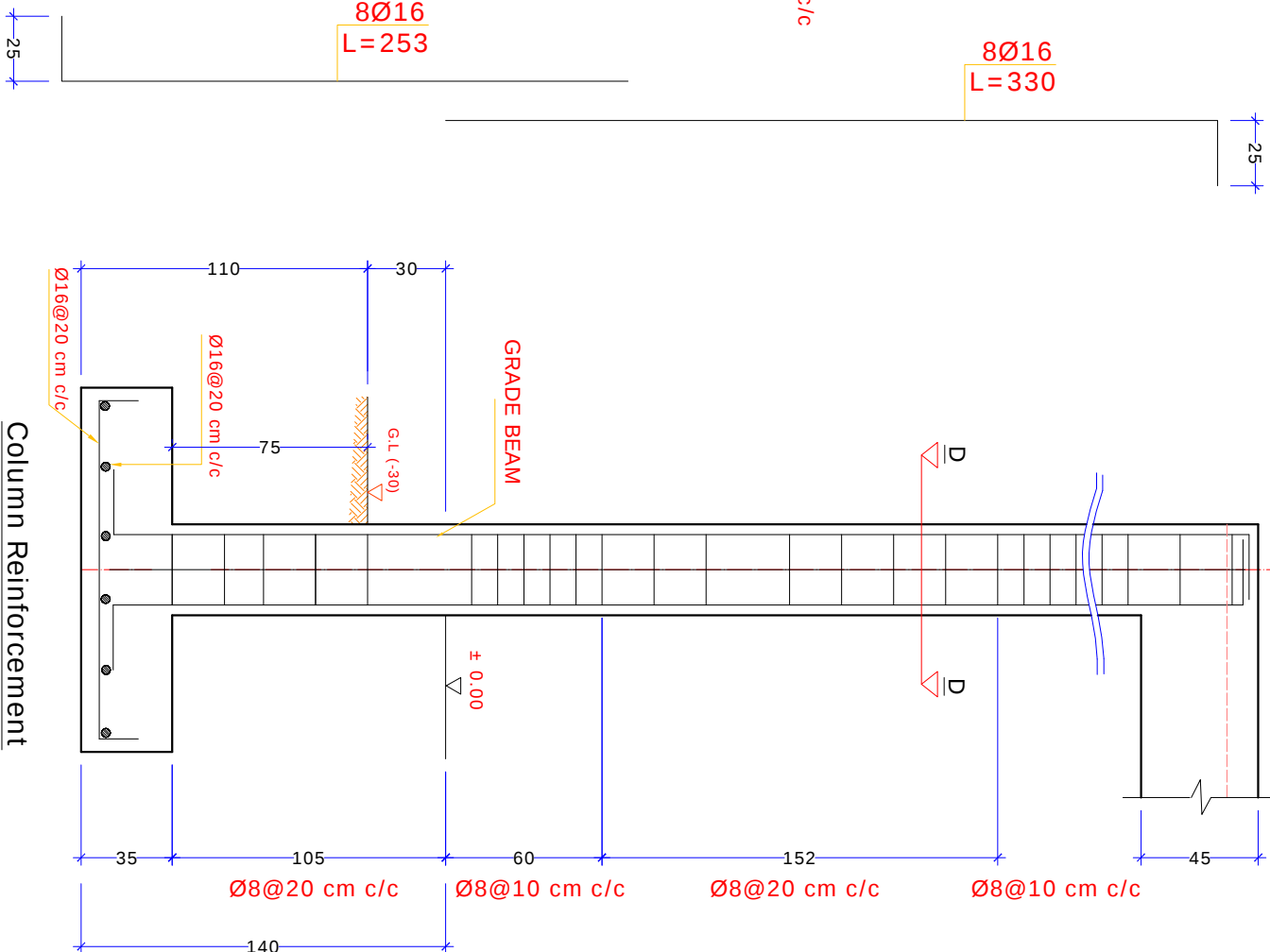
C-1

Section D-D



SECTION 1
SCALE 1:10

Interior Wall Section



Column Reinforcement

Column (C1)



Central Prison Directorate (CPD)

Typical drawings of check point for the construction of Prison

Central prisons Directorate , Engineering Department				
Drawn By		Approved By	Eng.	Scale
Design By		Signature		Date
Checked by		Date		Drawing code
DENOMINATION	CHECK POINT WALL DETAILS AND COLUMNS			Sheet number



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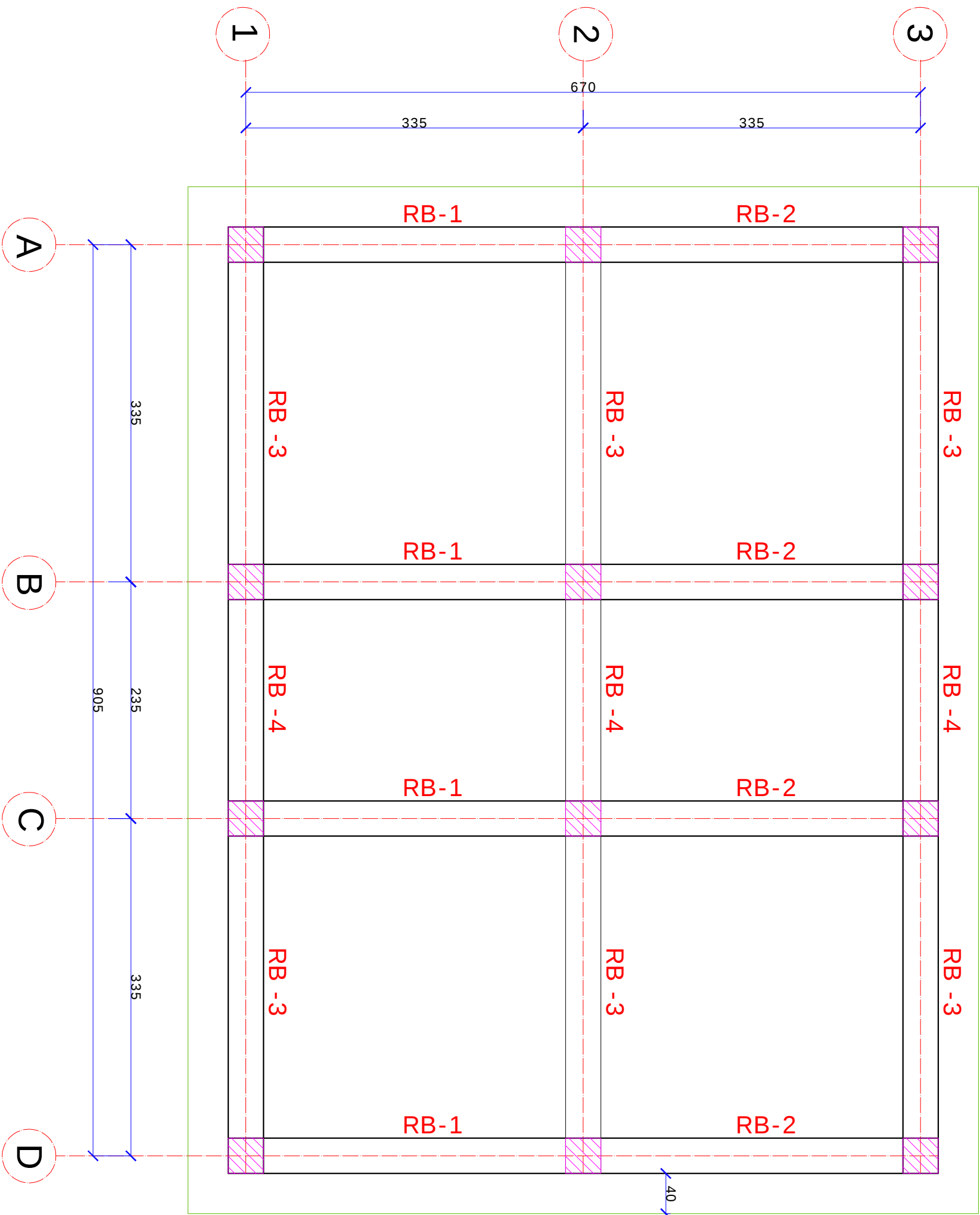
A

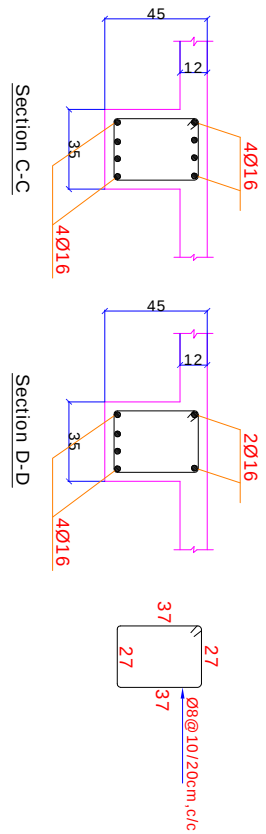
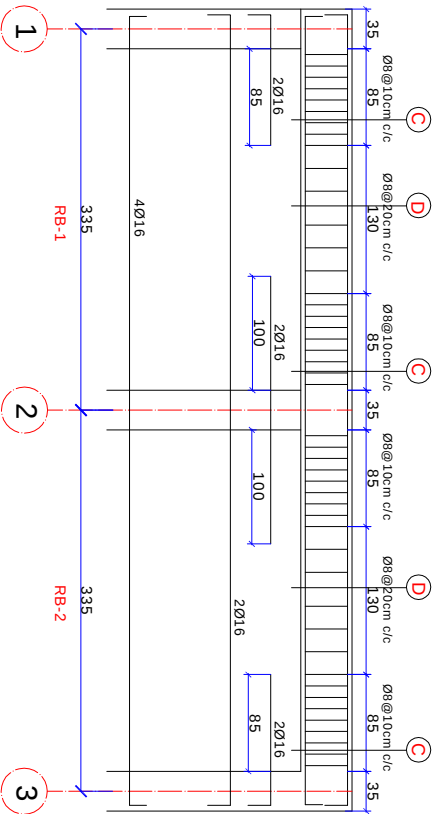
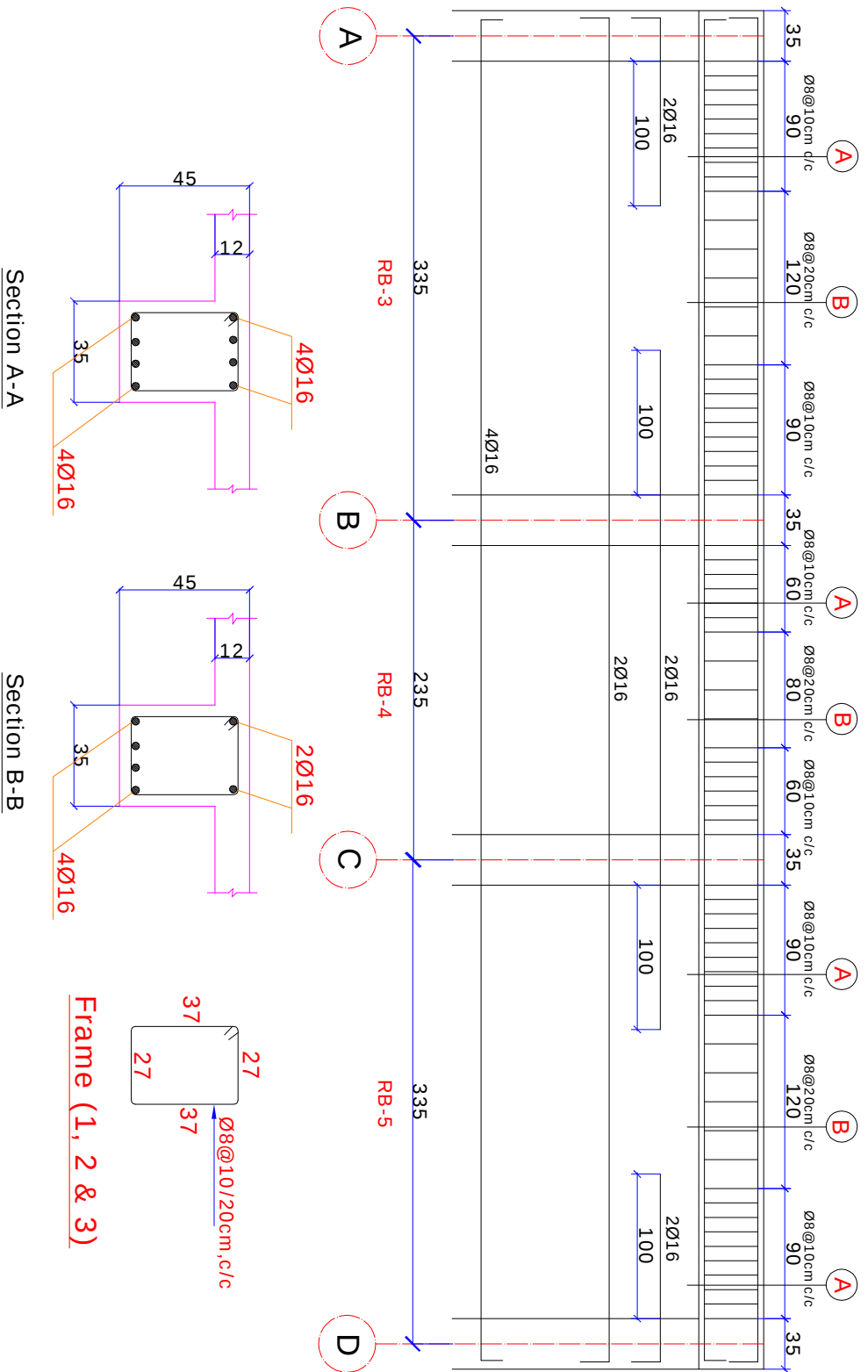


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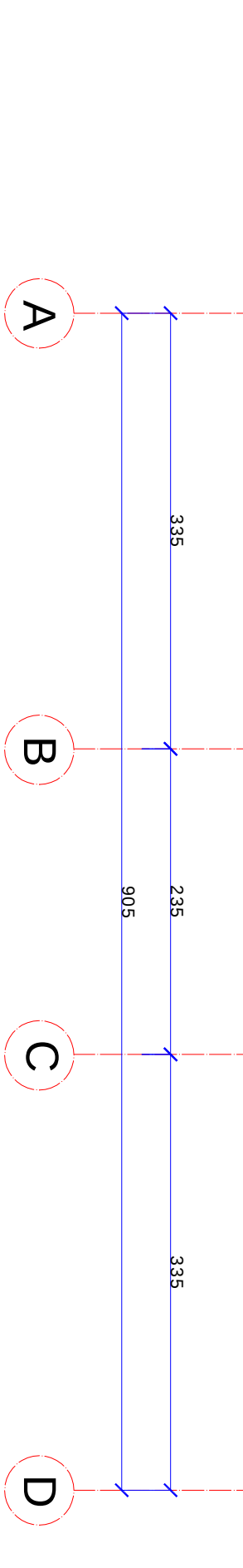
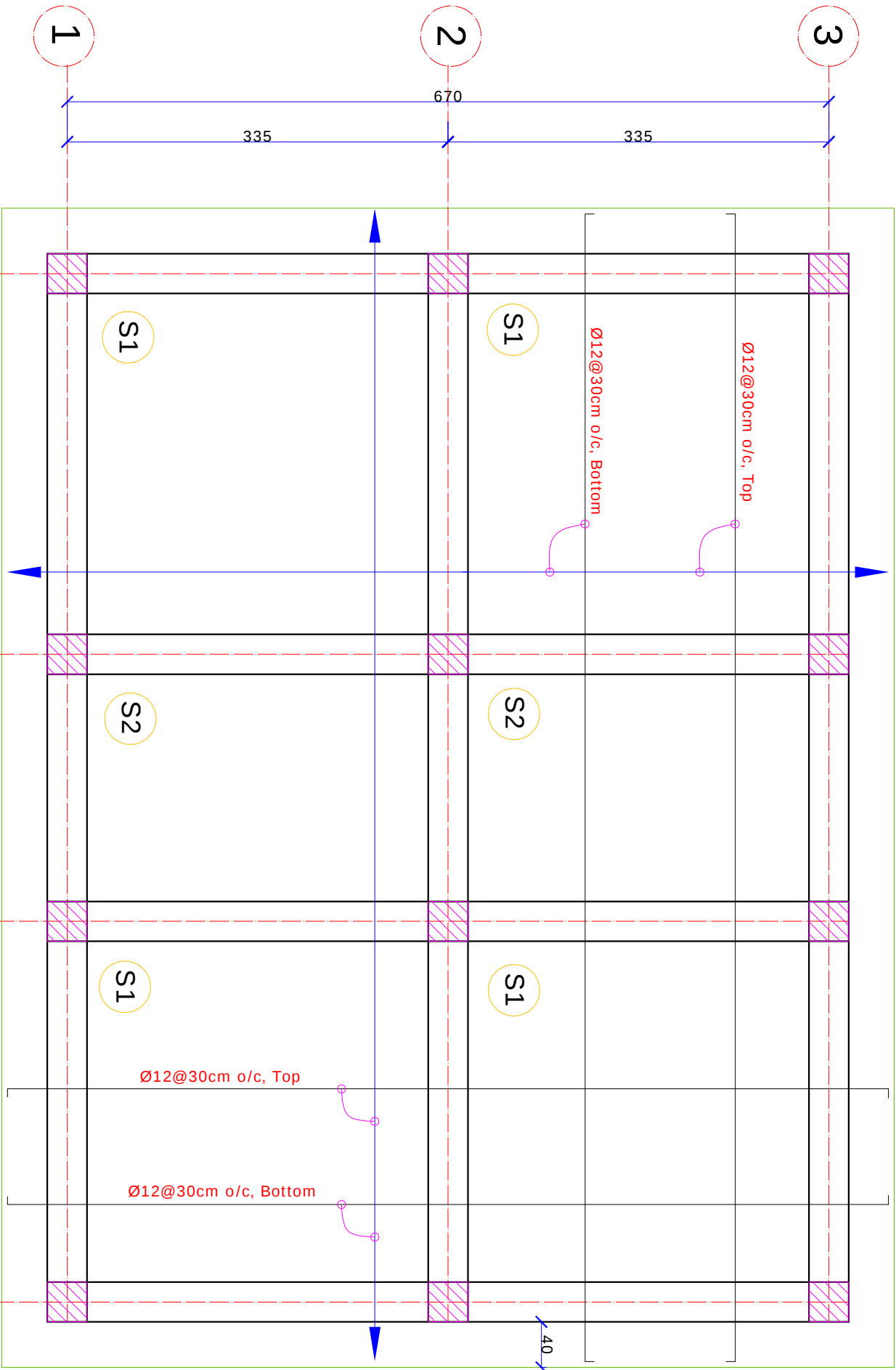
CHECK POINT

RING BEAM LAYOUT



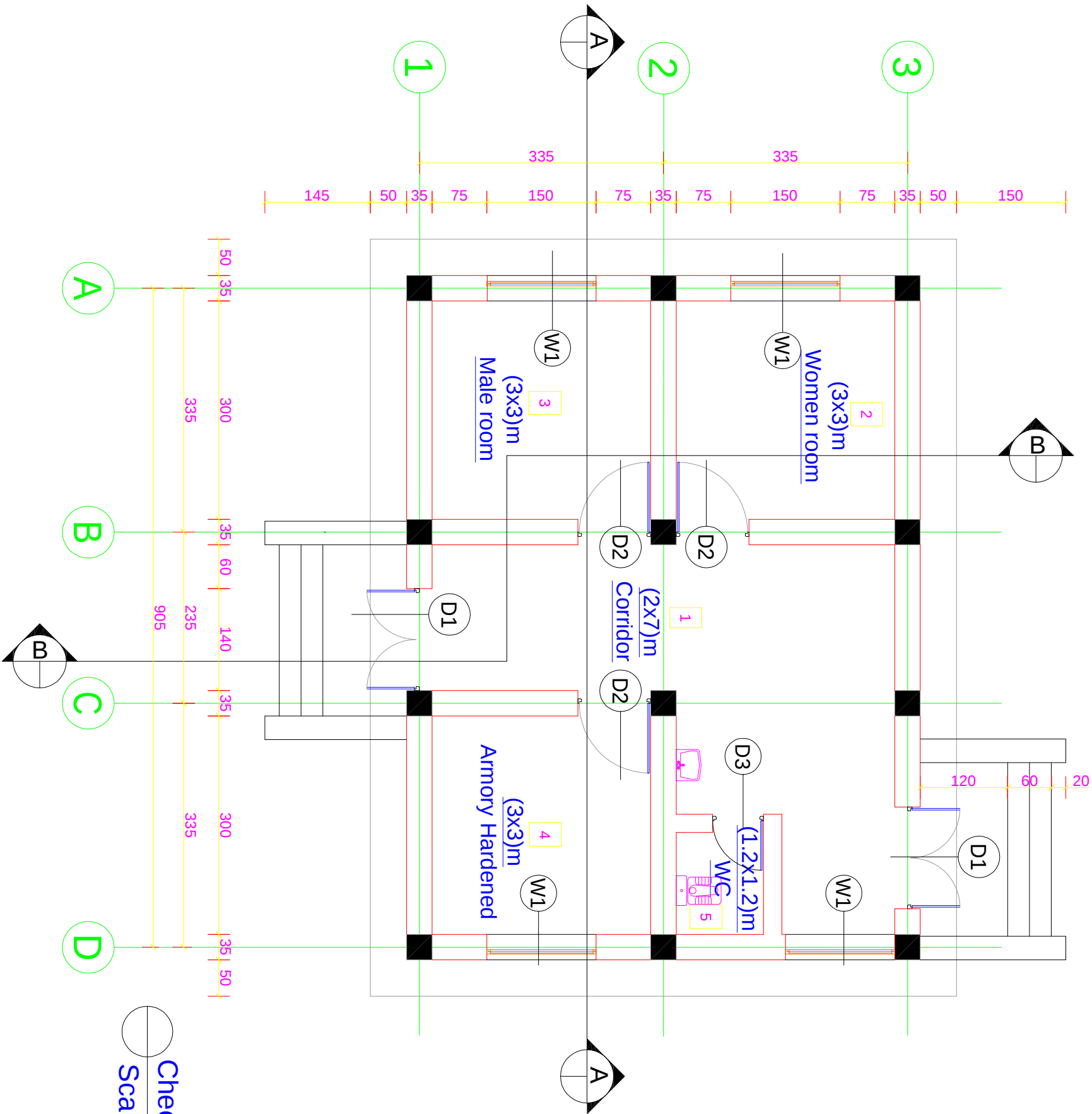


CHECK POINT
RING BEAM
SECTIONS



ROOF SLAB REINFORCEMENT

CHECK POINT
ROOF SLAB



A

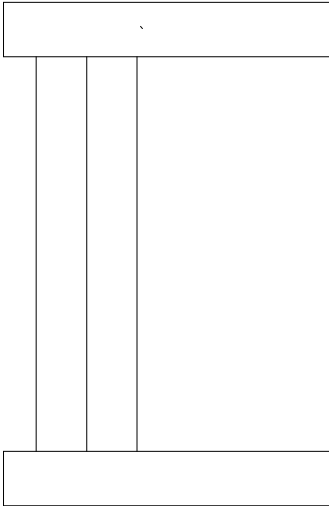
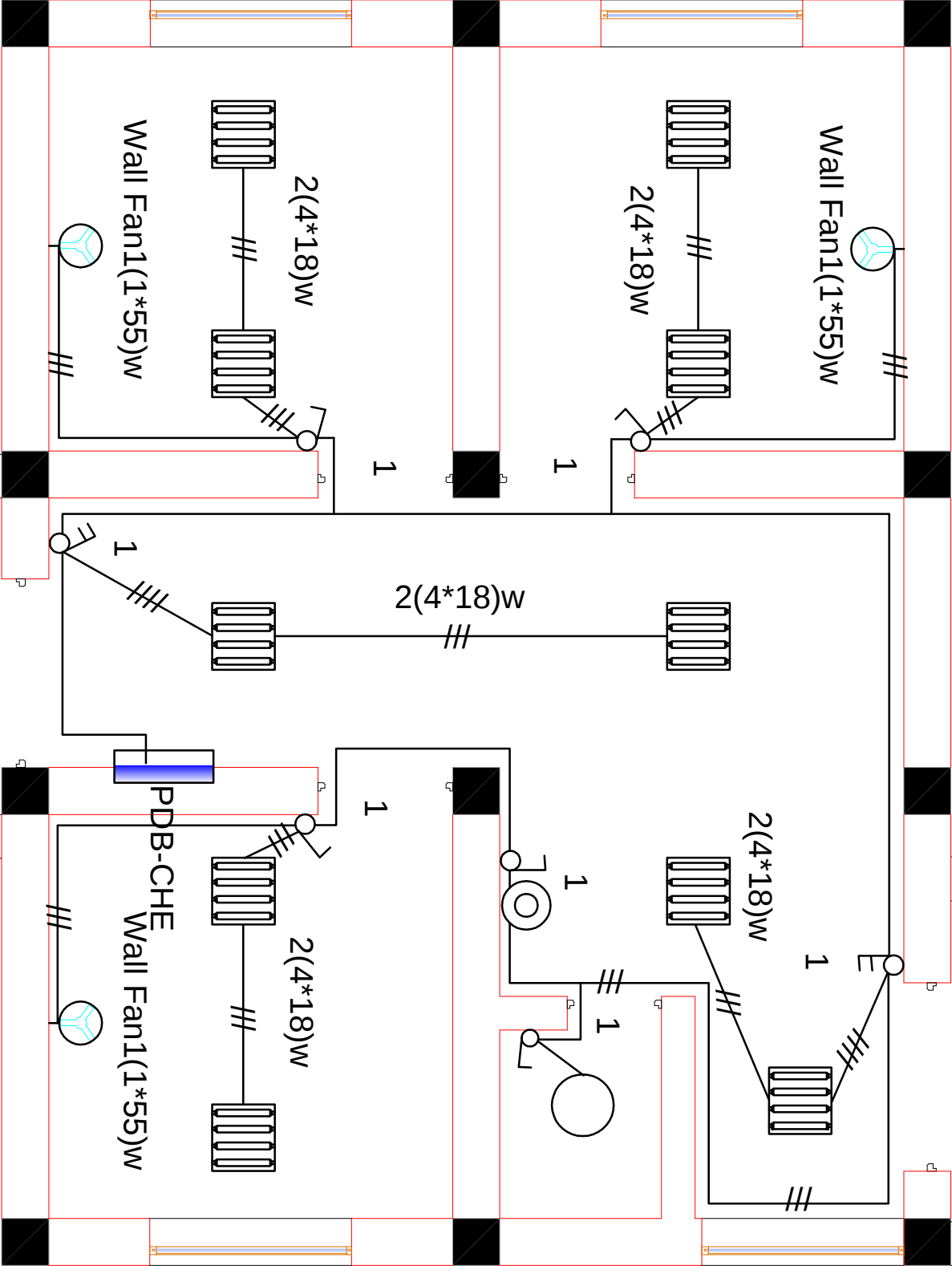
B

C

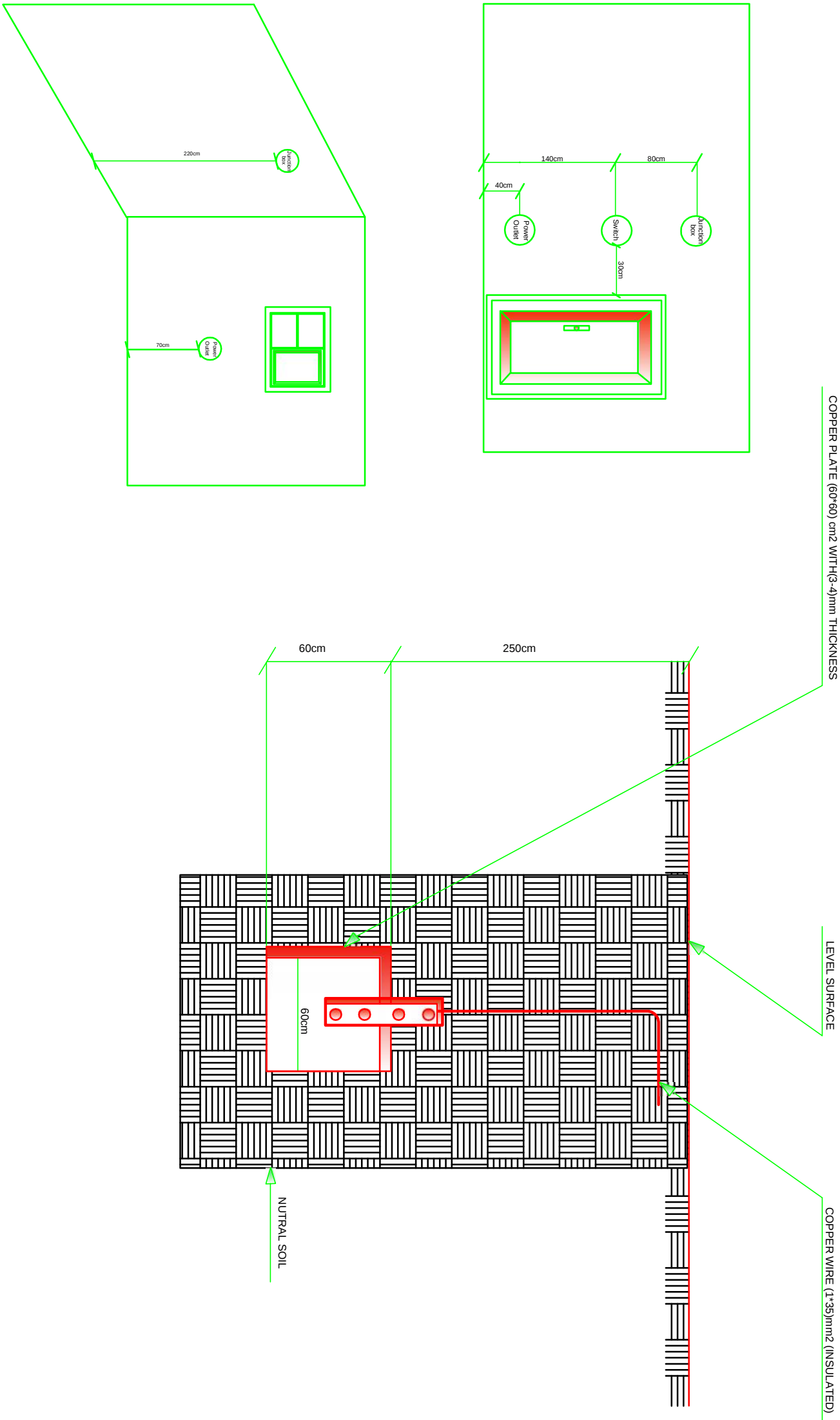
D

Check point plan
Scale: 1/ 100

پلان سیستم روشنایی تعمیر تالاشی
Lighting Plan Check point



Grounding and Outlet Installation Detail



Central Prison Directorate (CPD)

Drawn By

Design By

Checked by

Approved By

Signature

Date

Scale

To fit

March ,2014

Mol -03

3 OF 5

Islamic Republic of Afghanistan , Ministry of Interior

وزارت امور داخله جمهوری اسلام افغانستان

District 10 Sedard Square Kabul - Afghanistan

Address: District 10 Sedard Square Kabul - Afghanistan

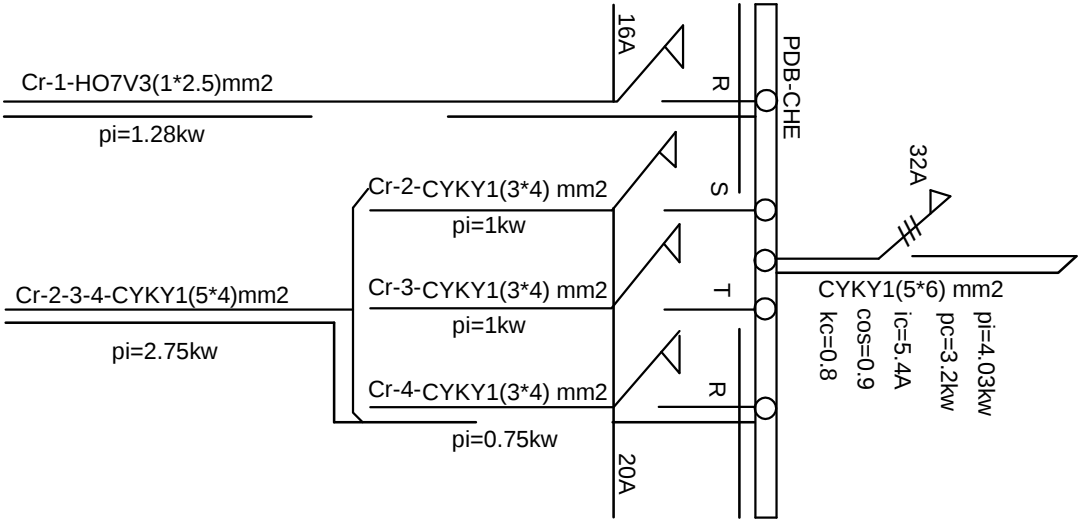
Website : www.moi.gov.af

Central prisons Directorate , Engineering Department

CHECK POINT GROUNDING AND OUTLET INSTALLATION DETAILS

Typical drawing of check point for the Construction of Prison

Power and Lighting Electrical Diagrams



Schedule of Electrical Equipment for Check point

No	Symbol	Description	Unit	Qty	Origin
1		Florescent Lamp code-1600-1418AL-(4*18)w	Set	10	czec Rep
2		Incondescent Ceiling Lamp 1(1*60)w with circular shade (300) mil	Set	1	Germany
3		Incondescent Lamp 1(1*60)w over the mirrore with shade	Set	1	Germany
4		One pole switch under plaster	Pcg	5	czec Rep
5		Two pole switch under plaster	Pcg	2	czec Rep
6		Singel Phase Socket under plaster APT.803-16A-250V-IEC-60884-1	Pcg	11	czec Rep
7		Auto Switch Singel Phase (16)A	Pcg	1	czec Rep
8		Auto Switch Singel Phase (20)A	Pcg	3	czec Rep
9		Auto SwitchThree Phase (32)A	Pcg	1	czec Rep
10		Panel Distribution board 24Modular (47*38*11)cm	Pcg	1	czec Rep
11		Wall Fan -- (55)w	Set	3	Pakistan
12		Junction Box	Pcg	15	czec Rep
13		Copper Wire HO7V 3(1*2.5)mm2	Meter	250	Germany
14		Copper Wire HO7V 3(1*2.5)mm2	Meter	20	Germany
15		Copper cabale CYKY 1(3*4)mm2	Meter	150	Germany
16		Copper cabale CYKY 1(5*4)mm2	Meter	20	Germany
17		Copper cabale CYKY1(5*6)mm2	Meter	10	Germany
18		P.V.C Pipe (1. 3/4. 1/2) inch	Meter	350	Afghanistan
19		Elbow (1. 3/4. 1/2) inch	Pcg	25	Afghanistan

- Notes : 1-The Switch will be installed -(1.4) m above the floor.
2-The Socket will be installed -(0.4) m above the floor.
3-The Panel Distribution board will be installed -(1.7) m above the floor.
4-Wall fan Connect to nearest joint box of each room.

وړارت لوړد رڼا د جهوری اسلامو افغانستان

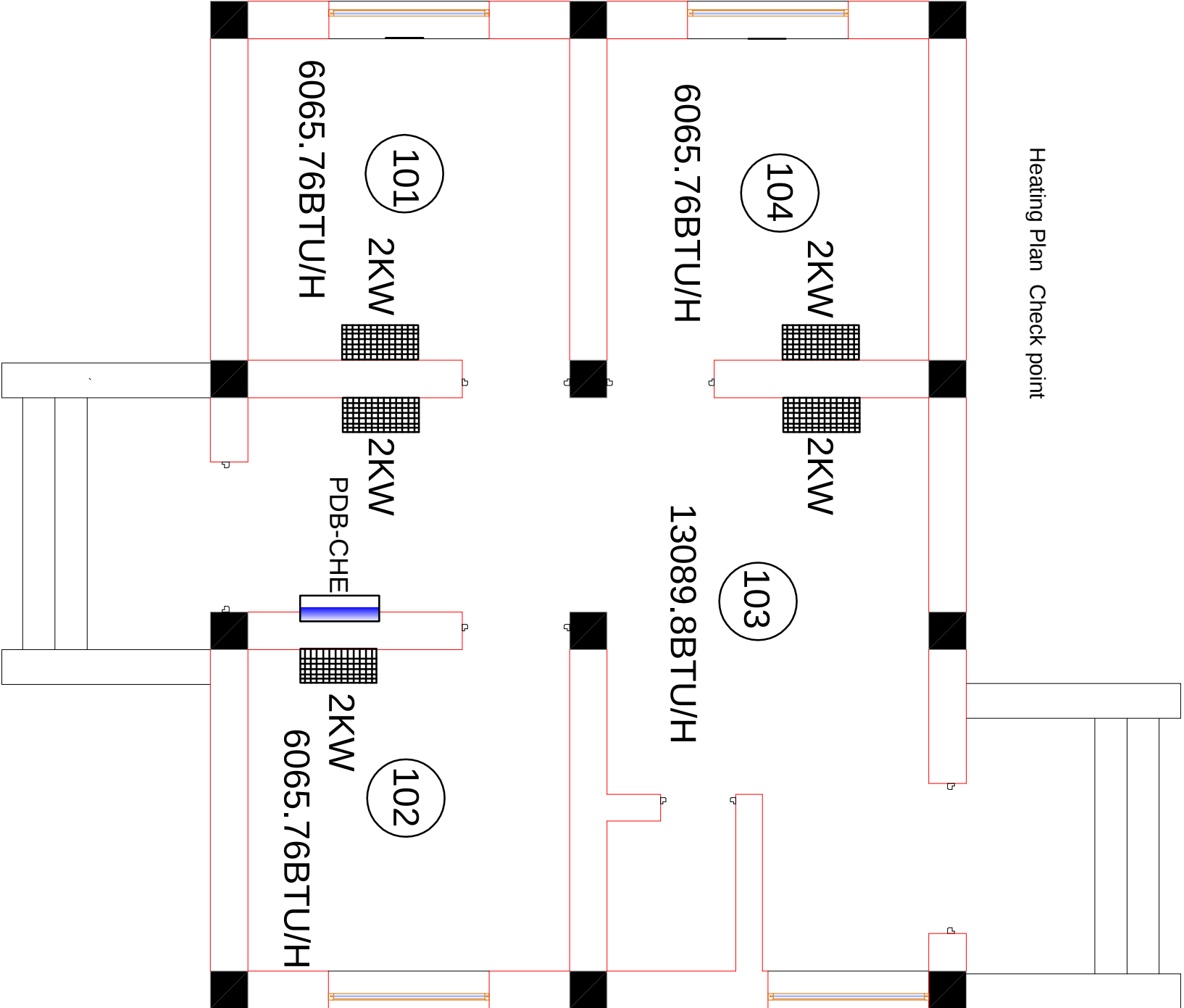
Islamic Republic of Afghanistan , Ministry of Interior

وړارت لوړد رڼا د جهوری اسلامو افغانستان

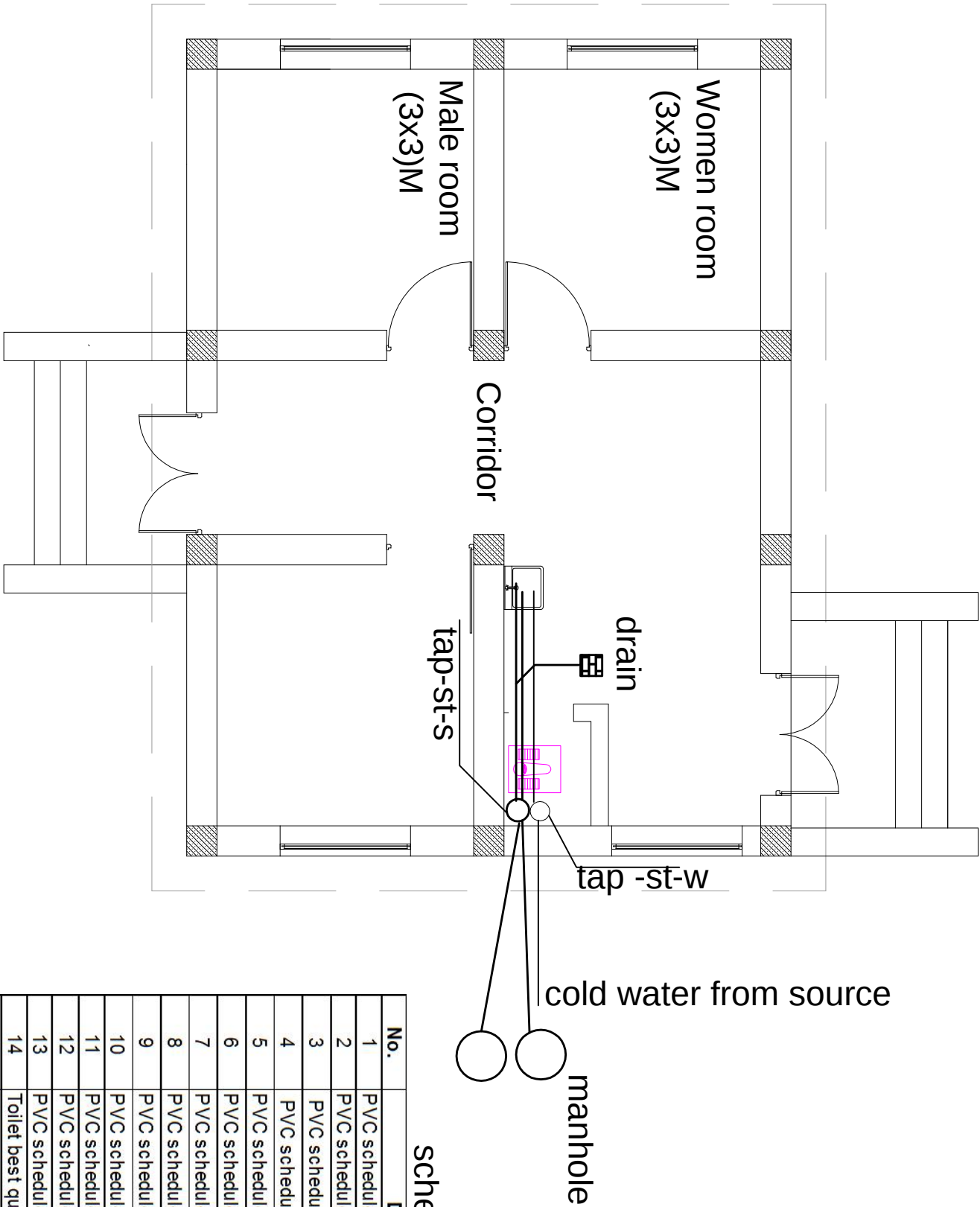
District 10 Sadarud Square Kabul -Afghanitian

Address :

Website : www.moi.gov.af



Central prisons Directorate , Engineering Department					Scale		To fit
Drawn By	Eng. Mateen	Approved By	Eng.		Date		March 2014
Design By		Signature			Drawing code		Mol -08
Checked by		Date			Sheet number		5 OF 5
DENOMINATION			CHECK POINT HEATING PLAN				

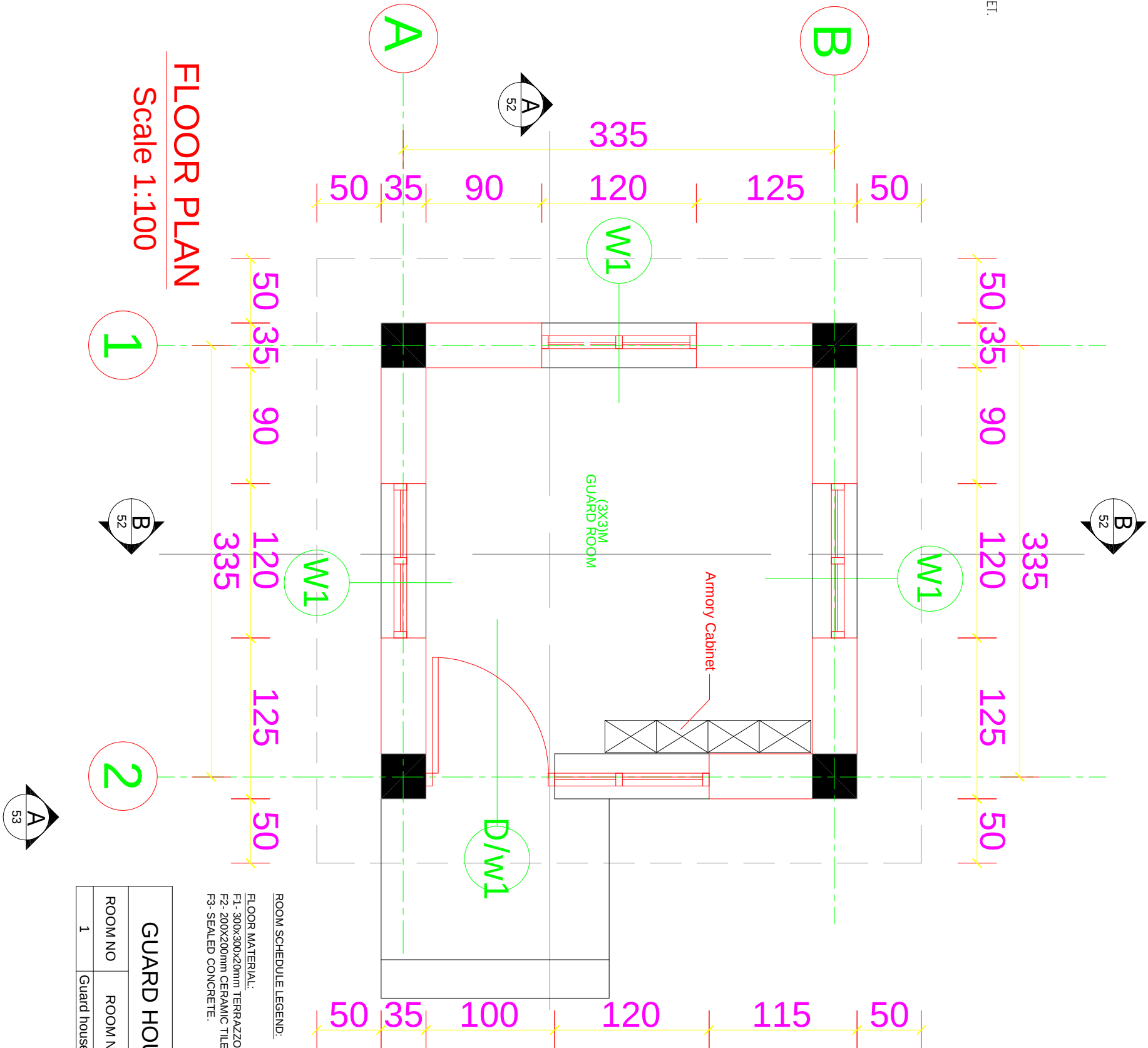


schedual of quantity

No.	Description	Unit	Quantity
1	PVC schedule 60 Pipe d= 100mm	m	As per need
2	PVC schedule 60 Pipe d= 50mm	m	As per need
3	PVC schedule 60 Bend 135°, d=100	pcs	As per need
4	PVC schedule 60 Bend 90°, d= 100r	pcs	As per need
5	PVC schedule 60 Bend 135°, d=50m	pcs	As per need
6	PVC schedule 60 Bend 90°, d= 50m	pcs	As per need
7	PVC schedule 60 Tee 45°, d= 50mm	pcs	As per need
8	PVC schedule 60 Tee 90°, d= 100m	pcs	As per need
9	PVC schedule 60 Tee 45°, d= 100m	pcs	As per need
10	PVC schedule 60 Tee 45°, 100x 50x	pcs	As per need
11	PVC schedule 60 Inseption d= 100m	pcs	As per need
12	PVC schedule 60 Drain d= 50mm	pcs	As per need
13	PVC schedule 60 Reducer100x50mm	pcs	As per need
14	Toilet best quality	pcs	As per need
15	Basin best quality	pcs	As per need
16	PPR . Pipe d=20mm	m	As per need
17	PPR Pipe d=15mm	m	As per need
18	PPR Bend 20mm	pcs	As per need
19	PPR Bend 15mm	pcs	As per need
20	PPR Tee 15x15x15mm	pcs	As per need
21	Valve and Nepal 20mm	pcs	As per need
22	Valve and Nepal 15mm	pcs	As per need
23	Reducer20x 15 mm	pcs	As per need

NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
- 3- EXTERIOR WALLS ARE 35CM BRICK MASONARY .
- 4- INTERIOR WALLS ARE 35CM BRICK MASONARY .
- 5- EXTERIOR WALLS TO BE PAINTED PLASTER
- 6- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS.
- UNLESS OTHERWISE SPECIFIED.
- 7- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.
- 8- ALL ROOFS ARE GAUGE 24 GALVANIZED STEEL CORRUGATED SHEET.



ROOM SCHEDULE LEGEND:

- FLOOR MATERIAL:
F1- 300x300x20mm TERRAZZO TILES.
F2- 200X200mm CERAMIC TILES.
F3- SEALED CONCRETE.
- WALL MATERIAL:
W1- PAINTED PLASTER.
W2- 150X150mm GLAZED CERAMIC UP TO 2M
- CEILING MATERIAL:
C1- PAINTED PLASTER.

GUARD HOUSE FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	WALLS	CEILING
1	Guard house	F3	W1	C1



Central Prison Directorate (CPD)

Typical drawing of Guard house for the Construction of Prison

Central prisons Directorate , Engineering Department			
Drawn By		Approved By	
Design By		Signature	
Checked by		Date	
DENOMINATION	GUARD HOUSE FLOOR PLAN AND FINISHED SCHEDULE		
Scale		To fit	
Date		March ,2014	
Drawing code		MoI -03	
Sheet number		1OF 5	

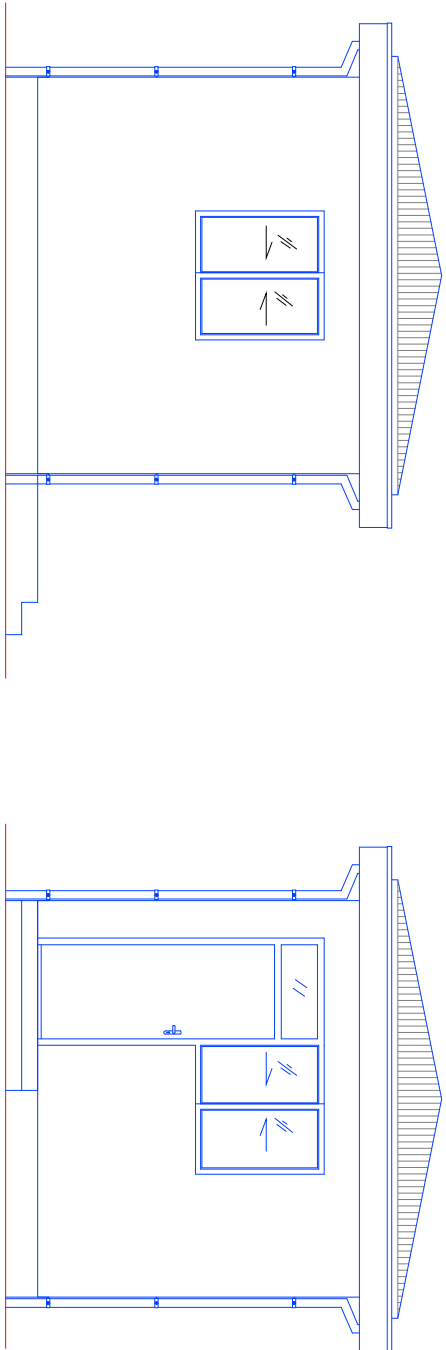


Islamic Republic of Afghanistan , Ministry of Interior

وزارت امور داخله جمهوری اسلام افغانستان

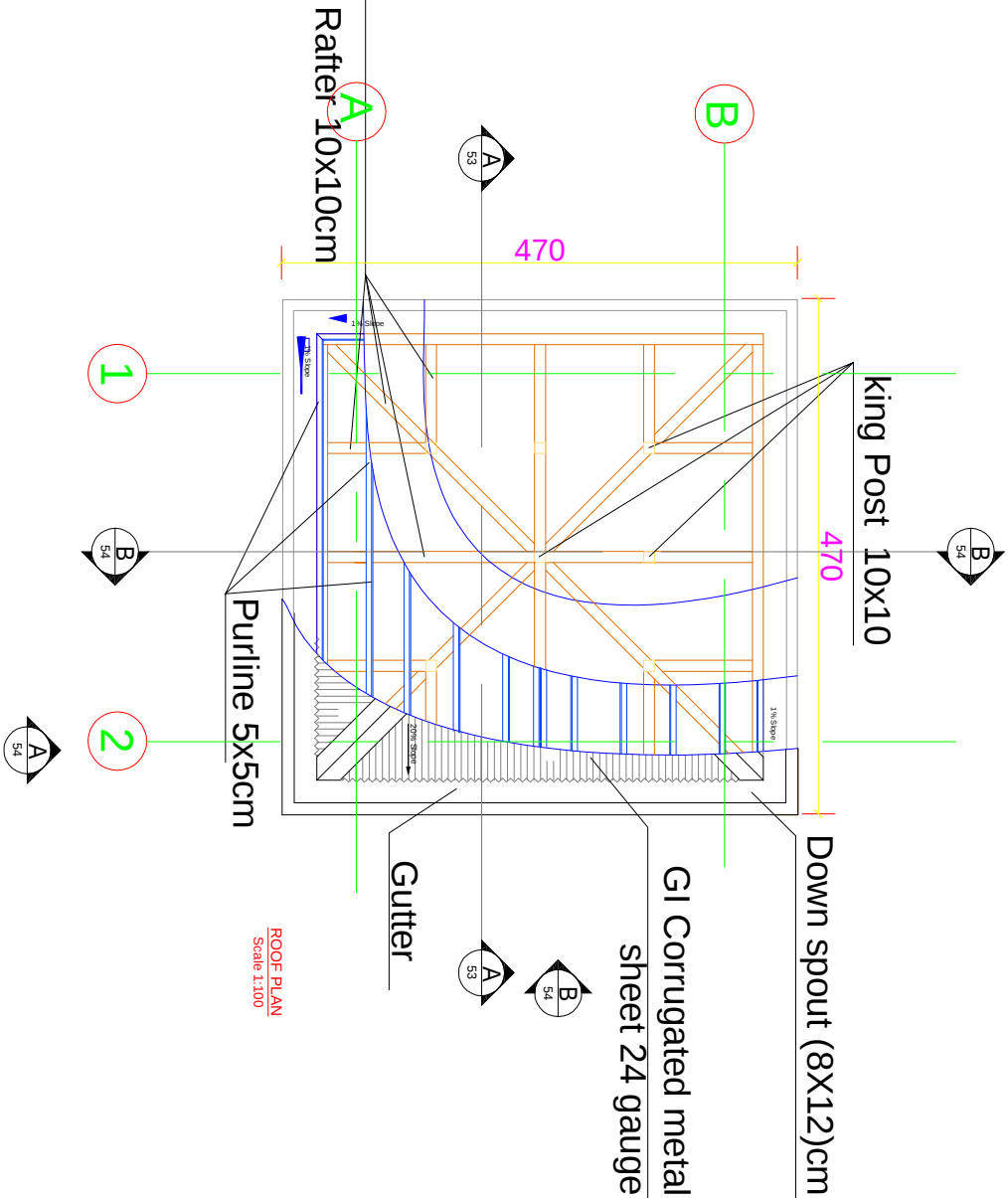
Address: District 10 Soddard Square Kabul - Afghanistan

website : www.moi.org.af

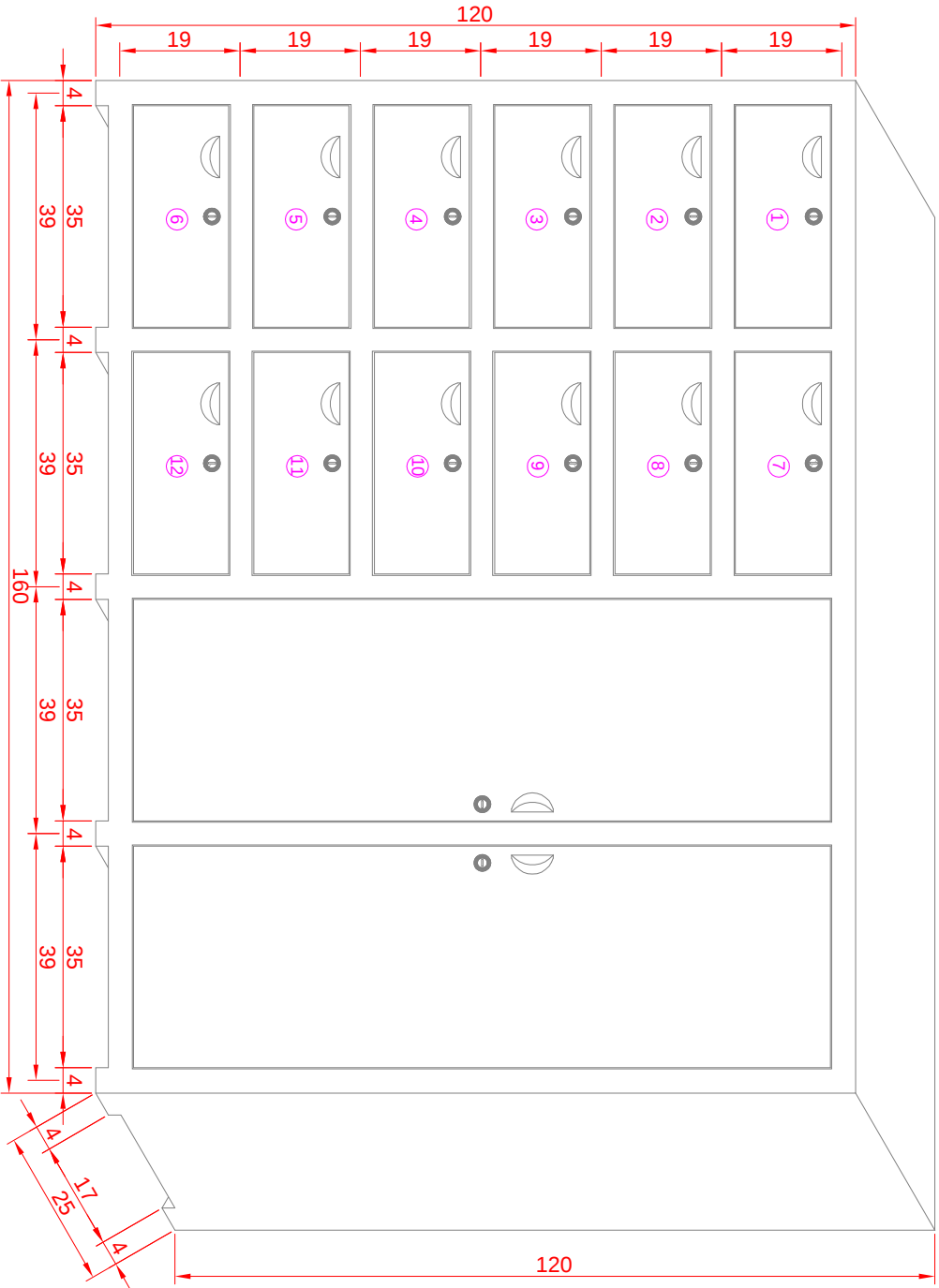


A NORTH ELEVATION
Scale: 1:100

B WEST ELEVATION
Scale: 1:100



- NOTES:
- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
 - 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
 - 3- EXTERIOR WALLS ARE 35CM BRICK MASONARY .
 - 4- INTERIOR WALLS ARE 35CM BRICK MASONARY .
 - 5- EXTERIOR WALLS TO BE PAINTED PLASTER
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 - 8- ALL ROOFS ARE GAUGE 24 GALVANIZED STEEL CORRUGATED SHEET.



ARMORY CABINET ISOMETRIC VIEW
ONLY AT MAIN ENTRY CONTROL POINT
scale 1/20:

GUARD HOUSE
ROOF PLAN
& ELEVATIONS



Central Prison Directorate (CPD)

Typical drawing of Guard house for the Construction of Prison

LOTFA Engineering Department			Central prisons Directorate , Engineering Department			Scale		To fit
Drawn By	Eng. Mateen	Approved By	Eng.			Date	March ,2014	
Design By		Signature				Drawing code	Mol -03	
Checked by		Date				Sheet number	2 OF 5	
DENOMINATION			GUARD HOUSE ROOF PLAN AND ELEVATION					



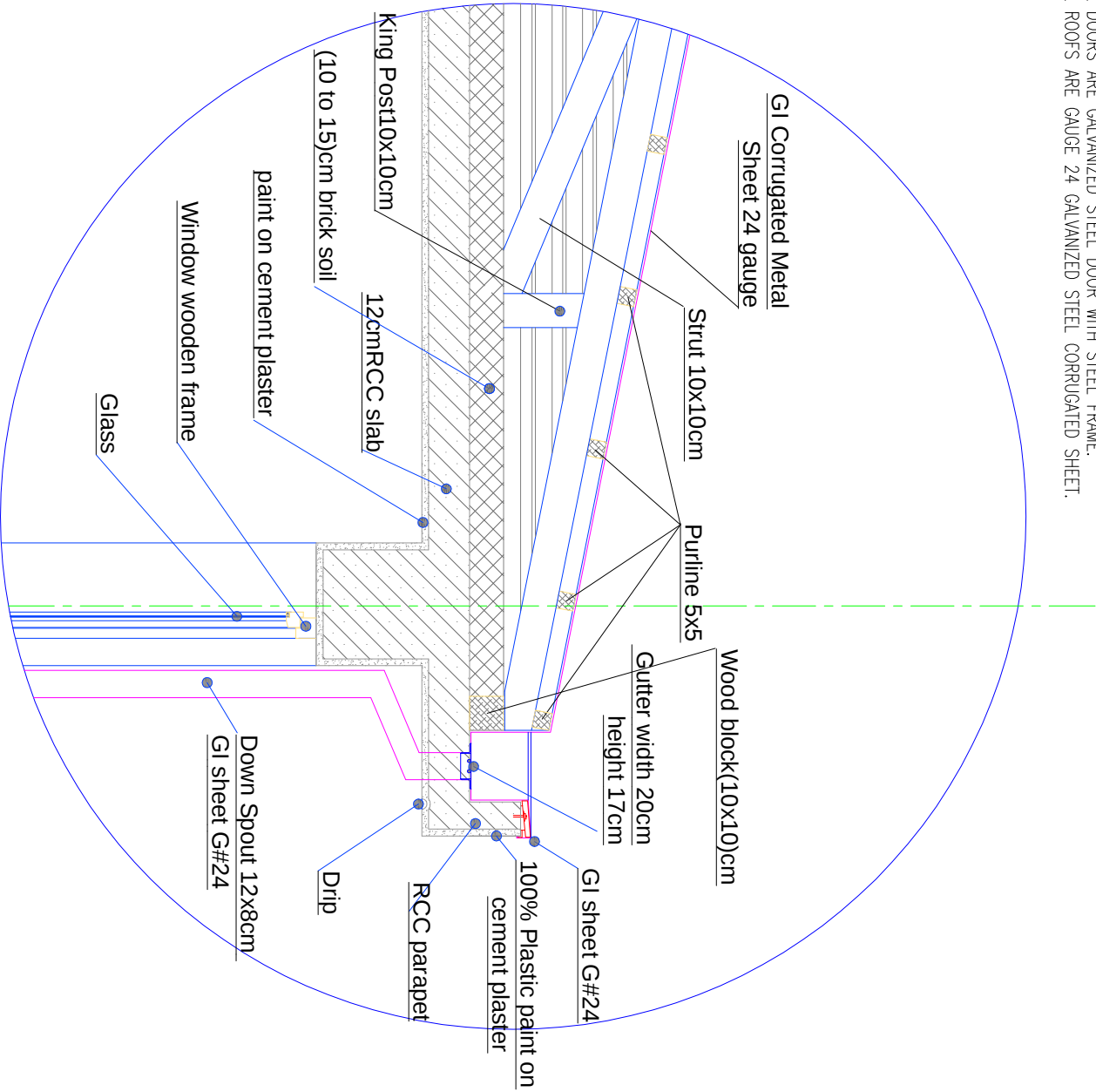
Islamic Republic of Afghanistan , Ministry of Interior

وزارت امور داخله جمهوری اسلام افغانستان

Address: District 10 Sadrard Square Kabul - Afghanistan
website : www.moi.org.af

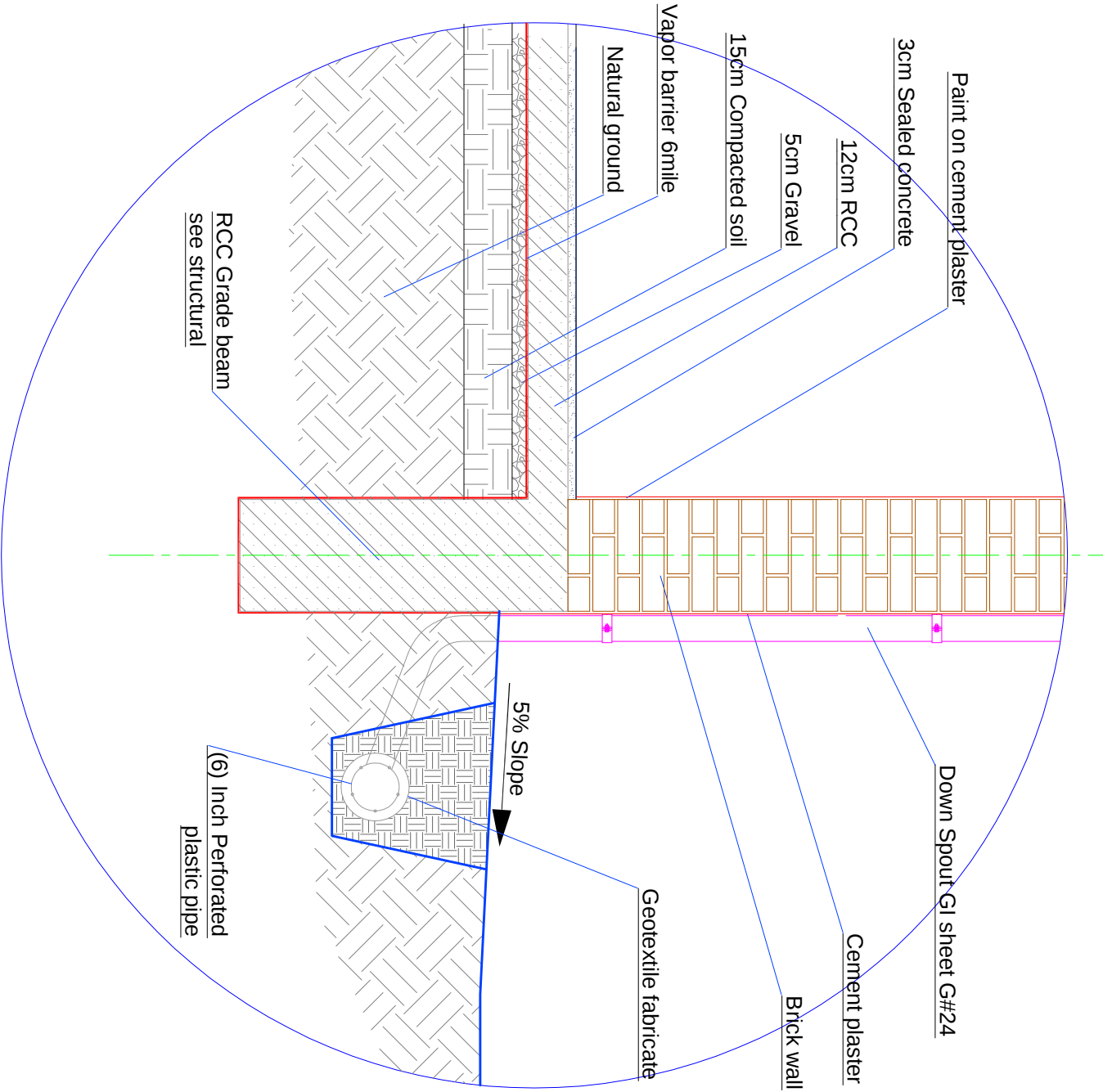
NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL LEVELS ARE IN METER (M) UNLESS OTHERWISE SPECIFIED.
- 3- EXTERIOR WALLS ARE 35CM BRICK MASONARY .
- 4- INTERIOR WALLS ARE 35CM BRICK MASONARY .
- 5- EXTERIOR WALLS TO BE PAINTED PLASTER
- 6- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS. UNLESS OTHERWISE SPECIFIED.
- 7- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.
- 8- ALL ROOFS ARE GAUGE 24 GALVANIZED STEEL CORRUGATED SHEET.



1 Gutter & parapet detail

Scale: 1:20



2 Exterior wall detail

Scale: 1:20



Central Prison Directorate (CPD)

Typical drawing of Guard house for the Construction of Prison

LOTFA Engineering Department		Central prisons Directorate , Engineering Department		Scale		To fit
Drawn By	Eng. Mateen	Approved By	Eng.	Date	March ,2014	
Design By		Signature		Drawing code	Mol -03	
Checked by		Date		Sheet number	3 OF 5	
DENOMINATION		GUARD HOUSE BUILDING DETAILS				



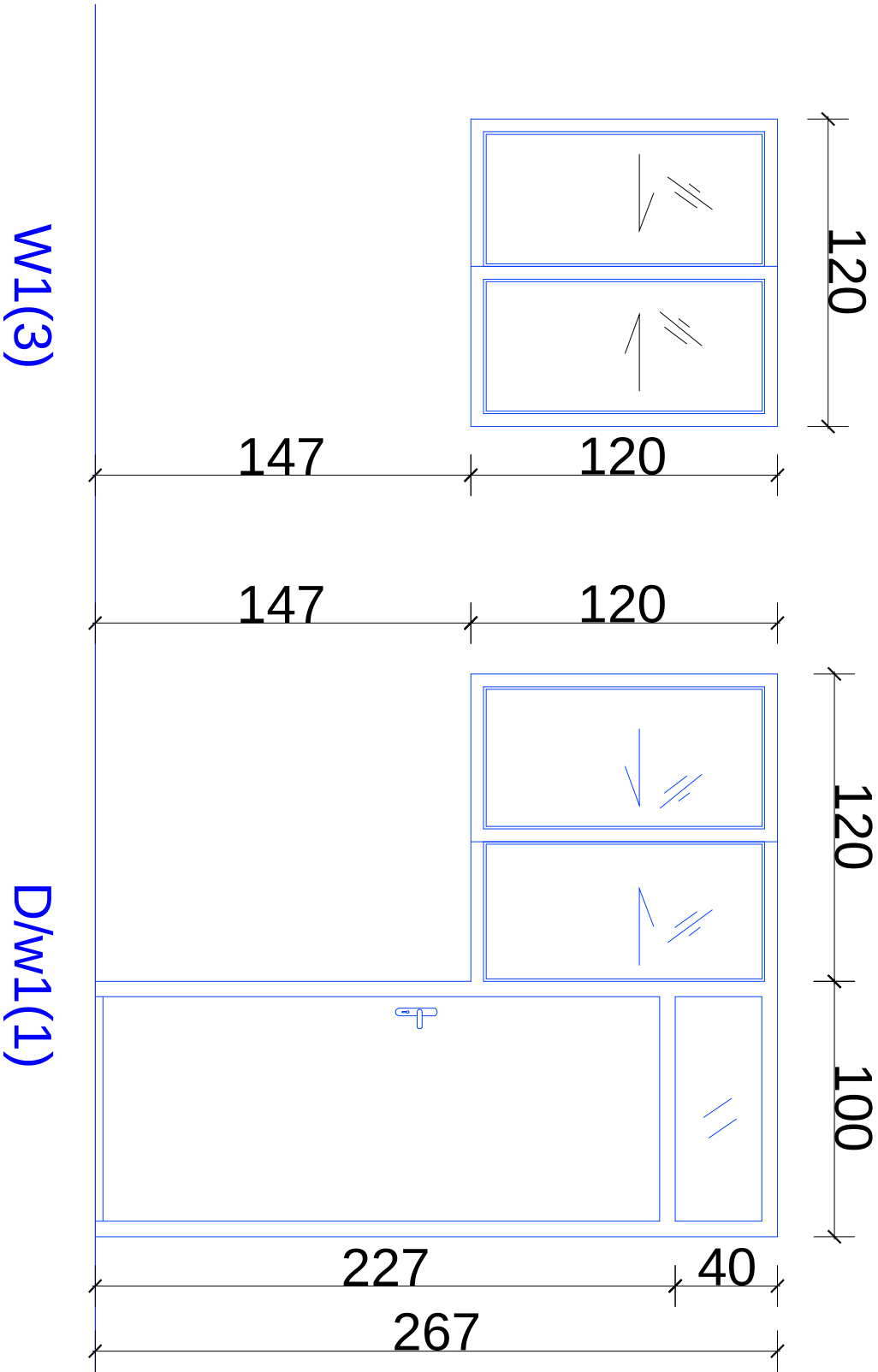
Islamic Republic of Afghanistan , Ministry of Interior

وزارت امور داخله جمهوری اسلام افغانستان

Address: District 10 Sadard Square Kabul - Afghanistan
website : www.moi.org.af

NOTES:

- 1- ALL DIMENSIONS ARE IN CM UNLESS OTHERWISE SPECIFIED.
- 2- ALL WINDOWS ARE 6MM LAMINATED DOUBLE GLASS. UNLESS OTHERWISE SPECIFIED.
- 3- ALL DOORS ARE GALVANIZED STEEL DOOR WITH STEEL FRAME.



Door and Window elevation

DOOR SCHEDULE				
DOOR NO	DIMENSION WIDTH HEIGHT	PANEL NUMBER	NUMBER	MATERIAL
D/w1	200 267	1	1	PAINTED HOLLOW METAL DOOR

WINDOW SCHEDULE						
WINDOW NO	DIMENSION		PANEL NUMBER	NUMBER	OPENING SYSTEM	MATERIAL
	WIDTH	HEIGHT				
W1	120	120	2	3	SLIDING	PAINTED HOLLOW METAL WINDOW

GUARD HOUSE
DOOR & WINDOW
SCHEDULE



Central Prison Directorate (CPD)

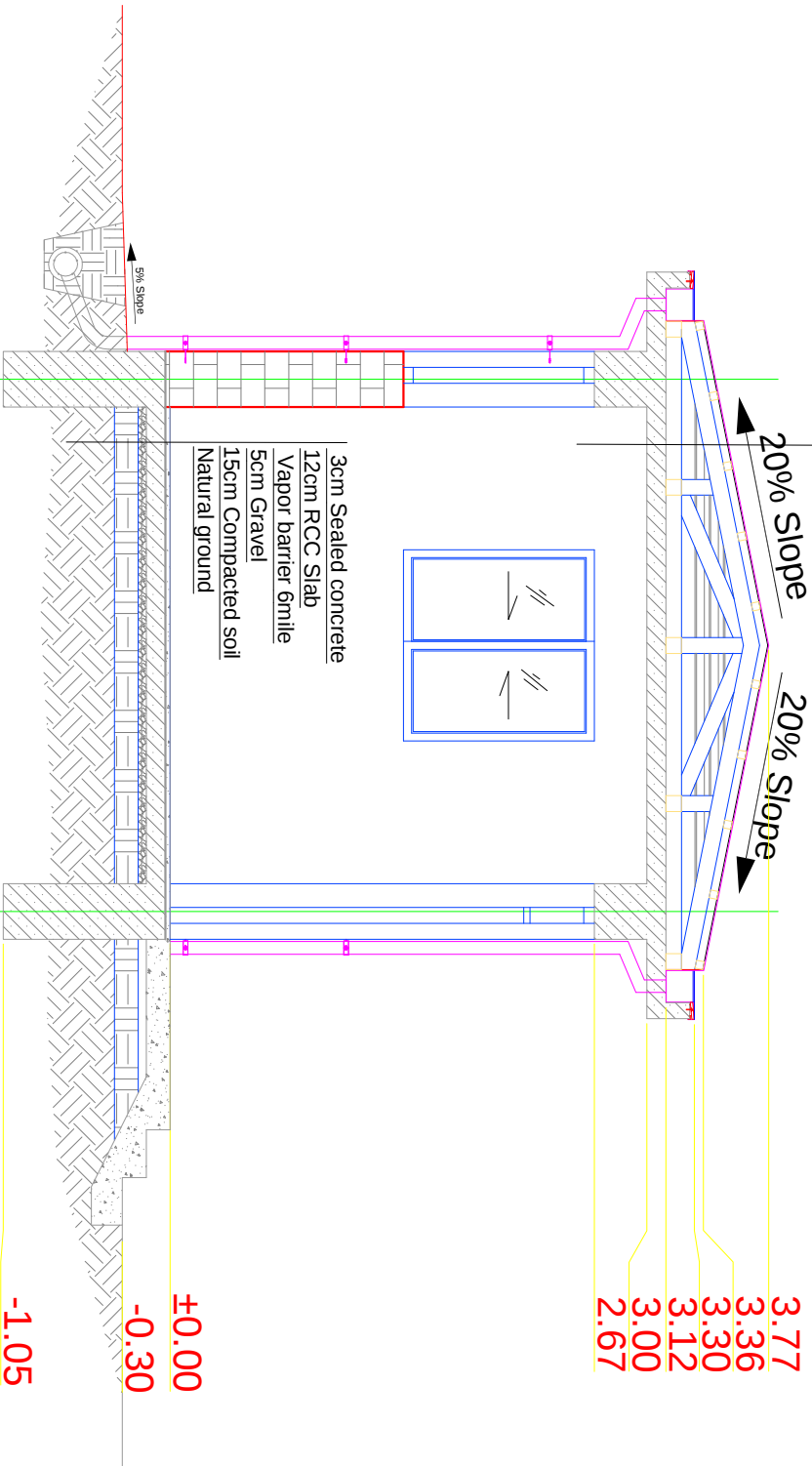
Typical drawing of Guard house for the Construction of Prison

LOTEA Engineering Department			Central prisons Directorate , Engineering Department			Scale		To fit
Drawn By	Eng. Mateen	Approved By	Eng.			Date		March ,2014
Design By		Signature				Drawing code		Mol -03
Checked by		Date				Sheet number		4 OF 5
DENOMINATION			GUARD HOUSE DOOR AND WINDOW SCHEDULE					



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وزارت امور داخله جمهوری اسلامی افغانستان
Address : District 10 Soddard Square Kabul - Afghanistan
website : www.moi.org.af

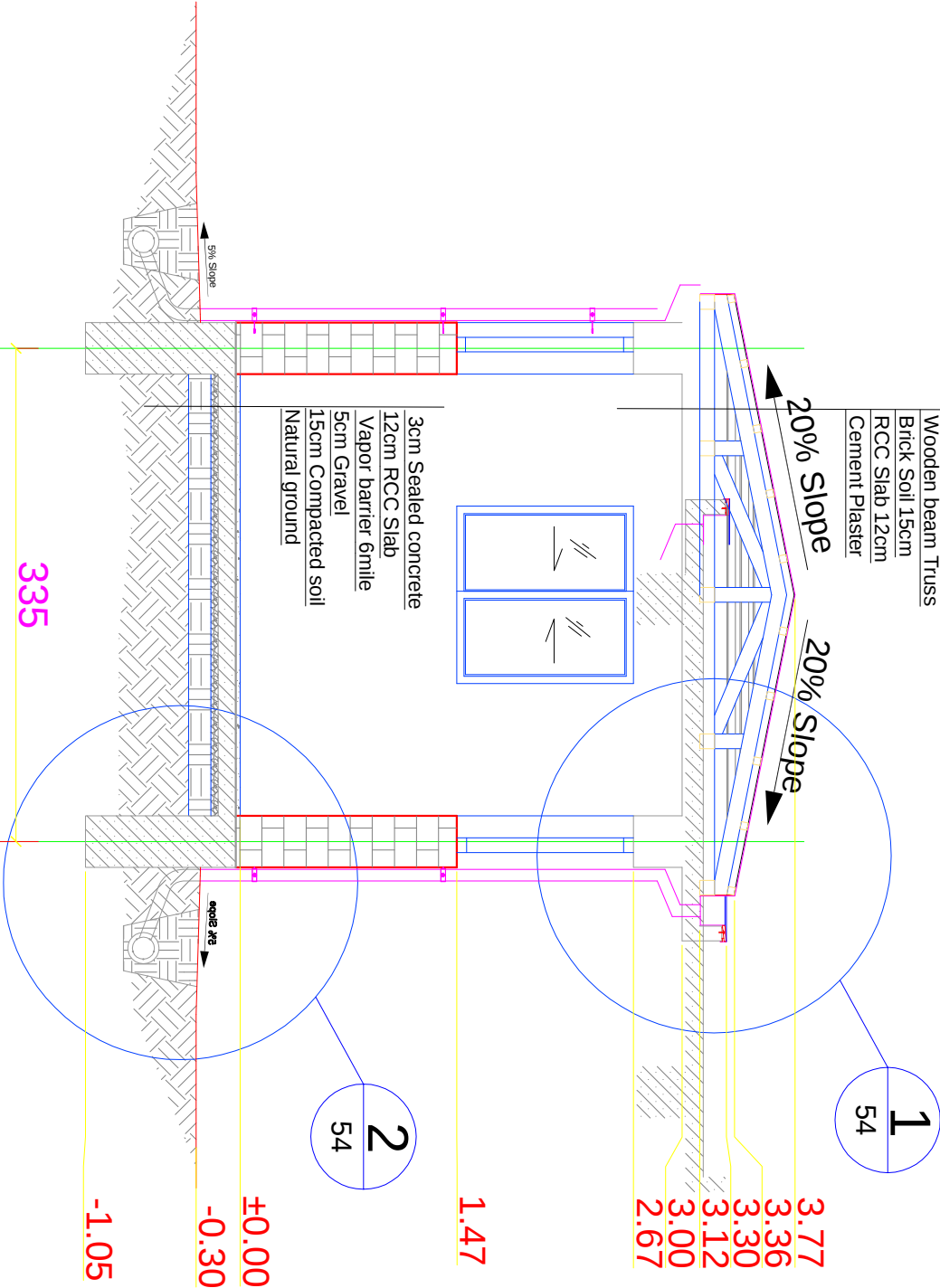
GI Corrugated Metal Sheet 24 gauge
Wooden beam Truss
Brick Soil 15cm
RCC Slab 12cm
Cement Plaster



A BUILDING SECTION

Scale: 1:100

GI Corrugated Metal Sheet 24 gauge
Wooden beam Truss
Brick Soil 15cm
RCC Slab 12cm
Cement Plaster



B BUILDING SECTION

Scale: 1:100



Central Prison Directorate (CPD)

Typical drawing of Guard house for the Construction of Prison

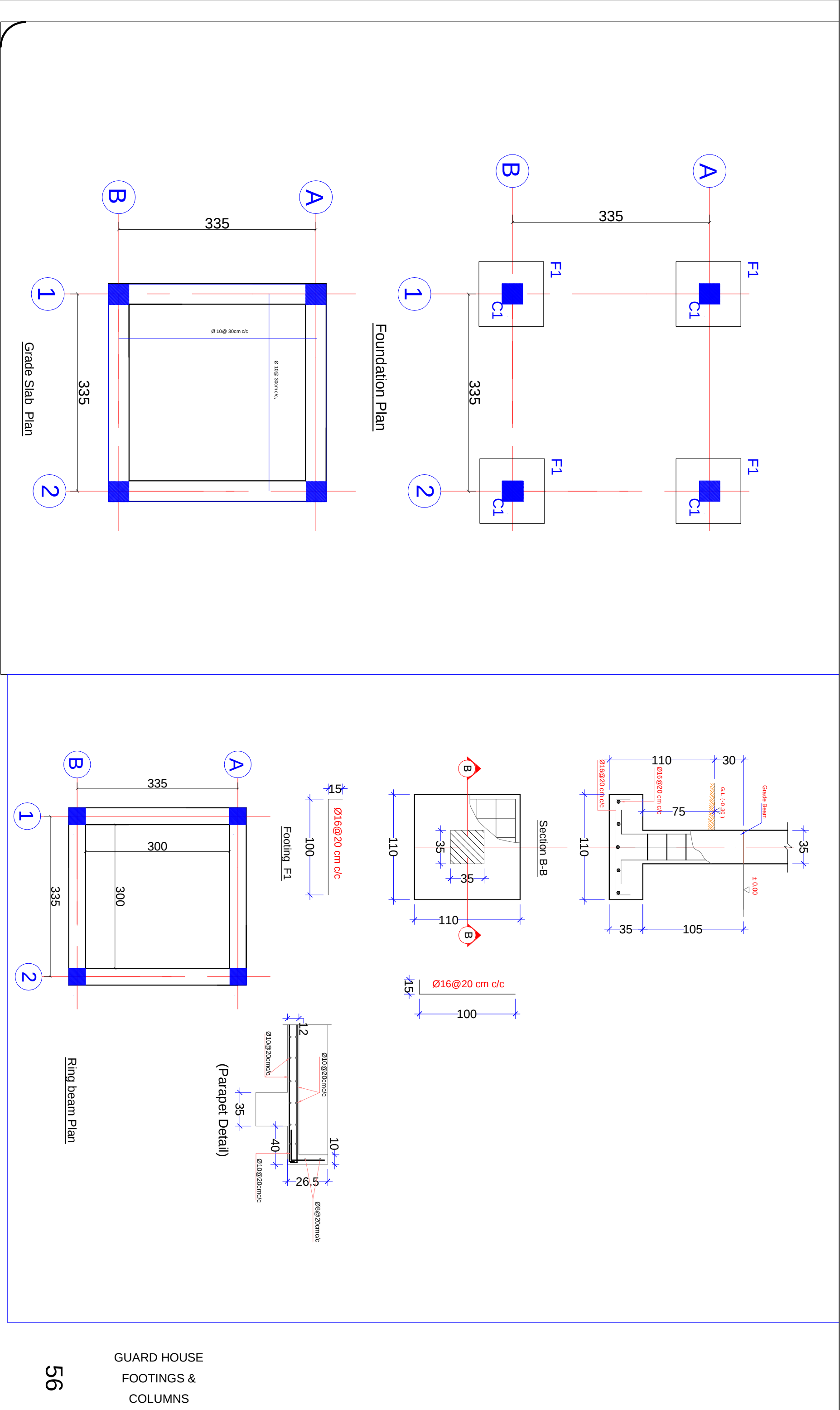
LOTFA Engineering Department		Central prisons Directorate , Engineering Department	
Drawn By	Eng. Mateen	Approved By	
Design By		Signature	
Checked by		Date	
DENOMINATION		GUARD HOUSE SECTIONS	
Scale		To fit	
Date		March 2014	
Drawing code		Mol-03	
Sheet number		5 OF 5	



Islamic Republic of Afghanistan , Ministry of Interior

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Address: District 10 Sadard Square Kabul - Afghanistan
website : www.moi.org.af



Central Prison Directorate (CPD)

Typical drawing of Guard house for the Construction of Prison

Central prisons Directorate , Engineering Department			
Drawn By		Approved By	
Design By		Signature	
Checked by		Date	
DENOMINATION	GUARD HOUSE FOOTING & COLUMNS, STRUCTURE PLAN		
Scale		To fit	
Date		March ,2014	
Drawing code		Mol -03	
Sheet number		1 OF 2	

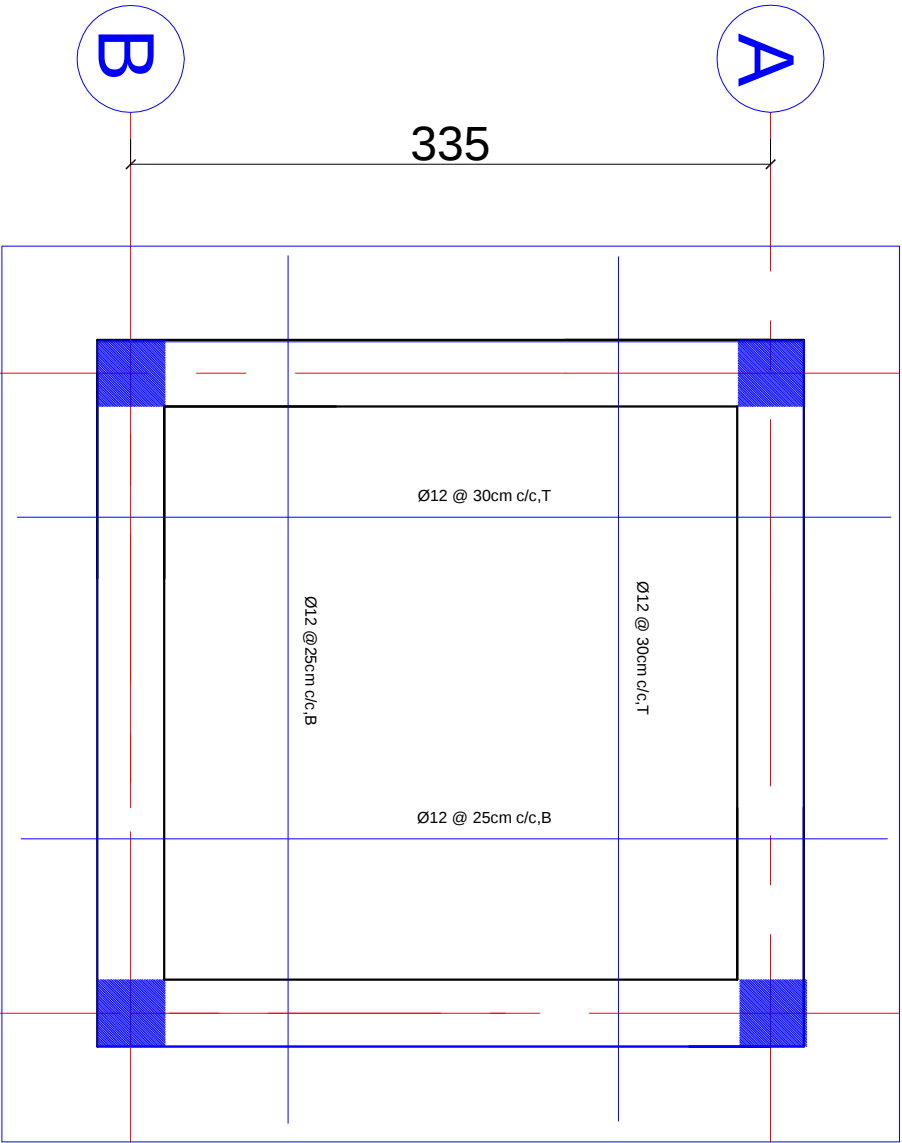


Islamic Republic of Afghanistan , Ministry of Interior

وزارت امور داخله جمهوری اسلام افغانستان

Address:

District 10 Sadard Square Kabul -Afghanistan
website : www.moi.org.af

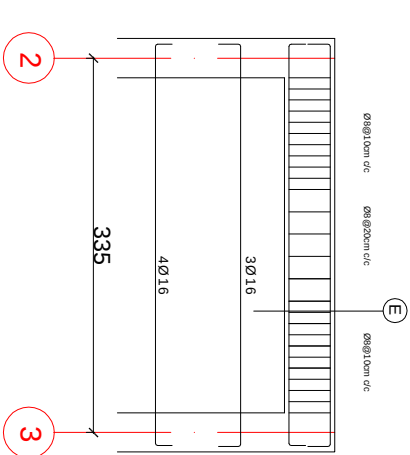


1

2

Slab Reinforcement Plan

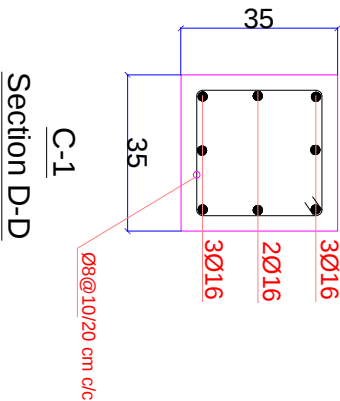
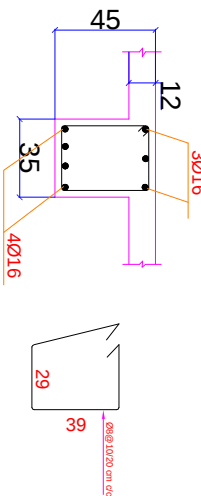
GUARD HOUSE
CONCRETE SLABS
& COLUMNS



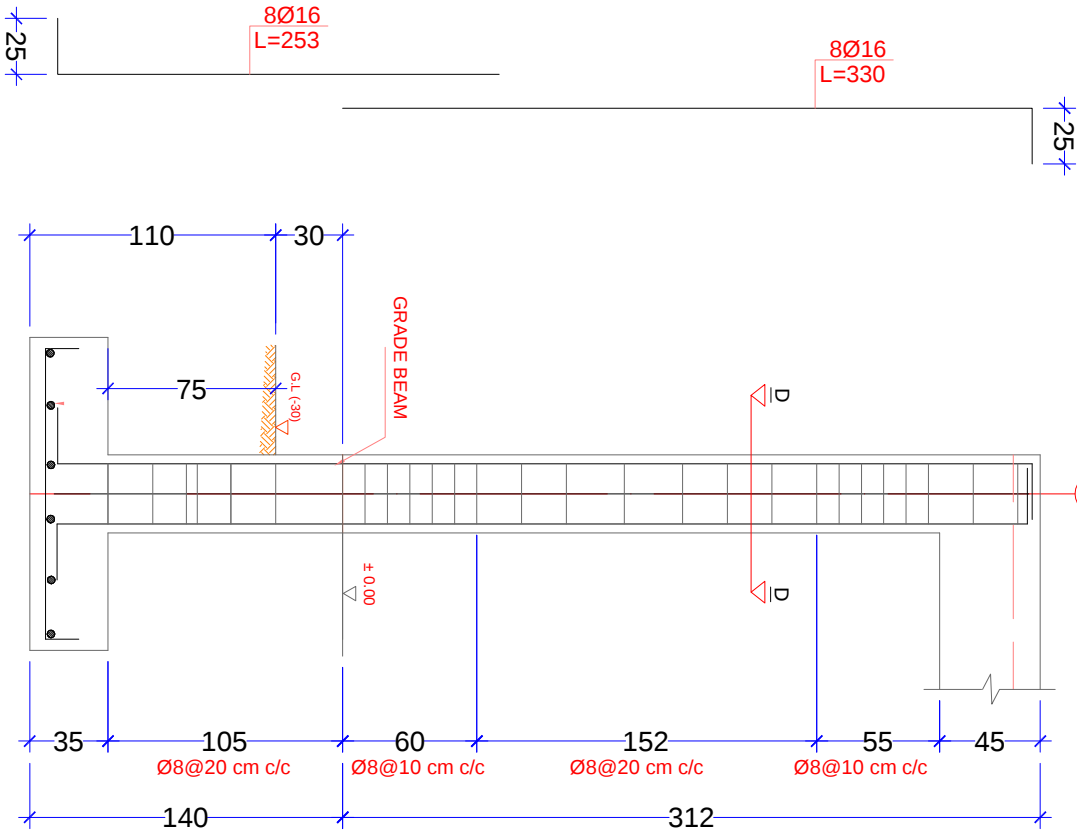
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2

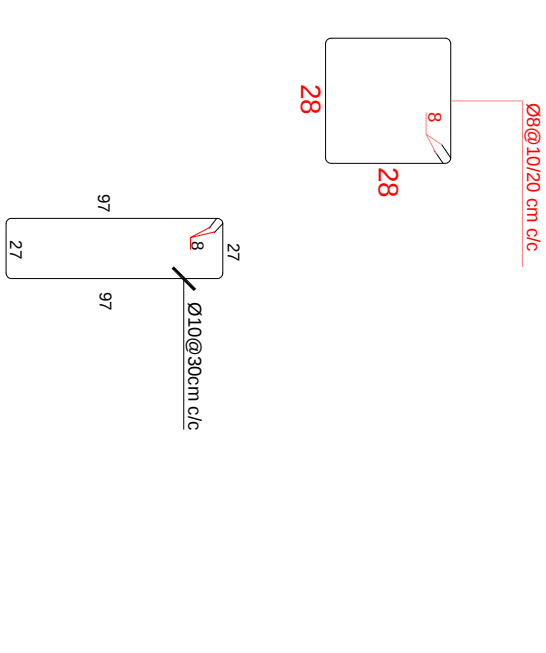
Section E-E
C1



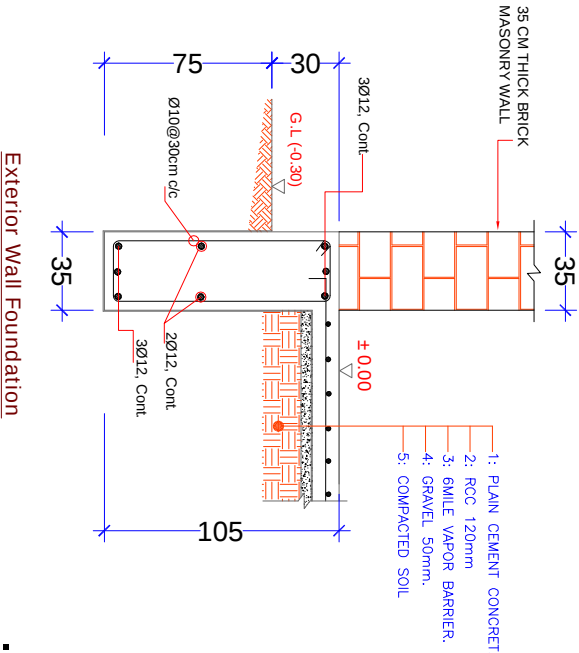
Section D-D
C-1



Column Reinforcement
Column (C1)



Section D-D
C-1



Exterior Wall Foundation

Section
SCALE 1:10
1
S-2 S-3



Central Prison Directorate (CPD)

Typical drawing of Guard house for the Construction of Prison

Central prisons Directorate , Engineering Department			
Drawn By		Approved By	
Design By		Signature	
Checked by		Date	
DENOMINATION	GUARD HOUSE SLAB AND CONCRETE SLAB AND COLUMNS		
Scale		To fit	
Date		October 2013	
Drawing code		Mol -03	
Sheet number		20F 2	



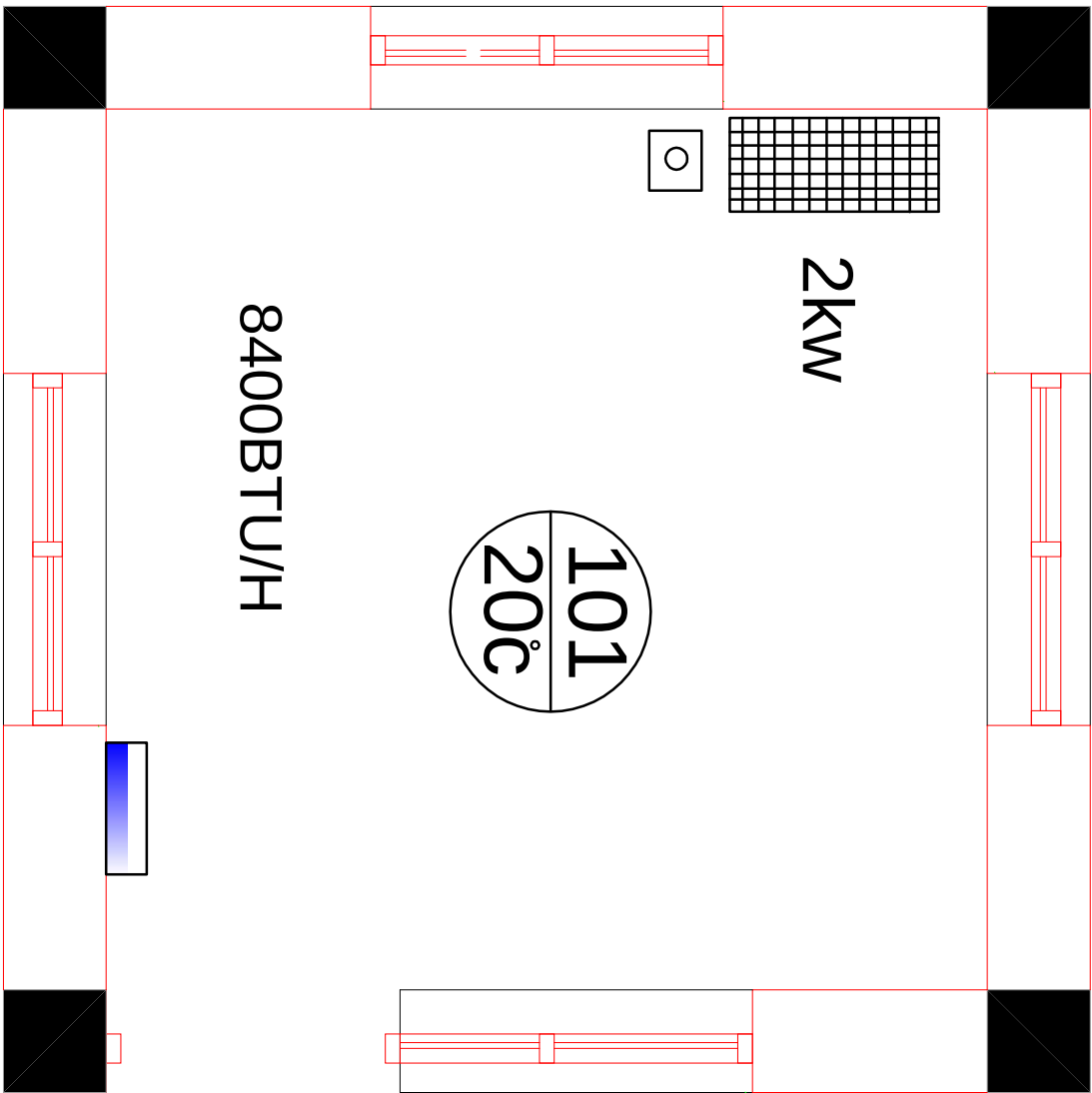
Islamic Republic of Afghanistan , Ministry of Interior

وزارت امور داخله جمهوری اسلام افغانستان

Address: District 10 Sadarad Square Kabul - Afghanistan

website : www.moi.org.af

Guard House Heating Plan

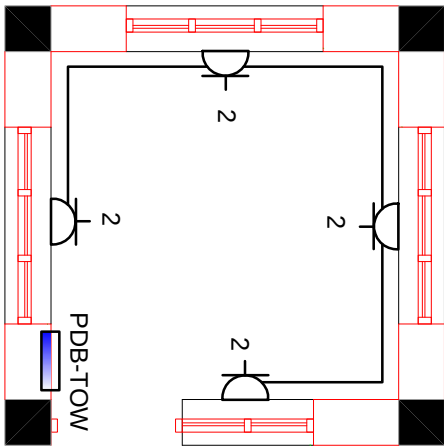


PDB-TOW

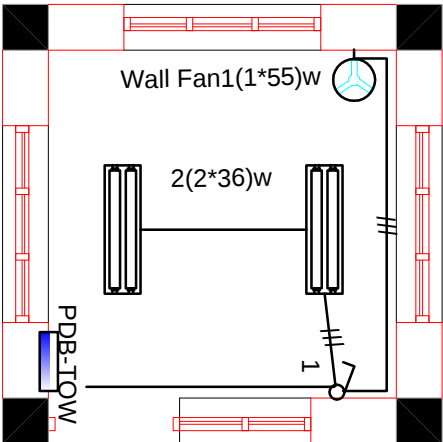
Schedule of Equipment for Heaters System Guard Room

No	Symbol	Description	Unit	Qty	Origin
1		Wall Mount Forced Air Heaters-Regular Duty AC 2KW	Pcg	1	Samsung
2		Wall Mounting Bracket WB210 for 2kw Heater	Pcg	1	czec Rep

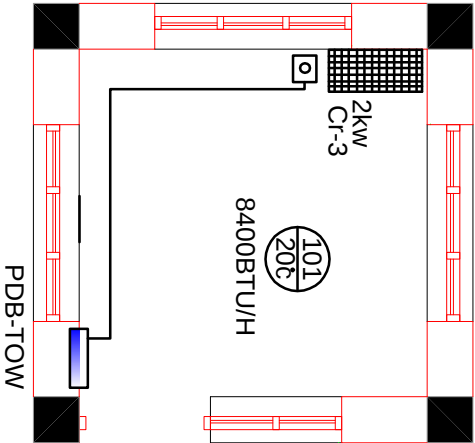
Guard House Power Plan



Guard House Lighting Plan

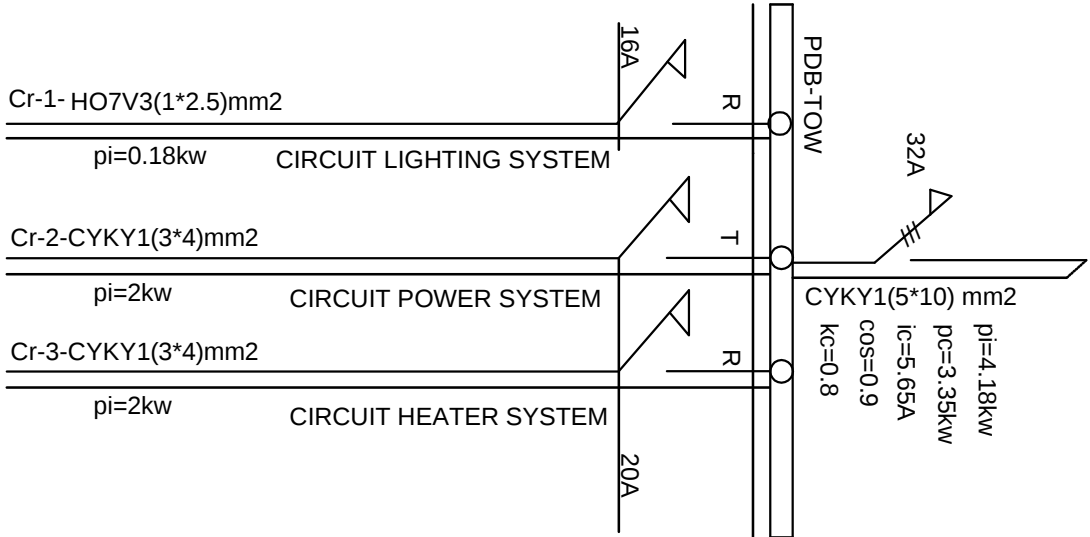


Guard House Heating Power Plan



Power and Lighing Heating

Electrical Diagrams



Schedule of Electrical Equipment for Guard House

No	Symbol	Description	Unit	Qty	Origin
1		Fluorescent Lamp code-1600-1236AL-(2*36)w	Set	2	czec Rep
4		One pole switch under plaster	Pcg	1	czec Rep
6		Single Phase Socket under plaster APT-803-16A-250V-IEC-60884-1	Pcg	4	czec Rep
7		Auto Switch Single Phase (16)A	Pcg	1	czec Rep
9		Auto Switch Three Phase (20)A	Pcg	1	czec Rep
9		Auto Switch Three Phase (32)A	Pcg	1	czec Rep
10		Wall Fan -- (55)w	Pcg	1	Pakistan
11		Panel Distribution board 24Modular (47*38*11)cm	Set	5	czec Rep
12		Junction Box	Pcg	10	czec Rep
13		Copper Wire HO7V 3(1*2.5)mm2	Meter	70	Germany
14		Copper Wire HO7V4(1*2.5)mm2	Meter	50	Germany
15		Copper cable CYKY 1(3*4)mm2	Meter	35	Germany
16		Copper cable CYKY 1(5*10)mm2	Meter	As to needed	Germany
18		P.V.C Pipe (1, 3/4, 1/2) inch	Meter	5	Afghanistan
19		Elbow (1, 3/4, 1/2) inch	Pcg	4	Afghanistan
20		Terminal Box	Pcg	4	czec Rep
21		P.V.C Pipe (1.1.5) inch	Meter	6	Afghanistan
22		Elbow (1, 1.5) inch	Pcg	7	Afghanistan

- Notes : 1-The Switch will be installed -(1.4) m above the floor.
2-The Socket will be installed -(0.4) m above the floor.
3-The Panel Distribution board will be installed -(1.7) m above the floor.
4-Wall fan Connect to nearest joint box of each room.

Cr-1- HO7V3(1*2.5)mm2
pi=0.18kw
CIRCUIT LIGHTING SYSTEM

Cr-2-CYKY1(3*4)mm2
pi=2kw
CIRCUIT POWER SYSTEM

Cr-3-CYKY1(3*4)mm2
pi=2kw
CIRCUIT HEATER SYSTEM



Islamic Republic of Afghanistan
Ministry of Interior Affairs
Central Prison Directorate



Appendix II: Bill of Quantity for the construction of Boundary wall ,Guard towers , Check point ,Guard house , Access road and chain link fencing of Nanagarhar provincial prison

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
1	Lot # 1	Mobilization , Demolition and Demobilization work					
2	DEMO -1	Pre construction works this item includes mobilization of staff ,equipment and other activity to establish site office .	LS	1.00			
3	DEMO -2	Demolition and disposal of the existing boundary wall including transportation with its all required activities	LS	1.00			
4	DEMO -3	Demobilization and site cleaning	LS	1.00			
5		Sub total for lot # 1				Afs	
6	Lot # 2	Construction of Boundary Wall					
7	LOT 2-1	Excavation of foundations with its all required activities as per attached technical drawings and technical specification	Cu.m	1756.26			
8	LOT 2-2	Layer of mixed (clay+ gravel) for bed of foundation as per specification with its all required activities	Cu.m	159.66			
9	LOT 2-3	95% Compaction of foundation by heavy duty roller with capacity of 10-15 ton standard with all required activities	Sq.m	1686.00			
10	LOT 2-4	Crushed aggregate with it is all required activities based on specification and Technical drawings	Cu.m	159.66			
11	LOT 2-5	PCC for foundation, concrete mark must be 100kg/cm2 with all required activities	Cu.m	159.66			
12	LOT 2-6	RCC Ring Beam Size (160x35)cm with Mark 200kg/cm2 with expansion joints as specified in the technical drawings with its all required activities	Cu.m	497.00			
13	LOT 2-7	RCC continues column Size (70x25)cm , Mark 200kg/cm2 as specified in the technical drawings with its all required activities	Cu.m	147.34			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
14	LOT 2-8	Filling and compaction of both side of stone masonry wall based on attached technical drawings and specification with its all required activities	Cu.m	585.42			
15	LOT 2-9	Stone Masonry wall with 35% mortar of cement and sand, Ratio of mortar must be 1:4 (cement :Sand) with its all required activities	Cu.m	2485.30			
16	LOT 2-10	RCC ring beam Size (70x25)cm , Mark 200kg/cm2 as specified in the technical drawings with its all required activities	Cu.m	155.23			
17	LOT 2-11	Pointing of stone masonry wall both side, with mortar of cement and sand ratio of Mortar must be 1:3 with its all required activities	Sq.m	7539.50			
18	LOT 2-12	Continues RCC Cap above stone masonry wall with Mark 200kg/cm2 based on attached technical drawings and specification with its all required activities	Cu.m	80.00			
19	LOT 2-13	Supply and installation supports from Steel pipe dia 50mm for concertina wire according to the drawings and specification	No	297.00			
20	LOT 2-14	Supply and installation of concertina wire with dia 80cm as per specification	Roll	296.00			
21	LOT 2-15	Supply and installation of three row barbed wire with its all required activities as per attached drawings	L M	887.00			
22	LOT 2-16	Supply and installation of metallic heavy duty steel personal Gat with it all required accessories complete job as per attached drawings and specification	No	2.00			
23	LOT 2-17	Supply and installation of metallic heavy duty steel Vehicle Gat with it is all required accessories complete job as per attached drawings and USACE specification, both option will be applicable Sliding gate or leave type	No	1.00			
24	LOT 2-18	Supply and installation of signboard made of White color marble stone as specified in the technical drawings	No	1.00			
25	LOT 2-19	Reinforced Cement Concrete, Mark 200 kg/cm2 with its all required activities for foundations of main entrance and personal gate	Cu.m	6.00			
26	LOT 2-20	Reinforced Cement Concrete, Mark 200 kg/cm2 with its all required activities for columns of main entrance and personal gate	Cu.m	10.00			
27	LOT 2-21	Reinforced Cement Concrete Mark of concrete , 200 kg/cm2 with its all required activities for Ring beams of main entrance and personal gate	Cu.m	1.60			
28	LOT 2-22	Brick masonry with 20% mortar of Cement and sand for main entrance and personal gate ratio of mortar must be 1:4	Cu.m	9.00			
29	LOT 2-23	Plastering with mortar of cement and sand both side of brick masonry wall and RCC with mortar of Cement and Sand ratio must be 1:4	Cu.m	26.00			
30	LOT 2-24	100% Plastic/washable paint of plaster with its all required activities	Sq.m	25.00			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
31	LOT 2-25	Supply and installation of Gate drop Arm based on technical drawings and specification	No	1.00			
32	LOT 2-26	Leveling with 5 % slop and 95% compaction by heavy duty roller with capacity 15-20 ton for both side of boundary wall up to 1m as per drawings and	Sq.M	1774.00			
33	LOT 2-27	Construction of drainage with stone masonry with 35% mortar of cement and sand for rain water with its all required activities around the boundary wall as per need of project site complete job including pack of bed of drainage	Lm	100.00			
34	LOT 2-28	Sub total for LOT # 2 for boundary wall				Afs	
35	Lot # 3	Construction of Reinforced Cement Concrete (RCC) Road (7m wide) with 1.2m wide sidewalks					
36	LOT 3 -1	Cutting, filling , leveling and grading of road and footpath area as specified in the site plan for access way , with its all required activities to complete the job	Sq.M	329.00			
37	LOT 3 -2	Compaction of road and footpath area by heavy duty roller with capacity of 18-25 ton with its all required activities to complete the job	Sq. M	329.00			
38	LOT 3 -3	Construction of sub base and base course layers including compaction of materials for road and footpath based on specifications	Sq. M	329.00			
39	LOT 3 -4	Reinforced Cement Concrete thickness 15cm (re bars dia=14 mm, 20 cm C/C, double mesh) , Mark 200kg/cm with its all required activities with 2.5% cross	Cu.m	49.35			
40	LOT 3 -5	Supply and installation of RCC curb for both side of footpath and Road with its all related activities according to the technical specification and requirement	L-S	1.00			
41	LOT 3 -6	Supply and installation of Metallic signboard as per instruction of project manager	No	2.00			
42	LOT 3 -7	Supply and installation of turnstile model HS427-S with its all required activities, complete job	No	2.00			
43	LOT 3 -8	Sub total for LOT # 3 sub total road and side walks				Afs	
44	Lot # 4	Supply and installation of Chain link Fencing for entrance (Men and Women)					
45	LOT 4 -1	Excavation of foundation for GI poles with its all related activities according to the submitted drawings	Cu.m	7.00			
46	LOT 4 -2	Supply and installation of GI pipe with dia 3 inch at 3m C/C and based on drawings and specification	No	45.00			
47	LOT 4 -3	Plain Cement Concrete mark 150kg/cm2 with its all related activities for GI poles	Cu.m	3.50			
48	LOT 4 -4	Supply and installation of chain link fabric according to the technical specification, complete job	Sq.M	297.00			
49	LOT 4 -5	Supply and installation of privacy cover (tan in color) with its all related activities according to the submitted technical drawings	Sq.M	297.00			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
50	LOT 4 -6	Supply and installation of top tension wire with its all related activities according to the submitted technical drawings	L M	135.00			
51	LOT 4 -7	Supply and installation of Truss rod with its all related activities according to the technical specification and drawings	L M	405.00			
52	LOT 4 -8	Supply installation of steel barbed wire three line based on technical drawings with its all related activities complete job	LM	405.00			
53	LOT 4 -9	Supply and installation of metallic L shape brace rail with its all related activities according to the submitted drawings as per need it	L S	1.00			
54	LOT 4 -11	Sub total for LOT # 4 for chain link fencing				Afs	
55	Lot # 5	Construction work Guard towers					
56	LOT 5 C -1	Excavation of foundations. The work under this item shall consist of setting out true lines to all foundations for structures, performing the excavation to the required levels	Cu.m	13.00			
57	LOT 5 C -2	filling with compacted soil of floor according to the plans with specified earth materials complete job	Cum	2.00			
58	LOT 5 C -3	Plain cement concrete (PCC) of 3000 PSI This concrete should be used in the inside of the Guard Tower. The fill material shall be compacted and leveled as per drawings and Specifications	Cu.m	2.00			
59	LOT 5 C -4	Supply and installation of wall and floor tile with other required accessories as per technical drawings and specification	LS	1.00			
60	LOT 5 C -5	Supply and installation of steel Doors and windows with installation of accessories including glass 4mm , one coat primer with three coat oil painting with all required activities to complete the job as per specification	Sq.m	13.00			
61	LOT 5 C -6	Brick masonry with 20% of mortar of cement and sand .Bricks shall comply with requirements of first class bricks. bricks masonry shall be done by 1:4 ratio of cement mortar, with 140kg/cm2 compression strength and the size of bricks (22x11x6)cm .	Cu.m	14.00			
62	LOT 5 C -7	RCC concrete (1:1.5:3) foundation with shuttering and steel (grade 60), cement, (375kg per m3) clean coarse sand and crushed gravel ≤32mm mixing the aggregate, placing and form works, curing at least for 14-18 days and cold climate 28 days with its all required activities complete job	Cu.m	20.60			
63	LOT 5 C -8	Roofing (supply and installation of Galvanized Iron sheet (Russian Gage=24) and frame work (wooden trusses) wooden plate with proper drainage, gutter and heating insulation based in the design and requirements.	Sq.m	36.00			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
64	LOT 5 C -9	Plaster of walls (interior and exterior) and ceiling with mortar (1:4), 6mm to 10mm thick . Material shall be explained as below, 1) cement should be the ordinary Portland, 2) sand should be washed carefully and shall be screened by a mesh wire netting sieve and before the plaster work the RCC surface should be roughened by one of the suitable hand tools and then full watered after that plaster should be started	Sq.m	200.00			
65	LOT 5 C -10	Supply and installation of Steel ladder with its all required activities complete job as per USACE standard	N0	1.00			
66	LOT 5 C -11	Plastic painting of walls (interior and exterior) , ceiling . 3 coats with primer based on the design specification with all required activities.	Cu.m	200.00			
67	LOT 5 C -12	Installation of galvanized mesh around the guard tower in three section	L S	1.00			
68	LOT 5- H	Heating System					
69	LOT 5 H -1	Supply and installation of Wall mount forced air heaters - Regular duty 2KW Turkey with its all required activities	Pcg	1.00			
70	LOT 5 H -2	Supply and installation of Wall mounting Bracket WB210 for 2KW Heater forced air heaters - Regular duty 2KW Turkey with its all required activities	Pcg	1.00			
71	LOT 5- E	Electrical System					
72	LOT 5 E -1	Supply and installation of Fluorescent Lamp code-1600-1236AL-(2x36)W best quality with its all required activities	Set	2.00			
73	LOT 5 E -3	Supply and installation of Incandescent Lamp 1(1x60)w Over the mirror with shade circular shade (250)mli best quality with its all required activities	Set	3.00			
74	LOT 5 E -4	Supply and installation of One pole switch under plaster best quality with it is all required activities complete job	Pcg	3.00			
75	LOT 5 E -5	Supply and installation of Two pole switch under plaster best quality with its all required activities	Pcg	4.00			
76	LOT 5 E -6	Supply and installation of Single phase socket under plaster APT. 803-16A-250v-IEC60884-1 best quality with its all required activities complete job	Pcg	4.00			
77	LOT 5 E -7	Supply and installation of Auto Switch single Phase (10)A best quality with it is all required activities	Pcg	2.00			
78	LOT 5 E -8	Supply and installation of Auto Switch (circuit breaker) single Phase (16)A best quality with it is all required activities	Pcg	5.00			
79	LOT 5 E -9	Supply and installation of Auto Switch (Circuit breaker)Three Phase (40)A with it is all required activities	Pcg	1.00			
80	LOT 5 E -10	Supply and installation of Wall Fan-(55)w	Pcg	1.00			
81	LOT 5 E -11	Supply and installation of Panel Distribution board 24 Module (47x38x11)cm best quality with its all required activities	Set	1.00			
82	LOT 5 E -12	Supply and installation of junction Box with it is all required activities	Pcg	10.00			
83	LOT 5 E -13	Supply and installation of Copper Wire HO7V 3(1x1.5)mm2 with it is all required activities	LM	75.00			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
84	LOT 5 E -14	Supply and installation of Copper Wire HO7V 4(1x2.5)mm2 with it is all required activities	LM	60.00			
85	LOT 5 E -15	Supply and installation of Copper cable CYKY 1(3x4)mm2 with it is all required activities complete job	LM	8.00			
86	LOT 5 E -17	Projector 1(1x400)W best quality with it is all required activities complete job	Pcg	4.00			
87	LOT 5 E -18	Supply and installation of PVC Pipe (1,3/4, 1/2)inch best quality with it is all required activities	LM	63.00			
88	LOT 5 E -19	Supply and installation of Elbow (1,3/4, 1/2)inch	pcg	15.00			
89	LOT 5 E -20	Terminal box best quality with its all required activities complete job	pcg	4.00			
90	LOT 5 E -21	P.M. pipe with different diameter with it is all required activities	meter	40.00			
91	LOT 5 E -22	elbow(1,1.5)inch	pcg	8.00			
92	LOT 5 E -23	Grounding system with its all required accessories complete job	L-S	1.00			
93	LOT 5 - P	Plumbing System					
94	LOT 5 P-1	Supply and installation of water & Sewer supply system including all required sanitary fixtures, for water supply system shall be use PPR Turkish Pipe, for Sewer supply pipe shall be use PVC schedule 60 complete job	L-S	1.00			
95	LOT 5 P-2	Sub total for LOT # 5 (Guard towers)X 4	4			Sub total for 4	
96	Lot # 6	Construction Check Point					
97		Construction					
98	LOT 6 C-1	Excavation of foundations. The work under this item shall consist of setting out true lines to all foundations for structures, performing the excavation to the required levels	Cu.m	25.00			
99	LOT 6 C-2	filling with compacted soil of floor according to the plans with specified earth materials complete job	Sq.m	12.60			
100	LOT 6 C-3	Plain cement concrete (PCC) of 3000 PSI This concrete should be used in the inside of the Guard Tower. The fill material shall be compacted and leveled as per drawings and Specifications	Cu.m	5.40			
101	LOT 6 C-4	Supply and installation of steel Doors and windows with installation of accessories including glass 4mm , one coat primer with three coat oil painting with all required activities to complete the job as per specification	Sq.m	24.69			
102	LOT 6 C-5	Brick masonry with 20% of mortar of cement and sand .Bricks shall comply with requirements of first class bricks. bricks masonry shall be done by 1:4 ratio of cement mortar, with 140kg/cm2 compression strength and the size of bricks (22x11x6)cm .	Cu.m	19.92			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
103	LOT 6 C-6	RCC concrete (1:1.5:3) foundation, Ring beam . columns with shuttering and steel bar best quality of steel, cement, (375kg per m3) clean coarse sand and crushed gravel ≤32mm mixing the aggregate, placing and form works, curing at least for 14-18 days and cold climate 28 days , with it is all required activities complete job	Cu.m	45.00			
104	LOT 6 C-7	Roofing (supply and installation of Galvanized Iron sheet (Russian gage=24) and frame work (wooden trusses) wooden plate with drainage, gutter and heating insulation based in the design and requirements. Complete job	Sq.m	80.00			
105	LOT 6 C-8	Supply and installation of floor and Wall ceramic tiles (0.20x0.20)m based on the design and drawing and specification with mortar M350 and all required activities to complete the job	Sq.m	12.08			
106	LOT 6 C-9	Plaster of walls and ceiling (exterior and interior) with 1:4 this item shall be consist of providing 6mm to 10mm thick 1:4 material shall be explained as below, 1) cement should be the ordinary Portland, 2) sand should be washed carefully and shall be screened by a mesh wire netting sieve and before the plaster work the RCC surface should be roughened by one of the suitable hand tools and then full watered after that plaster should be started	Sq.m	365.00			
107	LOT 6 C-10	100% Plastic washable painting of walls , ceiling (exterior and interior) paint coats based on the design specification with all required activities.	Sq.m	365.00			
108	LOT 6 - H	Heating system					
109	LOT 6 - H1	Supply and installation of Wall mount forced air heaters - Regular Turkey duty 2KW with it is all required activities complete job	Pcg	5.00			
110	LOT 6 - H2	Supply and installation of Wall mounting Bracket WB210 for 2KW Heater forced air heaters - Regular Turkey duty 2KW with it is all required activities	Pcg	5.00			
111	LOT 6 - P	Plumbing System					
112	LOT 6 - P1	Supply and installation of water & Sewer supply system including all required sanitary fixtures, for water supply system shall be use PPR Turkish Pipe, for Sewer supply pipe shall be use PVC schedule 60 complete job	L-S	1.00			
113	LOT 6 - E	Electrical System					
114	LOT 6 - E1	Supply and installation of Florescent Lamp code-1600-1418AL-(4*18)W best quality with its all required activities	Set	10.00			
115	LOT 6 - E2	Supply and installation of Incandescent Celling Lamp 1(1x60)w with circular shade (300)mli with its all required activities	Set	1.00			
116	LOT 6 - E3	Supply and installation of Incandescent Lamp 1(1x60)w Over the mirror with shade circular shade (250)mli	Set	1.00			
117	LOT 6 - E4	Supply and installation of One pole switch under plaster with it is all required activities	Pcg	5.00			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
118	LOT 6 - E5	Supply and installation of Two pole switch under plaster with it is all required activities	Pcg	2.00			
119	LOT 6 - E6	Supply and installation of Single phase socket under plaster APT. 803-16A-250v-IEC60884-1 with it is all required activities	Pcg	11.00			
120	LOT 6 - E7	Supply and installation of Auto Switch(circuit breaker) single Phase (16)A with it is all required activities	Pcg	1.00			
121	LOT 6 - E8	Supply and installation of Auto Switch single Phase (20)A circuit breaker with it is all required activities	Pcg	8.00			
122	LOT 6 - E9	Supply and installation of Auto Switch Three Phase (40)A circuit breaker with it is all required activities	Pcg	1.00			
123	LOT 6 - E10	Supply and installation of Wall Fan-(55)w best quality with it is all required activities	Pcg	3.00			
124	LOT 6 - E11	Supply and installation of Panel Distribution board 24 Module (47x38x11)cm best quality with its all required activities	Set	1.00			
125	LOT 6 - E12	Supply and installation of junction Box with it is all required activities	Pcg	15.00			
126	LOT 6 - E13	Supply and installation of Copper Wire HO7V 3(1x1.5)mm2 with it is all required activities	LM	250.00			
127	LOT 6 - E14	Supply and installation of Copper Wire HO7V 3(1x2.5)mm2 with it is all required activities	LM	45.00			
128	LOT 6 - E15	Supply and installation of Copper cable CYKY 1(3x4)mm2 with it is all required activities	LM	200.00			
129	LOT 6 - E16	Supply and installation of Copper cable CYKY 1(5x4)mm2 with it is all required activities	LM	20.00			
130	LOT 6 - E17	Supply and installation of Copper cable CYKY 1(5x10)mm2 with it is all required activities	LM	50.00			
131	LOT 6 - E18	Supply and installation of PVC Pipe (1,3/4, 1/2)inch best quality with it is all required activities	LM	350.00			
132	LOT 6 - E19	Supply and installation of Elbow(1, 3/4, 1/2)1nch with it is all required activities	LM	25.00			
133	LOT 6 - E20	Supply and installation of Terminal Box with it is all required activities	Pcg	5.00			
134	LOT 6 - E21	Supply and installation of PVC Pipe (1, 1.5)inch with it is all required activities	LM	50.00			
135	LOT 6 - E22	Supply and installation of Elbow(1, 1.5)1nch with it is all required activities	Pcg	15.00			
136	LOT 6 - E23	Grounding system based on NEC with it is all required activities	LS	1.00			
137	LOT 6 - E24	Sub total for LOT # 6 (Check point)					

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
138	Lot # 7	Construction of Guard house					
139	LOT7 - C1	Excavation of foundations . The work under this item shall consist of setting out true lines to all foundations for structures, performing the excavation to the required levels	Cu.m	9.00			
140	LOT7 - C2	Back filling of floor and pathways. The work covered by this item shall consist of filling of any places or area to make up levels, according to the plans with specified earth materials	Sq.m	24.00			
141	LOT7 - C3	Plain cement concrete (PCC) of 3000PSI This concrete should be used in the inside of the Guard Tower. Before this type of concrete is installed, the fill material shall be compacted and smooth. 1) cement should be ordinary Portland, 2) sand should be washed carefully	Cu.m	2.00			
142	LOT7 - C4	Supply and installation of steel Doors and windows with installation of accessories based and glass 4mm and one coast primer with three coat oil painting with all required.	Sq.m	9.00			
143	LOT7 - C5	The work covered by this item shall consist of supplying and laying burnt bricks on the top of the super Grade beam. Bricks shall comply with requirements of first class bricks. The burnt bricks masonry shall be done by 1:4 ration of cement mortar. the bricks which used construction should have 140kb/cm2 compression strength and the size of bricks (22x11x6)cm and the thickness of wall 35cm	Cu.m	9.00			
144	LOT7 - C6	RCC concrete (1:1.5:3) foundation with shuttering and steel bar best quality of steel, cement, (375kg per m3) clean coarse sand and crushed gravel ≤32mm mixing the aggregate, placing and form works, curing at least for 14-18 days and cold climate 28 days	Cu.m	15.00			
145	LOT7 - C7	Roofing (supply and installation of Galvanized Iron sheet (Russian gage=24) and frame work (wooden trusses) wooden plate with drainage, gutter and heating insulation based in the design and requirements.	Sq.m	23.00			
146	LOT7 - C8	Plaster of walls and ceiling with 1:4 this item shall be consist of providing 6mm to 10mm thick 1:4 material shall be explained as below, 1) cement should be the ordinary Portland, 2) sand should be washed carefully and shall be screened by a mesh wire netting sieve and before the plaster work the RCC surface should be roughened by one of the suitable hand tools and then full watered after that plaster should be started	Sq.m	102.00			
147	LOT7 - C9	Plastic painting of walls , ceiling paint coats based on the design specification with all required activities.	Cu.m	102.00			
148	LOT7 - C10	Supply and installation of Armory lockable cabinet as per attached technical drawings complete job	unit	1.00			
149	LOT7 - H	Heating system					

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
150	LOT 7 - H1	Supply and installation of Wall mount forced air heaters - Regular Turkey duty 2KW with it is all required activities complete job	Pcg	1.00			
151	LOT 7- H2	Supply and installation of Wall mounting Bracket WB210 for 2KW Heater forced air heaters - Regular Turkey duty 2KW with it is all required activities complete job	Pcg	1.00			
152	LOT 7- E	Electrical System					
153	LOT 7 - E1	Supply and installation of Fluorescent Lamp code-1600-1236AL-(2x36)W with it is all required activities	Set	2.00			
154	LOT 7 - E2	Supply and installation of One pole switch under plaster best quality with it is all required activities complete job	Pcg	1.00			
155	LOT 7 - E3	Supply and installation of Single phase socket under plaster APT. 803-16A-250v-IEC60884-1 best quality with it is all required activities	Pcg	4.00			
156	LOT 7 - E4	Supply and installation of Auto Switch circuit breaker single Phase (16)A with it is all required activities	Pcg	1.00			
157	LOT 7 - E5	Supply and installation of Auto Switch circuit breaker single Phase (20)A with it is all required activities	Pcg	1.00			
158	LOT 7 - E6	Supply and installation of Auto Switch circuit breaker Three Phase (30)A with it is all required activities	Pcg	1.00			
159	LOT 7 - E7	Supply and installation of Wall Fan-(55)w best quality with it is all required activities	Pcg	1.00			
160	LOT 7 - E8	Supply and installation of Panel Distribution board 24 Module (47x38x11)cm	Set	1.00			
161	LOT 7 - E9	Supply and installation of junction Box with it is all required activities	Pcg	10.00			
162	LOT 7 - E10	Supply and installation of Copper Wire HO7V 3(1x2.5)mm2 with it is all required activities	LM	70.00			
163	LOT 7 - E11	Supply and installation of Copper Wire HO7V 4(1x2.5)mm2 with it is all required activities	LM	50.00			
164	LOT 7 - E12	Supply and installation of Copper cable CYKY 1(3x4)mm2 with it is all required activities connected to the main electric panel board	LM	35.00			
165	LOT 7 - E13	Supply and installation of Copper cable CYKY 1(5x10)mm2 connected to the Main panel board with it is all required activities	LM	40.00			
166	LOT 7 - E14	Supply and installation of PVC Pipe (1,3/4, 1/2)inch best quality with it is all required activities	LM	11.00			
167	LOT 7 - E15	Supply and installation of Elbow(1, 3/4, 1/2)1nch with it is all required activities	LM	11.00			
168	LOT 7 - E16	Grounding system based on NEC with it is all required activities	LS	1.00			

S#	Code #	Description	Unit	QTTY	Unit cost in Afs	Total cost in Afs	Remarks
169	LOT 7 - E17	Sub total for LOT # 7 (Guard house)					
170	Lot # 8	Electronic equipment's and devices for security upgrading					
171	LOT 8 - E1	Supply and installation of LCD walkthrough metal detector Model (JH-5B) complete set with its all required activities	unit	1.00			
172	LOT 8 - E2	Supply and installation of hand Super Scanner GARRET (Metal detector) Model 1165180	unit	1.00			
173	LOT 8 - E2	Supply and installation of load speaker with its all required accessories Acoustical lens: diffracts sound over wider angle (better for people close to the speakers)	unit	1.00			
174	LOT 8 - E3	Sub total for LOT # 8 (Electronic devices for security upgrading)					
192		Grant total for lot 1,2,3,4,5,6,7&8					

NOTE:

- 1- All material which are described in BoQ must be best quality**
- 2- All described items Shall be Applicable for submittal & Approval**
- 4- If, in the Contractor opinion, The BoQ contains ambiguities or BoQ does not comply with the drawings which might influence the calculations, the contractor shall indicate this to LOTFA through a letter or email before submitting the Offer.**



Statement of Work

Chain Link Fence

1 Chain Link Fence:

1.1 Site Preparation:

The Contractor shall prepare the Site around the construction area. The site will be prepared according to the Task Force Specification PART 2 Site Preparation.

1.2 Posts and Braces:

The posts spacing and configuration shall be per Chain Link Fence Site Plan and Details. When barbed wire and concertina wire are desired on the fence each post shall have equally spaced outriggers. Braces shall be used in each bay adjacent to the corner posts. Braces shall be used on each swing gate door. Braces and posts shall be of 7.5 cm (3 in) diameter pipes. The base metal shall be weldable steel of commercial quality, or better. The steel shall be galvanized or have an equivalent protective coating. The post shall be set in concrete foundation with diameter of 30.5 cm (12 in) and 61 cm (24 in) deep. The minimum embedment length for the posts shall be 50 cm (18 in). The concrete will be placed according to the Task Force Specification PART 3 Concrete.

1.3 Fence Fabric:

The fence fabric shall be 4 mm (9-gage/0.148 in) diameter that is woven into approximately 5 cm (2 in) mesh such that there shall be at least 7 meshes in a vertical dimension of 58.5 cm (23 in) along the diagonal of the openings. The fence fabric shall have knuckled finish on the top and bottom edges. The fence fabric shall be stretched and securely fastened to corner posts with stretcher bars having dimensions of not less than 0.6 cm x 1.9 cm (1/4 in x 3/4 in) and stretcher bar bands having dimensions of not less than 0.3 cm x 1.9 cm (1/8 in x 3/4 in) spaced at 30.5 cm (12 in) intervals. The fence fabric shall also be fastened to intermediate posts with tie wires or post clips and to tension wires with tie wires or hog rings. The fasteners shall be spaced at approximately 35.5 cm (14 in) on intermediate posts and at approximately 50 cm (18 in) on tension wires. Tie wires and hog rings shall be at least 4 mm (9-gage/0.148 in) diameter steel and post clips shall be at least 5 mm (6-gage/0.192 in) diameter steel. Wire ties shall be given at least one complete turn. Hog rings shall be closed with ends overlapping. The tension wires shall be wrapped around end posts. The distance from the top of the fabric to the top tension wire and from the bottom of the fabric to the bottom of the tension wire shall be 75 mm (3 in) maximum. The tension wires shall be at least 0.5 cm (6-gage/0.192 in) diameter coil spring steel. Tension wires shall be stretched tight. The bottom tension wire shall be installed on a straight grade between posts by excavating the high points of ground and in no

case will filling of depressions be permitted. All tension wire, tie wires, hog rings and post clips shall be of good commercial quality and shall be galvanized or be coated with an equivalent protective coating according to Task Force Specification PART 5 Metals.

1.4 Swing Gate:

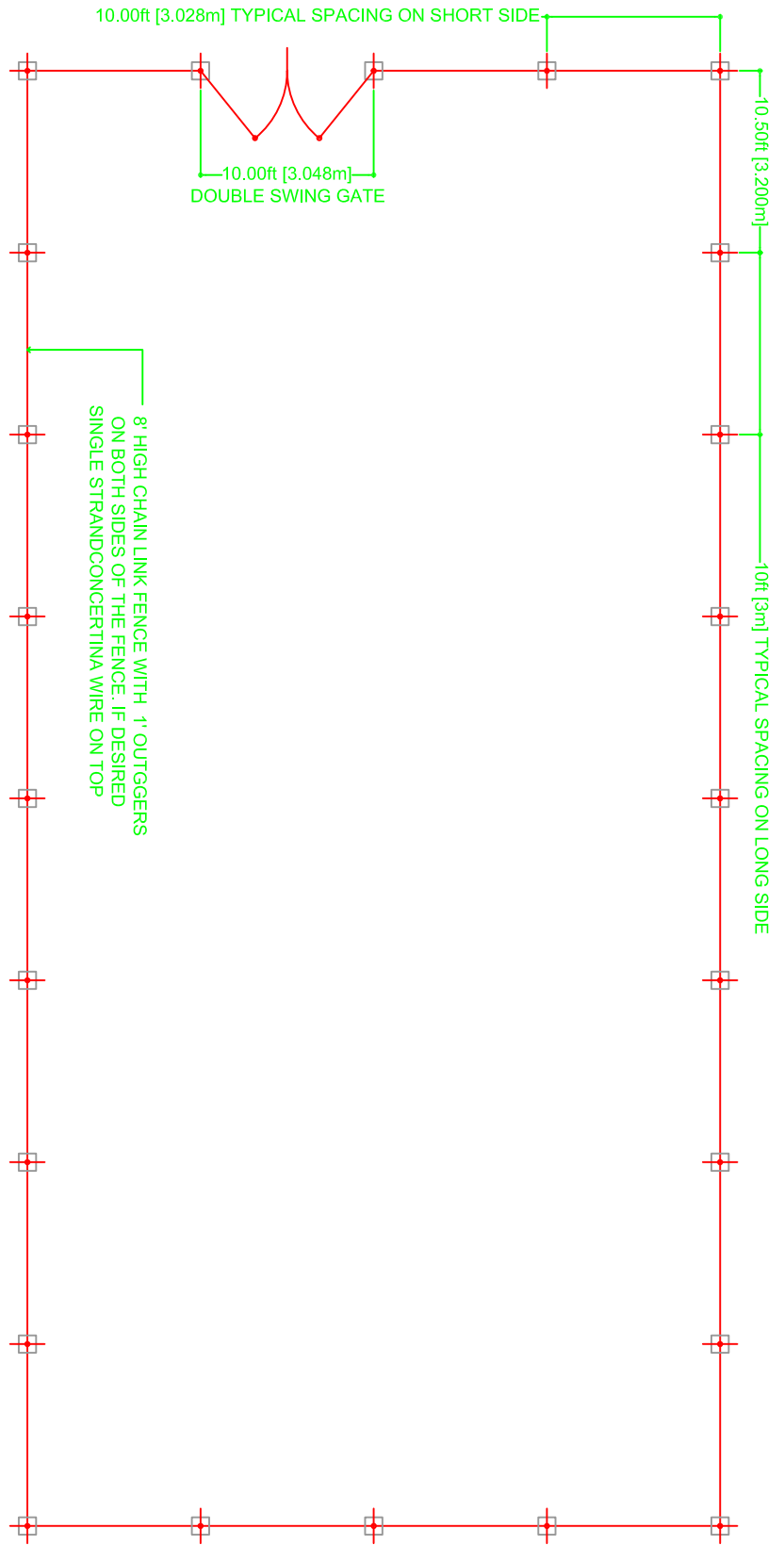
If a swing gate is desired, it shall be fabricated from 5 cm (2 in) diameter weldable steel and be galvanized or has an equivalent protective coating. Each gate section shall be hung by at least 2 steel hinges not less than 13 cm (5 in) in width, so designed as to securely clamp to the gate post and permit the gate to be swung back against the fence. The bottom hinge shall have a socket to take the ball end of the gate frame. Fence fabric shall be welded to the frame. The swing gate shall have a commercial grade steel lock clasp.

Chain Link Fence

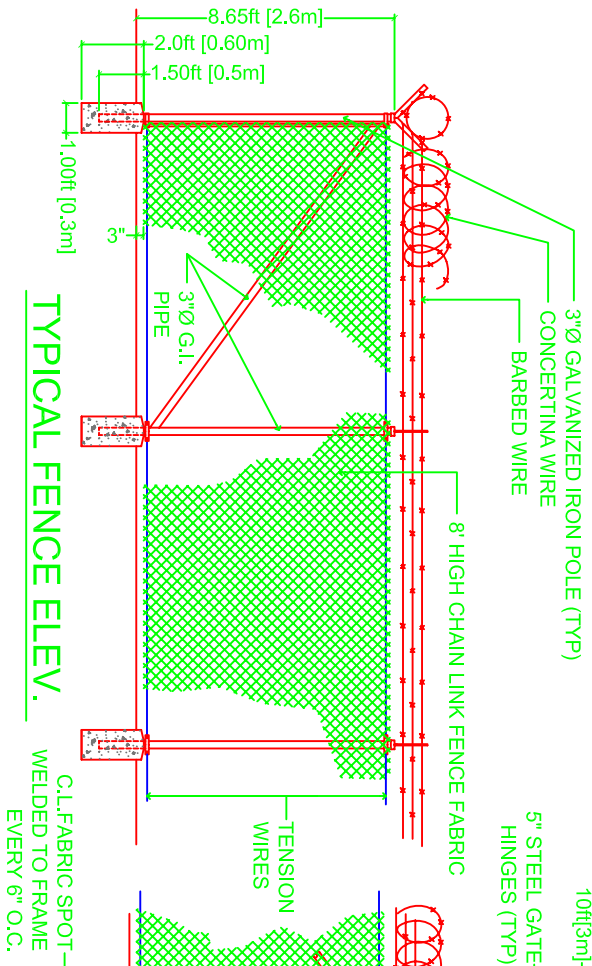
TABLE OF CONTENTS

TITLE PAGE
FENCE PLAN

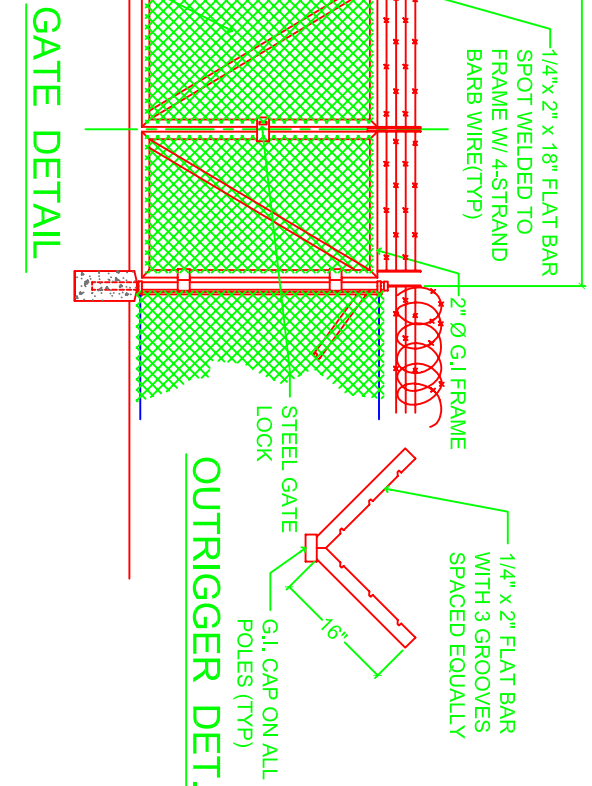
SHEET 1
SHEET 2



FENCE PLAN



TYPICAL FENCE ELEV.



GATE DETAIL

OUTRIGGER DET.

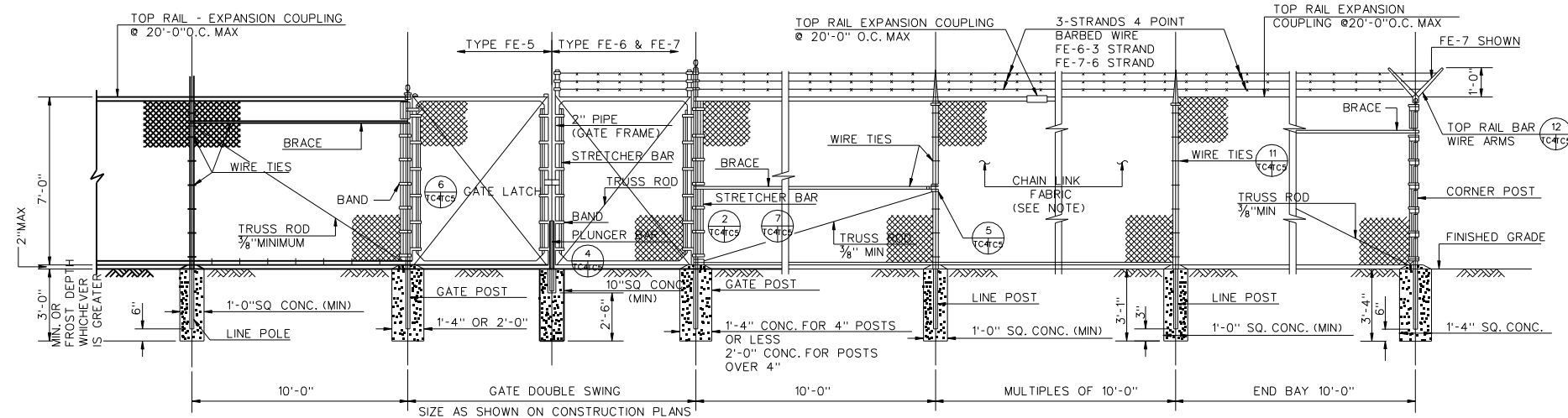
LOCATION NAME:
AFGHANISTAN

PROJECT NAME:
CHAIN LINK FENCE

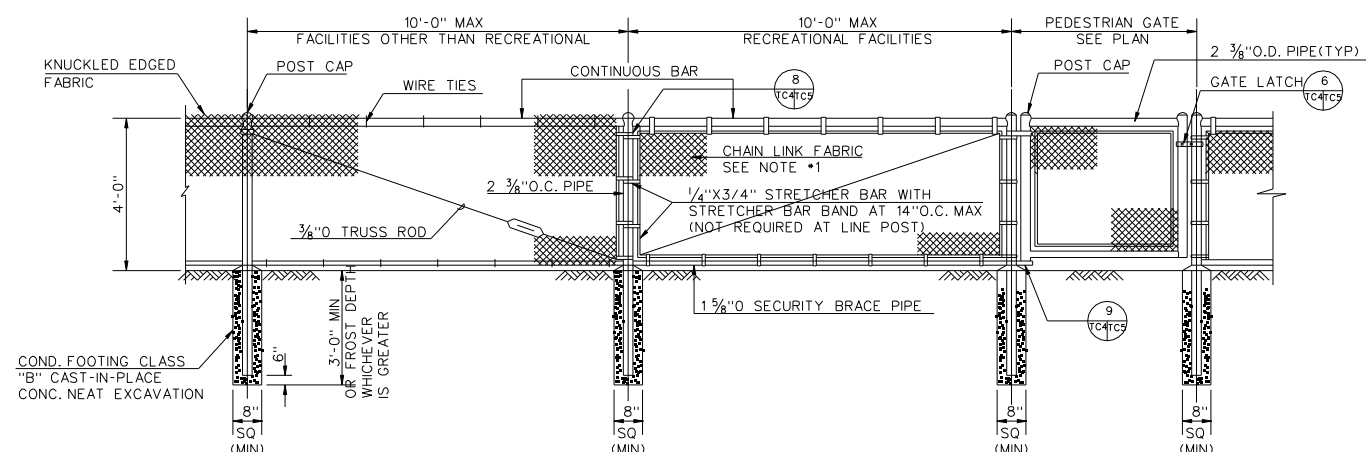
SHEET:
FENCE PLAN

DESIGNED BY: GPU
DRAWN BY: GPU
QA / CC BY: NMP
DATE DRAWN: 30 July 07

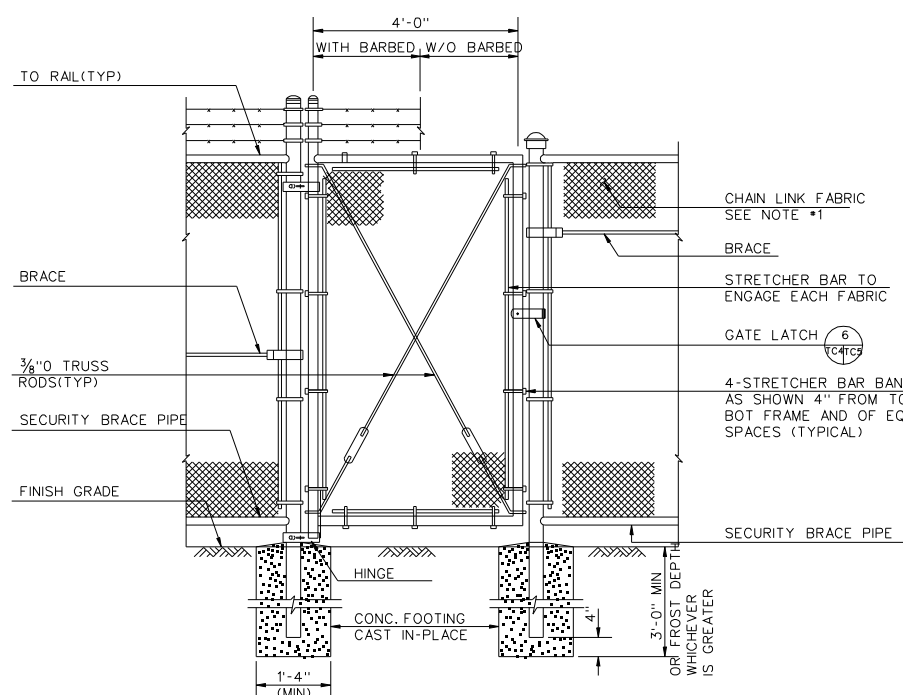
SHEET: 2/2



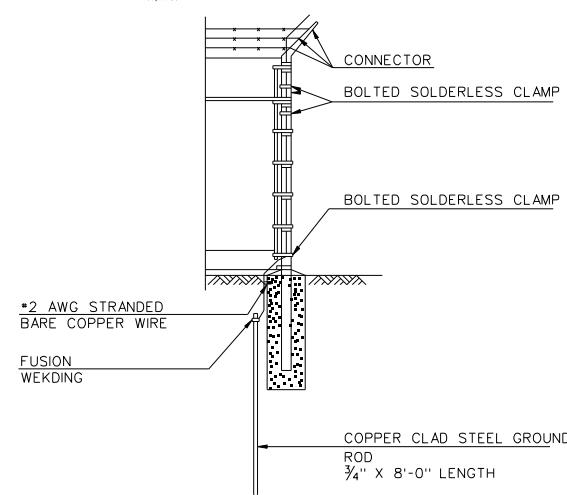
1 TC4 7FT CHAIN LINK FABRIC FENCE : TYPES FE-5,FE-6 AND FE-7
PC4 TC4 NOT TO SCALE



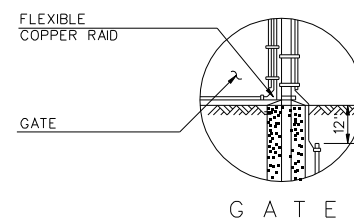
2 *C4 4FT CHAIN LINK FABRIC FENCE
PC4 RC2 TC4 NOT TO SCALE



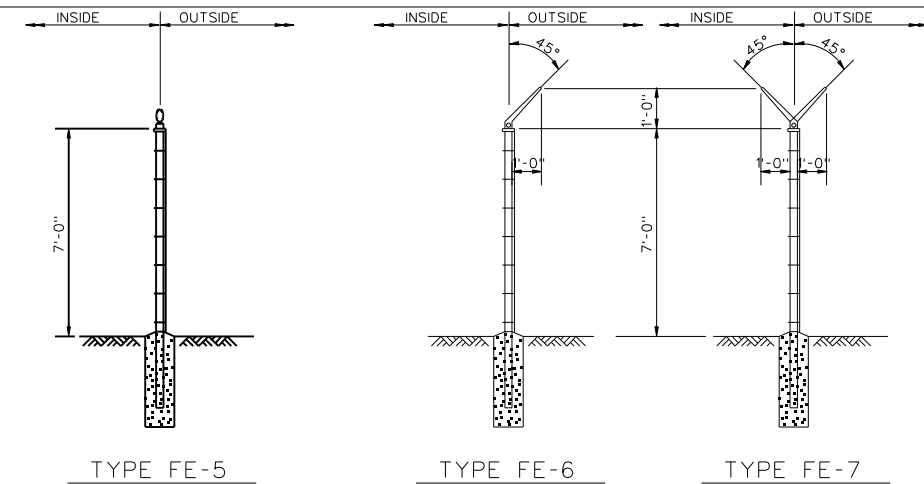
3 3/6A PEDESTRIAN GATE
TC4 TC4 NOT TO SCALE



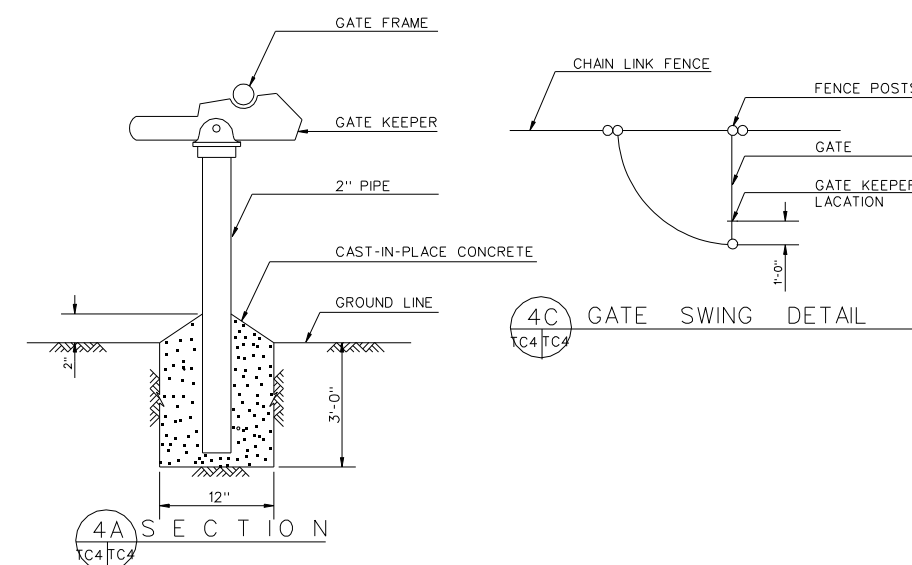
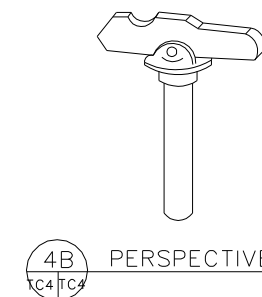
FENCE CORNER



5 ** GROUNDING DETAILS
TC4 TC4 NOT TO SCALE



1A *C4 TYPICAL LINE POST DETAIL
TC4 TC4 NOT TO SCALE



4 3/6A GATE KEEPER DETAILS
TC4 TC4 NOT TO SCALE

NOTES

- ALL FABRIC SHALL BE #9 GAGE WOVEN IN A 2" MESH.
- SINGLE EXTENSION ARMS SHALL POINT OUTWARD AND INWARD AT 45° ANGLES. ALL EXTENSION ARMS TO BE 12 GAGE PRESSED STEEL.
- SEE CONSTRUCTION PLANS FOR TYPE OF FENCE, LOCATION, AND SIZE OF GATES
- ALL THREADED ENDS OF FENCE CONNECTOR BOLTS SHALL BE PEENED
- FENCE GROUNDING
 - ALL FENCES SHALL BE GROUNDED AT EACH TERMINATION, EACH CORNER (EXCEEDING 60°), EACH SIDE OF EACH GATE, AND AT 1,000 FOOT INTERVALS
 - FENCE CROSSED BY PRIMARY POWER LINES IN EXCESS OF 600 VOLTS SHALL BE GROUNDED AT A POINT DIRECTLY BELOW THE CROSSING AND 150' ON EACH SIDE OF CROSSING.
 - FENCES PARALLEL TO OR WITHIN 100' OF A PRIMARY POWER LINE IN EXCESS OF 600 VOLTS SHALL BE GROUNDED EVERY 500 FEET
- CONCRETE FENCE POST FOOTING
 - CONCRETE FENCE POST SHALL BE CAST-IN-PLACE AGAINST UNDISTURBED SOIL (PRE-CAST CONCRETE FOOTINGS ARE NOT ALLOWED).
 - THE POST HOLE SHALL BE EXCAVATED BY AUGER OR SHOVEL.
 - THE METAL FENCE POST SHALL BE SET PLUMB IN THE POST HOLE
- LONG FENCE RUNS MAY USE #7 COIL WIRE WHEN APPROVED CONTRACTING OFFICER.

CORPS OF ENGINEERS
TYPE: RF12

DEPARTMENT OF THE ARMY

FEATURES

LAMP TYPE: F32T8/75 CRI
PROFILE: 3 LAMP
MOUNTING: RECESSED GRID
SHIELDING: 76 mm (3") DEEP, 24
CELL SEMI-SPECULAR,
LOW IRIDESCENT
PARABOLIC LOUVER
BALLAST: ELECTRONIC

OPTIONS

PROFILE: 4 LAMP
SHIELDING: SPECULAR LOUVER, CELL
CONFIGURATION
BALLAST: HIGH POWER FACTOR
MAGNETIC, DIMMING,
EMERGENCY
OTHER: GASKETED AIR HANDLING
AND/OR HEAT REMOVAL

NOM. DIMENSIONS 610 mm X 1219 mm X 152 mm
(24" W X 4' L X 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING

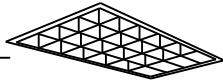
MOUNTING: RECESSED INTO STANDARD NON METRIC GRID

REFLECTORS: HIGH REFLECTANCE GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

EFFICIENCY: 70%

RECESSED PARABOLIC 2' X 4'
FLUORESCENT TROFFER



CORPS OF ENGINEERS
TYPE: R12

DEPARTMENT OF THE ARMY

FEATURES

LAMP TYPE: 90W T8/IF
PROFILE: 1 LAMP
REFLECTORS: CLEAR ALZAK® SEMI-
SPECULAR WITH SELF-
FLANGE

OPTIONS

LAMP TYPE: 100W A21/IF, 150W
A21/IF
REFLECTOR: CHAMPAGNE GOLD
REFLECTOR WITH SELF
FLANGE, WHITE PAINTED
FLANGE, SLOPED CEILING
ADAPTER

NOM. DIMENSIONS 178 mm X 305 mm
(7" DIA. X 12" D)

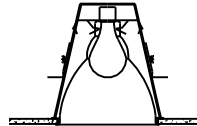
GENERAL DESCRIPTION

HOUSING: ONE PIECE PRECISION DIE-CAST ALUMINUM COLLAR,
DIE-FORMED 20 GA. MOUNTING PLATE

ELECTRICAL: 120 VOLT

EFFICIENCY: 71%

7" DIA. RECESSED INCANDESCENT
DOWNLIGHT



CORPS OF ENGINEERS
TYPE: SFB

DEPARTMENT OF THE ARMY

FEATURES

LAMP TYPE: F32T8/75 CRI
PROFILE: 3 LAMP
SHIELDING: PRISMATIC LENS
BALLAST: ELECTRONIC

OPTIONS

PROFILE: 4 LAMP
SHIELDING: OPAL WHITE, 3.2 mm
(0.125") PATTERN 12,
PATTERN 19, RF1
SUPPRESSION
BALLAST: HIGH POWER FACTOR
MAGNETIC, DIMMING,
EMERGENCY

NOM. DIMENSIONS 610 mm X 1219 mm X 102 mm
(24" W X 4' L X 4" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL WITH NO VISIBLE HOLES OR KNOCKOUTS
EXTRUDED ALUMINUM HINGED LENS FRAME WITH SPRING-LOADED
CATCHES

MOUNTING: FIXTURE IS LONGER THAN METRIC GRID

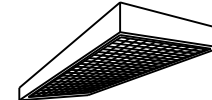
REFLECTORS: GLOSS WHITE

ELECTRICAL: 120 OR 277 VOLT BALLAST

FINISH: BAKED WHITE ENAMEL OR POLYESTER POWDER COAT

EFFICIENCY: 80%

SURFACE MOUNTED LENSED 2' X 4'
FLUORESCENT TROFFER



Rev.	Description	Date
1	Initial Issue	10/1/00
2	Revised to meet new spec	10/1/00
3	Revised to meet new spec	10/1/00
4	Revised to meet new spec	10/1/00
5	Revised to meet new spec	10/1/00
6	Revised to meet new spec	10/1/00
7	Revised to meet new spec	10/1/00
8	Revised to meet new spec	10/1/00
9	Revised to meet new spec	10/1/00
10	Revised to meet new spec	10/1/00

Rev.	Description	Date
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7	Revised to meet new spec	10/1/00
8	Revised to meet new spec	10/1/00
9	Revised to meet new spec	10/1/00
10	Revised to meet new spec	10/1/00

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6	Revised to meet new spec	10/1/00
7	Revised to meet new spec	10/1/00
8	Revised to meet new spec	10/1/00
9	Revised to meet new spec	10/1/00
10	Revised to meet new spec	10/1/00

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6	Revised to meet new spec	10/1/00
7	Revised to meet new spec	10/1/00
8	Revised to meet new spec	10/1/00
9	Revised to meet new spec	10/1/00
10	Revised to meet new spec	10/1/00

Rev.	Description	Date
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7	Revised to meet new spec	10/1/00
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10	Revised to meet new spec	10/1/00

R-52

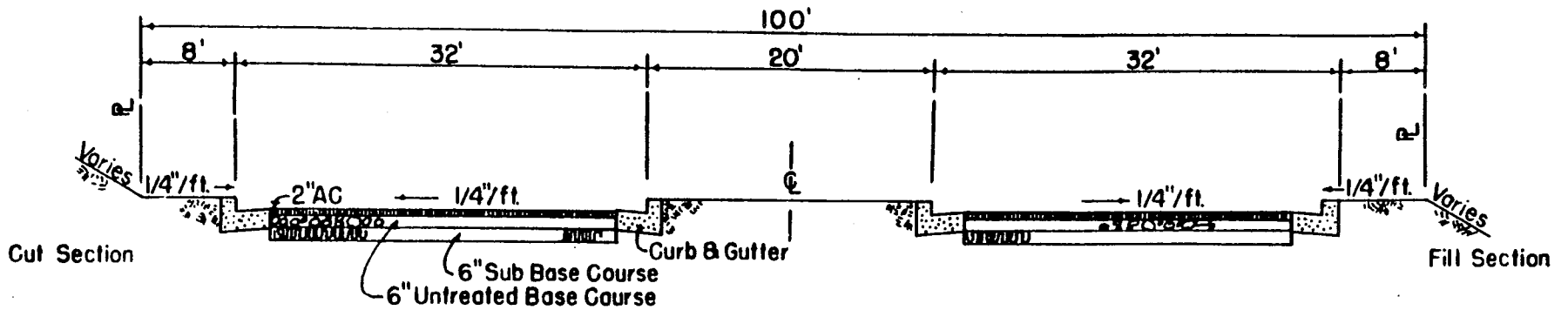
STANDARD
DETAILS

SEPTEMBER 1984

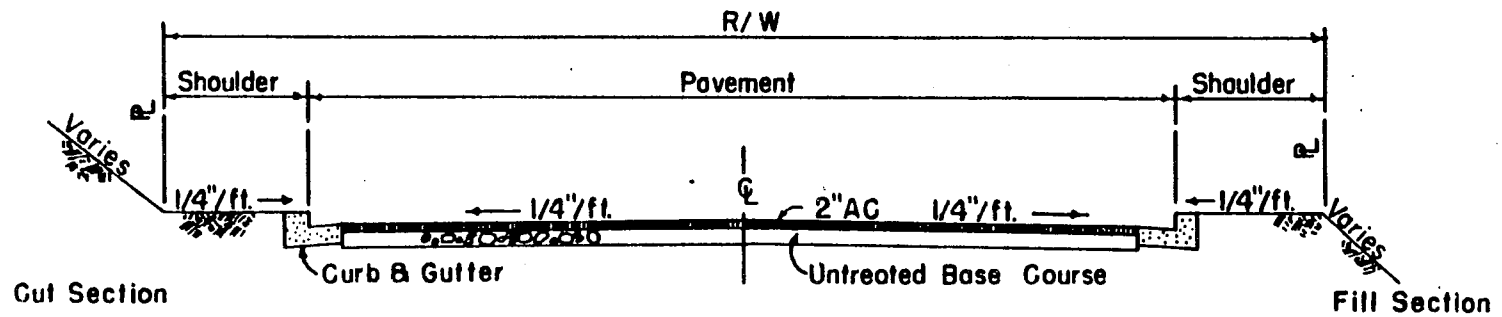
ROADWAY TYPICAL SECTIONS

NOT TO SCALE

COUNTY OF MAUI



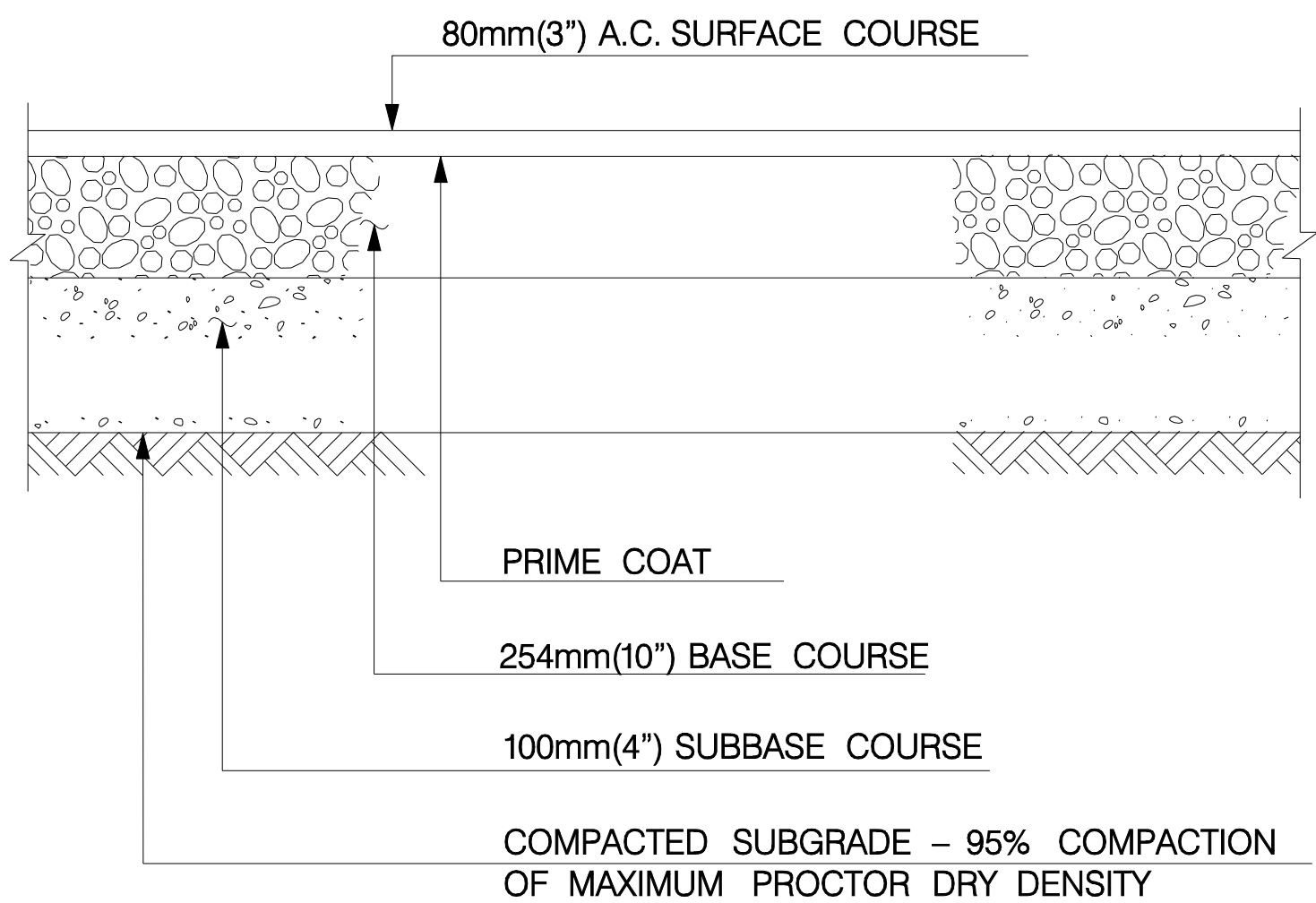
PARKWAY



STREETS W/ CURBS

ROADWAY
TYPICAL SECTIONS

Scale None

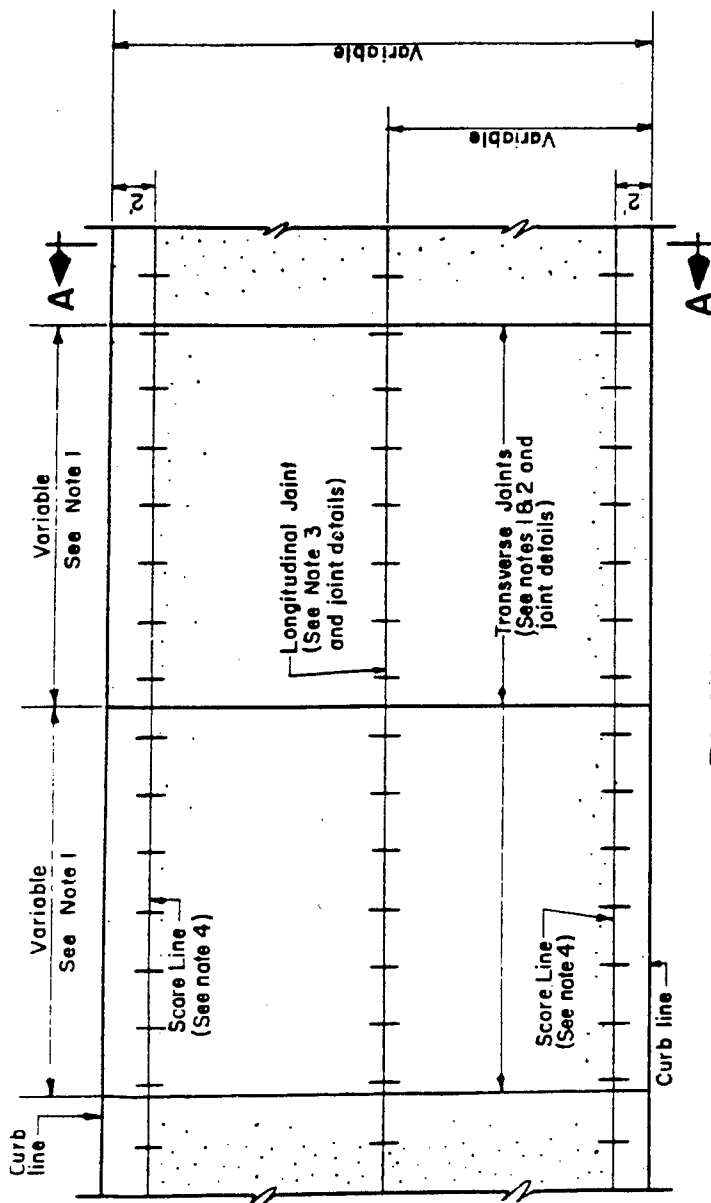


1

A.C. PAVEMENT SECTION

- EXAMPLE

NOT TO SCALE

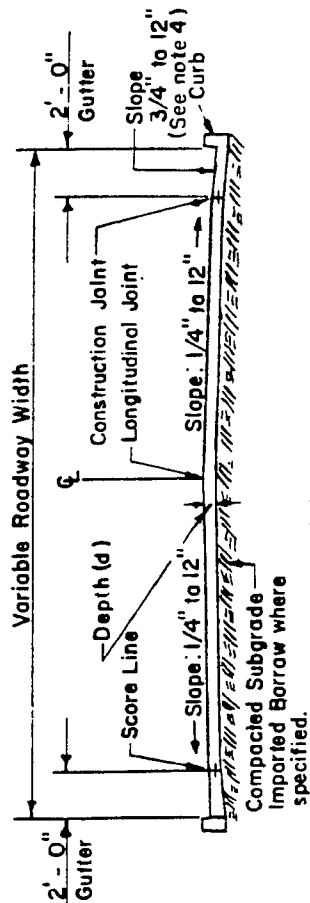


PLAN

SCALE: 1" = 1'-0"

CONSTRUCTION NOTES

1. Transverse joints shall be either weakened plane contraction joints or construction joints with dowels and shall be evenly spaced approximately 15 feet apart.
2. Expansion joints with dowels shall be located at intersections only.
3. Longitudinal joints shall be either weakened plane joints or keyed construction joints with tie bars. Maximum spacing between joints shall be as provided in the Standard Specifications.
4. Gutters constructed monolithically with the pavement shall be delineated with a score line. Gutters constructed separately shall have a longitudinal keyed construction joint with tie bars. Tie bars shall also be provided where gutters are constructed monolithically. For monolithic gutters, slope shall be 1/4" to 12".
5. Gutters on grades at 12% or less shall be steel trowel finished and gutters on grades greater than 12% shall be broom finished longitudinally.
6. Pavement on grades at 12% or less shall be broom finished transversely and pavement on grades greater than 12% shall be bristle brush finished.



SECTION A-A

SCALE: 1/8" = 1'-0"

CONCRETE PAVEMENT

COUNTY OF KAUAI
CITY & COUNTY OF HONOLULU
COUNTY OF MAUI
COUNTY OF HAWAII

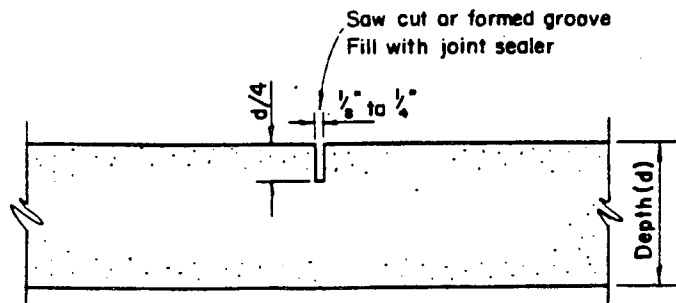
CONCRETE PAVEMENT

SCALE: AS NOTED

SEPTEMBER 1984

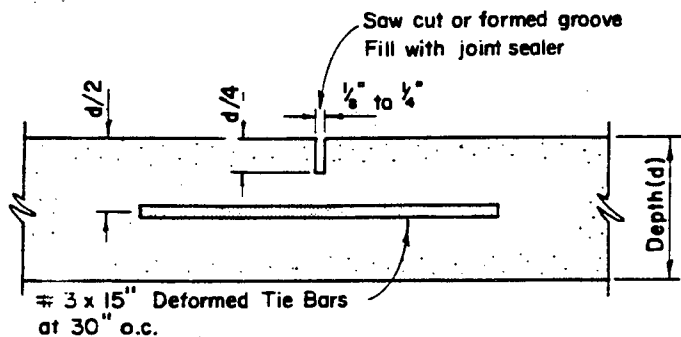
STANDARD
DETAILS

R-9



TRANSVERSE CONTRACTION JOINT

Scale: $1\frac{1}{2}'' = 1' - 0''$

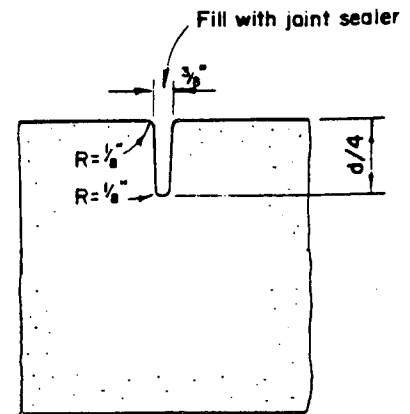


LONGITUDINAL JOINT

Scale: $1\frac{1}{2}'' = 1' - 0''$

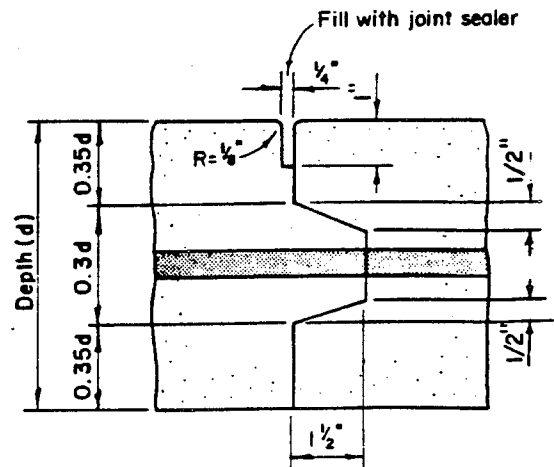
CONSTRUCTION NOTES

1. Weakened plane joints may be constructed by sawing, forming dummy groove (see Detail "A") or inserting ribbon or premolded strip.
2. All joints shall be slightly under filled with joint sealer paving asphalt, grade 85-100, AASHTO Designation: M-20
3. All dowels shall be point and greased. Expansion joint dowels shall be equipped with metal caps.
4. Expansion joints without dowels shall be constructed at junctions of concrete pavement and rectangular structure.
5. Construction joints at unplanned locations shall be keyed joints with tie bars (Detail "B").



DUMMY GROOVE JOINT DETAIL "A"

Scale: $3'' = 1' - 0''$



DETAIL "B"

Scale: $3'' = 1' - 0''$

R-10

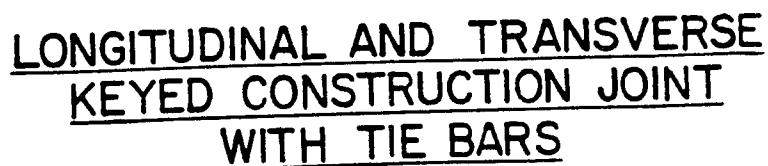
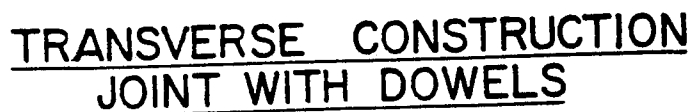
STANDARD
DETAILS

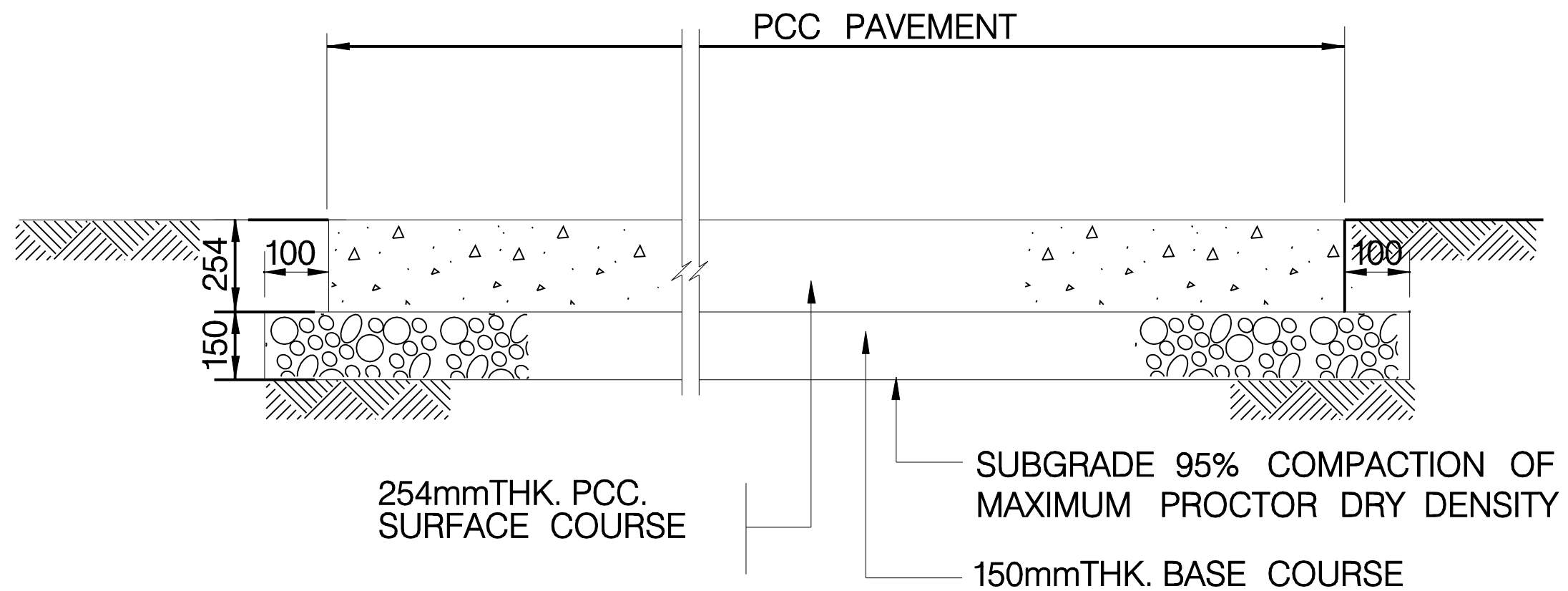
CONCRETE PAVEMENT JOINT DETAILS

SEPTEMBER 1984

SCALE: AS NOTED

COUNTY OF KAUAI
CITY & COUNTY OF HONOLULU
COUNTY OF MAUI
COUNTY OF HAWAII

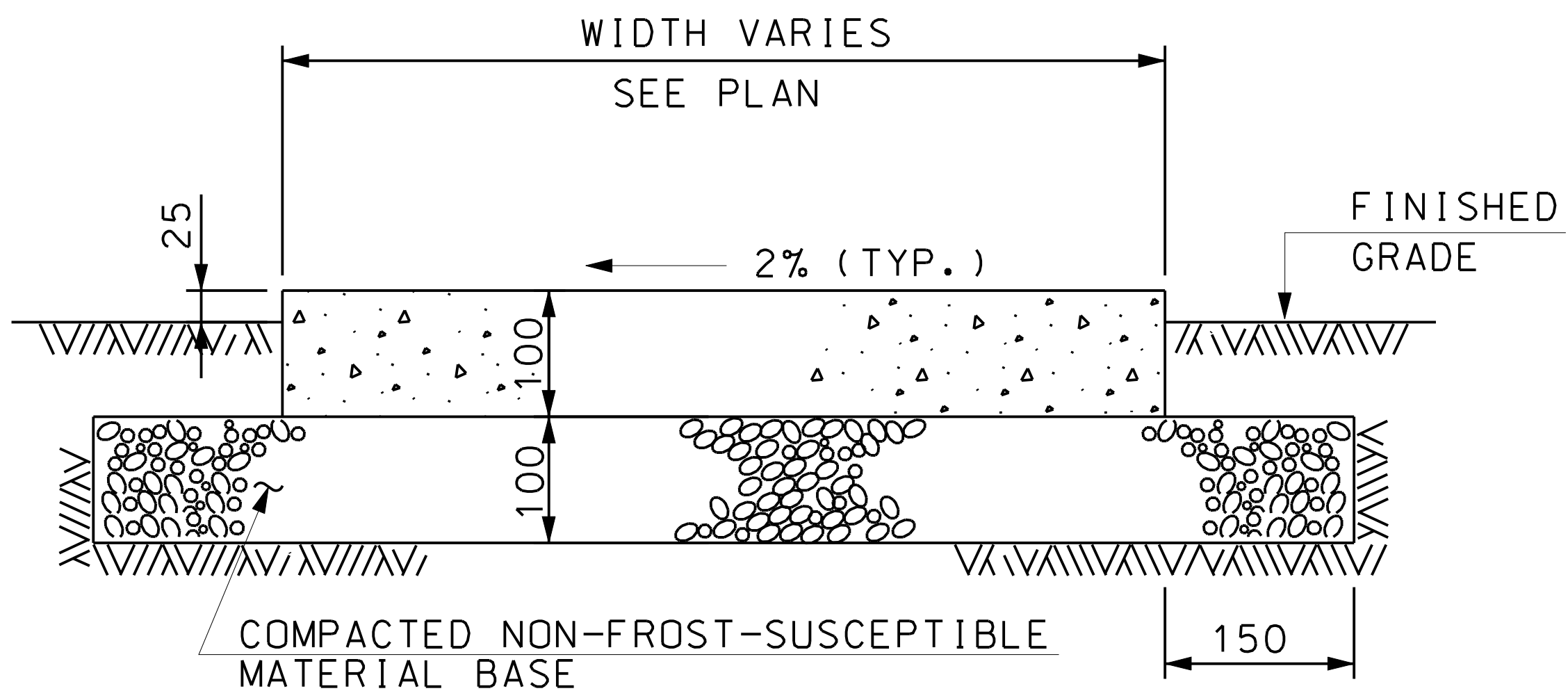




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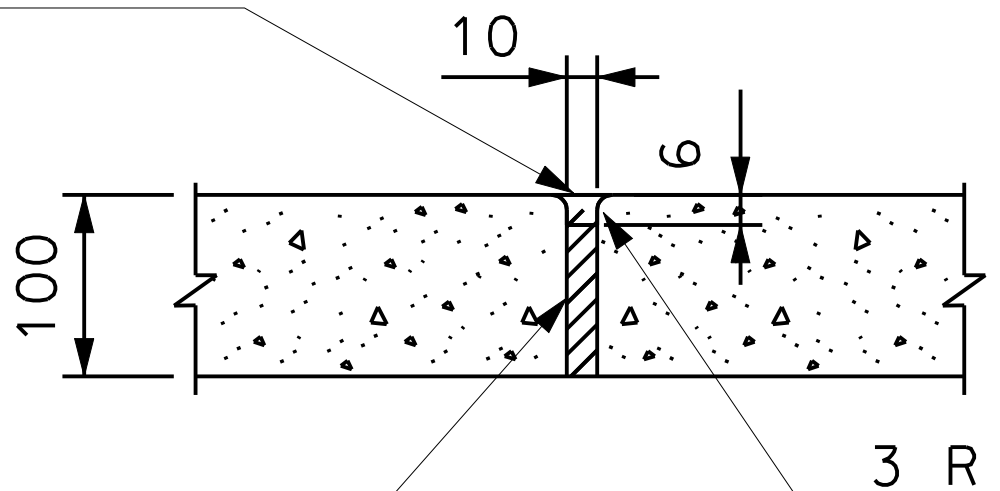
TYP.-PCC. PVMT. SECTION-EXAMPLE

NOT TO SCALE



1A SECTION

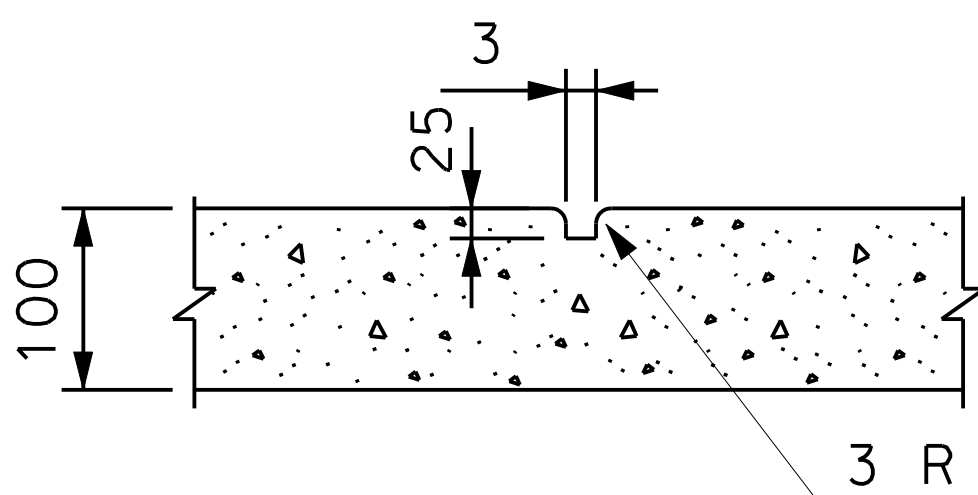
JOINT SEALER



JOINT FILLER

PROVIDE EXP. JOINTS AT MAX. 9.0 M INTERVALS FOR STRAIGHT SECTIONS, AT ALL RETURNS OF WALKS, AND WHERE WALKS ABUT OTHER CONCRETE STRUCTURES.

1B EXPANSION JOINT



TRANSVERSE CONTRACTION JOINTS SHALL BE SPACED SO THAT RATIO OF SLAB LENGTH TO WIDTH WILL NOT EXCEED 1.25. THE DEPTH OF THE CONTRACTION JOINT WILL BE AT LEAST ONE-FOURTH OF THE SIDEWALK SLAB THICKNESS, BUT NOT LESS THAN THE MAXIMUM NOMINAL SIZE OF THE AGGREGATE USED.

1C CONTRACTION JOINT

1

CONCRETE SIDEWALK DETAILS

NOT TO SCALE

The High-Security Series

HS427-S • HS430-S

Full-Height Turnstile (Single) • Interior & Exterior Application

HS439-S • HS448-S

www.TURNSTILES.us distributes the most reliable full-height turnstiles available. The High-Security Series units can be engineered to meet all your security and control requirements, and can be created as stand-alone units, or as part of an integrated system. Available in stainless steel, powder coat or a hot-dipped galvanized finish, these units can be fitted for any application with leading edge technology and features.

Controls and Interfaces

- Biometric Integration
- Card Readers
- Electronic/LCD Counters
- Metal Detection
- Fail-Open or Fail-Secure Locking
- Push-Button and Wireless Remotes
- Manual Key Override – both directions
- Indicator Lights



Size Options

(pedestrian clearance):

HS427-S: 27" (686mm)

HS430-S: 30" (782mm)

HS439-S: 39" (991mm)

HS448-S: 48" (1219mm)

304 Stainless,
No. 4 Satin finish (shown)

Also available in
hot-dipped galvanized or
powder coat finishes.

	Depth	Width	Passage Width	Passage Height	Overall Height
	A*	B*	C*	D*	E*
HS427-S	54" 1372mm	62" 1575mm	27" 686mm	84" 2134mm	91" 2311mm
HS430-S	56" 1422mm	66" 1676mm	30" 762mm	84" 2134mm	91" 2311mm
HS439-S	68" 1727mm	84" 2134mm	39" 990mm	84" 2134mm	91" 2311mm
HS448-S	93" 2362mm	106" 2692mm	48" 1219mm	84" 2134mm	91" 2311mm

* See CAD drawings on reverse side.

8641 South Warhawk Road Conifer, CO 80433
(303) 670-1099 x11 Patrick.McAllister@Turnstiles.us



The High-Security Series

Full-Height Turnstile (Single) • Interior & Exterior Application

HS427-S • HS430-S

HS439-S • HS448-S

Applications:

Ideal for controlling orderly flow of foot traffic in both indoor and outdoor settings

Product Features:

Materials and Finishes available in your choice of:

- Hot dipped galvanized carbon steel
- Polyester enamel on carbon steel (standard color is black/ other colors available upon request)
- Our signature 304 Stainless steel/ No. 4 satin finish

Design & Construction:

- Designed for secure operation with aesthetics in mind
- Featuring fully welded exterior components
- Minimal exposed hardware
- Heavy gauge materials meeting ASTM standards

Controller &

Access Control Operation:

- Self-centering control head with adjustable hydraulic shock suppression
- Hardened tool steel locking bars, cam and roller assemblies
- Permanently lubricated bearings
- All units are available in clockwise, counter-clockwise or bi-directional passage

Measures:

HS427-S

Size of opening (pedestrian clearance)

HS427-S 27" (686mm)

Arm and Barrier Tubing Sizes

1 1/2" diameter 14 gauge (38mm) - Standard

1 3/4" diameter 14 gauge (44mm) - Optional

Width	Depth
62" (1575mm)	54" (1372mm)

HS430-S

Size of opening (pedestrian clearance)

HS430-S 30" (762mm)

Arm and Barrier Tubing Sizes

1 1/2" diameter 14 gauge (38mm) - Standard

1 3/4" diameter 14 gauge (44mm) - Optional

Width	Depth
66" (1676mm)	56" (1422mm)

Measures: (continued)

HS439-S

Size of opening (pedestrian clearance)

HS439-S 39" (991mm)

Arm and Barrier Tubing Sizes

1 3/4" diameter 14 gauge (44mm)

Width	Depth
84" (2134mm)	68" (1727mm)

HS448-S

Size of opening (pedestrian clearance)

HS448-S 48" (1219mm)

Arm and Barrier Tubing Sizes

1 3/4" diameter 14 gauge (44mm)

Width	Depth
106" (2692mm)	93" (2362mm)

All models:

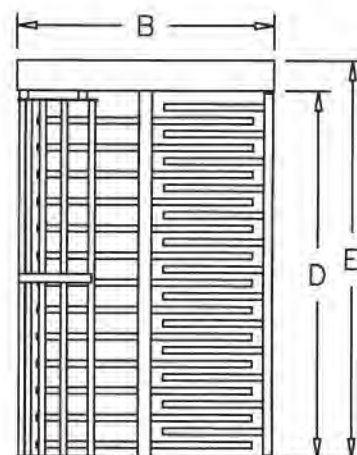
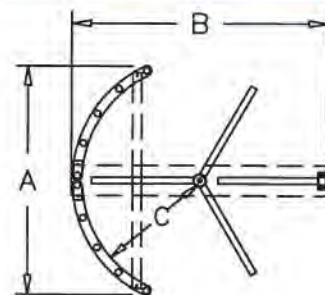
- Overall exterior height 91" (2311mm)
- Pedestrian walk through height 84" (2134mm)

Options:

- Electronic locking module featuring heavy-duty 24 vdc pull-type industrial solenoids and card reader interface
- Available in Fail-Safe (open on power failure) or Fail-Lock (lock on power failure modes)
- Can interface with card readers, computer attendance systems, coin and token acceptors, push buttons, wireless remote controls and metal detectors
- Electronic 6 digit resettable counter with LCD display and ten-year lithium battery
- Vertical Graphic Array (VGA) red x / green arrow
- Additional options available on request

Matching Swing Gate available

(see model HS336 Manual Passage Gate information)



Electrical Specifications:

Command module input 110-240 VAC (2 amp-1 amp) 50-60 Hz; control voltage 24 VDC. All electrical components are UL recognized and CSA certified.

Standards and Codes:

Austenitic stainless steel: ASTM A240, A249, A276

Hot rolled steel: AISI C-1020, AISI C-1018

Hot dipped galvanizing: ASTM A-143, ASTM A-153-80

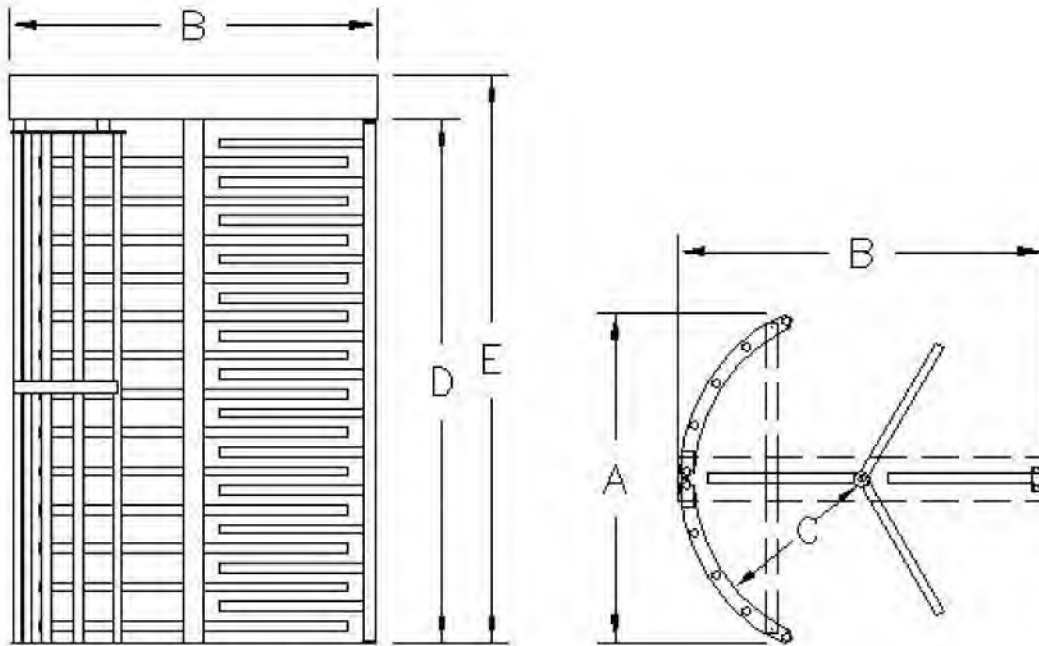
Stainless steel fasteners: ASTM A-320

American Welding Society (AWS) Standard D 1.1

Warranty:

Units are warranted against defects in materials and workmanship for a period of one year from date of delivery. See warranty information for specific details.

8641 South Warhawk Road Conifer, CO 80433
 (303) 670-1099 x11 Patrick.McAllister@Turnstiles.us



TYPE S-SINGLE

Size Options (pedestrian clearance):

	Depth (A)*	Width (B)*	Passage Width (C)*	Passage Height (D)*	Overall Height (E)*
HS427-S	54" 1327mm	62" 1575mm	27" 686mm	84" 2134mm	91" 2311mm
HS430-S	56" 1422mm	66" 1676mm	30" 762mm	84" 2134mm	91" 2311mm
HS439-S	68" 1727mm	84" 2134mm	39" 990mm	84" 2134mm	91" 2311mm
HS448-S	93" 2362mm	106" 2692mm	48" 1219mm	84" 2134mm	91" 2311mm